

**York University  
Winter 2017 - HLTH 5010  
Health & Science**



**Professor  
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York University, Graduate Program in Health  
Winter 2017, HLTH 5010 – Health & Society

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Office: HNES 420, before/after class or by app.

Days/Time: Friday, 11:30 AM – 2:30 PM.

Location: TBA

*There cannot be any doubt that the typhoid epidemic is the result of the poverty and underdevelopment of Upper Silesia. I am convinced that if you changed these conditions, the outbreak would not recur.*

*Rudolf Virchow, Report on the Typhus Epidemic, 1848*

*Genomics is offering new possibilities for therapies and treatments for some complex diseases. It is helping researchers discover why some people get sick from certain infections, environmental factors, and behaviors, while others do not. For example, some people exercise their whole lives, eat a healthy diet, have regular checkups, and die of a heart attack at age 40. There are also people who smoke, never exercise, eat unhealthfully and live to be 100. Genomics may hold the key to understanding these differences.*

*National Human Genome Research Institute (genome.org), 2014*

*No longer does it make sense to think of the genome as a starting point...the beginning of a causal chain that takes us from genotype to phenotype. Epigenetic inheritance, rather, challenges the very distinction between 'genetic' and 'non-genetic'.*

*Evelyn Fox Keller, From gene action to reactive genomes, 2014*

### **Course description**

The *concept* of health – i.e., the answer to the question “what is health” -- and the *science* of health – i.e., the systematic study of health and of the *causes* of health or ill-health through observation, experiment, or theoretical reflection -- are embedded in, and informed by, the power dynamics, institutional arrangements, and normative structures of human communities at particular historical times. As the contrasting quotes above illustrate, different conceptions of health and its causes have very tangible consequences on human welfare, as they inform and legitimize which courses of action will be taken and which ones will be neglected or ignored to protect and promote human welfare.

The assumption underlying this seminar is that in order to understand health or the scientific attempts to study and act upon health, including health inequalities, we must uncover the ideologies that inform conceptions of health and science and examine the political, economic, socio-cultural, and normative structures of society. We must also develop counter-hegemonic discourses and practices to challenge the power dynamics that produces and maintains hegemonic ideologies and structures. Therefore, in this seminar students will read about, reflect on, and engage with, this power dynamics, the questions it invites, and its implications for health, human well-being, and health equity.

Because the field is very broad and potentially boundless, by necessity we will discuss only selected authors, issues, and themes in the history and evolution of the concept and science of health, using this selection as case studies of, and lenses into, the underlying power dynamics that informs health theorizing, practices, and policies. We will also explore how to integrate the insights we gain into our own lives as health scholars, practitioners, and activists.

### **Course learning outcomes**

Upon completion of the course, students will be able to:

- ✓ Define the concepts of health<sup>1</sup>, science, and ideology.
- ✓ Compare different conceptions of health and science across time and place.
- ✓ Identify key assumptions underlying diverse scientific understandings of health
- ✓ Analyze the power dynamics underlying different conceptions of health along key categories of social stratification (class, race, gender, national origin, etc.).
- ✓ Assess how different conceptions of health and science lead to different policies and practices.
- ✓ Discuss the implications of such differences for health care practice, policy, and equity
- ✓ Communicate successfully orally and in writing on the topics addressed in the seminar
- ✓ Articulate steps to take scholars, citizens, and activists healthier health policies and greater health equity.

### **Course organization**

The course will be organized as a seminar. Our discussions will aim at identifying, analyzing, the and assessing merits and weaknesses of the theses, arguments, and assumptions in the readings of the day as they relate to the theme (s) of each meeting and overall course themes. I will open the session with brief introductory lectures laying the framework of these themes. We will dedicate the remaining class period to discuss the implications and applications of weekly readings. During the first week, students will sign up to lead at least one session or part of a session. The syllabus includes questions to guide your reading. We will complement discussions with critical film and media analyses and guest speakers.

### **Course requirements**

Because the quality of the learning experience will depend almost entirely on the preparation and participation of students, course requirements are designed to reflect the importance of students' contributions. They include careful and critical reading, excellent attendance, active in-class participation, participation in an online discussion board, facilitation of meetings, and one-page summary of a set of readings, and one research project/paper on the topic of the student's choice.

### **Course readings**

All required readings and most recommended readings will be available on the course website. In preparation, I strongly recommend that you read *Human Diversity*, by Richard Lewontin. While the book is over 15 years old, it still provides a very readable yet intellectually sophisticated introduction to biological development, a topic that is critical to understanding the politics of health. This is especially important if you have little or no background in the biological/health sciences, but even if you do it will offer novel insights. Very cheap copies of the book are available online.

### **Course assignments**

Blogs - Blogs are responses/reactions to questions/issues I will post online that elaborate on, and expand, class discussion. The goal is to invite you to further reflect on the practice, policy, and equity implications of concepts and theories, and to expand the learning experience beyond the boundaries of the physical classroom.

Summarizing and facilitating discussion of required readings – In our first meeting all students will sign up to facilitate discussion. Student-led discussions should bring out the main themes in the readings. Facilitators should use these themes to formulate and present to the class one or more

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<sup>1</sup>In the context of this seminar, "health" will always imply both physical and mental/emotional health

questions about the material to stimulate, and guide, discussion. Presentations should be limited to a maximum of 20 minutes (less if students are sharing the readings for one meeting), leaving about 1 hour for discussion. We will fill the remaining time with critical film analyses, guest lectures, peer review sessions on students' research project, etc.

Course participants are responsible for:

- ✓ Facilitators: they should open the session with a 20 minute (maximum) presentation that lays out how the readings relate to the intersection of health and politics. They should also prepare a one-page handout summarizing the key points and email this handout to me the day of class meeting, no later than 9 AM, so that I can print copies for everyone. Alternatively, facilitators should bring copies for all course participants.
- ✓ Other students: they should prepare at least two questions on the readings for the day and be prepared to contribute actively to the discussion. Students should email me these questions the day of class meeting no later than 9 AM.
- ✓ Professor: I will take responsibility for keeping everyone on task, monitor the time allotted to each activity, provide clarification, and enrich/expand/redirect the discussion when appropriate.

Research prospectus-- For the fourth week, you will prepare a 1 to 2-page prospectus/proposal of your research project. I will provide an outline. This proposal should include at least a working title, a research question/hypotheses/hunch, a brief background on the issue, 1 or 2 lines on its potential implications for health policy and equity, and a list of at least 3 sources that can provide information on the topic. You should also make clear, even if tentatively, how the topic is relevant to the relationship between health and conceptions of science as discussed in class. You will bring a copy of this proposal to class for a peer review.

Final presentation - In 15 to 20 min. (typical for most professional conferences) you will lay out your topic, research question, relationship to health and science, findings, and practice, policy and equity implications. While the method of presentation (e.g., PowerPoint) is not relevant to the grade, its quality in terms of clarity, theoretical depth, and relevance to course topics will bear upon your grade.

Research project/paper -- You will conduct a research project and write a paper on a topic of your choice with potential for publication in a refereed journal, or related to your Major Research Paper or doctoral dissertation. We will devote class time to discuss this project, select a research topic and question, and peer-edit drafts. I strongly recommend you read a segment of C Wright Mills sociological imagination, *Intellectual Craftsmanship* (in the folder *Assignment* in Moodle), to prepare intellectually, practically, and emotionally for your investigation. Evaluation will be based on the depth and quality of the research and on the insight you demonstrate as you connect your project to the themes of the seminar and its learning objectives. Please use 12-point font, 2 line spacing, 1" page margins, and APA referencing style (no fewer than 10 references, at least five from course readings). Edit with care. Use spell and grammar check, page numbers and a stapler.

### **Course evaluation**

Evaluation will be based on: 1) Completion of all reading assignments by the day of the meeting, attendance and overall participation; 2) Research project/paper; 3) Submitting all work on time

- Attendance and participation: 10%
- Discussion board: 10% (no fewer than 10 blog posts, 1 point each)
- Leading discussion & summary of readings: 10%
- Presentation: 10%
- Research project/paper: 60%

**Accommodation:** If you require special accommodations due to disability please let me know during the first week.

### Course schedule (schematic)

**Unit 1**

*The concepts of health, science, and ideology*

1. The concepts of science and ideology
2. The concept of health

**Unit 2**

*Social control and theories of health*

3. The concept of health as social control – part 1
4. The concept of health as social control – part 2

**Unit 3**

*A history of capitalism and of public health science*

5. The origins of capitalism and of public health science

**Unit 4**

*The origins of capitalism and the birth of “scientific” racism*

6. A history of the biological concept of race
7. Biology as ideology

**Unit 5**

*The science of racial and genetic differences or neo scientific racism?*

8. The social construction of race
9. The biology of race or an old wine in a new bottle?
10. Twin studies: Science or pseudoscience?
11. How much does public-health genomics contribute to (public) health? The case of diabetes

**Unit 6**

*Towards an emancipatory science of health.*

12. Reflections on health, science, and society

### Course schedule (detailed)

<b>UNIT 1</b>	
<b>The concepts of health, science, and ideology</b>	
<b>Week 1</b>	<b>The concepts of science and ideology</b>

## UNIT 1

### Issues / questions

- ✓ What is ideology?
- ✓ What is science?
- ✓ A science of ideas or the ideology of science?

### Required readings

Saksena, A., Relevance of Ideology Today. *Economic and Political Weekly*, 2009. 44(32): p. 65-69.

Johnson, W., Disentangling Science & Ideology. *The American Biology Teacher*, 2013. 75(8): p. 516.

Navarro, V. (2007) Neoliberalism as a Class Ideology or The Political Causes of the Growth of Inequalities, *Int. Journal of Health Services*, 37 (1): 47-62

Marks, J., *Why I Am Not a Scientist: Anthropology and Modern Knowledge*. 2009, New Jersey: University of California Press.

FAIR (no date) How to Detect Bias in the News Media, Fairness & Accuracy in Reporting, p. <http://fair.org/take-action-now/media-activism-kit/how-to-detect-bias-in-news-media/>.

### Activities

- ✓ Introduction of course participants, objectives, material, readings and requirements.
- ✓ Discussion of potential research projects/term papers.
- ✓ Students sign on to lead discussion

### Recommended readings

Therborn, G. (1980). *The Ideology of Power and the Power of Ideology*. London and New York, Verso.

Abercrombie, N. and B. S. Turner (1978). "The Dominant Ideology Thesis." *The British Journal of Sociology* 29(2): 149-170.

Sokal, A. (2014). "What is science and why should we care?" *Scientia Salon*: <http://scientiasalon.wordpress.com/2014/2003/2026/what-is-science-and-why-should-we-care-part-i/>.

Dear, P., *What Is the History of Science the History Of?: Early Modern Roots of the Ideology of Modern Science*. *Isis: A Journal of the History of Science*, 2005. 96: p. 390-406.

Orwell, G. (1945). "What is Science?" "The Collected Essays: Journalism and Letters of George Orwell -- 1968: [http://orwell.ru/library/articles/science/english/e\\_sci](http://orwell.ru/library/articles/science/english/e_sci) (Accessed November 12, 20914).

## Week 2

## The concept of health

### Issues / questions

- ✓ What is health?

<b>Week 2</b>	<b>The concept of health</b>
	<ul style="list-style-type: none"> <li>✓ How do different conceptions of health reflect different ideological perspectives?</li> <li>✓ How are these perspectives mapped onto conceptions of health?</li> </ul>
	<p><b>Required readings</b></p> <p>Kelman, S., The Social Nature of the Definition Problem in Health. <i>International Journal of Health Services</i>, 1975. 5 (4): p. 625-642.</p> <p>Ratner, C. (2014). "Pathological Normalcy: A Construct for Comprehending and Overcoming Psychological Aspects of Alienation." <i>The Humanistic Psychologist</i> 42 (3): 298-303.</p> <p>Ratner, C., <i>Psychology of Oppression</i>, in <i>The Encyclopedia of Critical Psychology</i>, T. Teo, Editor. 2014, Springer. p. 1557 – 1570.</p> <p>McFee, R.B., Gulf War Servicemen and Servicewomen: The Long Road Home and the Role of Health Care Professionals to Enhance the Troops' Health and Healing. <i>Disease-a-Month</i>, 2008. 54(5): p. 265-333.</p>
	<p><b>Activities</b></p> <ul style="list-style-type: none"> <li>✓ Critical media analysis: <i>A personalized diet, better suited for your genes. New York Times 2016</i></li> </ul>
	<p><b>Recommended readings</b></p> <p>Callahan, D., The WHO definition of 'health'. <i>Studies Hastings Center</i>, 1973. 1(3): p. 77-88.</p> <p>Fromm, E., <i>The Sane Society</i>. 1955, New York Holt Paperbacks. (Introduction, ch. 1, 2, 8 &amp; Summary)</p> <p>Mattick, P. <i>Fromm's Sane Society</i>. 1956 [cited 2014 August 14, 2014]; Available from: <a href="https://www.marxists.org/archive/mattick-paul/1956/fromm.htm">https://www.marxists.org/archive/mattick-paul/1956/fromm.htm</a>.</p>

<b>UNIT 2</b>	
<b>Social control and theories of health</b>	
<b>Week 3</b>	<b>The concept of health the social control – Part 1</b>
<b>Issues / questions</b>	

## UNIT 2

- ✓ What is social control?
- ✓ Who exerts control over whom in society?
- ✓ How do the concept of health and the institution of medicine exert social control?
- ✓ What are some potential effects?
- ✓ How can they be resisted?
- ✓ Should they or should they not be resisted?

### Required readings

Zola, I.K., *Medicine as an institution of social control*. Sociological Reviews, 1972. **20**(4): p. 487-504.

Waitzkin, H., *A Critical Theory of Medical Discourse: Ideology, Social Control, and the Processing of Social Context in Medical Encounters*. Journal of Health and Social Behavior, 1989. **30**(2): p. 220-239.

Crawford, R., *You are dangerous to your health: The ideology and politics of victim blaming*. International Journal of Health Services, 1977. **7**(4): p. 663-680.

Conrad, P., *Medicalization and social control*. Annual Review of Sociology, 1992. **18**: p. 209-232.

### Activities

- ✓ Critical analysis of academic literature: *What about war makes people sick? McFee's article on the effects of the Gulf War on servicemen and servicewomen (required readings, week 2)*.
- ✓ Brainstorm research topic/question.

### Recommended readings

Conrad, P., *The Shifting Engines of Medicalization*. Journal of Health and Social Behavior, 2005. **46**(1): p. 3-14.

Conrad, P., *The Discovery of Hyperkinesis: Notes on the Medicalization of Deviant Behavior*. Social Problems, 1975. **23**(1): p. 12-21.

Fanon, F. (1963). *Colonial War and Mental Disorders*, in *The Wretched of the Earth*. Ch. New York, Grove Press, Inc.

Smoller, J.W., *The Etiology and Treatment of Childhood*. Elementary School Guidance and Counseling, 1986. **21**(2): p. 114-19.

### Week 4

### The concept of health as social control – Part 2

#### Issues / questions

- ✓ How do conceptions of health bear upon theories of health?



<b>Week 4</b>	<b>The concept of health as social control – Part 2</b>
<ul style="list-style-type: none"> <li>✓ How do ideologies inform theories of health?</li> <li>✓ What are the practice and policy implications of these ideologies and theories?</li> </ul>	
<b>Required readings</b>	
<p>Navarro, V., Work, Ideology, and Science: The Case of Medicine. <i>International Journal of Health Services</i>, 1980. 10(4): p. 523-550.</p> <p>Tesh, S.N., Miasma and “Social Factors” in Disease Causality: Lessons from the Nineteenth Century. <i>Journal of Health Politics, Policy and Law</i>, 1995. 20(4): p. 1001-1024</p> <p>Tesh, S. N. Disease Causality and Politics. <i>Journal of Health Politics, Policy and Law</i>, 1981. 6(3): p. 369-390.</p> <p>Krieger, N. and M. Bassett (1986). "The Health of Black Folk: Disease, Class, and Ideology in Science." <i>Monthly Review</i> 38(July-August).</p>	
<b>Activities</b>	
<ul style="list-style-type: none"> <li>✓ Peer review and discussion of 1 to 2-page outline proposal / selection of audience &amp; outlets</li> </ul>	
<b>Recommended readings</b>	
<p>Tesh, S.N., <i>Hidden Arguments: Political Ideology and Disease Prevention Policy</i>. 1988, New Brunswick and London: Rutgers University Press. (introduction and Ch. 1,2,3 &amp; &amp;)</p> <p>Krieger, N., Epidemiology and the web of causation: Has anyone seen the spider? <i>Social Science &amp; Medicine</i>, 1994. 39(7): p. 887-903.</p> <p>Jovanovic, M. (2014). "Creating the 'dis-ease' of high cholesterol: A sociology of diagnosis reception analysis." <i>Social Science &amp; Medicine</i> 101(0): 120-128.</p> <p>Vandenbroucke, J.P., Is ‘The Causes of Cancer’ a Miasma Theory for the End of the Twentieth Century? <i>International Journal of Epidemiology</i>, 1988. 17(4): p. 708-709.</p> <p>Harrison, M., Disease, diplomacy and international commerce: The origins of international sanitary regulation in the nineteenth century. <i>Journal of Global History</i>, 2006(1): p. 197-217.</p>	

<b>UNIT 3</b>	
<b>A history of capitalism and the public health science</b>	
<b>Week 5</b>	<b>The origins of capitalism and public health science</b>
<b>Issues / questions</b>	

### UNIT 3

- ✓ How do the birth of public health science, the nation-state, and capitalism relate to one another?
- ✓ What do these relationships reveal about the interplay between economic systems / forms of political organization and public health science (and other forms of scientific inquiry as well)?
- ✓ How might this interplay shape causal accounts of health/disease and of interventions in health promotion / disease prevention / treatment?

#### Required readings

Waitzkin, H., The social origins of illness: A neglected history. *International Journal of Health Services*, 1981. 11(77-103).

Engels, F., The Condition of the Working Class in England. *American Journal of Public Health*, 2003. 93(8): p. 1246-1249.

Virchow, R., Report on the Typhus Epidemic in Upper Silesia *Social Medicine*, 2006 (1848). 1(1): p. 83-98.

Allende, S., Chile's Medical-Social Reality (excerpts). *Social Medicine*, 2006 (1939). 1(3): p. 151-155.

Chadwick, E. Report on Sanitary Conditions (excerpts). [cited 2014 August 14, 2014]; Available from: [http://codesproject.asu.edu/sites/default/files/code\\_pdfs/Chadwicks%27sreport.pdf](http://codesproject.asu.edu/sites/default/files/code_pdfs/Chadwicks%27sreport.pdf)

Albury, W. R. (1984). "Death is a social disease. Public health and political economy in early industrial France." *Medical History* 28(1): 88-89..

#### Activities

- ✓ Critical film analysis

#### Recommended readings

Rosen, G. (1948). "Approaches to a Concept of Social Medicine. A Historical Survey." *The Milbank Memorial Fund Quarterly* 26(1): 7-21.

Szreter, S. (1997). "Economic Growth, Disruption, Deprivation, Disease, and Death: On the Importance of the Politics of Public Health for Development." *Population and Development Review* 23(4): 693-728.

Waitzkin, H., et al., *Social Medicine Then and Now: Lessons from Latin America*. *American Journal of Public Health*, 2001. 91(10): p. 1592-1601.

Frank, J.P., *The People's Misery: Mother of Diseases, and Address, Delivered in 1790 by Johann Peter Frank, Translated from the Latin, with an Introduction by Henry Sigerist (1941)*. 2003 (1790), ProQuest Information and Learning Company: John Hopkins University Press. p. 81-100.

### UNIT 4

#### The origins of capitalism in the birth of "scientific" racism

**Week 6** | **A history of the biological concept of race**

**Issues / questions**

## UNIT 4

- ✓ What was the ideological work of the concept of race at the dawn of the so-called modernity and of industrial capitalism?
- ✓ Why do this week's authors use the idea of spandrels to critique evolutionary explanations for human differences?
- ✓ Why do Rose et al. claim that IQ science is "pseudoscience"?
- ✓ What do their opponents argue?
- ✓ How do conceptions of health and illness relate to the political economy of colonial rule?

### Required readings

Lewontin, R., S. Rose, and L. Kamin, Bourgeois ideology and the origins of biological determinism. *Race Class*, 1982. 24(1): p. 1-16.

Gould, S.J. and R.C. Lewontin, The Spandrels of San Marco and the Panglossian Paradigm: A Critique of the Adaptationist Programme. *Proceedings of the Royal Society of London. Series B. Biological Sciences*, 1979. 205(1161): p. 581-598.

Rose, S., J. Hambley and J. Haywood (1973). "Science, Racism and Ideology." *Socialist Register*: 235-260.

Arnold, D. (1988). *Introduction: Disease, Medicine and Empire. Imperial Medicine and Indigenous Societies*. D. Arnold. Manchester and New York Manchester University Press: 1-66.

### Activities

- ✓ Sharing and discussion of sample data for research project

### Recommended readings

Harrison, M. (1996). "'The Tender Frame of Man': Disease, Climate, and Racial Difference in India and the West Indies, 1760-1860." *Bulletin of the History of Medicine* 70: 68-93.

Gould, S. J. (1997). "Darwinian Fundamentalism." *New York Review of Books*(June 12): <http://www.nybooks.com/articles/archives/1997/jun/1912/darwinian-fundamentalism/?pagination=false&printpage=true>.

Gould, S. J. (1997). "Evolution: The Pleasures of Pluralism." *New York Review of Books* June(26): <http://www.nybooks.com/articles/archives/1997/jun/1926/evolution-the-pleasures-of-pluralism/> (Accessed July 1919, 2009).

## Week 7

## Biology as ideology

### Issues / questions

- ✓ How does human biology, specifically phenotypic differences, reflect social forces?

<b>Week 7</b>	<b>Biology as ideology</b>
✓ How might this issue be relevant to health differences?	
<b>Required readings</b>	
Lewontin, R.C., <i>Biology as Ideology: The doctrine of DNA</i> . 1991, New York: Harper Collins.	
McGoodwin, M. Edward O. Wilson: <i>On Human Nature</i> , Summary. 2009 [cited 2014 September 3, 2014]; Available from: <a href="http://mcgoodwin.net/pages/otherbooks/eow_humannature.html">http://mcgoodwin.net/pages/otherbooks/eow_humannature.html</a> .	
<b>Activities</b>	
✓ Critical video analysis	
<b>Recommended readings</b>	
Lewontin, R.C., <i>The Triple Helix: Gene, Organism, and Environment</i> . 2002, Boston: Harvard University Press.	
Dawkins, R. <i>The Selfish Gene</i> , 1978 / 2006, Oxford University Press (selections)	

<b>UNIT</b>	
<b>The science of genetic differences or neo-scientific racism?</b>	
<b>Week 8</b>	<b>The social construction of race</b>
<b>Issues / questions</b>	

<b>UNIT</b>	
<ul style="list-style-type: none"> <li>✓ Why does the author argue that race is an “invention” yet real?</li> <li>✓ What is “biocitizenship” and “postracialism”?</li> <li>✓ What are the implications of these concepts for health policy and equity?</li> </ul>	
<b>Required readings</b>	
<p>PBS, 2003, Race: The Power of an Illusion, <a href="http://www.pbs.org/race/000_General/000_00-Home.htm">http://www.pbs.org/race/000_General/000_00-Home.htm</a> (selected readings)</p> <p>Duster, T. (2006). "Lessons from History: Why Race and Ethnicity Have Played a Major Role in Biomedical Research." <i>The Journal of Law, Medicine &amp; Ethics</i> 34(3): 487-496.</p> <p>Roberts, D. (2011). "What's Wrong with Race-Based Medicine: Genes, Drugs, and Health Disparities." <i>Minnesota Journal of Law, Science &amp; Technology</i> 12(1): 1-21.</p> <p>Fullwiley, D. (2008). "The Biological Construction of Race: ‘Admixture’ Technology and the New Genetic Medicine." <i>Social Studies of Science</i> 38(5): 695-735.</p>	
<b>Activities</b>	
<ul style="list-style-type: none"> <li>✓ Guest speaker: Prof. Dorothy Roberts</li> </ul>	
<b>Recommended readings</b>	
<p>Roberts, D. <i>Fatal Invention: How Science, Politics, and Big Business Re-create Race in the Twenty-first Century</i>, The New Press, 2012</p> <p>Jensen, A.R., <i>Social Class, Race, and Genetics: Implications for Education</i>. <i>American Educational Research Journal</i>, 1968. 5(1): p. 1-42.</p>	

<b>Week 9</b>	<b>The biology of race or an old wine in a new bottle?</b>
<b>Issues / questions</b>	
<ul style="list-style-type: none"> <li>✓ What is the basis of Wade’s argument in support of a “biological” concept of race?</li> </ul>	

<b>Week 9</b>	<b>The biology of race or an old wine in a new bottle?</b>
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- ✓ What does “a biological concept of race” mean?
- ✓ What’s the thrust of the critics’ position?

**Required readings**

Wade, N. (2014). "What Science Says About Race and Genetics." The New York Times May, 9: <http://time.com/91081/what-science-says-about-race-and-genetics/>, "In Defense of A Troublesome Inheritance." Huffington Post June, 19: [http://www.huffingtonpost.com/nicholas-wade/five-critics-say-you-shouldnt-read-this-dangerous-book\\_b\\_5507633.html?page\\_version=legacy&view=print&comm\\_ref=false](http://www.huffingtonpost.com/nicholas-wade/five-critics-say-you-shouldnt-read-this-dangerous-book_b_5507633.html?page_version=legacy&view=print&comm_ref=false). & "Five Critics Say You Shouldn't Read This 'Dangerous' Book." Huffington Post June(19): [http://www.huffingtonpost.com/nicholas-wade/five-critics-say-you-shouldnt-read-this-dangerous-book\\_b\\_5507633.html?page\\_version=legacy&view=print&comm\\_ref=false](http://www.huffingtonpost.com/nicholas-wade/five-critics-say-you-shouldnt-read-this-dangerous-book_b_5507633.html?page_version=legacy&view=print&comm_ref=false).

Raff, J. Nicholas Wade and race: building a scientific facade. 2014 [cited 2014 May 22, 2014]; Available from: <http://violentmetaphors.com/2014/05/21/nicholas-wade-and-race-building-a-scientific-facade/>.

Marks, J. *The Genes Made Us Do It*. 2014 [cited 2014 2014, May 13]; Available from: [http://inthesetimes.com/article/16674/the\\_genes\\_made\\_us\\_do\\_it](http://inthesetimes.com/article/16674/the_genes_made_us_do_it).

Fuentes, A. The Troublesome Ignorance of Nicholas Wade. 2014 [cited 2014 May 20, 2014]; Available from: [http://www.huffingtonpost.com/agustin-fuentes/the-troublesome-ignorance-of-nicholas-wade\\_b\\_5344248.html](http://www.huffingtonpost.com/agustin-fuentes/the-troublesome-ignorance-of-nicholas-wade_b_5344248.html).

American Anthropological Association. American Anthropological Association Statement on "Race". 1998 [cited 2003 9/10]; Available from: <http://www.aaanet.org/stmts/racepp.htm>.

American Sociological Association (2002). "Statement of the American Sociological Association on The Importance of Collecting Data and Doing Social Scientific Research on Race." [http://healthpolicy.unm.edu/sites/default/files/documents/asa\\_race\\_statement.pdf](http://healthpolicy.unm.edu/sites/default/files/documents/asa_race_statement.pdf) (Accessed January 13, 2006).

**Activities**

- ✓ Peer review of 3 to 4-page draft

**Recommended readings**

Wade, N (2014). *A Troublesome Inheritance: Genes, Race and Human History*, Penguin Press

Murray, C. Book Review: 'A Troublesome Inheritance', by Nicholas Wade. 2014 [cited 2014 May 5, 2014]; Available at: <http://online.wsj.com/news/articles/SB10001424052702303380004579521482247869874>

DeSalle, R. and I. Tattersall (2014). "Mr. Murray, You Lose the Bet." *GeneWatch* 27(2): <http://www.councilforresponsiblegenetics.org/genewatch/GeneWatchPage.aspx?pagelD=532>.

<b>Week 10</b>	<b>Twin studies: Science or pseudoscience?</b>
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**Issues / questions**

- ✓ What argument supports the assertion that twin studies are a “natural experiment” that allows us to separate the relative contributions of genes and environment (nature and nurture)?

<b>Week 10</b>	<b>Twin studies: Science or pseudoscience?</b>
<ul style="list-style-type: none"> <li>✓ What is the scientific evidence in favor of the validity of twin studies?</li> <li>✓ What is the basis of critics' argument for the claim that twin studies are "pseudoscience"?</li> </ul>	
<b>Required readings</b>	
<p>Joseph, J., <i>The Fruitless Search for Genes in Psychiatry and Psychology: Time to Re-Examine the Paradigm</i> (p. 94-106), in <i>Genetic Explanations: Sense and Nonsense</i>, S. Krimsky and J. Gruber, Editors. 2013, Harvard University Press: Cambridge.</p> <p>Joseph, J. (2013). Schizophrenia and Heredity: Why the Emperor (Still) Has No Genes. In J. Read &amp; J. Dillon (Eds.), <i>Models of Madness: Psychological, Social and Biological Approaches to Psychosis</i> (2nd ed.) (pp. 72-89). London: Routledge.</p> <p>Joseph, J., <i>Studies of Reared-Apart (Separated) Twins: Facts and Fallacies</i>. Mad in America, 2014. <b>December 15</b>: p. <a href="http://www.madinamerica.com/2014/12/studies-reared-apart-separated-twins-facts-fallacies/">http://www.madinamerica.com/2014/12/studies-reared-apart-separated-twins-facts-fallacies/</a>.</p> <p>Caspi, A., et al., <i>Influence of Life Stress on Depression: Moderation by a Polymorphism in the 5-HTT Gene</i>. <i>Science</i>, 2003. <b>301</b>(5631): p. 386-389.</p> <p>Risch, N., et al., <i>Interaction Between the Serotonin Transporter Gene (5-HTTLPR), Stressful Life Events, and Risk of Depression</i>. <i>JAMA: The Journal of the American Medical Association</i>, 2009. <b>301</b>(23): p. 2462-2471.</p> <p>Plomin, R. and K. Asbury, <i>Nature and Nurture: Genetic and Environmental Influences on Behavior</i>. <i>Annals of the American Academy of Political and Social Science</i>, 2005. <b>600</b>: p. 86-98.</p>	
<b>Activities</b>	
<ul style="list-style-type: none"> <li>✓ Guest speaker: Dr. Jay Joseph</li> </ul>	
<b>Recommended readings</b>	
<p>Turkheimer, E., <i>Still Missing</i>. <i>Research in Human Development</i>, 2011. <b>8</b>(3-4): p. 227-241.</p> <p>Joseph, J, <i>Mad in America: Science, Psychiatry, Community, A Website of Critical Psychology and Psychiatry</i></p>	

<b>Week 11</b>	<b>How much does public health will make contribute to (public) health? The case of diabetes</b>
<b>Issues / questions</b>	

<b>Week 11</b>	<b>How much does public health will make contribute to (public) health? The case of diabetes</b>
	<ul style="list-style-type: none"> <li>✓ What are the three critical problems of the public health genomic approach to common diseases?</li> <li>✓ What evidence supports defenders and critics?</li> </ul>
	<p><b>Required readings</b></p> <p>Chaufan C. &amp; J. Joseph, The Heritability of Common Disorders is "Missing": Should Health Researchers Care? <i>International Journal of Health Services</i>, 43, 281-303</p> <p>Chaufan, C. (2007). "How much can a large population study on gene-environment interactions and common diseases contribute to the health of the American people?" <u><i>Social Science &amp; Medicine</i></u> 10.1016/j.socscimed.2007.05.049.</p> <p>Maher, B., <i>Personal genomes: The case of the missing heritability</i>. <i>Nature</i>, 2008(456): p. 18-21.</p> <p>Collins, F. S. (1999). "Medical and Societal Consequences of the Human Genome Project." <i>New England Journal of Medicine</i> 341(1): 28-37.</p>
	<p><b>Activities</b></p> <ul style="list-style-type: none"> <li>✓ Interactive lecture on public-health genomics, Prof. Claudia Chaufan</li> </ul>
	<p><b>Recommended readings</b></p> <p>Robertson, S. and R. Poulton (2008). "Longitudinal studies to detect geneXenvironment interactions in common disease – Bang for your buck? A commentary on Chaufan's "How much can a large population study on genes, environments, their interactions and common diseases contribute to the health of the American people?" (65:8, 1730–1741(2007))." <i>Social Science &amp; Medicine</i> 67(4): 666-672.</p> <p>Chaufan, C. (2008). "In search of 'genetic predispositions' to common diseases: Bang for your buck? Not really. A response to Robertson and Poulton, and Tickson and Willard." <i>Social Science &amp; Medicine</i> 67(2008): 675-683.</p> <p>Keller, E. F. (2014). "From gene action to reactive genomes." <i>The Journal of Physiology</i> 592(11): 2423-2429.</p>

<b>UNIT 6</b>	
<b>Towards an emancipatory science</b>	
<b>Week 12</b>	<b>Whose science? Whose health? Reflections on health, science, and Society</b>



## UNIT 6

### Issues / questions

- ✓ How is science used as a legitimating tool in contemporary society?
- ✓ How can science be objective? What would this mean?
- ✓ How can science become a tool for human emancipation? What would such a science look like?

### Required readings

Olin Wright, E. The Task of Emancipatory Social Science, in *Envisioning Real Utopias*. 2009 [cited 2014 September 8, 2014]; Available from: <http://www.ssc.wisc.edu/~wright/Published%20writing/UtopiasCh2.pdf>.

### Activities

- ✓ Student presentations
- ✓ Conclusions

*Note: the final draft must be turned in no later than a week from today. If you need an extension, please notify me before the deadline. Late papers will receive 5 points less per day. I may grant exceptions for well documented reasons.*

### Recommended readings

Calcagno, J. M. and A. Fuentes (2012). "What Makes Us Human? Answers from Evolutionary Anthropology." *Evolutionary Anthropology* 1: 182-194

Olin Wright, E. *Envisioning Real Utopias*. 2009 [cited 2014 September 8, 2014]; Available from: <http://www.ssc.wisc.edu/~wright/ERU.htm>.