

WS 290A
INTRODUCTION TO THE BIOLOGY OF DIFFERENCE
SPRING 2011

Professor: Dr. Laura Briggs

Classes on: Mon & Wed: 11:15-12:05 Location: Bartlett 61

Discussions, Friday 11:15-12:05 & 12:20-1:10 p.m. Bartlett 119

Office Hours: Monday and Wednesday 4-5

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I. COURSE DESCRIPTION

How do we account for the many similarities and differences within and between human populations? Axes of human “difference”– sex, gender, race, class, sexuality, religion, nationality, etc. – have profound consequences. These differences shape not only group affiliation and identity but are often correlated with colonial and national histories, with organization of societies such as socioeconomic status, professions, work mobility, as well as stereotypes about personal traits and behaviors. Debates around questions of nature and nurture have raged on for several centuries. The biological sciences have been very important in the history of differences. Scientists have contributed to bolster claims that differences are determined by our biology – such as research on sex and racial differences, notions of the “gay” gene, math abilities, spatial ability etc. Conversely, scientists have also contributed to critiquing claims of difference – claims of the existence of “race” and racial differences, claims about differences amongst sexes, genders and sexualities. How do we weigh these claims and counterclaims?

In this course, we will explore both popular and academic writings - their understandings, debates and critiques of “difference.” We examine these categories systematically to evaluate claims of difference. We will begin with a historical overview of biological studies on “difference” to trace the differing understandings of the “body” and the relationship of the body with identity, behavior and intellectual and social capacity. We will then examine contemporary knowledge on differences of sex, gender, race, class, and sexuality. We will use several case studies to explore how scientific and experimental knowledge is produced. What is good data? How do we “know” what we know? The course will take up a range of claims about difference, their purpose and their consequences to examine what these studies of “difference” can tell us – exploring both what they tell us and what they do not. Using literature from biology, women’s studies, and science studies, we will examine the biological and cultural contexts for our understanding of “difference.” The course will give students the tools to analyze scientific studies, to understand the relationship of nature and culture, science and society, biology and politics.

II. COURSE READINGS

Text: Gender and the Science of Difference: Cultural Politics of Contemporary Science and Medicine. Fisher, Jill (2011). Rutgers University Press, NJ.

E-Reserves: Articles available online through library [electronic reserves](#). Enter —Briggs as instructor or Womensst 285 in listed courses and enter the password: biology

SPARK: We will use SPARK throughout the course. Surprise extra credit assignments, news and information and discussion questions will be posted on SPARK throughout the course. Once you register for the course, you will automatically be added to the course on SPARK.

You will use your OIT username and password to sign into the course SPARK and access course information. Please contact OIT if you have any problems. Every student needs to be familiar with the site and check it regularly (<https://spark.oit.umass.edu/webct/entryPageIns.dowebct>). **Many important announcements and assignments will be posted there and you are responsible for this information.**

III. COURSE REQUIREMENTS

- You must be registered for both the lecture and discussion section. Attendance at BOTH is required and mandatory.
- Reading assignments must be completed by the class period for which they were assigned. *Unannounced quizzes* will give you credit for having done so. There will be 10 of these over the semester, and we will drop two, giving you the opportunity to have two absences—or simply bad days—without penalty.
- For an absence to count as excused, you must submit an official certification as well as a 2-page summary of the week's readings.
- You are responsible for knowing when assignments are due and handing them in on time. Dates of major writing assignments are in this syllabus. Other assignment details will be given in your discussion sections. Absence from these sections on the day the assignment is due is no excuse for not handing in the assignment on time. It is each student's responsibility to find out about assignments from someone in your discussion group or from your Teaching Assistant.
- Discussion sections will provide the opportunity to talk critically and analyze issues and topics. You will be expected to have completed and thought about all of the readings for each class.
- Videos and guest lectures are part of the class material and students are responsible for knowing the material.

We will follow all university policies on issues of Academic Honesty, Grading, Attendance, Examinations, and Absences due to Religious Observance.

Written Assignments and Exams

- **Midterm Exam:** One midterm exam on March 9 in discussion section

- **Two short exercises/writing assignments** (3-4 pages) due Feb 17 and March 30 by 5:00PM on SPARK

- **News clippings:** This course deals with materials that are very relevant to our times. We encourage you to bring newspaper articles/clippings, stories for the news program, radio and television programs, movies, and blogs as well as conversations with friends and family. You should post these on the discussion board on SPARK. During the semester each student must present *at least 2* relevant links before the midterm and two after the midterm. In addition you should comment on someone else's posting at least twice before and after.

- **Final project:** You will be assigned to a group with 4-7 other students. Each group will produce a website about gender, medicine, and science. The topics addressed in this class are often ripped from the headlines and the blogosphere. Ideas about "scientifically" established differences between women and men, people of color and whites, gays and straight people are prevalent in popular culture--from websites to blockbuster movies to magazines. For example, it surely matters to struggles for racial equality that for the past three centuries, most Europeans and Anglo-Americans have believed that African Americans as a group are less intelligent than whites. Similarly, questions about women's fitness for certain jobs have often hinged on the belief that PMS makes women unreasonable and unable to make responsible decisions. For this website, you will be invited to address questions that matter in a relevant forum—that is, you are invited to put up a live website, not just drop something into the grading machine. The site can speak to questions addressed by the course, and/or those that exceed the course material but are relevant to it. So your site might attempt to answer questions like the following: Are women's brains different from men's? Is there a gay gene? Does abortion cause trauma? Are we really ruled by our hormones? Does testosterone make men more aggressive? Are there racial differences in intelligence? Does psychiatry tell us important things about war?

- **Discussion groups** are integral part of the class. Attendance and participation in discussion sections are factored into the final grade. Two unexcused absences or more will result in your grade being marked down. Non-attendance will result in an "F." If you have an excused absence, you must submit a two-page reflection paper based on the readings assigned for that week. The paper is due the next class day.

- **Extra Credit Events:** Throughout the semester we will post extra credit events. Attend an event and write a 1-2 page summary of the event for 2% extra credit.

Grades

Discussion section participation 20%
 Midterm Exam 15%
 Final Project 20%
 Written assignments (2--10% each) 20%

Quizzes (10 quizzes, drop lowest 2) 15%
 Online discussion (postings, comments) 10%
 Extra Credit (2% per event) *Up to 6%*

Discussion Sections

Discussions sections on Friday are not optional or add-ons. They are designed to be an integral part of the course and to provide an opportunity to clarify issues in your readings and lectures. We expect you to have *completed and thought about* all of the readings for that week and to be ready to engage in meaningful dialogue. In addition to their strictly academic function, sections are also places where students may talk about the ways in which the topics we address in this course may have touched their lives. **Attendance and participation in discussion groups will be 20% of the course grade.**

Academic Honesty

Academic dishonesty destroys trust and the good-faith work of teaching and learning. Students who get stressed about their grades or having enough time to complete an assignment are sometimes tempted to cheat—to download sections of a paper from the Internet, to borrow quotes or ideas from other students or published sources. Don't. It's not worth it. Chances are good you will be caught and will fail the assignment or the course. (See the UMass policy on sanctions and procedures on Academic Honesty, http://www.umass.edu/dean_students/codeofconduct/acadhonesty/#D) Cite *all* your sources, all the time.

Helping someone else cheat is an offense as serious as cheating yourself. Although it is always appropriate to discuss the course material and assignments with each other, inside and outside class, it is *not* appropriate to collaborate on the writing of actual sentences, except in assignments specifically identified as group projects.

If an instructor finds that a student has violated the University's Academic Honesty Policy, the instructor has the right to lower the student's grade, or even to fail the student for the course. Students have the right to appeal such a grade penalty by an instructor. The University Academic Honesty Board, which must be notified by instructors of any grade penalty, reviews all student appeals. The Board may sustain or recommend modification of the penalty given by the faculty member, or may recommend sanctions exceeding those originally given, such as suspension or expulsion from the University. The Board may also recommend sanctions for offenders who have committed multiple violations of the Academic Honesty Policy but who have not appealed the faculty members' decisions.

Accommodation Policy Statement

If you have learning or other disabilities, it is my goal and that of the Disability Services to ensure that you have reasonable accommodations that minimize the impact of that disability on your learning or your ability to demonstrate what you have learned in the context of assignments. It is your choice whether to disclose the nature of your disability to me; you can simply access services through Disability Services (<http://www.umass.edu/disability/current.html>) and ask me to work with that office to provide appropriate accommodations. However, you do need to let me know that you will need accommodation at or near the beginning of the semester, well in advance of any assignments. If we agree on a modified timeline for the completion of assignments or alternative formats, you are still responsible for completing assignments in a timely way and attending class.

Ground Rules

Despite the size of this class, we are concerned about the quality of your experience. To that end, we will try to foster as much active participation in the course as is possible. Lectures will include time for questions as they arise, and discussion sections have been designed to continue the dialogue. Make use of office hours to continue class discussions, clarify confusions or to discuss any other problems you are having with the course. Because of the class size and the nature of the subject matter, it is necessary to set some ground rules:

- This class is **50 minutes** and we expect you to remain for the entire period. Latecomers and those who begin to pack 5 minutes before the class period disrupt the class for everyone.
- Make up exams will only be given to students who have an exam conflict, a medical or unavoidable excuse. Ignorance of this rule will not constitute a valid excuse.

Email, Office Hours, Appointments

We do want to hear from you, and one of the things we like about email is that it encourages students who we might not hear from otherwise to be in touch. However, we also hate feeling like a hostages to full inboxes. In order to keep the good parts of email and minimize the bad, we propose the following general guidelines:

- If your question is, “What happened in the class I missed,” ask a classmate.
- If your question is long and involved, come to office hours.
- If your question is technical (when is that paper due? I’m having trouble getting the readings..)—read the syllabus, first, then email Josefa.
- You don’t need an appointment to come to office hours; just show up. And do come; otherwise we’re just sitting there hoping someone will visit us.
- If you want to meet but office hours don’t work for you, we will be happy to schedule an alternative time to meet if you can show us in your schedule that you have another class scheduled at that time or have a conflict with your job.

Week-by-week schedule

The “naturalness” of gender difference really, really matters to us: pink and blue children Monday, 1/23--course overview

Wednesday 1/25: the readings and video content for today can be found online by following the URLs provided:

1) Peggy Orenstein, Should the World of Toys be Gender Free?, *New York Times* December 30, 2011. http://www.nytimes.com/2011/12/30/opinion/does-stripping-gender-from-toys-really-make-sense.html?_r=2&ref=opinion

2) Ms. magazine on the J.Crew (non)incident:

<http://msmagazine.com/blog/blog/2011/04/13/j-crews-toenail-painting-ad-causes-pink-scare/>

3) Fox news on the J.Crew incident

<http://www.foxnews.com/us/2011/04/11/jcrew-ad-showing-boy-pink-nail-polish-sparks-debate-gender-identity/>

4) a young girl complaining about gendered marketing and toys:

<http://pinkisforboys.wordpress.com/>

5) a store clerk who observed a gender-panic moment and a big brother:

<http://sweetupndown.tumblr.com/post/15242399360/dear-customer-who-stuck-up-for-his-little-brother>

6) the "genderless baby" turns 1:

<http://www.thestar.com/news/article/1105515--the-genderless-baby-who-caused-a-storm-of-controversy-in-2011?bn=1>

7) Anne Fausto-Sterling, "The Five Sexes: Why males and females are not enough." *The Sciences* 33(2): 20-25, 1994: <http://www.neiu.edu/~lsfuller/fivesexes.htm> □

8) Anne Fausto-Sterling, "The Five Sexes Revisited" *The Sciences*, Jul/Aug2000:

<http://www.neiu.edu/~lsfuller/5sexesrevisited.htm>

Brains, Crania, Intelligence

Monday 1/30— TEXT Jill Fisher, “Gendering Science: Contextualizing Historical and Contemporary Pursuits of Difference,” in Fisher, *Gender and the Science of Difference* (after this, GSD).

Wednesday 2/1-- TEXT Wassman, “Evaluating Threat, Solving Mazes, and Having the Blues,” ch. 4, GSD.

Science Producing Racial Difference

Monday 2/6- SPARK Stephen Jay Gould, “American Polygeny and Craniometry before Darwin: Blacks and Indians as Separate, Inferior Species,” *The Mismeasure of Man* (1996), 62-104.
Last Day to Add/Drop

Wednesday, 2/8—

1) SPARK Michael J. Bamshad and Steve E. Olson, “Does Race Exist?” *Scientific American* (December 2003).

2) SPARK J. Philippe Rushton, “Cranial Capacity Related to Sex, Rank, and Race in a Stratified Random Sample of 6,325 U.S. Military Personnel,” *Intelligence* 16 (1992): 401-413.

3) SPARK Jonathan Marks, "Race: Past, Present, Future," In *Revisiting Race in a Genomic Era*," Barbara Koenig, Sandra Soo-Jin Lee and Sarah Richardson eds., Rutgers Univ. Press 2008: 21-38.

Monday- 2/13

1) E-RESERVES Gerald Tortora and Sandra Grabowski, "Brain," In *Principles of Anatomy and Physiology*, 10th ed., John Wiley & Sons, 2003. 452-457;

2) E-RESERVES Anne Fausto-Sterling, 1992. "Homosexual Brains" from: "Sex and the Single Brain." Addendum to the Second Edition, *Myths of Gender: Biological Theories About Women and Men*, Rev. Ed. NY: Basic, pp. 245-259.

Biological Determinism/Social Constructionism

Wednesday-2/15

1)E-RESERVES Lisa Eliot, "Under the Pink or Blue Blankie," In *Pink Brain, Blue Brain*, Mariner 2009, 55- 102

Monday-2/20- No class President's Day

Wednesday-2/22

1) TEXT Spanier and Horowitz, "Looking for Difference," ch. 3, GSD

2) E-RESERVES Kimberley Tallbear, "DNA, Blood, and Racializing the Tribe," *Wicazo Sa Review*, Volume 18, Number 1, Spring 2003, pp. 81-107

Sociobiology and Rape

Monday-2/27

1) E-RESERVES Ruth Bleier, "Sociobiology, Biological Determinism and Human Behavior," In *Science and Gender: A Critique of Biology and Its Theories on Women*, Pergamon Press, 1984, 15-48;

2)E-RESERVES Craig Stanford, "Darwinians Look at Rape, Sex, and War," *American Scientist* 88 (July-August 2000): 360-62; Natalie Angier, "Biological Bull," *Ms.* (June/July 2000):80-82.

Wednesday-2/29 E-RESERVES Thornhill and Palmer, "Why do Men Rape?" *A Natural History of Rape* and Jerry Coyne and Andrew Berry, "Rape as Adaptation," *Nature* 404 (March 2000): 121-122

Animal Obsessions

March:

Monday-3/5

1) TEXT Lynda Birke, "Telling the Rat What to Do," GSD, ch. 5;

2) TEXT Angela Willey and Sara Giordano, "Why do Voles Fall in Love," GSD, ch. 6.

Wednesday-3/7

1) TEXT Ebeling and Spanier, "What Made Those Penguins Gay?" GSD ch. 7

The Body: Our Changing Conceptions

Monday-3/12

- 1) E-RESERVES Gerald Tortora and Sandra Grabowski, "An Introduction to the Human Body," In *Principles of Anatomy and Physiology*, 10th ed., John Wiley & Sons, 2003. 1-11.
- 2) E-RESERVES Londa Schiebinger, "The Anatomy of Difference: Fixing Racial and Sexual Types." In *Nature's Body: Gender in the Making of Modern Science*, Beacon Press, 1993. 115-142.
- 3) E-RESERVES George W. Stocking, "The Turn-of-the-Century Concept of Race," *Modernism/Modernity* 1.1, 1994, 4-16.

Wednesday-3/14

- 1) E-RESERVES Nancy Leys Stepan, "Race and Gender: The Role of Analogy in Science." *The Racial Economy of Science: Toward A Democratic Future*. Indiana Univ. Press, 1993. 359-376.
- 2) E-RESERVES Jennifer Terry, "Modernity and the Vexing Presence of Homosexuals," In *An American Obsession: Science, Medicine and Homosexuality in Modern Society*, Chicago UP, 27-39.

*****Spring Break March 19-23*****

Genes

Monday-3/26

- 1)E-RESERVES Anne Fausto-Sterling, "Genes and Gender," in *Myths of Gender*, pp. 61-89.

Wednesday-3/28

- 1) TEXT Lesley Rogers, "Sex Differences are not Hardwired," ch. 2, *GSD*

April

Monday-4/2

- 1a) E-RESERVES Ruth Hubbard and Elijah Wald, "A Brief Look at Genetics" 39-57 and
- 1b)"Inherited Tendencies: Behaviors."(108-117.) In *Exploding the Gene Myth*, Beacon Press, 1997.
- 2) E-RESERVES- Larry Adelman, "Race and Gene Studies: What Differences Make a Difference?" http://www.pbs.org/race/000_About/002_04-background-01-02.htm

Wednesday-4/4

- 1) E-RESERVES Richard Lewontin, "The DNA Era," *GeneWatch: Council for Responsible Genetics*, <http://www.mindfully.org/GE/2003/DNA-Era-Lewontin1jul03.htm>
- 2) E-RESERVES-Jonathan Dupré, "What Genes Are and Why There Are No Genes for Race," In *Revisiting Race in a Genomic Era*," Barbara Koenig, Sandra Soo-Jin Lee and Sarah Richardson eds., Rutgers Univ. Press 2008: 39-58.

Reproduction

Monday-4/9

- 1) E-RESERVES Gerard Tortora and Sandra Grabowski, "Reproductive System," *Principles of Anatomy and Physiology*, Wily, 2003: 1012-1027.
- 2) E-RESERVES Dorothy Roberts, "Introduction," In *Killing the Black Body: Race, Reproduction, and the Meaning of Liberty*, Pantheon Books, 1997.

Wednesday-4/11

- 1) WEB Ruth Hubbard and Stuart Newman, "Yuppie Eugenics," *Z Magazine*, March 2002, <http://www.zmag.org/ZMag/articles/march02hubbard-newman.htm>
- 2) E-RESERVES Richard Hayes, "The Science and Politics of Genetically Modified Humans" *World Watch*, July/August 2002, 11-12.
- 3) E-RESERVES Judith Levine, "What Human Genetic Modification Means for Women," *World Watch*, July/August 2002.
- 4) E-RESERVES Silja Samerski, "Genetic Counseling and the Fiction of Choice: Taught Self-Determination as a New Technique of Social Engineering." *Signs*, Vol 32, No 4, 2009: 735-761.

Monday-4/16- no class, Patriot's Day

Sex and Getting Hormonal

Tuesday-4/17- Monday schedule is followed, class meets

- 1) Anne Fausto-Sterling, "Hormonal Hurricanes," in *Myths of Gender*.
- 2) Angier, Natalie. "Does Testosterone Equal Aggression? Maybe Not." *New York Times* (June 20, 1995).

Wednesday-4/18

- 1) TEXT Emily Wentzell, "Making Male Sexuality: Hybrid Medical Knowledge and Erectile Dysfunction in Mexico," *GSD*, ch. 12.
- 2) Laura Briggs, "'The Pill' in Puerto Rico and the Mainland United States: Negotiating Discourses of Risk and Decolonization," in Lori Reed and Paula Saukko, eds. *Governing the Female Body* (SUNY Press, 2010): 159-185.

Medical and Anthropological Interventions

Monday-2/23

- 1) TEXT Iain Moreland, "Intersex Treatment and The Promise of Trauma," in *GSD*, ch. 8.
- 2) TEXT Sel J. Hwahng, "The Western 'Lesbian' Agenda and the Appropriation of Transmasculine People," in *GSD*, ch. 9.

Wednesday-2/25

- 1) TEXT Heather Laine Talley, "Facial Feminization and the Theory of Facial Sex Difference: The Medical Transformation of Elective Intervention to Necessary Repair," in *GSD*, ch. 10.
- 2) TEXT Shirlene Badger, "The Proportions of Fat in Genetics Obesity Research," in *GSD*, ch. 11.

May 3—Final Group Project Due