

Workshop on race and racism in science

New York University

Department of Psychology, Department of Biology, Center for Neural Science

Last updated Mar 6, 2021

By Wei Ji Ma on behalf of the working group

Approved by all three departments

History

The workshop described here originated from a proposal by an ad-hoc working group originally formed by the Department of Psychology to introduce education on the role of race and racism in the history of science into its formal curriculum. The working group's mandate did not include training on combating bias and (micro)-aggressions, increasing diversity, or creating inclusive classrooms. The working group came to include faculty, postdocs, and students from the Department of Psychology, the Center for Neural Science, and the Department of Biology. Faculty members from these departments on the working group were Wei Ji Ma (chair), Christine Constantinople, André Fenton, David Gresham, Michael Hawken, and David Scicchitano. The working group included Diversity, Equity, and Inclusion representatives of PhD students and postdocs. The working group met four times, conducted self-education, and solicited opinions from its constituent groups. The working group first decided to propose an extension of the existing Responsible Conduct of Research (RCR) course, as ethically conducting research includes being aware of the injustices committed against people of color in both the history and the present practice of science. The working group formed a list of topics that they liked to see discussed, taking into account the wide range of interests and backgrounds in our departments, from genetics to human subjects research to data science. Four sessions were formulated, and the working group proceeded to invite guest instructors. Throughout its efforts, the working group operated through an open and democratic process, and ensured that every member's voice was heard. The proposal was sent to the departments on Oct 9, 2020.

In response to feedback from the departments, it was decided to turn the four proposed sessions on race and racism in science into a stand-alone workshop rather than an RCR extension at least in its first year (Spring 2021), in recognition of the fact that the RCR course at present has a more limited audience than we intend for the four sessions.

Background

The Black Lives Matters movement has put a much-needed spotlight on the systemic racism against Black and Indigenous people across American institutions. The academic community has an obligation to fight racism on all fronts, not only by improving perceptions and representation of Black, Indigenous, and other people of color (BIPOC) and addressing racist behavior in the workplace, but also by educating each other on the role of race and racism in

the history of science. Science does not exist in a vacuum, but in a context of social and cultural forces, some of which have been oppressive, exploitative, and dehumanizing. Across history and continuing today, prominent and less prominent scientists have taken part in racist ideologies and practices in the name of science. For example, genetics and IQ research have both been deeply intertwined with eugenics, people of color have been taken advantage of in medical trials, and racial biases of machine learning algorithms are often dismissed. Our communities have to confront these dark parts of scientific history and current practice, and such reckoning should become a permanent part of the education that we offer our trainees.

Workshop sessions

In Spring 2021, the following workshop will be held:

2021 Workshop “Race and racism in science: past and present”			
Coordinator: Wei Ji Ma (Center for Neural Science and Dept. of Psychology)			
Apr 15	4-5:30 pm	David Gresham (Dept. of Biology)	The history of race as a scientific concept
Apr 22	4-5:30 pm	Ann Morning (Dept. of Sociology)	The impact of science on everyday beliefs about race
Apr 29	4-5:30 pm	Carolyn Hutson (Mount Sinai, Environmental Medicine and Public Health)	Racial and ethnic biases in health care - from slavery to the present
May 6	4-5:30 pm	Joshua Loftus (London School of Economics)	Bias in Artificial Intelligence and Data Science

Participants

- Department of Psychology: Mandatory for all PhD students in their first four years (it is ok to miss one session). The workshop will be strongly recommended for other PhD students, postdocs, faculty, and all other members of the community. The workshop will be announced by the Chair.
- Department of Biology: The workshop will be a compulsory component of the QBIST workshop, a year-long workshop that is required of all second year PhD students. In addition, it will be strongly recommended for all members of the Biology community including staff, postdocs, faculty and PhD students in their 3rd year and above that have not previously taken the workshop. The workshop will be announced by the Chair.
- Center for Neural Science: Mandatory for all current PhD students and postdocs (it is ok to miss one session). The workshop will be strongly recommended for faculty and all other members of the community. The workshop will be announced by the Chair.

Details

Details of the sessions are in the Appendix. The instructors will be informed of each other's contents and encouraged to attend each other's sessions. Each session will encourage discussion. Readings will be assigned by each instructor, and students will be asked to submit a reflection on each session.

Caring for student well-being

For some members of the BIPOC community, consideration and discussion of this racially founded material can be emotionally laborious and challenging in ways that are unique to the BIPOC community. Besides the instructor, a second, appropriately prepared faculty member present will be present at the sessions for the purpose of monitoring and managing the emotional responses, well-being, and respect for all the class participants and can be available for follow-up discussion should participants need it, so that the lecturer can also ensure effective delivery of the material with some confidence that there is care and attention to the vulnerable members of the class. In Spring 2021, this designated faculty member will be Emily Balcetis, the DEI Coordinator in the Department of Psychology; in addition, Dean Susan Antón intends to speak briefly on available support resources at the start of Session 1. [*WJM 20210306: Monroe France, NYU's associate vice president for global engagement and inclusive leadership, will do this instead.*]

Evaluation and future

The workshop will be evaluated by the coordinator and the working group. Based on the evaluation, it will be determined in what form the workshop will be offered in future years. One possibility that could be considered at that point is to incorporate the workshop into the RCR course in future years.

Limitations

Although the workshop focuses on race, the departments recognize that injustices and discriminatory practices in science are not restricted to the racial injustices suffered by people that identify as BIPOC, and that historical and current discrimination also occur on the basis of sex, gender, socioeconomic status, disability status, citizenship, class, as well as intersections of these ways of categorizing people. The workshop does not do full justice to the disenfranchisement and suffering of marginalized and oppressed groups in the hands of science; it is only a first step. Like many efforts in pedagogy, the workshop is designed for depth, choosing to focus on race, and using the subject matter to investigate and understand the role of science and scientists more broadly in matters of structural inequities and social justice. Broader themes of injustice can be incorporated into the workshop sessions, and we will encourage this practice with the lecturers.

Beyond the workshop, we recommend that other mechanisms be considered for educating our communities about the suffering of marginalized and oppressed groups in the hands of science. This could, for example, take the specific forms of a full, for-credit elective course or a departmental seminar, as well as a more general awareness and effort to incorporate subject matter into courses that illustrate the role of science in informing policies and practices of social justice and injustice.

Appendix: Details of the sessions

Session 1: The history of race as a scientific concept

David Gresham (NYU, Department of Biology)

Race, it is commonly claimed, is a social construct of no biological significance. Yet, since the 1700s scientists have attempted to classify human populations into discrete groups. In this lecture, I will examine the history of race as a scientific concept and consider its abuses and misapplications. I will examine the cultural and historical context of scientific approaches to classifying humans into racial groups starting with Linneaus and Darwin. I will examine the abuses of race-based science manifest in the eugenics movement in the UK and USA and in Nazi Germany and explore how an academic discipline can become a justification for oppression and genocide. I will introduce the use of racial classifications in contemporary science and medicine through a historical lens. I will examine the utility of racial classification in identifying the genes that underlie human disease and understanding human history and variation in human behavior. My lecture will address the questions: "Can we differentiate between race-based science and racist science? Is race-based science of potential use? Or, in order to avoid racism must we avoid race in science?"

Session 2: The impact of science on everyday beliefs about race

Ann Morning (NYU, Department of Sociology)

This lecture will focus on racial conceptualization, meaning the web of beliefs that individuals hold about the nature of race. This complex of ideas includes notions of what race is; which groups constitute races and what distinguishes them from each other; how races originate, and how we "know" who belongs to which race. Since the 20th century, science education has played an important role in how everyday people conceptualize race, and I explore its impact in two forms. First, I will examine 80 biology textbooks published in the United States from 1952 to 2002 to uncover how high-school education has taught race. Second, I will report on my interviews with college students in the U.S. and Italy about the nature of racial difference and how they believe it is shaped by human evolutionary history.

Session 3 : Racial and ethnic biases in health care - from slavery to the present

Carolyn Hutson (Mount Sinai, Environmental Medicine and Public Health)

Abuses of marginalized groups by the medical establishment date far back. In the 1800s, NYC physician Dr. Marion Sims unethically experimented on slaves and in the 1900s, U.S. Public Health Services authorized the Tuskegee Experiments, where impoverished African Americans with syphilis were secretly studied and denied treatment. A system of biases and false beliefs keeps communities of color from currently receiving the highest standard of care. For example, white people without medical backgrounds, medical students and residents alike hold false beliefs about biological differences between white and black people, including the incorrect assumption that black people have thicker skin and feel less pain. For treatment of chronic illness, such as diabetes, hypertension, and asthma, clinical outcomes for people of color populations are worse than for non-Hispanic Whites living with the same illness. I will also

address how racism and bias in healthcare impact adherence to medical regimens and medications in racial minority populations when treated in traditional U.S. healthcare systems.

Session 4: Bias in Artificial Intelligence and Data Science

Joshua Loftus (London School of Economics)

We have seen a rapid increase in the use of machine learning methods to automate decisions in areas such as healthcare, insurance, and predictive policing. But the training data in such cases may encode biases against people belonging to population subgroups based on race or other ethically or legally sensitive categories. Organizations and researchers must account for this to avoid perpetuating discriminatory practices and possibly even running afoul of civil rights law. In this talk, I will introduce algorithmic fairness with several real world examples focusing on race in healthcare and scientific research, and summarize and classify some of the work in this area, with particular attention to the new or increased risks accompanying advances in data methodology and technology.