

21A.303J / STS.060J

Anthropology of Biology

Spring 2022

Professor Stefan Helmreich

Course Description

If the twentieth century was the century of physics, the twenty-first has become the century of biology. This subject examines the cultural, political, and economic dimensions of biology in the age of genomics, biotechnological enterprise, biodiversity conservation, pharmaceutical bioprospecting, synthetic biology, global pandemic, and more. Although we examine such social concerns as genetic modification and reproductive rights, this is not a class in bioethics, but rather an anthropological inquiry into how the substances and explanations of biology — increasingly cellular, molecular, genetic, viral, and informatic — are changing, and with them broader ideas about the relationship between “nature” and “culture.” Looking at such scientific forms as cell lines, CRISPR, and epidemiological models, and drawing upon primary sources in biology, social studies of the life sciences, and literary and cinematic materials, we rephrase Erwin Schrödinger’s famous 1944 question, “What Is Life?” to ask, in the 2000s, “What Is Life Becoming?”

Racism impacts health in many ways. One helpful delineation comes from influential physician and epidemiologist Camara Jones, who outlines three “levels of racism”:¹⁸

institutionalized racism: “differential access to the goods, services, and opportunities in society by race,” which “need not have an identifiable perpetrator” and “is often evident as inaction in the face of need.”

personally mediated racism: “prejudice and discrimination, where prejudice means differential assumptions about the abilities, motives, and intentions of others according to their race, and discrimination means differential actions toward others because of their race,” and might be intentional or unintentional.

internalized racism: “acceptance by members of the stigmatized races of negative messages about their own abilities and intrinsic worth.”

that usually operates slowly and insidiously. Most environmental racism operates in a way that is unspectacular—what Rob Nixon has called “slow violence”:

By slow violence I mean a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all. Violence is customarily conceived as an event or action that is immediate in time, explosive and spectacular in space, and as erupting into instant sensational visibility. We need, I believe, to engage a different kind of violence, a violence that is neither spectacular nor instantaneous, but rather incremental and accretive, its calamitous repercussions playing out across a range of temporal scales.⁵⁶

THE SICKENING ASSIGNMENT: A TEMPLATE FOR ANALYSIS

There are many compelling cases of racism and health disparities beyond what I have been able to analyze here, and there will undoubtedly be more in the future. How might readers carry out a similar form of analysis in the face of social injustices that occur in different times and places? Here, I outline an activity along the lines of assignments that I have developed for my own undergraduate classrooms.³ This four-step template can be adapted for use in wide-ranging classroom contexts or engaged by readers to guide them in writing their own analyses.

1. Map out the Terrain: Look across Scales

Find a Micro Scale: Sometimes the intimate scale is already present in a case as it is disseminated in the media—there is an event that happened to a specific, named person, in a particular encounter at a particular moment in time. Thus, the micro scale might be a very specific first-person account, as here with the postal worker's 911 call. Other times, however, the analyst will have to be creative to pick out and highlight a small element within a larger event—for example, the ability of General Motors to protect its engine plant during the Flint water crisis. In this scale, you might find a combination of institutionalized racism, personally mediated racism, and internalized racism.⁴

Find a Meso Scale: Attend to the surroundings of the event. What is the near context in which this event occurs, chronologically and socially? In what kind of space—neighborhood/city/region—does the event occur, and how does that matter? Who else is around, whether as participant or bystander? The meso scale might be a city or a suburb, an organization or a social sphere, each associated with particular health care systems and systems of social control. This scale will often reveal institutionalized racism.

Find a Macro Scale: Attend to the broader social and historical context of the event. How does it emerge out of trends in history and society in the United States (or other national context)? How does it participate in the political economy of the contemporary health care system and the entrenched biopolitical priorities that render some lives differentially disposable? How does it reflect major drivers of racial inequality, such as the structures of segregation, access to care, and exposure to harms? This scale is vital for attending to institutionalized racism.

3. Enrich Your Analytical Frame: Add Layers of Analysis

Pay Attention to History: Look beyond the flash of the news cycle and search for ways in which the contemporary event emerges out of a history.⁵

Pay Attention to Infrastructure: How is the built environment contributing to the situation in which the event transpires? What about systems of distribution of goods and services?

Pay Attention to Technology: Some of the technologies that I have discussed are obviously medical—pharmaceuticals, especially. Yet many technologies that matter are not medical, ranging from pipes to swimming pools to cell phone cameras.

Pay Attention to Economic Context: Who is working, and how are they paid? Who is paying for things, how are they doing so, and who benefits? How does capitalism matter?

Pay Attention to Citizenship Claims: Who is in a position to make demands of the state and of other powerful institutions, including but not limited to medical institutions? How do they make those demands, and in the face of what resistance?

Pay Attention to Intersections: Race is not the only category of identity at stake in any particular experience or event. Pay attention to how race intersects with class, gender, age, disability, sexuality, and other systems of power.

Pay Attention to Voice: Whose stories are being represented in the dominant account? How might you seek out additional, less prominent perspectives?

Pay Attention to Knowledge: Start local: how have you come to know about the event? But also pay attention to the ways that knowledge matters in the event: whose knowledge is valued, whose is discounted, who is treated as an expert, who is believed at all, and how does it matter?

Pay Attention to Power: Who has it, and how is it used? Who doesn't have it, and how does it matter?



David Shane Lowry

Distinguished Fellow
Member of the Lumbee Tribe

David Shane Lowry is the Distinguished Fellow in Native American Studies. In this role, David is leading a new conversation at MIT about the responsibilities of MIT (and science/technology education, more generally) in the theft of American Indian land and the dismantling of American Indian health and community. Since 2013, David has lectured across the United States – roles in which he has become well versed in conversations at the intersection of race, (health) science & popular culture. His first book, titled Lumbee Pipelines (under contract with University of Nebraska Press), explores American Indian utilization of colonial conditions to create opportunities that are both uplifting and oppressive. His second book, titled Black Jesus, is an ethnography of Michael Jordan. It began when David realized that he and Jordan shared the same anthropology advisor at UNC ... 23 years apart. David was an undergraduate at MIT. During those years, he led AISES (American Indian Science & Engineering Society) and OMESAC (the Office of Minority Education Student Advisory Committee). He is always looking for a pick-up basketball game.

Instructor
David Lowry

Catalog Number
[21H.283](#)

Level
Intermediate

Requirement
HASS-H

Term
Spring 2022

Culture and Society

Historical Methods

Race and Ethnicity

United States

The Indigenous History of MIT

Lecture: M 2-4, 5-231

Recitation: W 3-4, 5-231

Students work with MIT faculty, staff, and alumni, as well as faculty and researchers at other universities and centers, to focus on how Indigenous people and communities have influenced the rise and development of the Massachusetts Institute of Technology. Students build a research portfolio that will include an original research essay, archival and bibliographic records, maps and images, and other relevant documentary and supporting materials. Limited to 15.

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Health and Wellbeing ▶

Diversity, Equity, and Inclusion ▶

Community Resources ▶

Land Acknowledgement ▶

MIT Community Resources ▶

What to do if you experience harassment ▶

One Community Room ▶

All-Gender Restrooms ▶

MIT Multicultural and Diversity Related Resources ▶

Social Intrapreneurship ▶

Gender Identity Initiative ▶

Finances ▶

Academics ▶

Videos ▶

It's Intuitively Obvious Videos ▶

Active Bystander

Land Acknowledgement

In fall 2019, members of the MIT Indigenous community, including students, staff, visiting scholars, and alumni, as well as officials from local tribal organizations and staff from the ICEO and the Office of Intercultural Engagement, undertook a project of drafting a land acknowledgement statement for MIT. The group completed the project and posted the following text on the ICEO website in March 2020:

"MIT acknowledges Indigenous Peoples as the traditional stewards of the land, and the enduring relationship that exists between them and their traditional territories. The land on which we sit is the traditional unceded territory of the Wampanoag Nation. We acknowledge the painful history of genocide and forced occupation of their territory, and we honor and respect the many diverse indigenous people connected to this land on which we gather from time immemorial."

Based on feedback MIT has received since this statement was released, including disagreements among Native American tribes regarding historical land claims in Cambridge and surrounding areas, the Institute is initiating a formal process to develop a new statement. This statement will build on the initial work and further engage with subject-area experts and other stakeholders.

For more information on this acknowledgement and the effort to develop and adopt a formal MIT land acknowledgement statement, please contact iceo@mit.edu.

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