

On February 27, Northwestern University professor [Michelle N. Huang](#) delivered a presentation on “[Racial Disintegration: Biomedical Futurity at the Environmental Limit](#)” as part of the [Klopsteg Lectures](#), a series of discussions of science, medicine, and technology organized by Northwestern’s [Science in Human Culture](#) program and sponsored by the [Klopsteg Fund](#).

Northwestern English doctoral student Yasmin Yoon spoke with Dr. Huang shortly after her presentation. Their conversation, which draws upon both Dr. Huang’s talk and her recent [article](#) of the same name in *American Literature*, is below.

**YY: Maybe we can begin discussing motivations behind your work, then move to broader questions about the implications for science studies. Can you tell us about what it’s been like to work on this article?**

MNH: The “Racial Disintegration” article is kind of my first stab at thinking through the work that will become part of my second book project, which will be on biomedicine and Ethnic American literature. The genesis of this article is two-fold—there’s a literary explanation and a “real world” explanation. The literary explanation is that I was reading this dystopian Asian American novel, Chang-rae Lee’s [On Such a Full Sea](#) (2015), and thinking about how Lee was experimenting with racial categories. The book is set in a defamiliarized Baltimore, which in the novel’s future is now a post-industrial city where Black people have been replaced by Asian American immigrants. But none of the people in the book are called “Black” or “Asian American” at all. So I was trying to think about what Lee was doing by avoiding using contemporary racial categories, and what this obfuscation might mean for thinking about our own changing racial climate in the United States.

Which leads me to the “real world” explanation. The novel came out in 2015, so as a professor of Asian American studies, I had been thinking about the work that Asian American studies does in the time of Black Lives Matter. I was going to a conference at Notre Dame, and driving through Gary, Indiana with my colleague. (For those who don’t know, Gary abuts the south side of Chicago, majority Black, the site of steel mills, and Michael Jackson’s hometown). A blanket of noxious smell—of industrial waste—that immediately permeated the car, and my colleague asked how American politicians could relax environmental regulations when there is so much evidence showing its deleterious effects on generations to come. And I replied, “They don’t want to stop people from dying, they just want some people to die slower than others.” So I was thinking about the Black people who live there breathing that air all the time, and wanting to write about ecologies of racism—meaning both environmental racism as well as relative racialization, in this case between Asian Americans and Black Americans. I was thinking about all the money being invested in biomedical interventions like precision medicine that very few people will ever be able to benefit from. I tried to capture the atmosphere of racism that was so palpable as I passed through Gary, in an enclosed car, and continued on my way.

**Can you elaborate on the contemporary Asian American studies aspect, such as how it helps us read the racial allegory that is being articulated in *On Such a Full Sea*?**

The [1965 Immigration \[and Nationality\] Act](#) changed the racial landscape of the United States in several ways, and by removing the quotas that had been placed on Asian immigrants while selecting for educationally privileged people in STEM fields, it produced the occupational concentration we see today among East Asian Americans and South Asian Americans—like why Andrew Yang can joke about “[knowing a lot of doctors](#).” However, the main group of Asian immigrants in the novel are laborers, which harks back to an earlier generation of Asian workers at the turn of the 20<sup>th</sup> century. So within the novel’s representational politics, there was a commentary on that sort of shift within Asian American identity, which encompasses both scientists, doctors, engineers, and railroad workers. But we forget the latter history, just as we forget the Vietnam War and the neocolonial acquisition of the Philippines. The evacuated racial consciousness of the Asian Americans in the novel is a commentary on how race has become naturalized as cultural essentialism rather than rooted in any consciousness regarding Asian American history.

**When you mentioned driving through Gary, Indiana—the “blanket” of industrial pollution, and “atmosphere” of racism—I was thinking specifically about the unevenness of this distribution. One of the questions your article asks us to think about is: what is the relationship between race and wellness? There is a tension between the environment, which we think of as external, and healthiness, which we think of as an internal characteristic. How does race help us understand this tension, between the environment and individual, external and internal?**

I’ll try to answer this by focusing on what precision medicine is, and why it became the focus for me in this article. In 2016, the Chan Zuckerberg Initiative announced they were going to fund scientific research to “[cure all diseases](#).” One of the technologies they were/are focusing on is precision medicine. A neutral-to-positive framing of precision medicine is that, rather than a “one size fits all” approach to medicine, we can identify differences in subpopulations—meaning genetic variance—that will guide the sort of treatment a patient receives. I’m just going to read the National Research Council [definition](#) of it first. It refers to:

the tailoring of medical treatment to the individual characteristics of each patient. It does not literally mean the creation of drugs or medical devices that are unique to a patient, but rather the ability to classify individuals into subpopulations that differ in their susceptibility to a particular disease or their response to a specific treatment. Preventative or therapeutic interventions can then be concentrated on those who will benefit, sparing expense and side effects for those who are not when thinking about.

This language was so striking to me because it was talking about subpopulations and groups of people, and the susceptibility to particular diseases and so on, with no reference to race, one of the most obvious causes of health disparities. Not because of genetic variance, but because of environmental racism and healthcare access. So this “colorblind” language, which is endemic to medicine, is nefarious because what we need is a more complex understanding of race—that it is an external system of oppression that becomes biologically real through its detrimental effects.

Precision medicine is often framed as a universal solution, right? But I think that characterization reveals several issues. First, it is largely deracinated. There’s no attention to race in the

definitions of precision medicine. And when that is the case, it privileges those who already are seen as the universal subject, as the normative body. This is why women are more likely to die in car accidents, because [seat belts](#) were designed and tested on men. Who is the data being constructed around?

Second, I think that precision medicine discourse is too techno-utopian. A lot of the framing is like, “Wow, how wonderful it would be to immediately be able to cure all these cancers and rare diseases.” I’m obviously not saying that wouldn’t be nice, but it is a huge overstatement of what’s currently possible. In fact, there are tons of low-tech solutions that would vastly improve people’s health and reduce healthcare disparities—addressing things like lead pipes, food insecurity, toxic runoff, pesticide pollution—that are not framed as gamechangers. And they affect minorized populations disproportionately. So the problem isn’t precision medicine itself, but this grandiose “breakthrough” discourse, which makes public health initiatives look rather unromantic and unimpressive in contrast. There are many things we don’t need to do more lab research to ameliorate. There’s just not a political will.

That disconnect brings me to point three, which is that precision medicine provides more private and smaller solutions to problems that are actually getting bigger and more public. This is where I think the medical and the environmental kind of bump up with one another, right? While we are getting more specific in our ability to identify genetic subpopulations, issues of pollution, toxicity, and climate change are becoming bigger and bigger on a global scale. The question of accessibility to these treatments is going to come to a head, violently, as it already has quite visibly with the COVID-19 pandemic and vaccine access.

**I think it's important that you point out that the issue isn't necessarily whether precision medicine is “good” or “bad,” but that it helps us realize something about how race functions even when it isn't explicitly addressed. This could be a good time to talk about your literary intervention of “studious deracination” and how it can help us read for race. Can you tell us a little bit about that?**

MNH: Yeah, so as a scholar of Asian American literature I’m interested in the politics of racial representation. The sociologist [Eduardo Bonilla-Silva](#) writes about “[racism without racists](#)”—that even in a putatively liberal society of ostensibly anti-racist people, racism persists as material reality. I am interested in how that phenomenon manifests formally, through language: how racism is made invisible. And the ambiguous status of Asian Americans as racialized contributes to this—meaning, privileged Asian Americans are often seen as “white-proximate.” So “studious deracination” is a term I came up with to mark the removal of race in these novels like *On Such a Full Sea* that don’t use contemporary racial categories, but do so in a way that actually draws attention to the inequality coded into colorblind language.

Taking medical care for example—it is supposed to be universally accessible to all, right? It has this benevolent ideal that would be something like, “Treat all patients the same.” But, in reality, doctors do not do that. And it is not that doctors are more racist than anyone else, but that, for so long, we have thought that removing race is the solution to racism. But I would argue it is pretty clear that a deeper, broader understanding of how racism structures our world is necessary to achieve that goal. Less is not more in this case. Having a deeper understanding of medical racism

and inequity—like why Black maternal mortality is so bad compared to white women—would help more to achieve the putative goal of more equitable health care access than pretending to ignore race.

**This clarifies for me something so important about Asian American literature, and how it might be particularly attuned to this invisibilized perspective. I'm going to move on to our last question, which is: as an English professor, why do you think literature is important to science studies?**

Science always happens first in literature. Mary Shelley wrote *Frankenstein* in 1818, and the first organ transplant wasn't until 1954. Ronald Reagan [consulted with science fiction writers](#) while coming up with the Strategic Defense Initiative. All literature is experimentation, although its worldmaking capacities are often explicitly centered in speculative and science fiction. It actually helps us see how scientific reality, while framed as objective, universal truths, is very historically situated. And it's often cyclical—what we get from the humanities are that the sort of debates between nature and nurture, for example, recur through different scientific epochs. Now it is epigenetics versus genetics, but before that it was Lamarck versus Darwin, and before that it was maternal impressions vs. homonculi. We think of the arts and the sciences as exclusive, or even antagonistic, but I see them both as ways of describing the world. The word “science” is derived from knowledge. We are seeing the broaching of the “two cultures” more through work like [Ted Chiang](#)'s science fiction and [Lovely Umayam](#)'s art on nuclear security. The humanities loses a lot of purchase when we give up the right to say things about science, as well as when we adopt overly simplistic anti-scientific perspectives. By disavowing science, we often actually give it more stability and objectivity than we should.

**I love your point about science. When done badly, scientific discourse naturalizes and depoliticizes history, as well as make unique claims to the future through its invocation of techno-utopianism. Can we end on a point about what Asian American literature in particular offers to science studies? In particular, how might Asian American literature ask us to reconsider our relationship with both history and the future? And what can Asian American studies teach us about the invisible infrastructural work of race in making the future?**

When we talk about making the future, we don't all live in the same temporality. The future is already unevenly distributed, as is history, in our present. This is very visible through who does and doesn't have access to certain types of medical care, travel, education, etc. The resources to access and make the future are not distributed equally. I think a critique of techno-utopianism is a way that Asian American literary studies in particular contributes to a racial justice project regarding science and technology—because techno-utopianism is also the spirit of the American Dream. Chang-rae Lee, the author of *On Such a Full Sea*, has written about how all immigrant fiction is dystopian fiction—you come to a new world where you don't speak the language, the food's strange, and everything is really alienating. Reframing the triumphalism of the immigration story helps us question where those future Asian Americans in *On Such a Full Sea* are landing—whose futures are being cultivated, and whose are being extinguished?

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