AT: Listeners should be aware that this episode will include discussion of medical trauma and significant abuse of African Americans. So please be prepared for that and listen with discretion.
Welcome to the Infinite Women podcast. I'm your host, Allison Tyra, and today I'm joined by Alexis J. Pedrick, director of digital engagement at the Science History Institute, and director of Innate: How Science Invented the Myth of Race, a National Endowment for the Humanities-funded podcast and magazine product that explores the historical roots and persistent legacies of racism in American medicine and science. And one of the recent episodes that you had delves into the topic of race, gynecology, maternal health. And a major figure that comes up when we're talking about gynecological history in the US is James Marion Sims, who has been held up as
the “father of modern gynecology.” And we have issues with that.

AP: What that obscures, that title, the “father of gynecology, “what it obscures is a not only all the women that were involved in this process, right? But also all of the Black women that were involved in this process, many of them not by their own choice, by their own decree, like that title sort of like makes it sound like it was this sort of like caring process that he went through to develop something that would be helpful for women. And the reality of it is so much more brutal and awful. And I think yeah, that title just kind of glosses over all of that.

AT: So it's the caring paternal aspect of “father of.”

AP: Yes, yes, exactly. Exactly. Also the person who's highlighted is him, right? The person who's highlighted, that gets named, that gets identified is him. And the Black women who he experimented on do not get named, they are not part of that title, right? Because they're not really seen as being people as really seen as being like, they were just part of the research process, quote unquote, right? Like, it doesn't acknowledge them whatsoever. And so yeah, I think it's a shorthand that obscures a bunch of horror and trauma, which is, that's the problem with it.

AT: And so when we're talking about he is the one who is named, when we're saying that he experimented on women, he was performing surgeries on enslaved women who had no ability to say no. And when you said he is the one who is named, that really hit me because there were 12 women. And the only ones that we even have names for are Anarcha, Betsy, and Lucy. So 9 out of these 12 women, we don't even know their names.

AP: Right. Right. Exactly. So one of the things we talk about in Innate, on our podcast, so our podcast was called Distillations and we do the history of science. And Innate was a project that we were really, really lucky to get funding for, to do, to really talk about this. And so one of the things that we realized as we were doing this has to be foundational in our understanding of this process, is that that belief, that incorrect belief that Black bodies and white bodies are inherently different, right? That down to like a biological basis, we are different people, different species, right? That othering, that othering allows a lot of things to come out of it that are ultimately, like I said, damaging and horrible and brutal, but don't feel that way when you think to yourself, “well, these people are not quite people. I mean, they're people, but they don't experience pain the way we do. They’re people, but their bodies don't process different kinds of diseases or medications, the way that we do. They’re people, but they're inherently physically stronger than we are. Their brains aren't developed in the same way that ours are,” right? And so it allows you as you're going through this process to make a bunch of sort of excuses, as to kind of why all of this is fine. And I mean, you brought this up when you said it, they were enslaved women. They were property as far as Sims was concerned, right? That was their definition, was they were a thing that he owned and thus could work on as he saw fit, right?

AT: And when we're getting into like who tells history, right? The fact that we don't know most of these women's name comes from the fact that we know nothing about them other than what Sims wrote. And so when we're

looking at what we know about the atrocities he committed, because he was performing major surgery on them without anesthesia. So they're strapped down naked, often forced to participate in the surgeries on each other, nurse each other back to health, even knowing that that would only lead to more pain and trauma. A lot of times there were other like curious onlookers watching these surgeries happen. I mean, that is just the stuff of horror
films, but we know that's what happened because to him… that's what he wrote down. He thought this was so acceptable. He had no fear of repercussions because there was no societal accountability for even something like this that hopefully today everyone would agree is horrific.

AP: Oh, for sure. So we were really lucky. One of the scholars we talked to for the episode we did was a woman named Deirdre Cooper Owens. And she wrote this book, *Medical Bondage, Race, Gender, and the Origins of American Gynecology*. It is an excellent, excellent book. It is definitely worth reading and picking up. But that's one of the things she brings up is that, yes, we can focus on Sims, but Sims is also representative of a structure for 19th century medicine that was like in place already, right? And there was already this idea that, yes, enslaved people, but also poor people, when they robbed graves, criminals or people who are deemed criminally insane, women there's this entire population of people that we sort of said, oh, it's fine to do experiments on them. It's fine to, oddly, in contrast, it's fine to do these experiments on them because they are so far from humanity that like it's justifiable. Either they won't feel it in the same way or they won't experience it in the same way or just, it's not, they're different. But at the same time, we are doing experiments on them to find out medical information that we're going to use on ourselves, right? And so it's this interesting contrast of both, you're not human enough to warrant us treating you well or or having informed consent or talking to you about what's going on in your body or any of those sorts of things, right? Like none of that matters, but the results of experimenting on your body will be used to develop medications and treatments that will be helpful for everyone, right? And so it's a really interesting, dichotomy there, right? That like, existing in that space where like both things are true. And I'm saying the royal we, I don't mean like we specifically, like I'm a Black woman like, obviously, I don't mean that. I mean, just like we as in society.

AT: As a white woman, I would also like to verify that I also am not part of that we. (laughter)

AP: I will say my experience in working on this season was really, really interesting because there were a lot of things that I felt like I was like relearning for the first time, or rather learning for the first time as having a racial dimension to them. And so like, when I was in college, I studied history, I did like arts and humanities. And so when I learned about the father of gynecology, right? Like, this was not part of that discussion. I mean, now it probably is. And I know that there are a lot of really excellent people out there who are doing this work and trying to bring these conversations to medical schools and whatnot to make them part of the conversation and to colleges, universities to make it part of the conversation. But I can say like, this is not how I learned the history of gynecology, right? Like, a lot of history I learned was “well, famous man does thing. And now we have that and it's great.” And so it's interesting to me that the way we talk about history brought up that idea of like who tells these stories, right? The way we talk about history, the way we tell these stories also sort of reinforces that.

AT: And I think one of the issues in a modern context is this idea that especially in the US, it's like, oh, racism doesn't exist anymore. We had a Black president, everything's fine. And people don't connect things like, well, police as an institution largely started out as slave catchers and that institutional racism still largely exists today and impacts how Black people interact with the police. And similarly, this idea that you mentioned, you know, the myth that Black people don't feel pain, which I'm sure more qualified people have looked into this in terms of, how much of that was dissociating due to trauma. Or, you even see this with kids, if you know no one is going to listen, and there will only be punishment if you show that you are in pain, you learn to shut that down.

But also if we're talking about, J. Marion Sims, why are you restraining these women if they don't feel pain? If they don't feel pain, why do you have to strap them down?

AP: Exactly. Exactly. I'm so glad you said that, exactly. One of the things we talk about is that like, we talk about race science as if it's this separate thing that was happening. And I think even when we started this project, we thought, like, okay, we'll talk about science, and then we'll talk about the point where the race science started and figured, okay, that's going to be somewhere around the 1800s or somewhere with slavery, like, okay, we expect that. And now having done all this, done all of this reading, done all of this research, talked to all these amazing scholars, it wasn't like race science just started. It was just science, right? It was just part of the understanding that we had about how the world operated and how it worked. And so, like, James Marion Sims, I think the temptation in our modern, like, like world is to put him in a box and say, like, well, he was doing bad race science there, and that's like not what was going on, but like, you're so right. He was like just doing science. He wasn't hiding it because there was nothing to hide.
And in terms of the idea that the women he was experimenting on didn't feel pain, of course, like, yes, why would you strap them down? But it's also not a question that he was asking. It's not only, is it not true, right? And so it's being obscured a little bit, because there is that hint of like, "Oh, okay, maybe this doesn't sound good." But it's also not something that even if it were true would have been a concern. Again, we sort of get caught up in, like, the invention and like what came out of it. But the cost of it for these women in particular, the cost of that was enormous, right? Like, that's, there's a reason why like, we all have like a visceral reaction, right, to like hearing this experience. And so yeah, I mean, that just like stays with me.

AT: And from my perspective, in a modern context, the issue is that we hear stuff like that, or we hear about the Tuskegee experiment, where Black men were allowed to just walk around with syphilis, presumably infecting women - but you know, we don't even mention the women who probably were affected by this - for decades, so that they could study how syphilis basically eats your brain. And we hear these stories and we say, "Oh, that could never happen today. Oh, that's so awful, but that's in the past." But the fact is that myths still persist, that Black people's nerve endings are less sensitive, (AP: Yes) their skin is thicker, (AP: Yes) like a 2016 study found that more than half of med students believe this. (AP: Yes!) And we've also seen reports that Black patients are half as likely to receive pain meds as white patients. And if they are given pain meds, they're given lower quantities. So this idea that, "Oh, these blatant atrocities that were in the past don't impact today" is just crap.

AP: Oh, absolutely. So one of the studies we talk about in the episode was by a woman named Kelly Hoffman. And she's a behavioral scientist. And so her and her co-authors were looking at this exact thing that you brought up. And they were like, okay, we want to drill down and like figure out what's going on here? Because the idea that people not only don't recognize that they don't recognize the pain of Black patients. And so they're not treating the pain of Black patients, right? And so they had done this survey at the University of Virginia, where they were surveying medical students and residents. And they wanted to know how people with and without medical training held these like false beliefs in their mind, about Black bodies and white bodies being different and experiencing pain different. And so when they did that in 2016, as you pointed out, the sheer number of people who had these false beliefs about that being true, both in medical training and out of medical
training was wild, like more than half of the white medical students and residents had at least one false belief about biological differences, which is sort of astounding. Again, you're right, in an era, in a time where we're always saying like, well, racism is, that's kind of behind us. We've sort of sorted that out. We're kind of done with it. We figured it out, right? And so like, those are people who are going to become doctors, right? They're going to become people who are doing the treatments and if inherent in their minds is this belief, that's just going to perpetuate it.

AT: And you also mentioned the myth that Black bodies are inherently stronger, which, there's a lot to unpack there, but it's always fascinating when you look at the intersection of race and gender, because there's very much this holding up of white women as weak and needing to be protected, but not the working class ones and not necessarily, whiteness as a construct that doesn't include say Italians or Irish, depending on the period that we're talking about. (AP: Right.) And so, Black women having this superhuman body (AP: yup), separating. It just seems ridiculous.

AP: It does. Again, it's one of those things where if you step back and you examine and you think about it for five seconds, you're like, “Oh my God, this is crazy.” But keep in mind that we talk about what ends up happening is, this knowledge is codified, right? We give this example when we talk about yellow fever, right? And so, part of what happened with yellow fever is that in Philadelphia, when the outbreak happened, a lot of the Black community was asked to stay and nurse the sick and dying, not out of kindness, but out of this idea that like, “well, you Black people don't get yellow fever, you don't get sick, you're immune from it because your body's different.” And so, one of the things we talk about is like, how does an idea like this like take hold, right? And so, when Benjamin Rush is doing his research on yellow fever, what is he doing? He's going back to the writings of other scientists, of other doctors of the period, right? He's looking at what is in the literature, right? And so, what he's finding in the literature is letters, reports, descriptions coming from people who are reinforcing this idea. Like, there was a doctor in South Carolina on a plantation, you can imagine the perspective that he was coming from that was like, “yes, I have observed this. This is something that happens. This is true. I can confirm this.” And so, what ends up happening is that becomes part of the literature, it becomes written in, and then someone who goes and finds, Benjamin Rush's writings is like, “ah, okay, it's coming with all this inherent history and backup. Okay, I add that on to like what I think.” And so, it becomes codified. So, it becomes sort of part of how we understand bodies, how we understand medicine, how we understand, science, and then the questions that you ask about it, those fundamental questions get fewer and further between, right? Because it's so deep that it just becomes something that everybody just “knows” is true, right? And so, that medical, Deidre Cooper has a really good word for it, she calls it the medical super body, right? Like you were saying, it's this inherent, exceptionally, like, physical strength, being able to withstand all of this pain, also is a body that becomes devalued. And that's like the flip side of it. And so, there's so many things. I think we all, anyone who does history, you spend five seconds reading it and you're like, “this is so wild. How did we think this?” But it's also not that hard to see how that stuff became kind of part of our lexicon, right? And almost feels second nature to us. It's got to be true, right? Like, everyone's thought this the whole time.

AT: Okay, I don't have a study to back this up, but I strongly suspect that there are a lot of scientists, particularly those who are privileged, right? Like our cishet, abled white men who grew up middle class or higher. I deeply suspect that they are more difficult to convince when it comes to challenging their own biases because they are scientists and because they think, “well, no, I am a scientist and therefore everything I approach, I'm a very reasonable and logical person. And I only believe things that are evidence-based.” And because they have that view of themselves as a scientist, I would argue that it is more difficult to get them to challenge their own biases and beliefs.

AP: Yeah, it's so interesting. So as we were doing this season, obviously we recorded episodes, we talked to people, but we also went around and did live shows, right, where we would go and do an episode or we go and like talk about an episode and we had programming around this. And it was really interesting to me because people came and they were sharing their thoughts and their experiences. And I remember at one program, we had a guy, he had been a doctor and he'd gone to, I think, Temple Medical School, and and he came to us after the program and he was like, “I can't thank you enough for this.” And he said, “this is not a conversation that

we were having when I was in medical school. This is not part of what we were talking about." And so I think, it's one of those things where I think if we don't build this in as part of the conversation, not as a thing that we do on Black History Month or a thing that we do that's separate from the rest of the conversation we're having about sort of the history of science or the history of medicine, right? If we are not having this conversation as part of that, I think it perpetuates a world where there is a default and you don't have to ask a lot of questions about that default. And I think a lot of people like all across the board don't ask a lot of questions about that default because again, it's so inherent, right? It feels so second nature. It feels so true. Actually, it feels like there must be some evidence out there somewhere. There just has to be or else why would people think this? And so I think honestly what you're saying is, to me, I've just seen a lot of people say, "this is a conversation that we want and need to be having just across the board, full stop.

AT: So I think that the kind of people who are coming to your events, though, are the kind who do want to have those conversations, like the folks who are perfectly happy gazing at a statue of J. Marion Sims fondly, who probably aren't coming to your talks, as a guess. (AP: Yeah) I don't know your demographics, (laughter) but I think what I was sort of getting at was this idea that if you are a marginalized person, you have to be empathetic because you are constantly surrounded by like as a Black woman, you are constantly surrounded by white male narratives. So you grow up having to understand that perspective (AP: Yes) just by default because it's what's everywhere (AP: Yes), because also that's the world that you are trying to exist in and you have to know how to interact with white men. (AP: For sure, for sure.) And so when we're getting into like medical biases, it's not just race, it's not just gender, but they're more likely to dismiss people who are overweight, which (AP: Yeah) about four out of five African American women are considered overweight or obese, but even those metrics are based on white bodies. We're not getting into the BMI. It makes me so mad.

AP, laughing: Oh, yeah, we don't even have the time!

AT: Screw the BMI. That's a whole other episode.

AP: Oh, my God. That's a whole other episode.

AT: But they're more likely to be biased against people who are poor and Black individuals make up over 20% of the population in poverty, even though they're only 13.5% of the total population. So we're getting into all of these different intersections and each one is compounding the fact that medical staff are likely to disregard Black women.

AP: Yeah. Yeah. I think that's absolutely true. I mean, all the women we talk to who are doing work in this particular area of the history of medicine or with the Black maternal death rate, all of them had stories of like going to a doctor and having a certain, like I have stories of going to a doctor and having these experiences, right? And so it's so commonplace. You're right. It's like, you don't even think about it. To me, the trickiest thing about that medical super body kind of thing is that it is one of those things that on the face of it, there's this angle of it that sounds kind of positive, right? Like that's kind of what makes it like tricky and insidious, right? Because it is being presented as like super body, right? Like it's being presented as like, you're so strong and powerful. You don't feel pain, like there's that angle of it, right? That's kind of sold in that way. And I think there are a lot of things about this issue that are insidious in that way, right? And that create a lot of, as you said, there's a lot of intersections and a lot of complications. Like even when we talk about Tuskegee, right? So we did an episode on that. And so now I'm like in the habit of saying of identifying that it's not Tuskegee, the place, right? It's the United States Public Health Service that did this, right? But part of the reason why those men were like sitting ducks and were identified as like being good targets, right? Like what made it he perfect setup was also that they didn't have a lot of access to medical care. Broadly speaking, just like full stop. They were

like, it was a county, in an area that didn't have a ton of money, right? Getting access to medical care was not easy. And so that became sort of like a pathway like, “well, here's some medical care for you. Yeah, it also happens to include this other thing that we're not going to tell you about. Don't worry about it. Don't ask any follow-up questions.” But I think a lot of these things are insidious in that way. That's actually kind of how they slip into belief is that they, feels like something that is not that bad on the face of it to believe is true. And it turns out like, okay, that's obviously not the case, but that's how it slides and it feels fine. Like, oh, you're just stronger. You just don't feel as much pain. That's great.

AT: It would be great - if it was true. (AP: Yeah.) But I think we're also getting into, because you see this in other areas as well, particularly with women. So calling someone a super mom or a strong Black woman, if you are presenting them as inherently stronger and more capable than you are implying that they do not need to be taken care of.

AP: Yes, yes, exactly. And then you don't have to then ask a lot of questions about how the situation got to be where they were forced into this, like into having to adapt to these roles, right? It absolves a lot of responsibility if it's just an inherent thing that happens, right? I feel like, I'm sorry, I'm going like way, way, way back in time. But even when we go back to colonization, right, or when we go back to when we are getting ready to do like the slave trade, right? And from a religious perspective, this idea that you're going to enslave your fellow man, right? Like there's all these conflicts with it, right? But if you are not, if slavery is in the Bible, and you're not really enslaving your fellow man, if they are separate from you in some way, then like, it's fine to do all of that. Like I said, we have a lot of things where we're always kind of adapting something to make it easier so that we don't have to ask a lot of these, frankly, hard and uncomfortable and ugly questions about what's going on, right?

AT: As we're talking about the intersectionality of marginalizations, even being a privileged Black woman isn't enough to protect you. (AP: No.) And so in your podcast, you bring up the story of Serena Williams, which, I think that is one of the most powerful stories that we've had in a long time, (AP: Yeah.) because this is a very famous person. This is someone with high status, high wealth. And for anyone who doesn't know, when Serena Williams gave birth, shortly thereafter, she started experiencing symptoms which she self-diagnosed based on past experience. So she was explicitly telling them, “this is what is going on, I need you to run this exact test, and I need you to give me this exact drug.” And even then, the medical professionals at first weren't willing to believe her. (AP: Yeah.) This is an internationally recognized professional athlete, (AP: Yes!) someone who knows her own body, someone who was telling them exactly - she self-diagnosed, (AP: Yeah!) and they still had to be convinced. And so if someone like Serena Williams with all of her wealth and status, is still having to fight. And this is someone who had the confidence to fight, (AP: Yes!) like someone who, this is the most likely person to survive (AP: Yes!) in this situation as a Black woman. But if she hadn't had the confidence, if she hadn't been feeling well enough, having just given birth, to fight for herself, if she didn't have all of her privileges, that still almost wasn't enough to offset being a Black woman.

AP: Absolutely, absolutely. That's why when we talk about this, one of the things we talk about is like, what's the cost, right? Like there is a cost to having these foundational misbeliefs about society, but like scientific misbeliefs, right? And why does that matter? And it matters because it actually costs people their lives, right? Like one of the things we talked about in the episode is, C-sections is actually one of the things that is a contributing factor, that you are exposing a mother to more risk, right? And some of those risks can be fatal. But what we don't really talk about is that Black women get more C-sections than white women. And that's not because black women have more identifiable risk factors. It's because the way we developed the tool, it's this thing called the V-BAC. So it's vaginal birth after cesarean section. It's not like a physical tool. It's a questionnaire, right? And so if you had a C-section, you want to try and like have a vaginal birth, you answer all

these questions about like, age, weight, height, delivery, history, and whether you are African-American or Hispanic. And so when it tallies up your answers into a score, if you check off that you are African-American or Hispanic, it can significantly lower your score, which means the likelihood of having a successful vaginal delivery was lower. And so they recommend more C-sections. And so, it's one of those, again, we're so far from like J. Marion Sims, like strapping women down to tables and doing horrific experiments, right? Like that's one side of it. And that's a history we need to know and acknowledge. But there are these other more insidious ways that it is like weaved into how we do things, how we practice medicine, how we teach science, how we talk about it, right, that aren't as visible. And because it's not as visible, it just becomes part of our understanding. And all of those things are, yes, absolutely working against, if I go into the delivery room as a Black woman, all those things are pressing up against my ability to safely deliver my child, right? But it's not glaring, right? It's not out there. It's actually almost like the horror of the things that like Sims did is actually almost easier for us to identify. It's easier for us to look at that and go, "well, that's bad and that's wrong." But these other things, these other things are more insidious.

AT: Well, I think it's that question of, you know, hopefully, obviously, no doctor today would ever do that. But *many* doctors are even probably right now, as we speak, doing the things that we're talking about now. And you know, they may not still be sterilizing Black women without their knowledge or consent, although some of them probably did, because that was happening as late as the 1970s.

AP: The 1970s, yes. Oh my god. Yes.

AT: It's like when you find out that like, the kids who integrated schools during the Civil Rights Movement are still alive and not like ancient, like, no, this was during people's lifetimes. This is how recent this is.

AP: Absolutely. My father, he did pass away. So obviously he's not alive now. But it's not like he's that old when he passed away, he was in his 80s. My father was finished with school before Brown versus Board of Education was ever passed. He never attended school in a world where segregation was illegal. And like, it's 2024. I'm not talking about my grandfather, my great-grandfather, my like, grandfather 10 times removed. My father's experience was going to schools in the South that were segregated. So I think you are absolutely right. It is not a thing that happened a long time ago that it's easier to be like, "Oh, well, that's in the past." It is very much part of the here and now.

AT: I think as Americans, we're also less inclined, and again, that's the royal we obviously not me because I'm here talking about it. But there is less willingness in the American education system. I think at basically all levels, especially in Florida, to discuss the things that America has done wrong. So you were talking about never, like you learned about J. Marion Sims, but there was no discussion of what he was actually doing. And that was when you were at a college level. I remember in sixth grade talking about Joseph Mengele and the experiments that he was doing on people. And so sixth grade for anyone who's not aware, I would have been like 12-ish. And talking about these like really awful things that this person was doing. But that was in the context of, "Oh, that was a Nazi and Nazis are bad" for anyone who needs reminding in 2020. (AP: Yes, right.) Nazis are bad. But you know, I don't remember us really digging into the Japanese-American experience of them being taken from their home, their property basically stolen while they were imprisoned for years. I don't remember us talking about the fact that like 1,600 Nazi scientists, the ones who were committing those atrocities, got a free pass to come here because we were so obsessed with Russia and the space race that we gave, again, men who committed atrocities, who committed war crimes, who tortured and killed people, we gave them a free pass because they were scientists. I'm looking at you, Wernher von Braun. I don't care that you got us to the moon. How many people died in the London Blitz? And anybody who doesn't get those references is welcome to go Google them. We're not talking, that's not what this episode is about. But we don't,

we're less comfortable as Americans acknowledging the awful things that Americans have done, especially at a societal level.

AP: Right. Right. And listen, at the end of the day, that's a really like human thing, right? It is, it's a very human thing that, on the podcast, we're always talking about nuance and about, lots of things can all be true at once, right? And I think that's also part of the challenge is that like, we need to have conversations about about history, where lots of things can all be true at once. And that doesn't preclude us talking about it. I'll use yellow fever again as an example, you can say Benjamin Rush was like a founding father, as we say in the podcast episode, he was like the medical, scientific mind of the day in the city of Philadelphia, right? He was leading the College of Physicians, like he's doing all these things, right? And those can be really good things. He was also an abolitionist, not for nothing. So lots of things can be true all at once. You can do all of these things that are good for society and ultimately and maybe even in your heart have a good idea and a good hope and also hold some of these really dangerous, harmful, terrible beliefs, right? And be part of building a system that perpetuates those beliefs. All those things can be can be true at the same time. When we talk about the drug BiDil, because it became the first race-specific drug in the United States, which sounds like a good thing. It was supposed to treat high blood pressure in African-Americans and the FDA had approved this in like 2005. And it was like a big deal. And again, it's one of those things that sounded really good. But it had this consequence of perpetuating this myth that race is like a biological construct, that like race is a real thing. And there were plenty of Black doctors that were like involved in that process of getting, of pushing for BiDil to be approved and to be distributed in their communities, right? Like not because they were bad people or because they didn't know anything, but because they were trying to get medical care for the people who were around them, right? And so I think we have to be willing to grapple with all of these topics in ways that allow us to both discuss, yes, sure. Here's a thing, that was like, gynecology right? We understand right gynecology is history, like I got to go to my gynecologist, we all have to go to our gynecologist like it's part of the process. When we talk about this, we don't have to talk about it and say that gynecology is an inherent evil in the world. And now we have to give up Pap smears, right? Like it doesn't have to be an either or proposition. It can be both, like ultimately, yes, this was part of developing medical care for women medical care that like we still depend on. And also the ways in which that was developed had challenges to it and things that happened during it that were abhorrent that we would not want to repeat ,that inherent in that system that we have developed are some beliefs that we need to let go of, are people that were harmed in the process like we got to be able to talk about both, like it just has to be how we have conversations.

AT: Well, for anyone who's feeling a little iffy about their pap smear, first off, I would dispute that J. Marion Sims invented the first modern speculum because there was a midwife named Madam Boivin, which I probably mispronounced but go with it. (AP: Yes!) She created one when J. Marion Sims would have been like 12. (AP: Yes.) So yeah, we can we can knock that one off. And also, yes, Pap smear was developed by a Greek doctor whose name is much longer than “pap” but we’re Americans and we can't be bothered with that. And he actually, as far as I know this was completely consensual, his wife submitted herself to daily Pap smears for years so that he could develop the technology and she got her friends to do it as well. And so for anyone who's like, looking at this as an excuse not to go get their pap smear. Sorry. That one’s actually pretty legit.

AP: It's not it's also though. It's also it's interesting right that, I mean, again, I know we all have perspectives, right? So there's reason why we tell this story this way. But I think it's interesting that the way you tell that story is you are talking about his wife as being part of that process, right? But if we were talking about like who invented the Pap smear, chances are we probably don't name her, right? We probably don't, like the museum I work for, the Science History Institute. One of the things we did in our museum is like we had gone through and were refreshing all of our like reader rails, right? Like when you walk into a museum and you read those little descriptions of the things that's going on. Because one of the things we wanted to do was to broaden that

perspective of like who is involved in science and to tell stories about science in ways that were not just, “this man did this thing by himself and it was amazing. Goodbye,” right? But to say this man did this thing and he worked in this lab with all of these other techs. And also here's his wife who was also researching at the time, who was also like helping edit his notes and was going through the process and you know what I mean? Like to tell that like bigger like picture, because I think that is also how we end up sort of, what do you say? Like your history, if you don't examine it, you're doomed to repeat it. And to me, it's not just like, if you don't learn it, it is also if you don't talk about the full context, if you don't talk about the many, many perspectives and the contributions in it, right? That's when we end up with a problem. So, it's a process, but it's hard, right? It's really, really hard. Because as we both pointed out, these are not the ways that we learned this information, right? It's difficult, right? So, it's not to say that we can't do it. We definitely can, but it's definitely, it's not the way our system is set up to teach us information.

AT: And just to go back to the blood pressure drugs specifically for African-Americans. (AP: Yeah.) You said something interesting in the podcast that really stuck with me. It's not the race, it's the racism. It is not an innate biological difference. It is all of these environmental factors. So when we're talking about Black people being more likely to develop diabetes, heart disease, etc., we're looking at here's all the different factors (AP:Yes.) that are at play that, apart from making it difficult to maintain a healthy lifestyle, but also just the impact of institutionalized bias. (AP: Yeah. Absolutely.) The impact of that stress has on your body over time. It makes you less healthy. (AP: Yeah.) Whether we're talking about sexism, racism, ableism, and God help you if you're intersectional.

AP: Oh, gosh. Yeah. Exactly. Exactly. We want things to fit in a box, right? We want things to fit in a box. We want them to be in a way that we want them to be understandable. We want them to be neat. We want them to kind of make sense. We don't want to like hold all these sort of conflicting ideas in our head at once. And so I got to say, it's much easier just to say, oh, there's just an inherent biological difference. Black people just get these diseases at different rates. And we just need to find a medical treatment, a pill, or something that we can do to fix that instead of saying like, well, actually, we need to talk about like income inequality and police brutality, and all of these other issues that are infinitely more complicated, right? And involve so many other things that we have to deal with. It is for sure, right? Like that's, that's why it's actually, it's the racism, not the race is actually, it's harder. That's a harder problem to solve as far as we're concerned, because you had to deal with a lot of things if you want to solve that.

AT: I think it's not just the complexity, which obviously that's, oh my God, this is such a big problem. But it's also if it's the racism, then you're triggering my white guilt. And that means that I might actually have to do something, because if I can't just blame this on, oh, that's just biology, there's nothing we can do about it, (AP: Right.) then that removes the responsibility on all the white folks, to, you know, do something to fix the racism besides electing a Black president, which, you know, we did. So racism's over, right?

AP: Right. Right. I mean, and I think we saw very much this was not the case. When we started working on this season, the pandemic had hit, George Floyd had happened, like there was all these things that were sort of screaming that like, Hey, this problem is not, so I know we've been acting like this problem is solved. This problem is not solved. And so like, it's very much like the universe we were living in when we were working on it. There's something you said earlier about the burden of like, when you are a person of color, right, for me as a Black woman, right, like, there is a level of empathy that you have to have about the world, right? Because the world is fundamentally built around stories and experiences, around the default that doesn't include you, right? And, a lot of working on this season, I know for me was like, really, really tough. Because it is exhausting to sort of exist in that space, right? Like, that is a lot of work, and to recognize, right? It's one thing to sort of have a feeling about existing in that space. It's a whole other thing to have it like be held out to you. And there

were definitely times where I would step back and be like, okay, I need to like not think about this for like, at least a week. I need to just like, not have this in my mind for a week. But one of the other things we tried to do to sort of process that was to also find spaces where people are doing the work to try and change it, right? Because that's always the case. There are always people who are pushing against that narrative. There were people, in the past who were doing it, there are people now, and to talk about like what actual solutions are out there that are within our grasp, right? And I think like that also helped give us some hope. So when we did our episode, the mothers of gynecology, we purposely wanted to talk to women, and talk to women who were doing this work and doing this advocacy, who were going to work as doulas, who were doing the research, who were in the medical schools, who were going to medical schools and trying to do these trainings and have these conversations, because I think it's exhausting to feel helpless, but we are not helpless. Like we made that - we, the royal we, right? Like society, like we made this problem. We can unmake this problem. We have that ability.

AT: So one of the things that we've touched on a couple of times is that critical thinking that, it sounds like we are getting more critical when we're looking at the tools that we're using. So you mentioned V-BAC, (AP: Yeah.) I mentioned to the BMI. We also know that algorithms are so biased, they can't even recognize a dark-skinned woman's face, but we have algorithms in hospitals that are determining triage. So they are prioritizing which patients get treated sooner. And we've established that those are racist and sexist as well. (AP: Yep) But also something that you talk about is that doctors may not try as hard if they are predisposed to think that a positive outcome is less likely. So if these tests, which they see as unbiased, if something that they think is accurate and unbiased is telling them, “Oh, this isn't going to end well,” (AP: Yeah.) then that automatically predisposes them to think that this isn't going to end well. And that's not a good mindset for your doctor to go into your treatment having.

AP: No, absolutely not. Absolutely not. And that's why, when we talk about like, are there more of Black doctors? Are there more Black midwives? You know, all of those things being part of the process, like we're not just talking about like diversity because it looks good to have diversity. We are talking about diversity is actually part of saving people's lives, right? It is part of like expanding, you need those other perspectives in the room. Because that is saving people's lives. And AI is also a whole other episode. But to your point, when we talk about AI, okay, yes, it is stealing work from artists. It's like doing all of these other things. But that is also part and parcel of the issue, is that like the biases that are inherent in us that are inherent in the system that we are using to teach the AI, are like being spit back out at us. And the crazy thing is, much like that medical knowledge was being codified across the years until it just became so true that it became this like truth that came down from on high and not from us. We sort of begin to act like, well, this is just what the AI is giving us. It's outside of our control. The AI just handed this to us. And it's like, well, but we again, we made this system, we created it, we are feeding it and we are feeding it our biases, we are feeding it our blind spots, and so, yeah, I'm so glad you brought that up. Because oftentimes we don't talk about it. And when we do an episode, we're like, there's only so much we can do in a single episode, like we cannot, like this has gone on long enough. And so I am, I'm so glad you brought it up.

AT: But it's not just AI, it's like any tool (AP: Yes.) that you think about, (AP: Yes.) how was this created? Who was this created by? And what are the data sets (AP: Yes.) that were used? Because yes, I'm really trying hard not to complain about the BMI, but I just hate it so much. (AP: Yes.) But any situation, any situation, you're using a limited, non-diverse data set, (AP: Yeah.) you’re gonna get, crap in crap out.

AP: Yes, you sent me this link to this article, the Unequal Burden of Early Dementia on Black Americans and How We Can Change It. And one of the things it talks about is how Black people have a higher hurdle in diagnosis and treatment of like frontotemporal dementia. And that they are often, I mean, it's a repeat of all the

things that we've just talked about. So my father had dementia. And then he passed away a few years ago. And one of the things that was really sort of shocking to me going through that process was taking him to his doctor, like when we saw signs and being like, something is very wrong here. Likesomething is super wrong. He can tell me something that happened 20 years ago. But like if I ask him what he had for breakfast, like he cannot articulate that to me. And I remember going to the doctor and and the doctor sort of being like, “well, your mother just passed away. So, maybe he's just like going through some grief. Like, I don't think this is something really to panic about.” It was presented as like a mental health issue, which again, there's nothing wrong with that. But it was like presented as like, well, maybe he's depressed or maybe he's just sad or like maybe he has some other like mental impairment. And so, when he did end up in the hospital, because like he had seizure and when the doctors were like, “so the dementia that your father has.” We were like, “the what? I'm sorry, the what? He what?” And so when I was reading this article, I was like thinking about that experience and I mean, it's not like I had a lot of other options, not like we had a lot of other options. But it is heartening to me to know that we are at least beginning to identify these things, that we are at least beginning to write about them and speak about them. So like, yeah, maybe it doesn't make a difference for like me, that time has come and gone, right? But maybe as we continue to have these conversations, we continue for people who are coming down the line, that that changes something for them. Imagine a world where we don't just say, not to again hate on the BMI, because we'd need a whole episode for that. But imagine we live in a world where we don't just say like, well, that's the end-all be-all, we don't ask any follow-up questions, right? Like, imagine we don't live in a world where we say like, “well, this test that was developed, honestly not looking at Black bodies in any way, shape or form and has our biases already built into it, we're not going to ask any further questions about it.” There's a place where we live where we recognize all of that. And so it’s one of those things are like, reading this article that you sent me and being like, “ah, this is what…” You're like simultaneously again, like you're enraged and you're exhausted and you're sad, but also like, oh, the fact that I'm reading this actually is a good thing. The fact that this is an article is a good thing because it means that like, we are aware of it and we are trying to do something about it.

AT: Well, and I think that we're getting into the importance of research as validation, because any marginalized group, whether that's poor, whether that's disabled, whether that's women, whether it's non-white people, all marginalized people are taught to expect less and taught not to stand up for themselves. And particularly when we're getting into medical trauma, because a lot of times that's what it is when you have people being gaslit into saying you don't know what's going on with your own body or in your case, you don't know what's going on with your own father and the “oh, it's all in his head” diagnosis was frankly triggering, I think, for me as a woman because you get that so much (AP: Yeah.) or, you know, if you're a fat person, they tell you to just go lose weight. Like, I have a genetic predisposition to high cholesterol. And they told me, you know, eat less red meat. Oh, I don't, I eat barely any. Don't smoke. Don't drink. I already don't do either of those things like ever. Okay, lose weight. (AP: Yeah.) And I'm like, okay, what? Because if you can tell me specifically what kind of exercise would be good for this, then maybe I'd believe you. But just telling me to go lose weight is not helpful. Like, there's no apparent connection there. You're drawing causation instead of correlation. (AP: Yeah, yeah.) And so just having research like this to not only be aware that this isn't just you, but also to have that validation, to encourage you to stand up for yourself, like be like Serena Williams. (AP: Yeah.) And you shouldn't have to be like Serena Williams. (AP: Yeah!) But having those tools from both an emotional and a facts perspective where you can point at this and say, I have this knowledge and I have science to back me up. So you have to listen to me.

AP: Yeah, I do, we want to create a world where like, this doesn't even have to be the case. It's interesting because that's, when we were working on the Mothers of Gynecology episode, doulas, having an advocate for you in the room with something that like came up over and over again of like how important that is, right? Because, in the absence of a system that's going to do that for you, we've got to build like something, someone

else then needs to show up and help with that process, you know, but even that, it's one of those things where to start thinking about solutions, we have to be able to articulate that we accept that this is a problem. And so, that is also why I think we have these conversations over and over again, we talk about people, we bring up these stories, we keep trying to build on them and repeat them. Because if we don't accept, we have to accept that it is an issue that we need to grapple with, or else even knowing all those solutions doesn't really matter much because we're not gonna do anything with it. And so, we talked about this a little bit, about like this idea of having awareness of the history of biases and that like legacy, right, like knowing that that is part of your work. And that's not just for knowledge, but that's also, I mean, yes, it's for knowledge, but it's not just because it's important for you to know, like check these facts off of a list. It's also because I think knowing that bias is part of our work, right, knowing that bias is part of science, science is not unbiased. I know we love to say that, we love to think that, but it's science is not without bias. Science is done by people, we people bring all of our all of our messiness, we are bringing that to the field. So like science does not lack bias, right? It just it doesn't. So it's not unbiased. You know, history is not, we again, same thing with history, we talk about like, well, history is just like, if you just get to the facts of what happened, there's one truth, and that's not biased. But it's like, well, no, like history has bias. Like, who's telling the story, whose perspective is it from, who's being highlighted, who's sort of being downplayed, right? Like, who were we talking about, the guy who did the Pap smear, are we talking about his wife, who also was there literally in the trenches beside him, right, getting those Pap smears every single day, right? Like, the idea that bias is something that is separate from these fields, I think is so, so important for us to understand, that like, bias is part of those fields, that it's in the water. And so we have to find ways to acknowledge it, and then to try not to be caught up in it. But we can't do that if we're pretending that it doesn't exist, like, has to exist.

AT: In terms of what needs to happen at a societal level, you know, we need more Black women doctors and midwives, which is not to say that like, Black doctors can't have their own biases, whether that's internalized racism, sexism, classism, etc. (AP: Right.) But just having those different perspectives involved is always going to improve your outcomes. I just saw a study like just in the last couple of weeks that women treated by female doctors in the hospital have a greater chance of surviving. So they're less likely to die prematurely.
And that's not even the first time I've seen something like that.

AP: I was going to say, I was like, that is actually not the first time I have seen a statistic or heard of a study like that.

AT: And there was also something that I believe you mentioned on the podcast about cultural sensitivity training. So in addition to the critical thinking about innate biases in people and the tools that they're using, but also actually going through cultural sensitivity training to teach them how to empathize with people, which as we discussed, the more privilege you have, the less you are forced to empathize. (AP: Yeah.) So pushing that, you know, no, no, you need to learn empathy.

AP: So Deirdre Cooper Owens, who I mentioned, we had interviewed for this story. One of the things she was talking to us about is how she like now goes on medical rounds at various schools, including maybe ironically, Jefferson University Hospital, which was James Marion Sims's alma mater, right? And talks about this history and talks about these perspectives and is trying to help that become part of the conversation and part of the learning. And so like, you know, yes, it is, I think it's what you say, it's a "yes and" situation, like, yes, that and also this other part. And I'm always so excited when I hear like, those kinds of things are happening, because I'm like, "ah, yes, okay, we're making some progress."

AT: Yeah, there was an interesting, so I recently did an episode about Riva Lehrer, who's an artist and disability activist (AP: Yes.) and does a lot with like medical ethics training. She talks about this exercise that she does

with med students at, I believe it's Northwestern, where it's a combination of artistry. So there's a disability that they're working on. And not only do they really study like the physical aspects of that, but then they present a case study about a person with that condition. And then they are only allowed to, I believe, less than a third of it is allowed to be about the disability. The rest of it has to be about that person as a person. (AP: Yes.) So she is basically teaching them to look at disabled people as people, not just as their disability.

AP: Oh, I love that. Oh, I love it. It's so funny, because like, my background is history. And like, I did not start out like, the history of science was like a thing that was far away from me. And was like, never my interest. And it's interesting to me though, how many different ways that like science itself overlaps with art, overlaps with things that we call the humanities, right? Like, those things all inform each other. And again, we kind of act like they should be in these separate boxes. But really, I feel like one of the things you're like driving home for me, and I think one of the things we try to talk about is like, they actually don't need to be in these separate boxes. They actually should be all in one box, because they can inform each other. And, this is definitely the kind of project where I'm like, yes, this is like these are, this is like science and humanities, like informing each other. And like, ultimately, like making the world a better place, giving people, giving people broader perspectives, wider perspectives, like I'm just like, I'm so excited about that. This I guess, apparently, what I nerd out about at all times.

AT: Well, and I do just want to note that earlier, when I was talking about empowering patients to be their own advocates, they shouldn't have to, right? And I think that's the biggest issue with when we're talking about solutions, the responsibility really needs to be on the medical professionals and the establishments and the institutions, not the patient. It's not the patient's responsibility to educate the doctor, to have to fight for themselves. We do have to, which sucks, but we shouldn't have to. And so when we're looking at, you know, cultural sensitivity training, more diversity among professionals, critical thinking about biases and their legacy, I think it really comes down to also less judgment and more listening and the patient needs to be able to trust their medical professionals, which you talked about how midwives and doulas, they are doing this. They have been doing this. They are that person who is listening and is therefore trusted.

AP: Yeah, for sure. I mean, that we want that to become part of the practice. I think you're absolutely, absolutely right. We sort of laughed and said, like, “oh, the royal we,” and like, we, the individual are not going to like, you know, fix all these things. But also like, we can be part of educating ourselves. We can be part of having conversations with our friends and our neighbors and our family members and correcting and calling out things that are wrong when we see them, unlearning some of those things that we feel are true and are fact, right? Like when our default understanding of like, you know, “well, women are, they kind of like get dramatic about their symptoms, right? Like it's just part of being a woman. It's just you get a little dramatic” and as long as that process of sort of unlearning that as a default as like, “oh, we should like hear women and believe them. And accept that like, things they are saying are coming with some level of truth” and like, that we don't write, like unlearning that process. I think, as you're saying, cultural sensitivity, but also like that can do so much for us. That is not just about like vibes or like being politically correct or like doing the nice thing, right? That like, if we unlearn those beliefs, we are also then changing the way we approach medicine, we will change the way we approach scientific study, we will change the way, we will look at a study that is done to develop a medical tool, right? A diagnostic tool, let's say that we're using in hospitals, right, to diagnose people with things. And we will ask, okay, did this study include women? Did the study include, Black people, Black women? Did this include Asian women and Hispanic women? Like, we will ask those questions of it upfront as we are developing it because our default will not be, “we don't have to think about any of those things.” Like, that makes a huge difference.

AT: You can find more about the Science History Institute's Innate project at sciencehistory.org/innate

Join us next time on the Infinite Women podcast and remember, well-behaved women rarely make history.