

Episode 3

PhDivas, with Dr Liz Wayne and Dr Xine Yao

Okka: Welcome to Ultimatum Orangutan Radio. I'm Dr Khairani Barokka and this podcast is an opportunity to highlight people that I really admire, that are doing wonderful things in their various spaces, and are pushing against the structures and boundaries and challenges that we may face as women of colour in academia in various fields.

So, it is my utmost pleasure and honour to introduce to you PhDivas Dr Liz Wayne and Dr Xine Yao, who both host the wonderful PhDivas podcast. Yay! I'm a long-time listener, first-time caller, as I told Liz earlier, or maybe second time, because Xine has interviewed me for PhDivas, so maybe second time.

Xine: Yes. A fantastic episode about disability. You should check it out.

Liz: Great to put a face to the pod episode

Okka: Yeah. So basically, this podcast is, in a very meta way, wanting to highlight the efforts that you as podcasters do to sort of create a safe space and a space for women of colour's voices to be heard more, parallel to academia, outside of it. How would you describe where you place PhDivas in relation to your research? Sorry, Xine, what would you say?

Xine: Me. I think that's a good question, because on the one hand until we started Patreon just last year, we were just doing it for free for the past several years, and other than that it's been fairly independent just on the financial side. So because of that, I think that allows us to be more free of our institutions.

And so personally while I think PhDivas is very much informed by my work in various ways which is very motivated by queer and feminist of colour theory, at the same time I think that because we're a little bit outside the institution it allows us to do different kinds of work, because we're not really beholden to anyone – except for

each other and the community, that is, but not institutionally, at least.

Okka: Liz, do you want to add anything to that?

Liz: Yeah. I think that the juxtaposition is really great, and I also think that what we're doing subtly is playing around with the idea of what is academic and what is not, and kind of demanding that people acknowledge what a contribution like this looks like. And very meta, as you would say.

Very much, as Xine was saying, a juxtaposition where we're outside the institution so we can kind of represent other communities, have other kind of interests, but also to say that this is what public scholarship looks like, which is the very thing that they ask us to do as a part of our job or a part of our kind of tenure package, or the things that actually do keep the other parts of our scholarship and our research platform afloat, that the academic engine very much demands.

Okka: Excellent, thank you. So I was wondering if you could go one by one – maybe Liz, you first, and then Xine – sort of describing your research, where you are geographically, mentally, in the past – I know that you've discussed this on your own podcast, you know, about the trials of these past one-and-a-half years or so.

But if you could sort of describe for listeners where you house yourself, where your intellectual home is, where you're located right now, what you do.

Liz: Where I house myself. Where is my house? So I'm going to get my European geography all mixed up, but I want to say I'm kind of, like, Switzerland, or what's that one place? I should really know this. Xine, correct me.

I rely on Xine for all things humanities, even though that's not really humanities. But whatever is the neutral area where you border all the different countries and you can go to this one city or this one country to be neutral, to have the conversations and to do the things.

Xine: Except for the part about storing Nazi gold.

Liz: OK. See, I was not going to connect my home to Nazis, but – thank you, Xine. Thank you for the à propos – for the Nazi reference, so now it's not going to work.

Xine: Sorry.

Liz: No, it's fine. If you didn't say it, someone else would have, right? That's what social platforms do. But I guess I would say that I have a home in biomedical engineering and in immunology and in material science research and in all of those spaces. So I look at the ways that we can use immune cells, but we can kind of combine them with biomaterials to moderate immune cell behaviour in disease.

So we can take the idea that we know what immune cells do or inflammation and how inflammation contributes to disease. Inflammation is effectively the kind of large sum response of your immune system working, right? And so if you can actually use materials to modulate that immune response, you then have this other lever for modulating disease, modulating drug delivery.

And so I look at that as a delivery platform, which is to say that the immune cells that I look at migrate to cancer, they migrate in diabetes, they are very impactful in SARS-CoV-2, COVID-19 disease. And so how does the inflammation actually inform the disease, and how do we use biomaterials to then modulate that relationship? So it requires me to know a little bit about everything.

Okka: Ah, hence the Switzerland analogy.

Liz: Yeah, because when you're interdisciplinary, you actually tend to not ever fit in one space, because the other people will tell you you're too soft and the other ones will tell you you're too hard. But the reality is the work you do is just right for actually getting communication and progress done.

So maybe that's not Switzerland, but actually if you can tell me what that actual nation or country or space is, that's where I want to live when I retire.

Okka: [Laughs] Love this manifesto.

Liz: As long as it doesn't have Nazi gold associated with it, so I guess I have to run this by Xine in, like, twenty, thirty years.

Okka: Yeah. I also heard Switzerland has extremely tough border control and policies towards migrants, which is a whole other thing, but anyway.

Liz: So clearly my avenue –

Xine: Well, it's definitely Islamophobic, but...

Liz: All right. Well...

Okka: So Xine, if you could introduce yourself and where you think of yourself as being housed, academically, institutionally and where Xine lives.

Xine: So on the most basic level, I like to say that I came from the colonies to the former heart of empire, which is to say that I'm from the settler colonial nation of Canada and now in London. And institutionally I work at University College London, which is my employer obviously, but also it's kind of infamous because it is also associated with Francis Galton, who was Charles Darwin's cousin and the person who coined the term 'eugenics'.

So, this is, I think, an important thing to acknowledge as part of the knowledge production that I'm a part of and a part of sort of legacies that I'm picking up, even though I'm someone who's committed to intersectional anti-racist work generally. And so, I guess my primary disciplinary home is literary studies because I'm in English department.

But what has been so important for me as a literary studies scholar is looking at other fields that initially were, like, history of science, that seem to very clearly intersect with my interest in 19th-century American literature. But since then for me it has been reading and looking to Black Studies, Indigenous Studies, Asian Diasporic Studies, particularly feminist and queer of colour critique, and bringing together all these different discourses of these different intellectual traditions of dissent and critique in ways that I think are dynamic to the unique situatedness of each of them, but also seeing their possible convergences, even though I don't want to conflate them.

So it's all a fancy way of saying that I have to also read a lot of things and worry about being adequate in all of them, but also realising that mastery itself is sort of a colonial mentality. And in terms of a concrete way that my research manifests is that my first book is supposed to be coming out in October 2021 – *Disaffected: The Cultural Politics of Unfeeling in 19th-Century America*.

And in it I basically theorise racialised, queer, gendered forms of unfeeling as a type of resistance to the way that we think about social change, which often depends

upon this idea that literature plays a role for the right type of feelings, for the right type of action. Instead what happens when we think about unfeeling as a tactic from below as opposed to simply the prerogative of people in power?

What if a minoritised people didn't have to simply prove that they're sympathetic to the people in power? What if we end up withholding from that emotional labour?

Okka: I can't wait to read that book.

Liz: Yeah, sounds awesome.

Okka: And if you will – OK. Can I run by you sort of a summary of what I think that might relate to that might be completely off? Is your book allowing someone like me – a brown woman in the UK – to really not care about the Brontës?

Xine: Yes. I think that's exactly the way that I sort of think about it. The coda of my book actually turns explicitly to sort of acknowledge the people who kept me alive during the writing of it – friends like Liz, because it was just a really hard time finishing the dissertation and then going to the point of the book, on my health in many ways.

And the coda is a way of reflecting on – up until that point I'm doing a very scholarly project that's very in dialogue with scholarship, literature, primary archives, et cetera, et cetera. But at the end I sort of think about its implications for me and then all the queer and other women of colour scholars who helped support me during this time, and how it really emerges from all the conversations I've had with so many different friends about what does it mean to be able to say "I don't care" when you're the one who always has to be asking those in power to care.

And what does it mean to reserve for yourself that you don't have to perform your pain, perform your emotion in order for that kind of recognition? And the way that, "I don't care" can also become a collective, "We don't care," and the way that I sort of see it is there's this possibility of a type of alternative structure feeling or counter-intimacy, as I call it. Which often can manifest in things like, I don't know, the group WhatsApp or all these different backchannels, as during when other types of meetings or conferences are going on but then you find other minoritised people and you have this sort of backchannel community that is this sort of ultimate space that allows you to sort of cope with things. And I think PhDivas also operates as one such space.

Okka: So obviously as I am a listener, I know a bit more about your lives and how you've supported each other and how your work intersects. But for people who don't know, Liz, would you like to maybe say whether Xine's work over the years has influenced how you think about science and STEM? And conversely, Xine, whether what Liz has taught you about science has influenced how you think about the history of science in your own research?

Liz: I am terrified to hear what Xine's going to say about what I have done. But I will say that in our first season, we actually – for people who might want to look back, there is an episode, or two episodes, a series of them, where I took Xine into my lab and I kind of showed her, or I attempted to show her what I was doing.

Xine: [Laughs].

Liz: There's a funny story behind that as well. I was trying to do a real – oh, God. Maybe I shouldn't say that. I was doing some live animal – live imaging experiments, and she got to see what that process looks like [laughs], live brain and all. And Xine also then took me to see how she does research, which was in that case to go to the Modern Museum and to see the collection of documents, and thinking about those things.

So I think that it did have definite multiple-tiered levels of effect here, where the first I think would be more like foundational – like, what is your lifestyle actually like? What is the research like? We also did an episode, probably in that first season, that was just about, like, what is information? Like, how do you know that data is real?

Because I didn't have a real conceptual idea, or any idea, really, about how humanities people knew what was true or not true. How do you define things? And then it kind of felt like they could say whatever you want. You can do whatever you want. You can make any paper you want. You can put any citation and put whatever.

But science – science is where you have to have a positive control and negative control and a T test and statistical significance, and then you can say, "This is 25.2 percent higher," you know? You can do all those kind of logical reasons, like, well, how do they do it? I'm like, what's a close read? Because that sounds like I'm just mad at my boyfriend and now we're reading the text messages to go, "What does – what does it mean when there's, like, three dots before the question mark?," you know?

So, I think thinking about those things and having a more realistic understanding of what it means, that you can't just say whatever you want. That there are foundations,

that there are theories and forms of thought and that there's just as much pedagogy in the humanities as there are in the sciences. So, I think that basic-level understanding was, like, the first thing.

Another thing was also, like, how precarious certain things in the STEMs might be. So, if walking through the library, like, "Oh, that cost a million dollars," you know? But that's where the money's going – it's not going to the PhD students, right? It's not as if we're kind of making bank, or that we're not afraid of whether we're going to get funded the next semester, how we're going to get funded.

And so, there's different ways in which the academy takes advantage of both sides, I think, humanities and STEM, that wasn't clear until we kind of had a conversation, "Wait – oh, that's not how it works for you?" Or, like, "This is what I thought," kind of thing, that I think is really helpful for any type of, like, person, I think. And then research-wise, just thinking about writing and the skill of writing, especially now as faculty where that's my job.

My job is to mentor, but I also have to bring in money, which means I have to write compellingly and concisely. And it is hard [laughs] to do that, and I think a lot of that question and think about your argument structure and things like that are things that have expanded my thought. Like, "Oh, wait – she does it all the time."

Okka: Xine, your turn. And thank you, Liz. That description of a close read was unexpected, came out of nowhere for me and literally brought tears to my eyes, because I was, like, "Wow." In another meta way that was a read of our close read.

Liz: Yeah, that was my first thought – like, so you just read text really, like, deliberately, and then you compare that text to another text and then another set and then not just one text to one text, but then you look at a whole other genre of text and then compare those.

So, it's like definitely the whole – you know, my only approximation to that was, like, "Hmm, this is how I've read some messages before on Facebook, I feel like." I'm looking at Facebook and Twitter and the Instagram to see, like, what's happening.

Okka: Exactly. You need all the information available. It is quite ridiculous when you think about how we operate in the humanities.

Liz: And then you made, like, a long essay, and then you're like, "But that's valid." Anyway.

Okka: I remember somebody introduced me to Jack Halberstam's concept of 'scavenger methodology,' quote, unquote, and I was like, "Oh, that's literally just 'oh, I've found something. I kinda rummaged around somewhere – I'm gonna pull that into my article.'" That's kind of how I operate. But I just thought, "Yeah, scavenger methodology – what a fancy way for 'I make things up as I go along'", you know?

Xine, would you like to –

Xine: I think Liz did such a beautiful job of recapping the first collaborations that we've had. But do I still have things to say? Yes, definitely.

Okka: Of course! That's what the podcast is based on.

Xine: Well, it's still nice to be so loquacious. Yeah, I feel like what's been so helpful is not just learning more about the particular, like, epistemic and disciplinary differences in our thinking and our practices, but really learning about the material conditions and labour conditions that we're working under in the university, which does try to use those disciplinary differences as a way to sort of divide us from each other, in terms of forms of collaboration intellectually, but also in terms of forms of organising that.

These issues of precarity are ones that impact our disciplines differently, but together we have to search for collective solutions, and I think that's been a really important thing for me to learn generally. More directly, I think that my friendship with Liz is something that has inspired my work, but in particular there's a chapter of my book which I feel is in spirit sort of dedicated to Liz. That's embarrassing to say.

Liz: I did not know this beforehand, by the way.

Xine: Well, I think I've alluded to it before.

Okka: Exclusive.

Liz: OK. Alluding and saying, "This is about you" is different.

Xine: You have to close-read it. You have to close-read it.

Okka: Uh-huh. Bam!

Liz: Right.

Xine: Yeah. Like, I just realised that because part of my work in my book had to do with thinking about these Black re-appropriations of science in ways that are liberatory and I realise that I really need to have one thinking about Black women in STEM, basically.

And then I ended up adding this whole other chapter to my book, and things like the way that cancer kept on reappearing as a metaphor in 'Iola Leroy,' which is this novel by Frances Ellen Watkins Harper, who is a really amazing Black woman abolitionist, activist for women's rights generally, that I couldn't just use it as a passing metaphor but actually what does it mean to actually take seriously these Black female characters as people who could become doctors themselves?

Who are not just thinking about cancer as metaphor but thinking about cancer in relation to anti-Blackness in a sort of systemic way. So that's a little bit of how that has sort of helped me to perceive different aspects of a particular novel, but also then to sort of consider all these other facets of the way that our positioning in terms of gendered, racial and [also displaced specificity? 00:20:46] allow us to intervene in terms of the types of work we're able to do for collective liberation.

Okka: Yeah. I'm thinking about immunity and inflammation too as really interesting metaphors for stuff that goes on in the humanities, or thinking about what body we're looking at, right? Like the body of the state in terms of immunity from 'the other,' for instance, and things like that. I was wondering also –

Liz: Oh, wait. Can I add to what Xine said?

Okka: Yeah, of course.

Liz: That I think the theme here, the idea of activism and labour – so I think that actually is a theme that we maybe have both been evolving in, and as we think about how labour is carried out in the institution and the academy and how that might vary across disciplines, and getting towards this point of thinking about how you can both relate to people across those boundaries.

Because I think historically there's just been this kind of divide, but then how that kind of bridging actually is very helpful for actually achieving any type of success at the university level in terms of labour and activism. And I think one thing that I would add to that is we've done some podcast episodes about can you be an activist and an academic, and being able to speak about that and what are the differences, what does that mean?

And I think what's also come across there is what does that mean for a humanist – can I say 'humanist'?

Xine: Not quite – yeah. Humanities scholar maybe a bit more accurately, because I don't know [unintelligible 00:22:27].

Liz: See, I knew I could say it, so I was asking if it was appropriate. And so can a humanities scholar – how a humanities scholar might approach activism versus how a STEM person might approach activism, and I think there's different messages to pull out of them for each group that I think are influenced by a sense of understanding of what the labour is actually like and what the challenges are, uniquely, for each group.

So, a tangible example of this, I would argue, is that it has been something that I would actually now just kind of give when I'm talking to STEM people. A lot of times some people tend to feel guilty, because things really affect them. Well, you can think of, like, the Black Lives Matter protests or anything that's very viscerally happening, and you think, "OK – I wanna be out there and I wanna be physically doing things and kind of being on the frontlines," and you feel guilty for not doing that.

On the other hand, so much of what happens in science is like you have to be in the room, so in the lab. You have to be present and so some of the structures of the ways in which you aren't there makes people feel like they're not being activists or they're not actually advocating for – as an example, Black Lives Matter, when there are also real ways where, like, when you're the only person, the only Black person there, and your presence or your absence really subtly actively and passively does things, or like, your presence – you can invoke violence without even asking for it.

Is activism – and helping people understand, like, what activism might mean in one context versus another, and really being able to actually think through that and, like, strategise, but also understand, right? So if there's something happening on campus, like I'm thinking about this moment where there was, like, a sit-in somewhere, and I would walk by it and I felt guilty for not going, but then I also knew, like, "I gotta go to

lab and I have a twelve-hour experiment.”

Or, like, “I need to go do these other things.” That, like, sitting here, I may not actually always have the luxury, the ability to do that in that way all the time. But I don’t want to be perceived as not being interested. That was a ramble, but I think that the activism and academics portion is also directly related to the work that we’ve done around and with each other on the podcast.

Okka: I think so. Xine, would you agree?

Xine: Yeah, I agree. And I think that there was a really excellent essay sort of on this topic a couple of years ago called ‘Sick Woman Theory’ that was talking about –

Okka: Johanna Hedva. So good.

Xine: Yes, but basically sort of making the point that there’s sometimes been, like, this over-fetishisation of the marching in the streets and stuff like that, which is necessary work, but it sort of occludes that not all bodies are treated the same. Like, obviously people talk about how Black activists always tend to be targets of violence, but here, if you’re disabled, there’s also a reason why you can’t go do that type of work.

But nonetheless, I think thinking in terms of an ecology of activism is incredibly important in terms of, like, what we can all contribute in the different parts of the system. We all can’t do all of it, and we also can’t all be visible in the same way. Like, I think it’s sort of, for me, with the resurgence of Black Lives Matter in the past summer, sort of reflecting on the type of labour that goes behind the collective letter, which is incredibly compressed and really, really difficult.

But then afterwards in response to the letters, there has to be all this, like, tedious committee work to try and make any of that happen, which is quite unglamorous and is not visible in the same way, but to actualise the sort of thing, it takes – and of course a lot of mockery is rightly given to committee work as a way that this work sometimes gets stalled.

But also just to do the work, actually get things done as opposed to simply grab attention, but how do you then make sure the resources go here? How do you make sure that this training goes here? You have to be able to work with other people in a way that is not exciting or an adrenaline rush. It’s just got to get done – it’s not glamorous.

Okka: You both make me think also about ecologies of friendship, comfort, sustenance, solidarity and ecologies of support that may not be linked to, like, what is going on right now, what can we do in the future, but maybe, like, an ecology of survival and endurance for us also includes sharing resources like this, right, and making each other known to each other.

And I think that that isn't always visibility in a way that is for the Twittersphere or for people outside the WhatsApp group chat, right? It's about what goes on in backchannels, as Xine has said as well.

Liz: Sometimes it's the advocating for a policy, it's defending yourself, you know, when you're that lone student that needs to make a policy change that takes a lot of work and then all of a sudden everyone else gets the benefit from that. It's the kind of thriving and surviving, where you really do have to pick your battles.

There's the outreach that you do when you are mentoring the freshman or first-year grad student to help them understand, "Oh no, it's not you – it's this department," right? There's so much advocacy and mentorship that happens that it can be completely overlooked if you're only assuming that activism looks like one form.

And I think for me this has also been a way of trying to encourage people, and I'm being very STEM-focussed at the moment, because they tend to not, A. Recog– I think one, they may not – because the narrative of activism, they may not feel like they have access to that, trying to get them to recognise that they do have access to activism, that for most of them, a lot of them, they've already been doing it.

But to really embrace the communal, organisational aspects and really, like, own, "What you're doing is activism. You called it something else because you're afraid of calling it activism and you should question why you're so afraid of calling it activism and realise that that's also another trap that you're falling into. But I digress."

But at least getting them to start having that conversation, because that's how you build not only them as future leaders, but that's how you begin to build STEM-literate people, humanities-literate people. And hopefully vice versa the same way of getting humanities people to kind of say, "All right, listen – they didn't show up to this, but maybe she's out organising events where you didn't even consider what the STEM people needed or wanted."

You organise an event at some time and you are, like, "Well, they didn't come, so I

don't know why they're not interested." It's like, "Hey – I don't think you understand." Like, they kind of need to be there or, like, they can't leave when their advisor leaves or, you know, they're on someone else's schedule because they're being trained, or, "I'm the only Black person, so they know when I'm not there," right?

So there's so many other things happening and I think it can go the other way, and that needs to be a thing that happens, to understand, like, what is activism truly. And it was in the academy context.

Okka: No, fully. And I mean, I think I speak for us in the humanities and the arts. Like, our understanding of what lab work is like is, in my case, pretty much non-existent, right? You know, in terms of the hours involved, what it takes, the schedules.

And I think that one thing you both are doing really wonderfully as well, you both describe yourself as interdisciplinary, and that in itself is like a chiselling away at these colonial boundaries between divisions that are supposedly so clear-cut, right, in terms of, like, we've named this 'anatomy' and we've named – you know? I mean, I think that you're both doing it in your fields and you're also connecting your fields as being interlinked, which is really cool.

Liz: Xine, I'm curious what you think about this, but I almost feel like that's a product of being successful. OK, let me rephrase that.

Xine: Interdisciplinarity? Or sorry, which part of it?

Liz: Wait – what did you say?

Xine: Sorry, which part is because of being successful?

Liz: The placing ourselves as interdisciplinary and being able to merge different fields. So what I meant – I wasn't bragging, saying, like, "Oh, I'm successful so, you know, I can say whatever I want." But it's the idea that to be successful is to understand your climate and to understand who your audience is, but to have the ability to adapt to your audience as your audiences changes, or to adapt your message as the audience changes.

Which means that a professional academic, which is what we are pursuing right now, has to weather the times. So you have to understand which new generation of

people are you teaching? [Laughs] How do you tailor your teaching aspects to them, or how do I take what my research knowledge base is and apply it to what just happened in 2020, right?

Which means that if we stayed in 2012 knowledge, we would not be prepared to answer 2020 questions, which by 2021 would make our colleagues say that we're obsolete and, like, not really interested. So I think that there is something to this of just arguing where – this idea that there really is just no – like, “there are pure disciplines.”

And I can only speak for the sciences. That's really – the boundaries have been less opaque for a while now, because it really does take multiple teams to answer these big questions, where you really can't actually just do something by yourself anymore. And it's like a matter of survival as well.

Xine: Mm-hmm. And so I think from my perspective, as someone who works on the history of science, it's also the case that it was only in the nineteenth century as the sciences and other disciplines were professionalising that we see this sort of hardening of the lines between different forms of knowledge. And now we're seeing this convergence once again between the way that fields, by necessity, have to answer complex problems, need to draw upon complex bodies of knowledge that are hardly exclusionary.

I'd also wonder if our position as women of colour who've been successful in the academy means that we've already been used to having to do a type of code-switching, and so to do it on a disciplinary basis is already adapting the tactics that have made us successful in the rest of our lives, and sort of this general necessity.

I almost wonder if there's a higher likelihood of interdisciplinarity among people who are minoritised in some ways, because you're always used to being not quite of any one space, and actually that ends up being a type of versatility and mobility for you.

Okka: I like that thought so much. So, I think that another thing that I wanted to ask you two about is, OK, so this podcast is being housed in Decolonising Arts Institute at University of the Arts London. And that word 'decolonising,' as you both know, has been used in so many different contexts of activism and so many different contexts of academia, in so many different contexts in media in terms of, like, what the students we work with understand as 'decolonising,' right? At least from my end, as someone who focusses on decolonising curricula.

And I was wondering for each of you how that word has shown up in your lives and

fields, and how you interpret it.

Liz: Xine, I think you should answer first.

Xine: OK. Yeah, just checking. So I feel like I turn to this essay all the time, but really if people haven't heard of it, they really should, which of course is Eve Tuck and K. Wayne Yang's now classic 'Decolonisation is Not a Metaphor'.

Okka: Yes.

Xine: And I bear its critiques in mind, because especially since – so further injunctions throughout, it's like decolonisation is not just a metaphor, can't be an empty structural gesture that does nothing structurally, that doesn't give land back to indigenous peoples. Like, all the lip service, and then to suddenly come to the UK where, say, being 'indigenous' means racist, white Brexiteers.

And so it sort of disrupts, well, how can I take it seriously if decolonisation is not a metaphor, when also it becomes like a sort of institutional catchphrase for doing different types of work? And so I guess I think my work is deeply in dialogue with decolonisation, but it's not a term that I want to approach unproblematically.

It's one that's dynamic. I guess it sort of makes me feel that I think that it's incredibly important to care for, say, my department and especially the students in it, and help them to thrive. And it so happens that getting access to the resources to do that means taking up words like 'decolonisation' or 'equality, diversity and inclusion,' which as Prof Sara Ahmed has shown can be incredibly empty institutional gestures, often.

But at the same time sometimes that's the banner under which we have to do that type of work, because I think also when we get a little bit too fixated on the accuracy of the word, it sort of fails to recognise the ultimate insufficiency of any word whatsoever as a signifier, as a stable signifier, and that there is always going to be a way that a word can be weaponised in multiple directions.

And so we have to realise that rather than pretending it could be a place that becomes a shining banner, at the same time we have to know that it's a double-edged sword, but we have to know how to use the blade. I don't know, that's a really stupid metaphor.

Okka: No, and this is coming from a woman who has – do you still have a sword in your office, Xine?

Xine: Yes, I do.

Okka: [Laughs] Yeah, this woman has an actual sword in her office. Liz, I was wondering what your experiences have been with the banner of ‘decolonising STEM,’ which is also a phrase that we’ve encountered more and more in recent years?

Liz: Yeah. So, when I think about science decolonisation – ‘decolonising science’ is a phrase I’ve heard – it’s more – actually, first I’m going to do a science thing, which is that one thing when I talk to Xine and friends, there are many humanities terms, things that I’m not familiar with. And I don’t maybe use them the same way, so I like to define them, because what I do know is words are important, because I will get corrected if it’s not.

But for people who may actually be in STEM and may not know this word very commonly, just a quick kind of – the idea is that it defines a movement to eliminate or at least mitigate the disproportionate legacy of European thought and education. Sorry – let me say that again.

The journal Nature defines it as “a movement to eliminate or at least mitigate the disproportionate legacy of European thought and culture in education.” And so, I’ve seen these ideas of decolonising science, but they’ve frequently been on social media platforms amongst some of my, who I would call contemporary public scholars, like Chanda Prescod-Weinstein and Danielle Lee, and some other scholars who I’m omitting now because I can’t remember their names.

But it’s a huge thing happening, but it doesn’t happen when I’m in my faculty meetings or in my university, and I think a large part of that might be that they don’t know what that really means, or you can become so operationalised to kind of push down fires, that they don’t hear any action items in that. And they don’t hear action items that they can personally do.

But what I will say maybe on a more – just thinking about what that means, I think this is a really important message, because we have so many people who are not of European ancestry participating in science, and the ways that we communicate science and say who belongs and doesn’t belong, who sounds proper and not proper, are really inherently intertwined in this idea of the legacy, or the disproportionate legacy of European thought.

In terms of the ideas of immunity and inflammation like you're kind of mentioning, what I find interesting about this is that certain notions of immunity, the way we think about it is also very European and kind of – or at least it can still be considered European and kind of emerging in the 1880's. So really, like, our late eighteenth, early nineteenth century, late nineteenth – early twentieth century – apologise. I saw Xine – she's going to get me.

Xine: I didn't say anything.

Liz: The idea here is that there were ideals of medical immunity that were based on other cultures that were really the predominant ways of thinking about how our body exists or co-exists with bacteria, viruses, germs, or how we even thought about that, that really got erased when we started thinking about bacteria as bad and the body as having a war against them, which is definitely some European thought.

And so I think that the people I've seen who are trying to bring back in these ideas of, like, "Let's not forget that there's something else here," I think that's really part of what it's about, is not only bringing back those kind of non-European traditions into science, and into science education and hopefully also into research pedagogy – like, how do I run my research lab? What gets funded in science?

But also thinking from the educational perspective, how do we let people who are non-European or in that kind of legacy know that your perception of science is valid, your experience is valid and you belong in science and have a right to take part in the scientific process, even if it's not the way that you've been taught is the only right way to do it, because that's a lie, or that's not consistent with truth. I was rambling so I hope that made some sort of sense.

Okka: No, honestly. Please don't apologise. This is what I'm here for. I want to thank you both, because – so there are ideas about science that I write about. It's called Ultimatum Orangutan Radio because it's my opportunity to talk to people who are a lot more knowledgeable than me in various areas that I touch upon in the book, one of which is, as somebody who identifies as an indigenous person in Indonesia, is this concept of, like, we need to save the rainforest because there is medicines in them for science.

And it's like, indigenous peoples already use – you know? There's already indigenous science going on, right? And so I think it's important to have solidarity between, let's say, like, Black American workers in science and Indonesian indigenous peoples who are trying to protect rainforest that AstraZeneca or whoever

want to patent, right? I think that that needs to be talked about more, both in Indonesia and in countries where these giant corporations are based. Yeah.

Liz: That is such a great point. I will say, I'm at Carnegie Mellon and we had a recent push to kind of have more DEI into the syllabus of classes, to have more equity. And then, you know, I think the natural response is like, "Woah, how do we do that? It's engineering," you know?

I think it's funny, but also to their credit, though, they're actually also asking, like, a question of, like, "I don't know how to do that – can you tell me how to do that?," kind of thing. I mean, most of the people are receptive if you give them the opportunity to kind of understand how to do that, and it's definite labour.

So I actually was, like, "Well, I'll do it. I will – oh, there's a seminar that the sophomores take and I offer to give a lecture." But it's always been my goal too to kind of move or elevate from the visibility politics. Like, seeing a Black person or a minoritised person is not sufficient to say that you've actually done something.

And then also the kind of disaffected, what kind of Xine – at least how I interpret what she's talking about in some ways – which is the idea that you don't need to hear my story to know that I deserve to be heard or that I'm a scholar. But I notice that people keep wanting to hear – like, "So how did you become interested in science? So tell me about your terrible background and tell me what happened to you. Let me know all the stuff." Like, no.

And so in the class, I actually do talk about, like, the history of drug delivery and discovery, and I start with what you're talking about which is, like, you know, back in the day – and back in the day means, like, BC times – starting back, the first pharmaceutical prescription was, like, some ancient text where they're just like, you know, "If you go get this leaf, chew it six times and put it on the sore" – that's medicine. That's what they were doing.

And starting from that and helping people understand that, like, this is what we still do or, like, for the beginning of the 1900's we really were – we weren't really able to kind of isolate compounds yet, or do it with specificity, or now we'll go and synthesise them. So what we were really doing was going and taking plants and then harvesting them and then trying to produce those large quantities, and that was really predominantly what we were doing. That's how we got a lot of our cancer therapeutics.

But anyway, I'm rambling and I know you told me not to apologise. But I gave a

lecture talking about this and making sure to actually embed the kind of other traditional – the other disciplines that were happening and help them understand the process that went on here, and where things fit in drug delivery and drug discovery, but not leaving out that, like, we didn't make this up. And there's an evolution, and there's a part where you fit in this, but this is where it started.

And I think it's so important to have those examples of, like, "Here's who's been doing it. Here's how it started. Here's what it looks like. Here's how they did it." And it's far more valuable than me having another lecture, I think, where I go, "I'm a Black woman." You know? But your drug delivery point is very salient and very, very pressing, how we just take the resources and we don't realise that, like, people have been doing this already.

Xine: Yeah. I guess just one thing I think, as you were saying, is like the way that the language around scientific discovery, and say perhaps drug discovery, of course mimics the colonial discourse of discovery and the way that those were always embedded together.

Because so much scientific innovation from the eighteenth century onwards which became known as a primarily European thing had to do with, like, plundering the peoples and knowledges of other places, and have been sort of continuous with what Okka was just saying about this extraction from the indigenous peoples of Indonesia.

And I was also just thinking as you were both talking about – so the phrase that has a lot of currency right now, 'vaccine nationalism,' and the way that vaccine nationalism, if we can think of other terms that are similar, like vaccine nationalism being, like, the extension of, say, settler colonialism as a form of nationalism, or homonationalism.

The way it sort of continues all these much longer projects of national belonging which has always also been national exclusion and also the extraction of resources as a result of the state. So it's both, like, new and not new at the same time.

Liz: Yeah, I agree. Yes. I was thinking about the lecture and thinking about the idea that maybe the decolonisation is not just – it's also about history. And I think for science this is what I find also really kind of interesting and probably not novel for you guys, but to actually go into a chemical engineering lecture and, like, say, "Well, here's the history" is a form of beginning that process of decolonising.

To say, "Here's the timeline. Here's why and what and contextually what's

happening,” which is to talk about history. And you actually have an opportunity to end that histories of people and not just histories of discovery – history of, like, technology.

Okka: Yeah. And that really, in its own way, disrupts this whole manifest destiny thing that is still associated with academia, right, in terms of as Xine was talking about, like nation-building, the idea of what our intellectual production is for, right? What it’s meant to help build.

Liz: But also we have a choice, right?

Okka: Yeah.

Liz: We chose it to be this way – we can also un-choose it.

Okka: That’s a really beautiful sentiment to end on. Thank you so much, Liz. I’m glad we’re ending on that.

Liz: Un-choose it. No, no – Xine has to find another word besides ‘un-choose’.

Xine: No.

Liz: Would you mark me wrong in an essay if I said, “Un-choose”?

Xine: It depends. I think that you can also – there’s a way to spin it as a new coinage. It’s like, or, you know, as – the way you could sort of do it – or, as I call it –

Liz: I’m not getting any extra points – that’s what she’s saying.

Xine: - in quotes, ‘un-choose those new possibilities’.

Liz: I just got a D in your class.

Xine: Yeah. Also I guess I can actually see the thesis statement forming in my head. It’s the way that under neoliberalism feminism has become choice feminism, and so

we ask of you to, quote, 'un-choose' the sort of individualistic, neoliberal approach to advancement, and then to instead think about collective liberation.

Liz: Ooh, that's good. So good. Right? Nice one, Xine.

Okka: That's how we end, yes. 'Un-choose to...'. Thank you both so much for your time. I really appreciate you both and all the work you do. Can you tell people where to find you?

Liz: Ooh, find me at the Dunkin Donuts.

Okka: Nice.

Liz: And where the wine is.

Xine: No Dunkin Donuts here. I really want an Olive Garden breadstick. There are no Olive Gardens here. I know [unintelligible 00:50:53] –

Liz: But on the internet, you can find us at PhDivaspodcast on Twitter, Facebook and Soundcloud. PhDivas on Instagram, and please support our Patreon, which is also under PhDivaspodcast. And Xine has beautifully collated and – what's the – never mind. She has put together the PhDivas WordPress website, so if you actually want to just look at our past episodes, some that we've mentioned previously, but look by topic, there are some really great designations on our website as well.

Okka: Brilliant. Thank you so much. I can be found at @mailbykite – one word – and I will see you in the next episode. Thank you so much, PhDivas, Liz and Xine.

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