ALBA-IBRO Podcast Miniseries: Episode 3

Transcript

Dr Asma Bashir: Hello world and welcome to the ALBA-IBRO Podcast Miniseries, a program that brings a global and intersectional approach to hot topics in equity, diversity, and inclusion in neuroscience. The miniseries delves deeper into the knowledge and expertise shared at ALBA-IBRO events at three major conferences in 2023, to make these valuable insights accessible to all. The events and this podcast are supported by the International Brain Research Organization, and I'm your host for this special miniseries, Dr Asma Bashir, the founder of Her Royal Science.

For our third and final episode, we're coming to you from the 2023 Society for Neuroscience Meeting held in Washington, D.C., where ALBA and IBRO hosted an evening social about deconstructing colonial and historical biases in neuroscience. I'm excited to be speaking with two researchers today about their insights on how historical biases have influenced our understanding of the brain and affect diversity and inclusion in research and academia today. The researchers are Dr Tiffany Younger from Columbia University, and Dr Melissa Perreault from the University of Guelph.

I'd love for us to start with each of you sharing a brief summary of what you discussed at the ALBA-IBRO social at SfN. Dr Younger, can you please start us off?

Dr Tiffany Younger: At the event, I spoke about epistemology and ontology in the way that we create knowledge, in the way that knowledge is oftentimes pushed as objective versus some sort of subjectivity, and why, as neuroscientists and working in neuroscience, it's important for us to understand that we have to reckon with epistemology, which is basically knowledge, and ontology, which is basically reality, in neuroscience in order to make sure we have a fair and equitable space.

Dr Asma Bashir: Wonderful. Thank you so much for sharing that. Let's go to you, Dr Perreault. Can you share a little bit of what you discussed at the ALBA-IBRO event?

Dr Melissa Perreault: Sure. For me, I discussed Western academic suppression of Indigenous peoples in a neuroscience context, so I talked about bias and how we perceive Indigenous people and Indigenous communities. Then, I discussed how this influences how we do research with Indigenous communities and the methodologies that we use. As well, I discussed how this bias impacts on how we treat Indigenous patients. I went on to give some ideas about what non-indigenous people can do to decolonize neuroscience. One of the big things that I focused on was allyship.

Dr Asma Bashir: That is wonderful. I'd like to stay on the topic of how we've historically treated Indigenous peoples in neuroscience, and I'm wondering if you could share an example for our audience that might not know so much about this topic. Is there one, perhaps in Canada's history, that you could share that exemplifies what we're talking about here, a bias that has made its way into neuroscience with respect to Indigenous peoples?

Dr Melissa Perreault: Sure. I think the biggest one would probably be alcoholism and the idea that Indigenous people are biologically vulnerable to alcohol dependence, and that we have an inborn, insatiable appetite for alcohol. This is a problem because first of all, there's actually more Indigenous people that don't drink at all than there are non-indigenous people [who don't drink] in Canada. But as well, what happens is there's no context given to what non-indigenous people perceive as Indigenous problems. For example, what are the underlying reasons, such as colonization? What did colonization do to actually result in some of these impacts that we're seeing on Indigenous people and Indigenous communities, drinking being one of them? There's a lack of responsibility that's taken by Western people for their role in creating this situation that Indigenous communities see now.

Dr Asma Bashir: Mm-Hmm <affirmative> most definitely. And I suppose that also ties into the topic that Dr Younger spoke about, this idea of objectivity versus subjectivity. Dr Younger, I'd like to come to you. Can you also think of an example that our audience can start to digest, how we historically have looked at science as objective, when it has so many elements of subjectivity that have often been ignored?

Dr Tiffany Younger: Yeah, I was teaching a class yesterday with my students, and I was really explaining to them about the way that we curate knowledge and the way that we curate research. One example is even the question, the *question* that we have then begins to impact the research. The example is, I work with neuroscientist Bianca Jones Marlin at the Zuckerman [Institute] at Columbia, and the question that she curated was around the impacts of intergenerational trauma from parent to child. And that is a subjective question! <Laugh> Where does she get that from? A, her lived experience as a person who is a parent and/or has inherited trauma from her parent. B, from the historical context of intergenerational trauma. So, when we even looked at some of her studies, that wasn't a thing that was just showing up, right? When we think about the work, we think about it just being like, 'Oh, producing results.' But the question is, how do we get the questions that begin to produce the results? You actually have to believe that historical trauma is real, and you can't touch it, right? Science is about what you can touch and see; [just] because you can't touch it, it doesn't mean that it's not real.

Dr Asma Bashir: 100%. This concept of trauma is one that I'd love to dive into a little bit more because it is such a huge part of colonization, right? Can we talk about the space that we create in neuroscience for trauma? Have we started to do that in research? You mentioned Dr Marlin, who I think is absolutely amazing; do you think that that's where the future of neuroscience lies? Let's start with you, Dr Perreault, and then we'll come back to you, Dr Younger.

Dr Melissa Perreault: I think a big part of the problem is how we do research, and for those of us that work with marginalized communities, not just Indigenous communities, we have to have an appreciation for the trauma, as you mentioned. When we are writing

our papers, I think we have to put everything in context, in association with that trauma and what that trauma is doing to contribute to what we see in these communities. I think we need to spend more time discussing the narrative of trauma in our outputs, no matter what they be. In that way, we're going to be able to, I think, make people understand what trauma is and how it has contributed to some of the issues that we're seeing in communities, particularly from marginalized groups.

Dr Asma Bashir: Mm-Hmm <affirmative>. Is there anything that kind of strikes you by what Dr Perreault has said, Dr Younger?

Dr Tiffany Younger: Yeah. I think that's Bronfenbrenner's person-in-environment social ecological theory, a human-centered approach, right? I think a lot of the times when I'm working with scientists, they are in the lab with mice. And we have to start there, but we can't stop there. What happens in a lab is a controlled environment. So, the question becomes how do we take that controlled environment and bring it to life, right? And then how do we add lived experience and how do we add socialization? A lot of my work is talking about how being socialized as Black, being socialized as a woman, being socialized and classified as poor; how does that now impact my organs as a human? Because it has an impact, right? With mice, we can't add race, gender and class.

Dr Asma Bashir: Very, very valid points. I think that's a great lead in to my next question about some of the research practices that you encourage others to implement to counteract some of these colonial biases that have been pervasive in neuroscience. Dr Younger, please continue.

Dr Tiffany Younger: Yeah, I think that my experience is that it's very hard for people to get that their data and their information is theirs from their reality. I'm very specific about what I say when I'm doing a lot of my research. I focus on Black women, and I say that I'm coming from a Black woman's perspective. My research is about Black women, and I want you to be clear about that because this reality might not be yours. And I think that that's very much important, a form of critical reflection, a form of reflexivity in the papers, a form of who am I. I see a lot of papers that say 'people' or 'children', and I have disrupted that and said, 'You mean white children? Because when I peeled your study back, you have a high concentration of white children.' You can't produce a whole study on children, these interventions and the impact of it on their brain development without saying white, because we say Black children and we also say Latin children, right? We also say disabled children. Why are we not saying white?

Dr Asma Bashir: What is the response typically when you present that argument?

Dr Tiffany Younger: I think, again, it's like, 'Oh, it's objective.' And I'm like, 'so your brain has no information?' My response is, 'so your brain as a scientist has no information?' That's BS. You have information in your brain, so you can't wipe your motherboard, right?

This is not about not having biases. We all have them. We're humans. At this point, we're all at least 30, or 20-something years old. That's the response. And the other response is, 'But I mean *all* children.' And this is why I specifically got trained in social science first because I tell them that when we say 'all' in the United States particularly, we mean white given the numbers of our children breakdown, right? That's just pure math. It takes nothing for us to own that and to say it. It's actually responsible because now the people on the other end reading it [understand] it's saying that. What I realized the undertone is, 'I don't want to say that because I don't want to now say that my research doesn't apply to all, that it doesn't stand for all.' I'm okay with people doing research on white humans and centering them; just say that.

Dr Asma Bashir: Dr Perreault, I'd love to hear if you have some thoughts on research practices that you encourage others to implement to counteract some of the colonial biases that exist.

Dr Melissa Perreault: Wow. There... There [are] many. The first thing that I would suggest is we self-reflect on the questions that we're asking. Are we going into community research–and again, not just Indigenous communities, but all communities from marginalized groups–are we going in asking questions that we want to ask? Or have we consulted with the communities to understand what their needs are and what questions they want answered? Are we including their voices in the research, the research design, and the research dissemination? Are we including community members as authors on the papers? That is also another really important thing. I think we have to stop centering ourselves as researchers and more so think of us as partners with the communities that we're working *with*, not in. Only in that way, I think we'll be able to make sure that they have a voice in their own health and wellbeing. And this is very important in neuroscience, especially when we're dealing with things like mental health issues, which can be of higher prevalence in marginalized communities. We just need to make sure that we're including their voices in everything we do and in every step during the research process.

Become an ALBA member, it's free! You'll have access to a diverse network of neuroscientists around the globe, have the opportunity to drive initiatives as an ALBA volunteer, and participate in advocacy training workshops.

Dr Asma Bashir: I want to recognize that this work is incredibly challenging to take on, the act of and pursuit of decolonization. It's... It's a lot of work. It's tiresome, and it is a never-ending process, so how do you both make sure that you don't tire yourselves out doing this work? Dr Younger, let's go to you first.

Dr Tiffany Younger: I am very picky about who I work with. I think that it's very important. In my experience, particularly after COVID, a lot of people wanted to work with me. Again, I'm not a hard basic-trained scientist. I did study clinical epidemiology, spent a little bit of time in the lab, but was very clear about what I wanted to do, and it's in a sense, a little bit different than a lot of what other scientists want to do. But what I realized is a lot of

these NIH grants need health disparities experts, so people would reach out. I had a couple of instances where I said, 'Oh, you don't even believe that racism exists because you don't even understand it. You don't even believe that sexism and heteronormativity exists.' So, I no longer work with people who I have to teach, [people] who have access to the same knowledge that I have access to, because it becomes an unfair burden for me as a scientist, as a Black woman, as a human being, right?

I've realized there's a mental checklist in my head, [so] I know from the beginning if I'm going to work with you or not. It's just the way that you talk about the project. It's your understanding of the project; are you truly trying to collaborate? Are you trying to take my thoughts, my expertise, and put it on your project so that you can produce all these papers? That has helped me so much. So, I've said no to almost 80% and yes to 20%, which drives up my quality. I'm clear about having writing days. I'm clear about having rest time. I go on vacations. I don't work in the summers. I don't work in the winter breaks. I am a human being too, and in order for me to work in my field, I have to actually embody what I'm saying I think we deserve as humans.

Dr Asma Bashir: Mm-Hmm <affirmative>. It's almost like what you're demonstrating, beyond the work that you do, which is incredible, is that you as a human being recognize your own humanity. For so long, people have neglected that of historically marginalized groups, and it's a stand that you're taking that I respect so much. I'm making copious notes right now as you speak, because it's something that I want to learn how to do even more of, recognizing that it is not my job to teach everyone who comes into my sphere because you have the same resources that I do. Those are beautiful words, and I thank you for sharing them. Dr Perreault, what would you say you do to make sure that you don't tire yourself doing a lot of this work?

Dr Melissa Perreault: Well, building on these comments, I think everyone needs to recognize that we're all dealing with a lot of performative nonsense a lot of the time, so weeding through that can be very frustrating. And I'm not going to lie, it is exhausting and it is constant. Unlike Dr Younger, I don't think I've yet figured out how to take time for myself and recognize that it can't be all on me. I'm hoping to learn that soon.

But for me, I guess I count on... There's not a lot of Indigenous people in neuroscience. I know a handful and that's it, so I really count on allies, powerful allies. As an Indigenous woman, I don't feel like I always have a lot of power to make the changes that I want to make. In some respects I do, but in other respects, I don't. So, I count on my allies who do have that power to be my voice when I need a voice, and to help me and support me, and make sure that I'm not trying to do everything by myself. And I think that really, really helps me manage everything, because when I do struggle, there's always that voice there beside me that is holding me up and giving me what I need to continue this ongoing struggle.

Dr Asma Bashir: Mm-Hmm <affirmative>, thank you for sharing that and for reiterating that the wise words that Dr Younger shared with us are words we all need to hear and remind ourselves: take the break, recognize our own humanity.

What does the future of neuroscience look like to you? Can you imagine a world, a space where colonial mindsets have been dismantled and have been de-centered? Dr Younger, let's come to you.

Dr Tiffany Younger: I'm going to start with what I see the field of neuroscience being. For me, I think it's very colorful. I'm doing something that's very non-traditional. I'm building my own postdoc now, trying to get it off the ground with the neuroscientists and really starting to color it. They like to call [my work] soft science. And what I tell 'em all the time is, 'No, your stuff is soft because it's easy to prove. My stuff, this trauma, this is hard! Good luck. Let's flip this around, right? You don't get to do that.' <Laugh> And so, I really want to begin to think about the way that the brain is impacted by colonialism, by racism, by sexism. How do we begin to even think about that and measure that, right? That's what a lot of my work is going to be on, the impact of the US economy on our brain, and for me, particularly as Black women who are exploited. We're trained to be exploited and work hard. That's where I see the field moving, really drawing color. Is it possible in institutions? So here's the thing: I'm clear about institutions and what they're created for, and I'm clear that I only can go but so far, but I do think that I believe in generational deconstruction. I believe that if I do my part now, hopefully the next generation will come and do their part. I really do believe that liberation is possible. So yes, I have critical hope.

Dr Asma Bashir: Thank you so much for sharing that. Dr Perreault, final words of the day. What would you say the future of neuroscience looks like to you?

Dr Melissa Perreault: I think that I'm optimistic about it. I'm not sure if I'm going to see robust changes in my lifetime, but as Dr Younger pointed out, it is a generational thing. I think that if I keep trying to make things better, then the next generation will take up those reins and keep fighting the good fight. I do think people are starting to understand and appreciate the importance of different kinds of knowledge and including different voices and how that promotes innovation and scientific advancement. I do think there's a lot of people that are understanding that, but there's advantages for researchers to be selfish to advance themselves because it's very competitive. Until we take a step back and reflect on what we're trying to achieve as researchers and healthcare providers, I think that's what we need to do. Hopefully, as we move towards more data showing the importance of changing our research approaches, I think that more people are going to come on board. But I do not think it's going to be an instant process. I think it's going to be a slow process, but I am optimistic.

Dr Asma Bashir: Wonderful. Thank you both so much. This has been a stunning conversation, absolutely beautiful conversation. Thank you both for being here today.

Dr Tiffany Younger: Thank you.

Dr Melissa Perreault: Thank you.

IBRO aims to bring neuroscience to the world, through its international career development support for neuroscientists at all career stages. Founded in 1961, IBRO represents a vibrant community of over 90,000 neuroscientists around the world. IBRO places equity and inclusion at the heart of its programs and works with partners such as the ALBA Network to make neuroscience a more inclusive and equitable domain.

Dr Asma Bashir: For our closing remarks, I am delighted to be joined by Mathilde Maughn, the Project and Network Manager at the ALBA Network, and Dr Keethana Iyer, the Partnerships and Development Manager, also at the ALBA Network.

Over the last few months, we've been sharing some beautiful and insightful conversations about critical topics in EDI and neuroscience, the first being 'Inclusive mentoring in African neuroscience', then 'Capacity development and international collaboration,' and most recently, 'Deconstructing colonial and historical biases in neuroscience.'

Mathilde, let's start with you. Could you please speak about the ALBA-IBRO events this year and in particular why these topics were chosen?

Mathilde Maughn: Yes, absolutely. So, we always choose our topics according to the needs that we identify in either specific regions or globally for the community. For the event at SONA, for example, [which] is the Society of Neuroscientists of Africa, through previous events and webinars, we had identified several needs in mentoring and networking because we had heard that neuroscientists had felt pretty isolated in their own countries with very few means to actually communicate with each other on their science. Therefore, we thought that hosting a mentoring circle at their conference was very relevant.

For the event at the IBRO Congress, we felt that it was missing an event that would be very, very hands-on in terms of global collaboration, where we would show really practical examples of things that are already being done to improve infrastructures and capacity development in the Global South. This idea actually came from a discussion with Mahmoud Maina, who had won the ALBA-FKNE Diversity Prize in 2022 for his work in Africa, helping the community there get better at doing neuroscience in short and have more access to resources. We really wanted to showcase this work, but also showcase other types of work that were already being done in the Global South.

The event we held at SfN was more about addressing racism in a global and systemic way, and these topics are not usually addressed. While there's been a lot of events at

conferences discussing women in neuroscience, I think there's still a great lack of ethnic diversity in terms of leaders in the field, therefore we wanted to address that, but we wanted to address it with a systemic approach and dig a little deeper into what the bias of any neuroscientist in the west could be. And throughout those discussions, the topic of Indigenous peoples came forward. Therefore, I think this is really something we want to explore next year as well. And I've heard that at the SfN conference, a new Indi in Neuro group was born, which I'm super happy about. And I think we're going to look into collaborating with them more.

Dr Asma Bashir: That's exciting. Let's go to you, Dr Iyer. I asked this question after our very first episode, and I think now's the perfect time to ask it again. What were the key takeaways that you wish to impart on those who've listened to the past three episodes of this miniseries?

Dr Keerthana Iyer: I guess there are a few take home messages. One, I'm hoping that people realize that some region specific issues are actually global or universal, and thus it is seen as not a 'their problem', but an 'our problem.' Second, there are tangible solutions to these problems that can sometimes seem a bit daunting or overwhelming. As was highlighted in episode two, there are already a lot of organizations and initiatives that are doing a lot of outreach work towards resource management and resource allocation to make sure that these are distributed in a more equitable way throughout the globe and are not just concentrated in the northern hemisphere. Third, I'm hoping that the neuroscience community in general is just more self-aware, is more aware of their biases and blind spots through these kinds of discussions, especially from lived-experience experts. I do think that it's important for people to lean towards data to support their assumptions and possible prejudices like what was highlighted in Melissa Perreault talk, for example, just to clarify certain misconceptions about people from marginalized communities and especially research towards health disparities in marginalized communities.

I'm hoping that the EDI burden, which currently falls on people from marginalized backgrounds, will hopefully be shared more equitably by allies, and hopefully these kinds of conversations will generate more allies and that these topics will become part of the mainstream and not be relegated to diversity sessions at conferences. And this is something that, as Mathilde said, we saw at SfN, where there was a lot of conversation around Indigenous groups and Indigenous health research, which was really refreshing to see. This is a much needed topic of focus especially given that Indigenous groups continue to have limited legal and constitutional recognition in some countries. And as the ALBA Network, we would also like to continue to focus a bit on this specific topic because I think until now it has been part of broader subjects where we've gotten Indigenous views, but I think we would like to have an entire, I don't know, webinar or segment dedicated to Indigenous groups.

Dr Asma Bashir: Wonderful. Thank you for sharing that. Mathilde, do you have any key takeaways that come to mind about things you would wish to impart on those who have listened to this miniseries?

Mathilde Maughn: I would like our listeners to realize through the three episodes that we made this year, that all these topics and actually all of the diversity-related issues in neuroscience are interconnected. Intersectionality is an important concept that I hope can be more widely known, understood, and taken into account when thinking about inclusion in neuroscience in the future. As the ALBA Declaration says, we are all biased, and I think that's okay as long as we accept to challenge ourselves to learn more about views that are different from ours and to take steps to make neuroscience more inclusive by learning about our own bias.

Dr Asma Bashir: I'd like to take this moment to say thank you to both of you for your remarks and a big thank you to our audience for listening to the final episode of the ALBA-IBRO Podcast Miniseries. I'm Asma Bashir, and it's been a pleasure guiding this conversation.

If you haven't yet listened to our first two episodes, be sure to check them out! During our first episode, we spoke about neuroscience mentorship on the African continent, and during our second episode, we discussed how scientists from under-funded regions can leverage global collaboration to support affordable capacity development in neuroscience.

This podcast is organized with the support of IBRO, a founding partner of the ALBA Network, and the ALBA Network aims to promote equity, diversity, and inclusion to counteract bias and fight discrimination in brain research. For more information on this podcast, visit www.alba.network. Thank you.