Mind & Life Podcast Transcript
Buju Dasgupta – Social Context & Implicit Bias
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Opening Quote – Buju Dasgupta ([00:05](#)): *Implicit bias is really a function of the social environment. So as we walk from room to room, from situation to situation, the associations in our mind will—in a way that is plastic and flexible—shift around as a function of who and what we see, and who is valued and who is not. But if we always stay in the same room, and we always see the same people, those implicit biases will always look the same. So I think the fixedness, the rigidity of implicit bias is really because our environments that we occupy are typically always the same.*

Intro – Wendy Hasenkamp ([00:45](#)): Welcome to Mind & Life. I'm Wendy Hasenkamp. Today I'm speaking with social psychologist, Nilanjana Dasgupta, who also goes by the name Buju. Buju is Professor of Psychology and the inaugural director of the Institute of Diversity Sciences at the University of Massachusetts, Amherst. Her research focuses on implicit bias—these unconscious ways that we tend to group people into different categories that have more and less value. And specifically she's interested in the plasticity of implicit bias and the ways that changing our social context can then change our implicit attitudes, beliefs, and behavior. Much like Larry Barsalou, who we featured in our last episode, Buju's work highlights the importance of our surroundings—in this case, our social surroundings—for the way our minds work.

([01:39](#)) In our conversation, we talk about how her unique family history shaped her own interest in both science and social justice, and then we get into her work on implicit bias, and we explore the crucial role of social context in forming implicit biases. We also talk about the malleability of implicit bias, and we get into what Buju calls the "wallpaper" of the mind. She describes how scientists measure unconscious processes like implicit bias, and then we get into her research on changing biases against women and underrepresented groups in STEM education. (That's science, technology, engineering, and math.) Buju reflects on links from all of this work into contemplative science, and we talk about how she's working to increase cross-disciplinary collaboration to advance research around equity. We end with some take-homes, including the subtle ways that we can change implicit bias by changing the wallpaper of our lives, and how psychological research can have real social impact.

([02:47](#)) As always, there's lots more in the show notes, including a link to a site where you can explore your own implicit biases. And I've also included a blog that I wrote a few years ago that talks about how contemplative practices might be able to shift implicit bias, and some of the research that's emerging on that. Buju and I don't get into that area directly in this episode, but I thought the topics might be of interest for those of you thinking about how meditation could impact mental patterns, like implicit bias.

([03:16](#)) What I love most about Buju's work is how she seamlessly integrates rigorous psychological research with real-world impact and social justice. There are many lessons here, both for folks in the research world, and for anyone who's interested in the ways our minds become biased without us even knowing it, and what we can do to change that. I feel that this kind of work really is a beacon for how the research community needs to be thinking moving forward in terms of making their work relevant to today's societal problems. I really enjoyed getting a chance to sit down and chat with Buju about her work. And with that, it's my pleasure to share with you, Buju Dasgupta.

Wendy Hasenkamp ([04:00](#)): I'm joined today by Buju Dasgupta. Buju, welcome and thanks so much for joining us.

Buju Dasgupta ([04:05](#)): It's really good to be here. I'm looking forward to this.

Wendy Hasenkamp ([04:08](#)): So I've been really struck by how you're able to weave together in your work the two values of science and social justice. And I understand that those values have deep roots in your family history, which is quite fascinating actually. So I'd love to start by hearing a little bit about some of the influences that have helped shape your career path.

Buju Dasgupta ([04:34](#)): Yeah, that's... It's something I've been thinking a lot about more recently, and I have to say that I put these threads together looking back. I don't think I was aware of it at all as I was in my 20s or 30s. So my parents, my mother was a biologist (she's passed on now), and my dad is an engineer. And so the science and engineering part was always very, very much there in our house, and the love of learning was there. And our presents for birthdays were books, and going to the book fair was a really big thing.

([05:10](#)) One generation prior to that, my maternal grandparents were very active in the movement, in India's struggle for freedom against British colonial rule. So both of them were very active in non-violent movements, working closely with both Mahatma Gandhi and others in that period. My grandfather was a judge at that time in the British Raj so his support of the Indians' freedom movement was more quiet, but my grandmother was very, very active.

([05:45](#)) So in their house, my grandparents' house, there was always stuff, conversations, around Quit India, around Swaraj, which is self-rule, and so on. And one generation prior to that, my maternal great-grandmother, who became a widow when she was very young, self-taught, started writing these essays about sexism in Indian society, especially sexism against women, in the 1930s. Initially she would write anonymously and then later she started using her name and writing publicly, and then started writing novels and so on. And her essays and novels were really searing critiques of Indian society.

([06:29](#)) So I think that this thread of social justice, from my great-grandmother through my grandparents, has always been in the water, and I just wasn't aware of it in that way until much later.

Wendy Hasenkamp ([06:42](#)): Wow, yeah. It's interesting because what you've studied is so much about these contextual factors that are influencing and shaping our minds that we may not be aware of—which you've referred to as the metaphor of the wallpaper, which I think is really great. So it's just interesting to hear for yourself how those factors might have shaped you.

Buju Dasgupta ([07:03](#)): Yes.

Wendy Hasenkamp ([07:04](#)): And so can you share a little more about that metaphor of the wallpaper and these associations that we're always making, and then how that's led to the work that you do?

Buju Dasgupta ([07:15](#)): Yeah, sure. I think that we typically think of ourselves as agents of change—that you and I do something because we want to do it. But much of social psychology teaches us about the power of situations, about how our thoughts and actions are really heavily influenced by the social environment we are in, both the physical environment and also the people who are in it and the people who are not in it. And I think that that background, the background canvas, or the wallpaper, is really the power of the situation. And typically as conscious beings, we are not focused on that background, we're focused on the foreground, and what's in the spotlight is the human.

([08:03](#)) But I think in my experience, you're right, that that was a wallpaper that I didn't realize. And it's the wallpaper that I sort of became aware of when I landed at Smith College as an international student, as an undergraduate, where I think all of the things I had taken for granted as a person who was part of the majority group, as somebody who was financially well-off, came from an educated well-off family, all of a sudden I was at the bottom of the pile. And I think that's when the wallpaper became right front and center.

([08:39](#)) And it's probably why I realized that your status in a space, in a college... So I was that scholarship student washing dishes, whereas a lot of my fellow students didn't have to work. They were not on work study. I spoke differently. I dressed differently. There were cultural norms and customs, like the Winter Ball or whatever. It was like, "What the heck is this?" I was not comfortable. And I think that's what made me realize that there are these issues of inequality that were suddenly affecting me, that in the past had not affected me.

Wendy Hasenkamp ([09:19](#)): When you had lived in India?

Buju Dasgupta ([09:21](#)): When I lived in India they didn't affect me. I was the high status group. The inequality part was not front and center, was not visible to me in the same way. Plus I was a kid, a teenager. But all of a sudden being a young adult, and it being front and center because it was personally relevant, made me realize all the things I hadn't seen before, and it sort of sparked this interest in the science of social justice.

Wendy Hasenkamp ([09:49](#)): That's fascinating. I'm just thinking about that experience of coming from the more privileged group, and then being in the underprivileged group. Can you describe a little bit about the caste system in India and how it exists today? And, I guess I'm just curious, does that map on in any way to how you view social and power hierarchies in the United States?

Buju Dasgupta ([10:18](#)): Yes, absolutely. So I think caste in India is like race in the United States. As Isabel Wilkerson's book says so brilliantly and her New York Times piece before it, caste is the same as race. It's just a different name. It's identified differently. So visibly, you can't tell, typically you can't tell someone's caste, but you can if you know their last name. As soon as you know someone's last name, if you're in that sort of Hinduism system, you know what caste they are. You know if they are Brahmin, you know if they are in the middle of the caste, if they are Kshatriya. You know where they are in the caste hierarchy. So it's not visible, but it is quite visible by name. And it's also visible by occupation. And caste certainly correlates very well with family social class, just as race correlates with social class in the

US. So I think the parallels are there. And I think these kinds of hierarchies are there in every country, it's just that the category may not be the same. It's religion in some places. In India, both caste and religion are very, very strong.

Wendy Hasenkamp ([11:32](#)): And do you think that since you have now had experiences on both ends of that spectrum, does it give you an understanding of [both] what it's like to be in an underrepresented group, as well as what it's like for white, higher-class privileged people in the United States, and what they can't see? In the way that you said you couldn't see it when you were in India?

Buju Dasgupta ([11:56](#)): That's a really good... The first part of the question I've thought a lot about; the second part I hadn't thought of, but is exactly right. So my experience as an undergraduate student was a feeling of affinity for African American students, for Latinx students, for Asian American students, especially for black and brown students. Because I could feel that if I felt so out of place and frankly so angry the first two years as an undergraduate, before I could understand why I was angry, before I could even name it, I could only imagine in the faintest of ways how it must feel to be born and raised and grow up in a society where social mobility is so difficult, and where no matter how high you go, other people see you in these narrow, confined ways by your brownness or blackness. So I think I definitely had this very visceral "naturalistic experiment" sort of an experience of what it feels like to be at the bottom. And I was completely underprepared for it. Having said that, I should also say that I understood then and understand now very clearly, that my experience is not the same as somebody who is African American, or somebody who is Latino, and who grew up here. So as an immigrant I was sort of inside and outside constantly.

([13:31](#)): On the privileged side... I think I pass. I think that I can pass into white spaces because I know what it is like to occupy those spaces—by analogy not by direct experience, from a different country. But I probably have more affinity for being a person of color. Probably. I think I experience that more viscerally. But I do understand the experience of being privileged and being unaware of it, because I was one of those people.

Wendy Hasenkamp ([14:13](#)): Yeah, that's interesting. So, much of your work has focused on this construct of implicit bias. First, can you just define that for the audience, and then we can maybe unpack some of how you've studied that?

Buju Dasgupta ([14:26](#)): Yeah, sure. So implicit bias is the tendency in the human mind to group people, in a split second, into groups that are valued and other groups that are less valued, without really being necessarily fully aware of it, and without necessarily intending to categorize people in that way. Sometimes it's based on visual markers. Sometimes it's based on accent. Sometimes it may be based on other things we know about them, like their name and so on. The biased part of it comes in because in categorizing people we are assigning value to them—good or bad, smart or not smart—that is not really something about them, but is our assumption about their group.

Wendy Hasenkamp ([15:16](#)): Great. And one of the things that I find really powerful about your work... I'm thinking of in neuroscience, there was this long history of belief (and in psychology), that after adolescence your personality is "wired in" and you're not going to change, right? And we've learned so much about neuroplasticity, and the capacity of the brain and the mind to change throughout the lifetime. And so when I started learning about implicit bias, I felt like there was this same idea—that people hadn't studied whether it changes, it was just assumed that you have these biases and that's

what they are. But you've really pushed this forward into the idea that these biases are constantly being shaped, and can be changeable. So can you say more about that?

Buju Dasgupta ([16:00](#)): Yeah. So when I was in grad school at Yale, I think the common understanding in the field of social cognition and implicit social cognition was that these attitudes and beliefs, and preferences and biases, as you said, are developed early in life, and they change slowly. And once there's this critical period... it's sort of just like human development. And that was the assumption, and it was never questioned. But it never sat well with me. I sort of always thought that, with the assumption, just even by logic, if implicit attitudes are learned by exposure to some people in valued roles and others in devalued roles, then that really is a function of our social environment. So what if we were to move into a different social environment, a different kind of wallpaper, where we saw different people? Or people occupying different roles? Wouldn't that, by simple logic, change our implicit attitudes?

([16:58](#)) So that was the hypothesis that I started to work with, and play with, and push the envelope and say, can we create situations in the lab, where we show people individuals who are black and brown who are in high status admired roles and occupations, and others who are typically seen as privileged, so people who are white, but now who are serial killers, for example. Would seeing individuals who don't fit the stereotype in good and bad ways change, in that instant, the implicit attitudes people show? And we found that indeed it does. The million dollar question is how long does that last? And I think how long it lasts really is likely to be a function of how long does that social environment last.

([17:46](#)) So implicit bias is really a function of the social environment. So as we walk from room to room, from situation to situation, the associations in our mind will, in a way that is plastic and flexible, shift around as a function of who and what we see, and who is valued and who is not. But if we always stay in the same room, and we always see the same people, those implicit biases will always look the same. So I think the fixedness, the rigidity of implicit bias, is really because our environments that we occupy are typically always the same.

Wendy Hasenkamp ([18:22](#)): So yeah, this feels like it has a lot of implications for, for example, the situation we're in right now in the US, facing a major reckoning around race. And thinking about the role of media, for example, and other cultural outlets that create this kind of wallpaper. So how are you seeing this now, in our moment—what's emerging and everything that we are facing now in this country—what's your sense given the possibility for change and the avenues?

Buju Dasgupta ([18:57](#)): I think the mainstream majority culture is still struggling to understand that these sorts of structural biases, or getting rid of them, is not just a matter of good intention—or people who are good and people who are not, or good apples and bad... It's not really that. But that in order to make those changes, we need to make more structural changes. And by structure it can be societal, but it can also be within our institutions, within our organizations, within our work teams. So representation matters. Who has access to high value relationship matters. And those kinds of representation and relationships, I think, is what is part of the wallpaper, and if that changes, I think we'll have some real change. But I think it's not good enough to just sort of have those value statements without the actions behind it.

([20:04](#)) So I think that's the moment we are in, that after George Floyd and all of this sort of re-emergence—George Floyd was not the first one, needless to say—but suddenly there were all of these statements from organizations and leaders about the value of diversity, equity, and inclusion. But those

words only matter if we see the changes in the wallpaper, the changes in the people on the ground. And I think that remains to be seen.

([20:33](#)) I was just having a conversation before our conversation here today with a colleague of mine in another university who was talking about how her university, which is very, very well-resourced, has not really done much in terms of changing the structure. In changing the structure in terms of representation, changing the structure in terms of supporting students of color, especially students who come from more economically disadvantaged backgrounds. And so it's a whole lot of words, but on the ground, because she can see what's happening, she can see the disjuncture between those words and the actual action. So I think we are still in that nebulous space.

([21:18](#)) – *musical interlude* –

Wendy Hasenkamp ([21:54](#)): When you were speaking about representation on teams and things like that, that makes me think then of your work, you've done a lot of work about stereotypes of women in STEM education—so science, technology, engineering, and math—and some of your findings around the impact of having role models and representation in those spaces. Can you share some of those findings?

Buju Dasgupta ([22:17](#)): Yeah. So I should say that I'm more and more generally interested in the experiences of people who are members of any underrepresented group—women, first-generation college students, students of color—in STEM, or in any space. They may be in finance, they may be in other kinds of professions where there are very few such people.

([22:41](#)) Most research has focused on identifying the problem, the fact that there are few people of color, a few women in STEM. But I wanted my research to focus more on solutions, because there was enough emphasis on problems and we can't take the next leap forward unless we have evidence-based solutions. So the kinds of things that my group, my grad students and postdocs and I, try to examine is, what kind of changes in local environments, in the local wallpaper if you will, are necessary to make people feel like they belong, to make people who are in small minority groups feel that they fit in, allow them to thrive and actually stay, instead of being attritioned out?

([23:33](#)) And what we found is that there are three key interventions. So the kinds of things that seem to make the biggest difference is 1) seeing someone like you. And that someone like you, that role model, it works if that person is your professor in a class where you are one of very few women who is also a woman teaching the class but you have no special relationship with her. But just seeing her makes a difference. In other cases we found that 2) having a peer mentor, a senior student for a first-year undergraduate student who is a woman in engineering, having that relationship in that key period in life seems to be a big protective, what I call "social vaccine" that protects one's mind against negative stereotypes. And we found that 3) environments that are communal, where collaboration is encouraged and where there's an emphasis on prosociality. So prosocial or altruistic, work that has meaning, science that has meaning, especially where the meaning is focused on social good. Those kinds of environments seem to be most likely to allow women, and we've also found first-generation college students, and students of color to thrive in STEM.

Wendy Hasenkamp ([24:51](#)): That's great. I'm realizing maybe we should back up a little bit for the listeners, and talk about how you measure this construct of implicit bias. Because, since by definition it's implicit and we may not be aware of it, it kind of begs the question of—you can't just ask people, right? So how does that work from a scientific perspective?

Buju Dasgupta ([25:10](#)): Right. That's a good question. We totally skipped over that! I think there are two ways of thinking about measuring implicit bias. One way, and the one way that I started with, is to try and measure people's preferences and biases, attitudes in a good and bad way, without relying on self-report. And the way it's often done in research in social psychology and social cognition in general, is to use reaction time as a proxy for how strongly someone prefers something or not. So the idea is that if I really like something or really dislike something, if I were given a survey or in an interview, if I'm aware of my attitudes, I can tell you, "I really like this," or, "I really dislike this." But if I'm not fully aware, or even if I'm aware but I am really worried about what you think of me, I may not say it quite as honestly. So the way we measure implicit attitudes oftentimes is by using these rapid reaction time tasks.

([26:12](#)) So the idea is, people will see on a computer screen, let's say, faces of individuals who are women and men, and then they'll be asked to group, categorize, those faces as a man or a woman as fast as they can on their computer keyboard using two designated keys. Interspersed among those faces, they'll see words—like science, or a parent, professional or caregiver, words like that—and they have to categorize those words as quickly as they can using the same two response keys. Now, sometimes the faces of women with words that are scientists go together, and faces of men with words that are caregiver go together and people have to group them together.

Wendy Hasenkamp ([26:56](#)): Okay. So there's rules about how you are supposed to categorize these words or faces?

Buju Dasgupta ([27:01](#)): Right. That's right. So if in my mind scientists are all men, when I see scientists and women's faces, my responses slow down. I make more mistakes. And that slowness of my responses is an indicator that in my mind science and female don't go together.

Wendy Hasenkamp ([27:18](#)): Okay. So it's like the gears are turning more slowly. Like it just doesn't fit with your concept of that.

Buju Dasgupta ([27:24](#)): Yeah. The gears are moving more slowly. It creates this internal disruption or interference, and people's responses are slower. On the other hand, if I see a face of a man and science, those two things are seamless. It's one and the same. Science is male. And so my responses on that part of the task is really fast because it's like that wheel is greased very nicely.

([27:51](#)) So essentially we use how quickly or how slowly people respond as a measure of how positive or negative, or how stereotypic or not, our attitudes are. All the while, we never tell people that we are measuring their stereotypes or their biases or anything. We simply tell them, "This is a task that measures your hand-eye coordination. Try and respond as quickly as you can, just as you would in a video game." Or something like that. And so people are responding as quickly as they can and as accurately as they can, but what we are paying attention to is whether the speed of their response corresponds to a stereotype or not.

([28:30](#)) So that's one way that we measure implicit bias but there are other ways as well. For example, measuring how confident someone feels, how much they feel they belong—by asking them, but you are comparing their responses... So, how much do you feel like you belong in engineering, looking at when those women are paired with a female mentor versus a male mentor. They don't know that their sense of belonging or confidence is affected by the mentor they have or they don't have. But as researchers we can compare those, and see if it matters. So that's implicit in a different way.

Wendy Hasenkamp ([29:10](#)): Gotcha. So I know there's also been a little bit of pushback, or it's evolving still how this Implicit Attitudes Test (or the IAT as it's called), how accurate that is in terms of predicting actual behavior in the real world, or some people have pushed back. So can you give a sense of the accuracy and real-world relevance of these tests?

Buju Dasgupta ([29:32](#)): Yeah. So I think that initially people expected a one-to-one correspondence between people's implicit attitudes in their mind as measured by an IAT, and a direct behavior, how I behave toward you or how I judge a job candidate or who I admit. The reality is that that one-to-one correspondence is there but it's very weak. So it's statistically significant, but it's a small correlation. I think that those relationships between implicit attitudes and behavior is really dependent on lots of other variables that might have to do with the social context, it might have to do with other sorts of motivations. And so I think the expectation that there's a one-to-one correspondence between my attitude and my behavior... We know from classic attitude research that our attitudes don't always predict our behavior, other things do. Social norms do, social expectations do. So that's, I think, one assumption in the field, early in probably the 1990s or 2000s, that actually probably was not an accurate assumption.

([30:42](#)) The other thing that is probably a better predictor of behavior—that work by Keith Payne and others have shown— that if you aggregate up people individuals attitudes to the group level and look at, let's say, the implicit racial attitudes of people in a county, and the correlation between that and anti-black policing, that's where you will see a better correspondence between the average of lots of people in a county, and what happens behaviorally in that county. But if you drill down to the individual level, the association is weaker.

Wendy Hasenkamp ([31:22](#)): Interesting, yeah. So I'm thinking about how much of your work points to the way that these factors around us are shaping our minds without us necessarily knowing it. And I'm wondering how that leaves you feeling about how much agency we have in general, in our own mind spaces. This gets into the topic of free will and arguments about that, but how do you view this idea of agency after studying this for so long?

Buju Dasgupta ([31:56](#)): I don't know that we have that much... I don't know how much free will guides our behavior. I'm pretty skeptical about that. I think we do make choices about environments we occupy, who we are friends with, what media we watch, what we avoid, where we live, where we choose not to live, what neighborhoods we buy houses in, or where we send our kids to school. I think those are choices that we make without probably full realization of how much those choices affect our implicit attitudes, and our subsequent behavior. So maybe I'll correct myself and say, we do have agency, but that agency is far removed... it's like a distal agency. And once we make those decisions, I think things happen that follow, that are less in our control.

([32:56](#)) – *musical interlude* –

Wendy Hasenkamp ([33:13](#)): So when we first met, you were joining us at the Mind & Life Summer Research Institute, I think it was the summer of 2018. And it was the first time that you had been involved in our community. I remember at that time, you were excited because it was the first time for you, of being in a space that was bringing in the contemplative angle into research. And you were sharing that, for you personally, you have had a contemplative practice in your life, and so it got you

thinking about maybe ways to integrate that in your own work. So I'm just wondering if you've had further thoughts in that direction, or just how that's feeling for you.

Buju Dasgupta (33:55): Yeah, that's right. So I think the contemplative practices, I mentioned that had been more in my personal life, but hadn't yet made its way to my professional life. I think since then, I see a lot of my research that focuses on relationships, interpersonal connections, as being part of that contemplative space. I just hadn't grouped it in that way. So all of the research that I do—that says who we are connected to influences how we feel, and what we do, and where we feel we belong, and where we don't—is essentially about... That social connection is in that Mind & Life space.

(34:43) The other way I think Mind & Life has influenced me a lot is, it's sort of made me much more aware that I don't believe that social cognition in a decontextualized way is most impactful, where most of the action is. I think social cognition embedded in social context is where the action is. And so all of my research is really on that social context. So I feel like my work is very much in the tradition of Kurt Lewin, and Lewin in many ways, his philosophy about field theory is very much consistent with Mind & Life—that is, community that influences how we feel and what we do, and human behavior is not in the silos of our brain. So I see my work as more aligned with Mind & Life now. And I think it's simply a matter of seeing contemplative work as not just about meditation probably. That's a good way of describing how my perspective of my research changed.

Wendy Hasenkamp (35:54): Yeah. Had you, or have you come across Francisco Varela and his writings? What you were saying about the kind of context and embeddedness of our minds just reminds me so much of his work.

Buju Dasgupta (36:07): Yeah. I know a ton about Varela's biography being involved with Mind & Life but I don't know about his work. So tell me a little bit more about how you see the connection.

Wendy Hasenkamp (36:17): Well, yeah, the seminal book that really started our field was him and Evan Thompson, who I'm not sure whether you've met-

Buju Dasgupta (36:25): I've met him once, yeah.

Wendy Hasenkamp (36:27): ... and Eleanor Rosch, called The Embodied Mind. And it's really this philosophical and neuroscientific and somewhat contemplative perspective on consciousness being embedded in systems. He did a lot more work from the consciousness side about enaction. Do you know the enactive theories of cognition?

Buju Dasgupta (36:48): Mm-mm (negative).

Wendy Hasenkamp (36:48): Okay. It is exactly what you're saying. Kind of this embedded system that is integrated with the world, and acting in a dynamic relationship with the world. So there's almost no relevance in speaking about an isolated individual unit. It's just very much along those lines. I think you might enjoy reading some of his stuff.

Buju Dasgupta (37:10): I'm going to go and get his book and read it. You know, I think that this is making me realize the importance of your audience who listens to this podcast, to realize that the psychology of the 1970s and '80s and well into the '90s was really... Social psychology, cognitive psychology, and neuroscience, was all about the individual mind, where the emphasis is on the individual. And our

assumption was that we wanted to erase the social context to really get a good signal on the mind. And I think our assumption also was that that signal that we got was a better capture of the way people think, feel, and act. And we can just plop them into their environment, and the environment is sort of inert, or it doesn't account for that much variance, it's not that important. And that way of thinking, which was sort of the active or the unspoken assumption, was how my training was in the early days.

([38:20](#)) And I think my pushback to say that implicit bias is malleable, we just haven't done the right experiments yet, was based on the intuition that instead of having a white-walled room, if you change the room, you change the wallpaper, you might get a different result. But we have to do those darned experiments to get those findings, right? Otherwise we'll always put people in these little cubicles and we'll get the same results over and over again, and we'll think that that is the phenomenon. And what's interesting is that, well before that, in the '50s, Kurt Lewin was talking about field theory and this embodied mind idea, and somehow social psychology forgot about the situation for many decades, until we rediscovered it again in this century.

Wendy Hasenkamp ([39:07](#)): Yeah, it's so fascinating to look at the historical shifts in these philosophical underpinnings. I think it's really important to make explicit. One other thing that I was thinking about, in terms of weaving in contemplative practice potentially with your work is, I saw that you had studied the impact, for example, of anger on implicit bias or different emotional responses. So I wonder about that too, in terms of the capacity of contemplative practices to help us become more aware and emotional regulation and things like that.

Buju Dasgupta ([39:43](#)): That's a really... I should have mentioned that before. That's actually a more direct connection. With my friend and colleague, Dave DeSteno, we had been really interested for many years, for about a decade, to focus on the ways in which negative emotions, like anger, or disgust, or fear, might magnify implicit bias. And we consistently found that it did, especially in the case of anger and disgust. I think what's also important there is that—in those studies where we found that anger increased implicit bias against Arabs, whereas disgust increased implicit bias against gay men—in those situations, people were not aware that the emotion that we were inducing them to feel would bleed over into the measurement of their implicit attitudes.

([40:34](#)) And so I think what contemplation brings is to increase that awareness—of both the emotion we feel, and the fact... to regulate those emotions, and to be aware of the possibility that those emotions may bleed into, or may distort our camera lens, in how we are seeing someone else. But that distortion is not in that other person, the distortion is in our mind. So I think that yeah, the self-regulation of emotion, or the spillover of emotion into implicit bias, is a very good direct relationship with contemplative science.

([41:12](#)) – *musical interlude –*

Wendy Hasenkamp ([41:42](#)): So I know you're the director of the Institute for Diversity Sciences. Can you share about that work?

Buju Dasgupta ([41:49](#)): Yeah, sure. So I think what I've realized is that there are many of us whose research in the social sciences, in the natural sciences, engineering, computer science and so on, has something to do with equity. But we are all siloed—we work on our research in disciplinary silos and institutional silos and so on. The vision of this Institute of Diversity Sciences at UMass Amherst, that I started, the goal of it is to essentially be a matchmaker, bringing together researchers—faculty, grad

students, undergraduates—whose research is on something related to equity, but they come from very different fields.

([42:31](#)) So for example, their research may be on health disparities. Some of them are in public health, others of them are in sociology or psychology, others of them are in engineering or in technology, doing variable personal health monitoring kinds of stuff. But they don't know each other. There's another theme on disparities in learning and work, where my research sits. Or another theme on climate change and its disparate impacts on communities, which brings together geoscientists, and ecologists, and social scientists, and so on.

([43:05](#)) So the goal of this institute is to really try and solve complex problems in the world, by bringing together expertise across multiple fields. That's like a really big goal because we think that that will have bigger social impact. And what we found from my research and others like me, is that those kinds of ways of doing science, that focuses on equity-related questions, also attracts underrepresented students into science. So the women, students of color, first-gens are much more attracted to science and engineering if the research questions have an equity angle. So we found that we have a disproportionate number of women and faculty of color and students of color in the institute.

([43:52](#)) And finally, the third goal is to make researchers aware to always think about converting their research to social impact. If you check out diversity science UMass, you land on our website and you'll see all the ways in which we try to push ahead those three missions. 1) Solve complex problems related to equity by bringing together people from different fields, by 2) bringing a more diverse generation of scientists and engineers into the field, and by 3) converting the work we do and translating it to real-world problem solving to have social impact. That's what I'm really passionate about.

Wendy Hasenkamp ([44:34](#)): That's really exciting. So I know we're coming up on our time, so I'm just curious, stepping back from your work, if you have takeaways for the audience of things that are most relevant, or that they may be able to apply to their daily lives.

Buju Dasgupta ([44:53](#)): Yeah, so several. One, which has sort of been the theme of our conversation is that, one takeaway that I have about changing implicit biases is to change your situation. I think that the places and the spaces we put ourselves in, who we hang out with, what we read, where we live, where we send our kids to school, all of those things is that wallpaper or the situation that affects our attitudes. And it's less about personal agency. I think that's something I've come to strongly see in my work, and believe to be true of us. So if we really want to create social change, I think we have to start changing the situations we are in.

([45:43](#)) And we can do that by representation, changing the people around us. We can do that by relationships, the people we choose to connect with. And we can do that by creating environments—work environments or school environments—that are more communal. So a lot of my work shows that communal environments reduce bias. So I think that's one main takeaway: don't underestimate the power of situations, and try to change that [the situation], rather than assume that we will individually make the right decision.

([46:18](#)) The second, I think, takeaway is that, for those listeners who are researchers, who are scientists, I've become more and more invested in the social impact of the science we do. To me, it feels that if we really want to make change and want to answer real questions, that we have to see the connection between the science that we do in our labs and its effect on the field. So I think for your listeners who

are scientists, my important takeaway is, make sure that if you got into science to have social impact, that you connect to the work you do to that social impact. And that means pushing ourselves out of our sterile lab settings and challenging ourselves to do studies and research out in the field. Because to the extent that we are trying to answer questions about the real world, there is some point of time when we have to get outside of the lab into the field. And so this may a be particularly relevant takeaway for people who are scientists, or who are sort of beginning scientists. That's the second takeaway.

([47:33](#)) And the final one is that, sometimes the best interventions that create social change are ones that are not in-your-face. In-your-face interventions often get a big backlash, and sometimes may backfire. Sometimes interventions that come at the periphery of your vision, that are indirect, that are in the wallpaper, may disarm people, may in the end be more effective than getting in people's faces. So I think those are the three lessons that I leave your audience with.

Wendy Hasenkamp ([48:09](#)): That's great. Can you give an example of that? The not in-your-face approach?

Buju Dasgupta ([48:15](#)): Yeah. The example of the in-your-face approach is something where we have trainings that we do in our workplace, or in our schools. And we assume that if people do implicit bias trainings, it's "one and done" and they're all good and now they're certified, and we're all good. It doesn't work. There's very little evidence in meta-analysis that implicit bias training actually changes behavior in the way that we would want. So that's an example of something that either is a net zero, or it's something that some people will react very negatively to, because they'll feel that they are being coerced into that training.

([49:00](#)) Things that are more subtle is, paying attention to who is at the table. Subtly changing the racial and gender and other gender identity composition of who gets to make decisions, who is at the table, who is in our teams, who we call on in a class. Essentially doing things that are much more subtle, and maybe unspoken. Making sure that the teams we create are more diversified. Making sure that the students we call on in our class represent the diversity of the class. Making sure that people who are entering a new organization have a relationship with somebody who is like them, that peer mentoring relationship. Nothing needs to be spoken about it. You don't need to draw someone's attention to it. But those small steps... the takeaway from my research is that that actually has ripple effects that are far more long-term than would have happened if we did a little training.

Wendy Hasenkamp ([50:08](#)): That's a great insight. So just to wrap, what would you say the ultimate hope for your research would be?

Buju Dasgupta ([50:17](#)): Social impact. To get outside of academia, and to actually change practices, policies, hiring decisions. Make people question the norms of "this is the way we've always done things." That's my ultimate goal. It's not about, no more about the publishing in the field, it's really about taking the message from those publications and to actually create change in organizations, in schools, in policies. That's my ultimate goal.

Wendy Hasenkamp ([50:59](#)): Well, thank you so much, Buju. This has been really, really great to talk. And I feel like you're such a pioneer in bringing together these spheres, so thank you for leading the way, and for all of your work. And for taking the time to speak with us today.

Buju Dasgupta ([51:13](#)): Thank you for inviting me. And I think the questions you asked really made me think in a different way, in ways that I hadn't thought.

Wendy Hasenkamp ([51:25](#)): Oh, I'm glad. You've made me think in different ways too. So this has been really fun.

Outro – Wendy Hasenkamp ([51:35](#)): *This episode was edited and produced by me and Phil Walker. Music on the show is from Blue Dot Sessions and Universal. Show notes and resources for this and other episodes can be found at podcast.mindandlife.org. If you enjoyed this episode, please rate and review us on iTunes and share it with a friend. If something in this conversation sparked insight for you, we'd love to know about it. You can send an email or a voice memo to podcast@mindandlife.org. Mind & Life is a production of The Mind & Life Institute. Visit us at mindandlife.org, where you can learn more about how we bridge science and contemplative wisdom to foster insight and inspire action towards flourishing. There you can also support our work, including this podcast.*