The Taproot podcast

Season 4, Episode 1

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Guest: Ambika Kamath

Transcribed by Joe Stormer

[Instrumental theme music]

Ivan Baxter: Hello, and welcome to Season 4 of The Taproot. The theme for this season is "Cultivating Your Career", and we're going to look at how people make a variety of career decisions and what factors go into those. I'm Ivan Baxter.

Liz Haswell: And I'm Liz Haswell. Our first guest is Ambika Kamath, and we think she's a great guest to kick off this season. Through a discussion of her journey in science, we get a great perspective of how she's approached decision making at each career step. Now while the focus of this season is on early career decisions (like whether or not to go to graduate school or how to choose a postdoc), Ambika's advice here is relevant for anyone at any career stage who wants to make conscious, values-based decisions about their career in science.

Ivan: And that is [unintelligible].

[Instrumental theme music]

Liz: So today's guest is Ambika Kamath – currently a postdoctoral fellow at UC Berkeley where she received a Miller Institute for Basic Research in Science postdoctoral fellowship. This year, she was awarded the American Society of Naturalist's Young Investigator Award. Welcome to The Taproot, Ambika.

Ambika Kamath: Thank you! It's great to be here.

Ivan: This paper is a paper from Ambika's undergraduate studies; is that correct?

Ambika: Yep!

Ivan: Wow. It is "Floral size and shape evolution following the transition to

gender dimorphism". That is in the American Journal of Botany from 2017. Ambika, can you give us a short summary of this paper?

Ambika: Absolutely, yeah. So in this paper, what we're basically looking at is the transition that happens pretty often in plants from plants that have hermaphroditic flowers that reproduce through both male and female function to plants that have separation among individuals and whether they reproduce through male function or female function - basically the evolution of separate sexes. This transition has occurred a large number of times in plants in general and has occurred a bunch of times in the genus that was the focus of study in the lab that I was an undergrad in – the genus *Lycium*, which is a bunch of [unintelligible] plants that live in really dry environments. We focus on a particular species, *Lycium californicum* where you have this transition within the same species – so in closely related populations of what's ostensibly the same species in many other ways. Basically, focusing on the evolution of separate sexes and the consequences of flower shape and size in a way that's less confounded by other evolutionary changes that take place over a longer time scale. Specifically we looked at flower shape and size to see how they shift as they have the evolution of separate sexes from hermaphroditic flowers. Initially we thought this was going to be a pretty straightforward comparison but as we collected the data and looked at it we realized we really couldn't ignore abiotic variables as well. As I said, these plants live in really dry, hot environments and the upshots seems to be that reproduction of the species overall is really constrained by temperature and precipitation, and that's true in the hermaphroditic flowers as well as in the populations which have separate sexes. But once you have the evolution of separate sexes, plants that reproduce mostly through male function and don't have to make fruits and seeds anymore evolve to become bigger, potentially thereby attracting more pollinators. What was interesting those was that shape showed the reverse pattern of flowers that were found in hotter, drier places. In terms of shape, they looked more like male flowers than female flowers. What you have in this paper is you have

relationships between abiotic variables as well as separate function that manifests in these really interesting ways across this latitudinal gradient, and so this work was really trying to tease apart that variation.

Ivan: This is such a really cool story. Did you do almost all of this yourself or was this sort of a team effort?

Ambika: So I'd been in this lab quite a long time when this project came about. Much of the previous work I had done had been part of bigger questions that the lab was asking about using sort of mating system genes – genes for gametophytic self-incompatibility – to reconstruct population history. And my advisor wanted me to do the SINS work, looking at these genes for gametophytic self-incompatibility IN ADDITION to the floral morphology work. She had done a lot of floral morphology work previously and continues to do it. I was stubborn and I insisted that the morphology was going to be what I wanted to focus on; I didn't want to do the genetic work. My advisor wasn't sure how that was going to pan out. I'm grateful that she trusted me and let me run with it a little bit. The overarching plan was definitely something that was part of the lab's overall direction but a lot of the nitty-gritty stuff and the depth to which I took this (in terms of analysis and and trying to disentangle things with this abiotic gradient) came from me. As part of the thesis, the really sort of intensive flower sampling within the center of Baja California (which is really where we were able to preform those comparisons because you've got these cosexual and dimorphic populations really close to one another) – all of that sampling I was involved in that fieldwork. Jill and Rachel and I all went to Baja California and spent a couple of weeks just driving and stopping to collect flowers wherever we could.

Liz: That sounds like an amazing undergraduate experience.

Ivan: Tell us a little bit about this.

Ambika: I got into Amherst. I grew up in India. I wasn't planning to come to the U.S. for my undergraduate but I didn't actually get into college anywhere that I wanted to go in India and so then I was applying again and it made sense not

just to apply to the same two places in India and so I added on four colleges in the U.S. basically at random; I looked at a friend's list and didn't do any research and just threw them on there and applied. Then Amherst was the only place that I go into and so I'm like, "Okay, I guess I'm going here." Thankfully I got enough financial aid to make that feasible. But I didn't get that scholarship at the time that I got into college. What happened was I got to college and already in high school I'd been really lucky. I went to a high school that's sort of in the middle of nowhere in southern India. It's actually also a bird preserve and there was a behavioral ecology doing his fieldwork on our school campus and our biology teacher sort of convinced him to come and do some basic evolution and ecology projects with us, and that was when I just got hooked onto this. He advised me to read a whole bunch of things. At the time I'd wanted to be a mathematician and he sort of saw that that interest in math could be leveraged into thinking about the natural world too so at that point I was hooked. I had the sense when I got to Amherst that I wanted to be involved in doing research in ecology and evolution. Several of my professors from classes as well as potentially my advisors nominated me for this scholarship that gives you research funding. It was a really new scholarship and it's primarily used just as a recruitment tool. They offer it to really promising people. It's basically unrestricted funding –

Liz: Wow!

Ambika: – to sort of enhance your education however, whatever way you see fit. It was really new so at the time they hadn't even thought to put a limit on how much money we could each get. Eventually they realized that that was going to be necessary after the first couple of batches. [Laughter] We vastly overspent, so by my final year they were like, "No, no, we're going to have to cut this off at some point." So yeah, that was mostly a recruitment tool but there were a few of us that after our first year could also get it. So I got it at that point and then it allowed me to keep working in the lab doing research. During the semesters, I did a lot of genetic work and then also paid for fieldwork that I did during the summers and spring. I was phenomenally lucky to get that and it really set me

up very well for a career in research, I think.

Liz: Yeah, a first-author publication as an undergraduate is pretty impressive.

Ivan: I really liked how you took these really complex data sets and used the principle component analysis to make it into a very simple comparison of environment versus morphology. That's something that took me a long time to get to. As an undergraduate, was that easy for you to wrap your head around?

Ambika: I don't know; as an undergrad it did all make sense to me. I took a lot of math classes. As I said, I wanted to be a mathematician until I realized that I didn't know how to talk to mathematicians. I'd find that I could talk to and feel comfortable with field biologists and so that was a major factor in deciding that I wanted to stick in ecology and evolution because I found that I could relate to the people better. But I do try to take advantage of that math background to the best of my ability.

Liz: So Ambika, you started as one of us (the plant biologists) but you're not a plant biologist anymore.

Ivan: Oooo!

Liz: She did her PhD at Harvard with Jonathon Losos, who does not work on plants (although I'm working on him). How did you make that switch? What were you thinking? Or was it just a no-brainer?

Ambika: It was not a no-brainer. As I said, I had that scholarship that let me do all kinds of things and I used some of that to get experience in undergrad, doing research on lizards and then plant-animal interactions. I think all of my research led me to be interested in and sort of guided the labs that I applied to was wanting to think about individual variation or think about variation that is within species scale – really thinking about different arenas of biology which variation at that scale can be interesting and can be studied. Then when I had to make the decision about where to go to graduate school, it was not necessarily a no-brainer and I found that decision really difficult. I would go to bed sort of torn up about this decision that I had to make pretty soon and I'd hope that I would wake up

the next morning having decided, and then it just didn't happen. So I sat down with my undergrad advisor, Jill Miller, and basically spewed forth all of my thoughts and feelings about every place that I applied to. She listened to me and said, "I think you want to go to Harvard and work with Jonathon Losos." Once she said that, I was like, "You're right. That is what I want to do." I found that it was not an obvious decision by any means, but once it was made it felt like the right one.

Liz: This is actually the topic we kind of wanted to talk to you about, which is sort of the process of making these career decisions. There are all these different ways to do it. You just described one way to do it, which is to to process it with a trusted advisor who can hear what you're saying that you can't hear yourself. What are some other ways that you have made big decisions?

Ambika: That's definitely one thing that I recommend is finding someone that you trust and someone who isn't shy to say what they think. There are lots of people that I trust when they do offer their opinions but they hesitate to offer their opinions; my undergrad advisor was not one of these people, thankfully. That is definitely one. Another ways is, I dunno, this isn't really something to recommend, but NOT having options is sometimes great. If I'd had options about where to go to undergrad, I don't know what decision I would have made but I didn't have any options and it worked out wonderfully. As I made the transition from being in grad school to postdocing, was to really reflect deeply and make a list of the things that I thought were important to me and the things that I wanted before I was faced with a concrete option at all. Doing that was really helpful because I think once you have options in front of you I become susceptible to self-deception. And having that list before I actually had an option was a way to ensure that I was being true to what I really wanted.

Liz: Right, so it's like proactive decision making versus reactive decision making.

Ambika: Exactly.

Liz: That's an interesting distinction.

Ambika: That's a really good way of framing it. I like that – "proactive versus reactive". That's something that I try and do more and more of now – just trying to challenge myself to always being in touch to some degree with what I think I want and what's important to me. On the flip side, that's difficult because you also have to be open to that changing. I get stuck sometimes in thinking that I want something that I had decided in a previous bout of reflection that I wanted and it takes me a little while to be like, "Maybe I don't want that thing anymore." So it's a balance, I think, between checking in with yourself and letting yourself go with the flow. That's not something that I'm good at; it takes a lot of work. I do the work because I don't think I'm inherently good at it but the work pays off.

Ivan: I think it's interesting that at different career stages you have more constraints on the decisions you're going to make and the order you're going to make them in. When you're going to grad school you *usually* just decide whether or not to go to grads school and then there's a long application process, but when you're deciding to do a postdoc you can evaluate not only different postdocs but also different career paths at the same time. You have to make all of those considerations into a decision at one point.

Ambika: That's a really good point. My decision making looked very different in grad school versus the postdoc stage. I was pretty sure that I wanted to go to grad school. I had the option of being a research tech for a year in the lab that I had been in as an undergrad and I did not want to do that; I was ready to move on to a bigger city. At that point, I didn't really consider things. I was very sure that I wanted to go to graduate school and I felt prepared. In hindsight, what I wish I had done was taking some time to have a job that had nothing to do with science. Given who I was in undergrad, I don't think that I would have ever made that decision. I can't imagine a universe in which I would have made that decision and so I try not to be too hard on myself for that, but that is something that I wish I had done and something that I suggest to people that they try to do if they can (if they only experience work within research) – getting some experience of what the workplace looks like outside of academia I think would

have given me a lot of perspective that would have been useful in graduate school. But that recision making looked very different when I was trying to make the decision about doing a post doc because the question of whether or not I wanted to do a postdoc was certainly one that I was considering. I had several years in graduate school when I was quite sure that I did not want to stay in academia because the thing that I thought that I wanted to do the whole time was become a science journalist. The thing that was holding me back is that job security is as bad (if not worse) in science journalism as it is in academia so it didn't quite seem like an obvious move to make. But I spent a lot of time in grad school becoming a better writer and really practicing science communication because I thought that I wanted to keep that possibility alive as a career. So when it came time to decide about postdocs, that was just actually I dug up my list of pros and cons (staying in academia versus not) and my pros, there are three; and my cons, there are like fifteen.

Liz: Let's just set the scene here. So you are in your last year of your PhD?

Ambika: I was in my fifth year, and it ended up being a six-year PhD.

Liz: So you're not quite done yet but you can see the light at the end of the tunnel and you're starting to think, "Is this what I really want?"

Ambika: I'd been thinking that for my third and fourth years, as well. All through my third and four years of my PhD I was really not quite sure about what I was doing.

Ivan: I feel like that's almost universal. I definitely had multiple times through my PhD when I was not sure that I wanted to stay in academia. Liz, did you have that experience?

Liz: I did not. I have to be honest and say that I went straight through my PhD knowing exactly that I wanted to be a professor and I never really doubted it. I doubted whether I would be able to do it. Will I be successful at it? But I always knew . . . not always – always through my PhD I knew it. But I think I was definitely a rare breed, even way back in 1920 when I got my PhD.

Ambika: [Laughs]

Liz: I see more young adults coming in; their first year they already have sort of an idea of what they want to do and seem's like it's less frequently academia. Then you still see them going through this phase of, "But is that really what I want to do?" or "I'm not sure." Then they make a change and then they flip back. So I think that that's more of a normal part of the process.

Ambika: Yeah, I definitely think it is a normal part of the process but one thing that was frustrating while I was in that process was the number of people who had been through that who said, "Oh, no, you'll get through this and you'll want to be in academia." I feel like nobody (or very few people) took my desire to do something else seriously.

Liz: Yeah, that's a bummer.

Ambika: And I was lucky that my PhD advisor did not do that. He had no problem with me taking the time to become a better writer. I went to science writing conferences and workshops and things, and he supported that a lot. He really walked that balance very well of saying, "If you want to stay in academia, I have no doubt that you can do it. But if you don't want to, that's fine." I think that balance of having my PhD advisor being supportive of the confusion, I guess, is what was really a big part of feeling empowered in graduate school. I felt like my future was within my control to a degree that in some ways I don't feel right now, and I miss that feeling.

Liz: Yeah, that's interesting. We had talked about this earlier sort of as an idea of deciding what your values are and then making decisions based on that. Before your opportunities come, you decide how you're gonna approach each opportunity. When you said that to me before, I was like, "I'm not sure I could even articulate what my values are." I spend some time this last year writing what my personal mission is (as an almost full professor) but as I was a graduate student that would have been really hard for me to do. So I'm intrigued by the idea of this as a process we could recommend to young people. Tell us more

about that.

Ambika: I don't know. It works for me, but I realize that different people are different, right? And we've all got to find it for us. I balk at recommendations in general or advice in general. So in some ways, this whole endeavor is a bit odd for me. Like I try to write non-advice advice (you know) when I write it and I'm also an advice column junky because I'm always trying to find people who are good models for giving advice. But my absolute favorite advice column at the moment actually is one called *Ask Polly* by Heather Havrilesky. She does a phenomenal job of getting to the core. She doesn't actually tell you what to do, (except that she often recommends that people go to therapy, which is definitely, unequivocally something that people should do). Anyway, what she does is encourage you to really sit with your feelings and I think that that's something that I've had to learn how to do as I continue being a person – trusting your feelings and sitting with your feelings. A lot of my decisions I guess are you have some questions further down where you say, "How do you balance all of these different things?" It's never a formula; it's just sort of sitting with my feelings and trusting that when I feel good about something, then I feel good about that thing.

Ivan: I think that's such an important part of the whole thing. It's a) spending the time to figure out what you're feeling, and also just letting yourself feel it before you commit. We actually flipped a coin to decide grad school (where we would go to grad school) and sat with it for about two hours and decided that we really didn't like the way that the coin had come up and that sealed our decision to do the other one.

Ambika: There's a really good poem and it's called *A Psychological Tip* [by Piet Hein].

> Whenever you're called on to make up your mind,
> and you're hampered by not having any,
> the best way to solve the dilemma, you'll find,
> is simply by spinning a penny.

No -- not so that chance shall decide the affair
while you're passively standing there moping;
but the moment the penny is up in the air,
you suddenly know what you're hoping.

Actually, I'm just remembering that there was one decision about where to apply to grad school that I tossed a penny and decided that I did not want the penny to land heads.

Liz: Yeah, I think I made my grad school decision sort of in the same way. It wasn't "Where do I want to go?" but "Where can I not stand to not go?" If I make the decision to go somewhere else, where am I going to feel a loss? And then that made it really easy.

Ivan: So you're coming to a decision and you're trying to get ahead of your options and trying to write these values down. Given the discussions we've been having about grad student mental health, I think this is one more of the super stressors – it's that next step and I think that a) the idea of "Get some counseling and get it early and take some time to make this decision" so that you're not like, "Alright, I'm writing chapter one of my thesis and now I have to decide the rest of my life. What am I going to do?" But as a process through grad school, you are thinking about next steps but not in a hurry and maybe trying to identify what your values *should* be is really good. So I'm really curious – are you willing to share a few of the values that you wrote down, just as an example?

Ambika: Absolutely! So one thing, can I just speak a little bit to therapy before that?

Ivan: Please do.

Ambika: For me, at least, doing the work of finally sitting down to reflect on who I was as a person, addressing some stuff that had needed to be addressed for a very long time; it's the hardest thing that I've ever done. So yeah, I wish I'd been going early and I think that in hindsight as I'm telling you this I'm coming to you as a very put together person but in reality I wasn't really that put together.

In terms of thinking about the values, I tried to find the actually list. I remember making a list of "This is what I want from my postdoc" that would serve as a template for making a decision about it and I can't find quite that list. But in my pros and cons list what I wrote down, "Why I want to stay in science", I wrote down:

Science is interesting

You have flexibility in your job

There's a liberal atmosphere

The cons included:

Job uncertainty

Overwork

Stress

Funding uncertainty

Bias preventing advancement

Mental health

Time for physical health

Dealing with non-transparent bureaucracy

. . . all of these other things.

Ivan: [Laughs] And you were able to rule those all out?

Liz: That's pretty insightful for a graduate student. [Laughs]

Ambika: This is the list that I came up with. And so having considered all this I made the list of, "Okay, how interesting does that science have to be for it to be worth it to deal with all of this other stuff?" I remember writing down that I wanted science where I felt like I could . . . I wanted to gain new skills, I wanted to do experiments in the field, and that working with lizards field experiments was not something that I could do. I also was trying to be pretty practical about it

because I had at that point a sense of what you needed to . . . like you need publications in order to get a job in academia and so I wanted to make sure that I went to a postdoc lab where there had been a track record of high publication rates and that I felt like I would be able to jump into a new system and hit the ground running. Those were sort of the options that from a scientific standpoint I was playing around with in my head. At the time, I didn't really have too much a list of what I wanted otherwise from the perspective of my personal life. That is something that is much, much more important to me now. Right now as I'm deciding where to apply to jobs, I'm thinking more about the kind of life that I want to live as compared to – say – whether I want to be at an R1 and whether I want to . . . at this point actually, I guess as a PI you get to do the science you want to do wherever you go, for the most part, to some degree, in some way. [Laughter] I don't know, you're laughing, so maybe that's a wrong thing.

Ivan: You're unequivocal statement got four qualifiers right after it, which I think are quite appropriate.

Ambika: [Laughs] I mean at least it's not the same as doing a postdoc where you could end up in lab that's just doing something that's entirely uninteresting to you. I'm reflecting on this now, such a shift in my perspective. At the time when I was deciding where to do a postdoc, as a graduate student I made a conscious decision to do research that was interesting to me even if it wouldn't get into a really high-profile journal. And then there was a couple years where I knew it was interesting but I couldn't convince anyone else that it's interesting. All of that angst is reflected in just how important it was to me that I didn't want to end up in a postdoc lab where I did work that was flashy and would get me good papers but that I didn't care about. So I was trying really hard to find somewhere where I could do stuff that was interesting to me and that was still practical in terms of wanting this career.

Liz: Yeah. You have to consider both. “Where do I want to get to?” and “What am I gonna have to do to get there?” but also, “How do I want to live now?” I think the balance between those two are often in conflict, and which side sort of

wins out depends on the career stage and of course sort of your level of power and privilege, really.

Ambika: Yeah, absolutely.

Liz: I'm interested in what you think about how you think about one's position of privilege or power plays into all of these decisions because I think that where you sit can really impact what you value. For example, the most important to you may be having economic security – may be the most important thing to you. Or you may be in a situation where you know you can fall back on your parents and so doing something where you go into debt or you aren't going to get paid really a living wage is like no big deal and you can just put the science first. Tell me what you think about all that.

Ambika: Yeah! I absolutely recognize that the only reason that I can make decisions like this at all is because I have tremendous privilege and I've been able to build on it. I got a lot of financial aid going to college but my parents still paid a substantial amount of money for me to go to college at Amherst. From that point on I sort of did my best to not depend on them financially and I've been lucky to not have to do that after college, but that was a huge investment and that has really set me up from that stage on to be able to be in positions where I can make these sorts of decisions. I feel like I can take risks that many people wouldn't be able to. I'm trying to think if any of my decisions have actually been risky in that way. Simply having these options available to me has definitely been a consequence of privilege and I would be remiss not to mention that this comes from Indian society being horrifically unequal. I come from an upper caste Hindu family. My parents are Brahman, which means that we're sort of at the top of the caste hierarchy and have benefitted from this for thousands of years, right? So the fact that I am well-educated and come from a well-off family is on the back of thousands of years of privilege and that is in no uncertain terms largely why I am able to do what I do and why I am here today. The ways in which conversations about privilege need to be nuanced, right, is I don't know that it is salient to or relevant to most Americans thinking about . . . I don't know. I'd

imagine that a lot of people see all of us South Asians as uniformly brown, but there are huge disparities that have been going on for as long or much longer than other inequalities faced by people in the U.S. that function within our society. In Indian society, I am about as privileged as one can get except for the fact that I am a woman. But still some elements of that privilege translate other to the U.S. and other parts don't. Like I got into Amherst probably in no small part because there was an effort at the time to diversify the student body by the Amherst college president. There was a substantial and conscious effort to diversify the student body and we were part of that process. It was fascinating because the goal was just that (diversify the student body) and nobody sort of planned for what would happen to all of us diverse people once we got there and so we were part of an experiment. It was a combination of being incredibly privileged and being able to access this opportunity from India combined with this effort from within the U.S. to move education to a greater number of people.

Ivan: One of the things we were talking about (trying to make decisions before you have to make decisions) is that once you're in your postdoc, there is no real time to make decisions before you have to make decisions because there is no constraint other than maybe how long your contract is, but the contract usually can be broken quite easily by resigning. There's no timeline for when that next decision should come. How do you think about that process?

Ambika: That is something which was in large part a motivating factor for writing that blog post that Liz I think you read. It's just that I don't know how to do it. As I was saying earlier, I've lost some of that. In graduate school I felt that I had more options and it feels like the further you go down an academic path, it feels like I have fewer options. One thing that I've realized is that whether or not you are actually in control, feeling like you're in control seems to be a helpful aspect to making decisions. And so one thing I'm trying to do as I gear up for this next season of applying to jobs is really doing that prioritizing what it is that I want out of these jobs again. And I'm lucky to have had people who have done this before. I have colleagues who were sort of ill-advisedly picky about places that

they applied to; they didn't applied to many jobs but they were also entirely prepared to do something else in academia. And I think to me at least that retaining that possibility of saying, "I am going to stay in academia if I can do it on my own terms," is something that I can't escape. I think part of me had hoped that by the time I got to being a postdoc I wouldn't feel this beholden to the system in the same way that I did as a graduate student but I do. In some ways it's even trickier to talk about it now, right? What if a potential employer hears me saying, "Oh, I don't know if I want to stay in academia," and views that as a sign of not being committed enough to this job. It becomes so difficult to make . . . but I still want to say it because at the end of the day, it's true for me and it's gonna be true for a lot of people that get interviewed or people that want to be professors. I think the idea of choosing and feeling like, "Okay, I'm doing this. I want to stay in academia but I want to do it on my own terms," is the way in which you get people in academia that are ready to challenge the system to make it better. If you have people coming in feeling beholden to the system, they're not gonna push it to change in ways that it needs to change, to be more inclusive and to be more equitable. I haven't wrapped my head around it fully yet. The one thing – I got some really good advice from a PhD advisor when I was freaking out the day before a job interview this past season where he said, "You are really good at being you and you've gotten to where you are by being you. So just keep being you; it'll be okay." I can't shake the idea that who I am is someone that does not want to feel beholden to my workplace in the way that academia seems to so often demand.

Liz: Okay, so part of me wants to say, "You don't have to be beholden to the institution. You can be whoever you want and do a great job here. Look around and look at all the people; they're being whoever. They're being who they are." But then another part of me remembers faculty searches where it's obvious that there's a particular style, mode, personality, narrowness of interest that is required for success at the game. What I want to say is what Jonathon clearly said to you, which is "You can't be anyone but who you are anyway, so just be

yourself and bring that dynamic into academia. Make academia accommodate you," right?

Ambika: But that's difficult it.

Liz: It's difficult and I don't think that it's actually good advice.

Ambika: Yeah. The thing, though, is I think it's good advice for life. It's bad advice for getting a job in academia, right? It may well be that I will be whoever I am and not get a job because of that. I have to be okay with that – is the thing. And I have to have another plan.

Ivan: I remember the job market being incredibly frustrating, partially because there are so few jobs and which ones are the right match. You can have all of your values laid out but if the job that match your values are not in the places that you want to live, it feels like you have so much less control. I think that's really hard to be able to sit right with you.

Ambika: Absolutely. I think if I am feeling as someone who has about as elite an education as you can get . . . I dunno, I have everything going for me in so many ways and I still feel this way. It is, if anything, a much more difficult set of decisions to make for most other people who are postdocs and don't conform to what the status quo is in academia. I don't know; it's not something that I have answers to yet. I'm gonna have to figure it out in the next couple of years and so we'll see.

Ivan: I think realizing that for many people (and I don't think this is right and equitable) their values may not match with the available jobs when they are at that point and so you have to have other options other than academia that you can find that can meet your values.

Liz: Again, this comes back to this point that I keep finding myself making, which is that it is not incumbent upon trainees to conform. It is incumbent on institutions and people in power to relax our requirements, to change what we're asking people to do and be. So give us advice. What can we doing (search committees be doing)? What can institutionalized old people like us do to make

things better?

Ambika: I actually have no problem giving advice to people further along than me. It involves just, again, a lot of introspection and a lot of being real with yourself. One thing that seems to be so clear from hearing people's stories on the job market is this vague notion of fit (right?) and how important that seems to be in making decisions about who gets hired and who doesn't. I can totally see how that's crucial because nobody wants to end up in a place where they feel like they don't fit. But how often is that a cloak that's pulled over all sorts of –

Ivan: Sexist, racist opinions.

Ambika: Exactly. Right. Or people being pushed out of their comfort zone, right? People being forced to interact with someone on virtue of hiring them as a colleague with someone who makes them uncomfortable, who challenges them, who pushes them, right? Being okay with discomfort is something . . . if faculty started to train themselves for be okay with people who they're uncomfortable with but who they recognize are pushing things in the direction that things need to go, that is where I think the onus really lies on not choosing the comfortable option.

Ivan: While I would love to keep this conversation going, we need to wrap it up. This has been fantastic. Ambika, I really appreciate you sharing your time and your process with us. If people want to get ahold of you, how can they do that?

Ambika: You could either find me on Twitter or email me. The handle is the same; it's *ambikamath* (which is my first and last names squished together in a portmanteau; it's not *ambika math*) @gmail.com or on Twitter that's my handle.

Ivan: And Liz, how can people reach you?

Liz: You can tweet at me @ehaswell.

Ivan: And you can reach me @baxtertwi and you can reach The Taproot @TaprootPodcast. With that, we will wrap this up. Ambika, thank you very much.

Ambika: Thank you! Thanks so much for the chance to talk about all this stuff.

Liz: Thanks, Ambika.

[Instrumental theme music]

Ivan: The Taproot is brought to you by the American Society of Plant Biologists and the Plantae website. It is cohosted and edited by Ivan Baxter and Liz Haswell, and produced by Mary Williams and Katie Rogers. We get editing help from ASPB Convirons scholar Juniper Kiss. We are very excited to have Joe Stormer help us out with transcripts. If you like this episode, tell your friends and colleagues and be sure to subscribe on Apple Podcasts or in your podcast player of choice. Thanks for listening, and we'll bring you another story behind the science next week.

[Instrumental theme music]