

[Episode 18 - A Conversation between Jasmine Darbhamulla & Katie Griffith Transcript]

My name is Katie Griffith, and I'm here with...

(Darbhamulla) My name is Jasmine Darbhamulla.

(Griffith) And we're going to have a little chat about our background in math and science, and how we got interested and personal history and such. So tell me a little bit about yourself, Jasmine. How did you get interested in science and math? Where are you from? Background information.

(Darbhamulla) So I'm from Gilroy, and I got into math and science kind of late in life. When I was growing up, my dad loved math and he emphasized it a bunch, and I hated it, because on principle you have to hate what your parents love, at least when you're a teenager. So I hated it for a really long time, and I even loathed it until I got into calculus, and so I started to get really, really great teachers and just being able to understand it...

(Griffith) Was that at Cabrillo?

(Darbhamulla) It was.

(Griffith) And that was the same thing for me. I went through elementary to high school, just kind of floating through whatever, not really knowing, and then getting into the time when I actually wanted to be in college, and then finding out that I wanted to do calculus and find out what this is all about, and then, ah! Everything's beautiful. [laughs]

(Darbhamulla) I didn't even decide to do calculus. I'm a biology major, so I have to do all of it. The person who started me getting excited about math was Jennifer Cass. She was really great; she was a good teacher.

(Griffith) That's so cool. And that's always so good to have. At the community college level, it's so nice to have access to your teachers. The classes aren't as big. They still seem a little overwhelming with 60 people in them, but if you go to a four year college it's 100 or 200 people.

(Darbhamulla) And you essentially don't exist.

(Griffith) Exactly. Having the access to be able to talk to your professors and know that they're on your team in a way, kind of makes it more happy, and it's more of an experience of I want to learn this versus I have to learn this. So with biology, what are you planning to do?

(Darbhamulla) I'm hopefully going to get into medical school. So I'm a biology major and a math minor, and I honestly picked the math minor because I'm using that kind of ideal that America has that math is really hard, which it is, but I'm hoping... A lot of people find math really intimidating, so I'm hoping it makes me look good if I have a math minor, but I'm also interested in the subject since getting into linear algebra too. It's really interesting.

(Griffith) Cool. I'm going to do math 6 next semester. Calculus is happening now, and then it'll start getting abstract and weird and interesting. For me, what I've discovered especially with physics as a background and chemistry on the side, the more I learn in math, the more I'm finding out it applies to all those things. It makes those things so much easier to understand. When we understand the symbols that we made out of nothing almost that is math.

(Darbhamulla) Especially in organic chemistry, I remember at the beginning of the class, my professor talked about linear combinations and describing electrons, which was really cool, I had no idea what that meant before, but now it actually make sense.

(Griffith) I love that feeling when you're in a different class than math, and something from math is like, oh that's what this is for.

(Darbhamulla) Real life application!

(Griffith) But in such a nice segue that your teachers don't even know it's happening. My math teachers have always been, I hate teaching this application. I hate teaching this application. All throughout all of this, and then I get this. I mean I could show you the math, but technically that's not a prerequisite, so I can't show you it. And I'm like I already know that math. Hooray. So again it opens up so many doors that I think, like you said, people are intimidated by it, but it makes understanding other conceptual stuff a little bit simpler.

(Darbhamulla) Plus there's a mindset that really comes with it when you can think about things technically like that, it helps me organize my thoughts a little bit more. I've gotten much better at that as I've gone further and further in math.

(Griffith) So where do you plan on going to medical school?

(Darbhamulla) I have no idea.

(Griffith) Because it's one of those, someone take me!

(Darbhamulla) It's going to be, please somebody take me. We'll see.

(Griffith) That's so great though. And so you're planning on doing... I don't have any future plans, so I'm over here like, do you have any?

(Darbhamulla) I hope to do humanitarian work, so when I actually get through medical school, I want to try to do emergency medicine to try to get ready for that. I want to just have as much experience and as much knowledge as possible, so I can apply it everywhere. I would really like to open clinics in India, but that is really difficult.

(Griffith) It's far. But think about the place you start and if you don't dream big, you can't go anywhere. So you might as start out on your path.

(Darbhamulla) But I dream explosively big, and I worry. [both laugh] I mean, I guess falling short isn't too bad.

(Griffith) Especially since you're on the path to go far anyways. Just because your trajectory didn't hit Mars doesn't mean you didn't go nowhere.

(Darbhamulla) Or if you shoot for the moon, even if you miss, you still land amongst the stars.

(Griffith) Right, that one. There it is. [laughs] Is there any favorite part of the sciences that you've explored? Obviously you've done a lot of chemistry and math, and now you're in physics and biology too. Is there anything that stuck out to you as, hey I want to make this better? Obviously medicine, but...

(Darbhamulla) Not necessarily things that I want to make better. A lot of the biology teachers will talk about cancer research or mechanisms in the body that cause cancer, specific mutations, and that's always cool, but cancer research is less about what I want to do. I don't really want to do research. I more just want to help people, and help people get access to medicine, and treat wounds and things like that.

(Griffith) Just on the ground level in a way, to help people bring our entire global economy up a notch.

(Darbhamulla) Yeah, and relieve a little bit of suffering, because there's a lot of unnecessary suffering, and I feel like there aren't so many people that

want to go out and do things. There are lots of people that will donate money, but it's also really hard to get that money to the places that it really needs to go unless you have control over where that money is going.

(Griffith) There is a gap between those people, but if you are the type of person that is willing to do the legwork, people will ask you to do it. They'll say, please take my money to those places, because I do want that to happen, but I want to sit here. And if you're willing to be the person that goes, they'll ask you to go. I really think so. We talked about having no female role models. For me as a woman going into math, I got to 5C, and there suddenly was eight girls in the class to forty guys, and it was like, oh this is the engineering class now. And that realization of this is how it's going to be for me. That's okay. That's all right for me. And I think we're lucky to be in Santa Cruz, and California's a little bit more... Everybody's cool, but there's definitely more a sense of, okay, this is going to be from now on in STEM... it's kind of going to be, we're the less people.

(Darbhamulla) Find female friends maybe somewhere else?

(Griffith) Right! Exactly. [laughs]

(Darbhamulla) It's been getting a little better though. Every time I've gotten into a math class, even when I wasn't a biology major, I would always count how many women were in the class. And it has gotten better over the last couple of years, but it's still...

(Griffith) It's still imbalanced for sure. It's still interesting to see, thinking everything was equal for a long time in my life, and then coming into adult life and thinking, oh, okay, yeah, everything they told me is actually real.

(Darbhamulla) You notice little differences.

(Griffith) Yeah, and it's definitely subtle in our society now, which is I guess good.

(Darbhamulla) Better subtle than...

(Griffith) Overt. You know, I'm getting a bad grade because I'm a girl kind of thing. And that happened to me in seventh grade, which is weird.

(Darbhamulla) That's terrible!

(Griffith) Yeah, I went to a private school, so it was a different mindset for sure, but getting into adult life, it's just going to be a little bit more scrappy.

(Darbhamulla) You have to push harder.

(Griffith) Yeah, and I feel that. And that doesn't bother me to push harder, and I know that the level that I bring to those classes is going to be enough, but at the same time I feel bad for... Some of the girls in my class that ask questions, I'm just like, okay, how many of the guys in here are afraid to ask those questions and then make fun of those girls that ask them? It's happened you know, and it's interesting to see that. I mean, there's different roles for everybody, and I think it's interesting through this kind of experience and having this sort of dialogue happening where we talk about it. It brings these things to light. Not to say one group is bad or one group is better, but to just be aware of them. And we can be aware of everybody's strengths and weaknesses and we can be the best we can all be. Together!  
[both laugh]

(Darbhamulla) I feel like the women in science kind of idea, people tend to think about it like women trying to exceed me, which is not necessarily... We just want to be treated equally.

(Griffith) Yeah, I just want to do what I want to do, and that's the end of the story, and I don't want to be inhibited on my path to wherever I want to go. And if I end up ahead of some men and behind some men and alongside some others, cool! I don't care! Let's just all do what we want to do our best at, and then we can have a better dynamic I think, because the more we talk to each other... you know, I've learned so much from men, and I've learned so much from teachers and students and people younger than me and people older than me. We learn by opening ourselves up to new experiences. And if we close ourselves up, we aren't going to learn anything. I think that's all I have.

(Darbhamulla) So are you a physics major?

(Griffith) Oh, a complicated question. [laughs] I actually don't have a major. My major is general science right now. I took five years off from school, and then I came back two years ago to just learn. I decided that when I was going to college the first two times when I dropped out, I dropped out because I was forcing myself to push for a degree. And when I finally came back to Cabrillo, I was going super part time, just two classes and working full time, and thinking, you know what? I want to learn, and I don't want to stagnate. So let's see where this road takes us. And after two semesters at part time, I was like, I want to go full time. I want to just learn a bunch of stuff, and now it's just sort of a, oh I have to narrow it down at some point. So I'm taking all the math that I possibly can, because I feel like the more

math I learn, the more the other subjects feel real to me, or at least more dynamic, and so I've taken a couple of chemistry classes here, and I'm in the physics series. I'm probably going to finish math first and then physics and then chemistry and then bio. I want to do all of it. But I think that's the order to go in. Because all of those things will pile up, and then I'll be really good at bio.

(Darbhamulla) Bio is my heartthrob. I think it's the best.

(Griffith) Why?

(Darbhamulla) Whenever I'm sitting in a biology class, especially... I guess I fell in love with biology when I took evolutionary biology. When I took it in high school, I failed it. Your teacher will bring up a subject or will bring up some sort of evolutionary concept or maybe you're just talking about the development of ethers and how that's correlated to the development of jawbones, and you just sit in class and think, wow, life is really amazing, and especially since I'm not religious, so I don't believe in any higher power, so it's almost more amazing to me that such a system... Everything is so cohesive. And everything is so linked, and it just kind of happened the way it does.

(Griffith) For me I grew up really religious, and I totally diverged from it and accepted that it's all sort of this awesome connection that has happened, and it's so much more beautiful I think. Anyways, personal opinion. [laughs]

(Darbhamulla) I agree, but I've talked to people that've said, oh no, that's so sad.

(Griffith) Yeah, but like I said, you only learn from talking to people with different viewpoints. So we talk to those people and then it's like, okay, bye! [laughs] I get to look at my world through my magical lens, and you get to look through yours.

(Darbhamulla) Yeah, well then also talking to other people about their perspectives, why you can't necessarily apply that perspective, the way of thinking, or the way they go about coming to that conclusion may be applicable to the way you think and might give you more insight.

(Griffith) Exactly. I think that's how we get anything learned or done. Like, taking in new perspectives, whether it's from a teacher in a structured class environment, or a life experience environment, or from talking to someone, right?

(Darbhamulla) Yeah, I think so.