Tell me about yourself

g: name. Yeah, just whatever you want to start off with.

s: Cool. My name is Sofia. I'm 28. I grew up in Wisconsin, and I live in Salt Lake City now. I grew up in a middle income family, but was surrounded by people in my family, who were all kind of in like technical spaces, and that side of the family…like my dad was a mechanic. His brother was an engineer And like. I think there's just been like a lot of engineers who are like that kind, if you like. technical hands on applied science sort of like perspective there and then. My mom is from Costa Rica. and, like her family, is like neither of her parents like went to school, but she was the person [inaudible]they're calling, and she got to the United States on a scholarship by being like the valedictorian in Costa Rica, or like she's someone who like ultimately hasn't been given a ton of clear opportunities, but has been very good at like finding opportunities to like show. Like how hardworking she is. So she's like a very hard worker. and then, I think. growing up, I always liked to be independent and do my own kind of thing, and then, when I was in high school. I took like project classes and that kind of like introduced me to like kind of building things or like solving problems using physics math. And so I went to school for industrial engineering. and I'm actually really bad at math I've basically had to retake every math class from college. but it kind of like my last several like semesters. Something clicked in how I actually worked through problems like not just like the pure math. But then also statistics, and then physics. And I think part of that was when math had more of these applications that I was kind of. I had problems in mind to apply this map to. And so that was that was like kind of like a shift in terms of like understanding how to solve problems. And I'm also a very visual learner. I'm someone who until the math and looked right on the page until I I found a professor essentially that laid out all the problems in a way that was like very easily digestible from the individual sense. t was like, it was really hard for me to actually understand how to to get there. But then in college was also, when I discovered rock climbing, and all of my friends were engineers who Rock climbed, and so I found myself kind of in that space. And we built a bouldering gym in the attic and and just kind of would go on with cool climbing adventures. And that was my introduction to climbing.

and it was around that same time that I also started losing my vision. So it's kind of like a period of my life where I was like struggling through school, but I found, like close group of friends in a new sport for the 1st time, but I was also kind of experiencing vision loss and keeping it to myself. But moving through school, I eventually got to a point a semester 2 before graduation. That industrial engineering which is more like factory management or like factory operations type of positions, is not really a safe field for me to get into, because with low vision, There's lots of obstacles. There's lots there's forklifts. So that was pretty unsafe. And so I pivoted towards in design and innovation (got my

master's in that), and that was where it really found something that I would like to that applied with my background. But then, also just like used my curiosity that I think I always had for everyday things. And through. That is how I found myself here in Salt Lake, and I'm a product developer at black diamond. I work on climbing products and backpacks outfits. So I'm since living here, become a competitor with Ifsc Para climbing and it was through climbing that I found other people with disabilities, and I kind of like discovered how to empathize and like becoming more accepting of my disability

disability ?

G: What's the timeline for you with your disability?

S: So at 18 was diagnosed like just before I graduated high school. and that was the 1st time it was given a name. Think I was probably exhibiting symptoms since 16. But I didn't. It's weird. Your brain fills in a lot of the holes when it comes to sight loss, and so it never really made sense what was going on. I was getting clumsier all the time, but not necessarily. It wasn't something I could put my finger on as to why, it was just like a general, just lik uncertainty when I was moving through spaces. and by the time I was 18 I'd already lost, like 80% of my vision when I was diagnosed. And I have had continuing vision loss. It goes through like periods where it's more stable, followed by like degenerative periods. But I still have, like between like 3 to 5 degrees on a good day. And the center of my vision is clear. wear glasses same as anyone with myopia would, butthe center of my vision is mostly clear. I do have like floaters. And then some "flashers" Things that kind of would impede my central vision on occasion. But yeah, It's there's nothing in there. It's not like blackness or anything. It's just nonexistent.

g: what is the difference between blackness and nonexistent

s:. It's weird. It's you can't tell where the edge is like. I can't actually sometimes like, tell where the vision is until something disappears from it. I've gotten used to it, but it does still happen a lot like I have kind of like shin bruises and like head injuries like the other day with the lamp. I ran into a light stand because the face is like kind of skinny, and the lamp like fell on my face. Oh, my gosh! But like I didn't even realize I knocked it over so I didn't have any time to like react. I was just standing there, and I was like, what did I knock into? And then I just like Whoa came out of nowhere and like hit me in the head.
Yeah, okay, it's like looking through a straw. : And so it's like the. Actually, there's like that. Everyone has a dense spot in front of their their face. They can see there, but the brain, like edits out it out. I have an actual, like dense spot so like sometimes things directly in front of me do not appear

g: so. You said it's degenerative. Is it going to get worse? Or is it like kind of stable? Right now?

S: It's interesting that I think it has been in a stable period, but, like in the last, like couple of months. I've noticed it getting worse. Okay, so it's 1 of those things where there's no way for them to predict how far ultimately it'll go. There are some people with retinitis pigmentosa that have very significant sight loss early on in life, and then retain, like the same small amount of vision for the rest of their life, and other people for whom their vision loss is very slow. But then ultimately they do lose their their full vision.

G: wow….

S: I don't know what's gonna happen. Life is in complete onsite mode.

Yeah, it's weird, like setting up a life. I think this is like the conflict when I was in high school and just diagnosed trying to figure out like. do I go to college like? Is it worthwhile like I might not be able to see in 4 years? Because, like, yeah, I was like, well, I was kind of treating it like a death sentence like, if I only have so much time left to see the world. should I be like sitting in class, or should I like be out there doing stuff, experiencing things?

G: What made you decide to go to college?

s: I think ultimately that was the safest. ----especially if you can't drive. It's really hard to just kind of like pick off in the world and do anything so ultimately it's kind of like. Well, I don't know if I'll see or not, but f I go to school, then I might be able to try to make a a future for myself before I lose my vision.

g: Wow! Thank you for sharing that with me. I love the depth and vulnerability, and I really appreciate it. Thank you. We talked about this a little bit. Your relationship with math.

Relationship with math

g: It sounds like if I can re voice like when it was decontextualized, you really struggled with it, but when you were able to kind of apply it, it was more meaningful, and you excelled that correct.

S: It was like as soon as I started having, like less of the intro level math classes, and also started having, like physics, and like dynamics. or or like statics. So like math, was just part of of like some problem as opposed to the explicit, like being able, and I think that made like the practice easier,

because I I don't know. it was math was just very difficult for me to write, I think, and so I I think in some ways I got through a lot of classes by memorizing how like the problems looked: like the way I set it up, and the way everything kind of flowed the page. : But then, when it was part of like an actual problem that needed to be solved.--- like a free body diagram-- I think it was easier for me to understand when it was in the process versus like the outcome.

g: many people, I mean, wow! I memorized a lot, too. And then, when it was time to apply, I felt like I wasn't prepared because schooling didn't prepare us for that. So it required a lot of creativity.
g: do you? Okay? Do you feel like you use math in your day to day life now as a product designer.

S:Not, not a ton. But I think just like, the kind of durability that comes with throwing yourself at a problem over and over again. It's like the lasting benefit I have from that., I will say, like from my engineering degree. There's just a general understanding of how things work when it comes to physics, and when it comes to like material properties and and like how things are made like I ultimately studied how things are made and how you can create a system to manufacture things. And that's something that helps me a lot. I'm not actually a designer. I'm called a developer. So a designer comes up with the concept in form. And I I learned a bit about how to do that through my master's in design. But ultimately my job is to work with the design that the designer creates and manufacture to create, like the actual product, or all of the materials are organized and at the right place at the right time, so that it can get produced. It's kind of fun!

g: Wow! That's so cool. So the designers more like theory. And then you're more like application, which once again, kind of brings you to the foreground of like, okay, I like to apply things. Yeah.

S: damn, yeah, it's it's very cool, like the developer gets to interact all of the different parts of the business like you. You work with supply chain. You work a little bit with marketing, but then the signers, the business unit director, the product line manager, and then the your manufacturing partners. Then kind of get a little cross section.

g: So Tanner just got into grad school. And I he's looking at design. Right? Okay? So that's kind of like what you're doing. But you're the developer aspect. So he's the person that hands you the design. And then you're the one that says. But here's how we apply it.

S: I think a really cool application. I'm not sure about it this way, but when I 1st program.
I think he would do really well in a position somewhat like mine. Okay, where the designer comes up with a design. But then you need someone who understands the different opportunities that are available for creating a more sustainable version of that design. And so I think he would be really good as someone who works alongside of assigned teams to make sure that they understand the clear, sustainable goals. I think right now, especially in the outdoor industry. Everyone wants to be more sustainable. But there's not a clear direction for what's the most full way to be sustainable while still

creating like this product. That's like gonna last for a while, while, also being a business that ultimately is meant to make money.

Sustainability/ disability [empathy]

g: Do you think that the disability lens is like one that can like is particularly salient when it comes to sustainability and answering these kinds of questions?

s: I'm certain, when it comes to design, the empathy you gain from understanding and empathizing is crucial. It's one thing to understand and give yourself space, but it's another thing to be so empathetic that you truly understand other people. And that's the base of design. It's understanding and viewing how other people see the world, and then solving problems from that perspective. And Tanner is extraordinarily empathetic.I think a lot of people in the disability space are empathetic because they themselves have been through really difficult things. So they feel comfortable... But then to also feel for something like, the idea of the environment---it's exactly that, like we go outside and see the environment, but [they understand] the health of a global ecosystem. And so, yeah, I do think like the idea, someone with a disability... But they already have such empathy, not just for other people, but just in general, that I think, yeah, they'll probably have a better time kind of like interpreting, or at least like conveying the difficulties that the environment faces because of our impact.

g: Why do you think disabled people are more empathetic?

S: I think, in part, it's because of the difficult questions that they've had to ask themselves or the difficult situations they have to face. And I'm sure everyone deals with trauma in different ways. But I've met very few people in the disability space who aren't just wonderful human beings who I'm so proud to be friends with. And I think it's just the way that pressure causes different people to really look within themselves and see where they fit in with the world as it's been designed. Especially when you run into things that keep you from interacting with the world, like Tanner in his chair, [he] has to be faced with a world that has not been built to accommodate him. And so he's constantly facing these obstacles and working around them. And knowing how much frustration he feels, I'm sure he would want to make sure that anyone else in the same situation, or an adjacent situation, wouldn't have to face those same frustrations. And just like, it's almost insulting, right? Like, you exist in this world. You're a person with your own depth and humanity. And yet the world doesn't see you, or like, give you the same chances that it gives someone else.

g: That was beautiful. Thank you. Okay, the meat of the study is problem solving. So I'm interested. And I know this is a hard question to answer. But how would you define problem solving in general?

PS in general

S: problem, solving involves identifying a problem and all of its components and understanding the resources that you have available to you, and how those resources can be useful when addressing that issue. and all of the constraints involved in solving the problem. So got, you know, so much time or money. Or maybe you've got space constraints. Maybe you've got material constraints. You don't have like certain development materials available to you. And then kind of determining the process you choose to utilize in order to solve the problem. And then the organization of, you know, using the resources available to you to achieve implement your plan and your process to solve the problem

G: so identifying a problem, all its components, leveraging resources, using resources when addressing the issue. Constraints like time, money, space material. determining the process with all of those different variables and then organizing everything available to you. It's a very, I feel like, developer perspective. Interesting? Yeah, that's interesting. I like the idea of constraints, I think, is in my dissertation is core.

g: What role do you think constraints plays in problem solving?

Constraints in PS

S: Oh, I think it determines everything. Okay, like a lot of people like to work in blank spaces--- Okay, it's like where a big open whiteboard or like an open blank space. There's no constraints like. Imagine it's like, imagine you had all the money time, whatever you wanted. That's that's a white space problem. There's very few of those actually like, that's you do get really cool ideas out of just like what could be out there that we need. or it's it's addressing a problem that hasn't been solved yet. That's another way of looking at a white space.

g: But is that? Where does that language come from? White space? Is that like designer?

S:I think it's a designer thing. like I was in a white space challenge. It was like, we didn't give you anything. No information, nothing. Solve a problem. And it's the worst, right, because you don't have any direction initially. But you do kind of like end up funneling into somethingx

g: So the 1st line in my dissertation is, consider the following paradox, the more constrained the environment is, the more creative. You have to be so. I completely agree. I've been thinking about this deeply. There's tons of literature that show it to and like improv and art and things like that. And there's like these, really cool, like choreographers like Richard Baxton. That's like. think of blue. And then it's like, Oh, okay, and they like, create these amazing dances based off of it. Or you're only allowed to do like lateral movement. Yeah. And then it's like these masterpieces---

S: because it's it's constrained in a way that you wouldn't naturally have to thin----. it's like extrapolating. If if this is your constraint, and then this is like another constraint stacked on top of it. You're already looking for such events that, like someone may not have ever been forced to think about…

g: Do you think that that plays a role with like disability, like constraints, disability problem solving?

S: *instantly* *Oh, yeah,* okay, I mean, disability is so unique, not just in in like a biological sense, or like the way that it happens, or that people like : beyond the anatomical restrictions every single person's life, up until the moment that they disabled, unless they were like born disabled influences How they deal with that disability. So every person is going to cope with it differently, but then also: solve the problems of disability differently.

PS in math

g: Okay, so we talked about this problem solving notion in general. Do you think? How would you define problem solving in math? Is it similar?

S: See, it's funny, because this is where I'm like, math is a specific tool. and I was never good seeing math as inherently as the problem, it was more of a process. problem solving in math is a bunch of a bunch of like humans made that. Yes, it's a human. It's like it's treated as universal. But like someone, some different planet somewhere, probably has telepathic thoughts like solve things or something. Yeah. Humans looked at an organic world and came up with binary like, they came up with the concept of numbers. And that's already like*, all right, we're going to say that like there's 10 digits. And from that we created calculus.* I think the it's it's that's where I struggled to to, I think. Understand that. And like math in itself, as the problem. It's bullshit we we just like keep creating problems for for ourselves to solve. and I. I am not good at thinking quite that that like.

g: is it too constrained?

S: I don’t know I think it's, I’m I'm kind of--- I think it's too constrained for the way. I think that kind of kind of have that Adhd brain of just kind of like things attract in different ways, or like things kind of all together. And it's almost like too structured for me to like think about, like all of the rules all at once, because it is like rules that we've as society or as mathematicians created.

G: It's interesting because it's like this, constraints paradox. There is a sweet spot, right? Because we're talking about constraints lead to innovation and creativity, and all of that. But too much constraint completely hinders you as well like someone with a disability that doesn't allow them to even leave their house like right? Right? That's too constrained. Yeah. And I think people see math as that, too, like, like, only use these rules. Only these are the yeah.

S: Yeah. And it just feels like all these things stack on top of each other, and you don't know how to navigate that maze---- That's too dense. And it's like when you 1st learn that it's like, okay. things add together, and you learn how to go through the 1st part of the maze But then there's more obstacles and like rules that you have to jump through and remember and understand why. And they all build on top of each other So unless you have that like stable understanding of it's super hard.

Stacking?

g: It seems like when you were thinking about problem solving. You're seeing it as this like stacking thing. Is that common like? Have you explicitly thought about that before *she nods yess* . But it's like a language that keeps coming up for you.

S: Okay, it's kind of fun, because I'm like, Oh. she is noticing patterns i have never noticed before.

g: it's interesting, though, because I like the visual imagery. And like you're using your hands. So you're like, I'm more like this, yeah. But like, math is more like this. And you're like, how can I operate within that?

S: Okay, that's really cool. I'm definitely like a visual, a visual learner. And sometimes I struggle to to come up with exact ways to relay ideas.

PS in climbing

g: Okay, alright. So we've talked about problem solving in general problem, solving in math, which is just not your jam. problem solving and climbing. How would you define problem solving and climbing?

S: okay, I think before you can solve greater problems, like, I mean, you have to understand your own body. I've been climbing now for 8 years, and I think actually, my my biggest improvements in climbing have come in the last like 2 or 3 years. and ultimately, before then, I think I was attracted to it was like mostly looking at climbing through accessing spaces and the problems that you have to solve in terms of like the building anchors and like using the gear. And like, I think I had a lot of gear fear---knowing how strong ropes can be, and the way that you would pick a line based on the protection that's available to you and the the rock itself become very much like a learning department outside. And then actually, by moving here and climbing in gyms for the first time, I was forced to use use my body to climb harder routes, and it forced me to to actually understand where I wanted my body to be.. And I think that's been slower, slower growth, but also more beneficial, because I noticed that I have been able to climb at a higher grade consistently, even when not just as physically strong. And so the problem solving in climbing comes down to like we're talking about like the constraints one of the constraints is like, How big or strong are you like? How flexible are you? Like? How much do your your legs weigh versus like your upper body like? Where's your center of gravity and understanding. The way your body moves is understanding your constraints which leads you to which ways You can best solve the problems that are on the wall.

g: *This is amazing*. that's awesome. So it sounds like at 1st problem solving looks like. And this is sounds a lot like Jono, like outdoors like building anchors and like understanding your gear. And then, when you moved into the gym, there was a different type of problem solving, what do you think it is about the gym that affords the opportunity to understand your body more.

S: The routes are designed by someone who's trying to challenge a particular kind of movement. And so you learn : because someone set a boulder problem that like that is the hardest part of it is a heel hook. And so you have to learn how to do a good heel hook and how to use your body in that way. And so it's like you're going through like : a mini like, of course, right? Or by doing this boulder problem, you're learning how to use this tool: And then when you're on a route outside, then you're in the middle of like solving like a long, like long series of problems. Right? And so when it is time to apply the heel hook,
you've practiced, and you can : use it and so I think, like nature doesn't give a fuck and so kind of roll up a bunch of different things at it before you work through it. But it's not like in a---
---It's like the difference between laminar and turbulent flow. Right? Laminar is kind of like. Got this consistency where someone who comes up with them with a route probably has, like a consistent idea and nature It was formed millions of years ago by like lava and rock and pressure. And it just happens to be the only this thing that we climb, but there was no specific intent there. It just happens to be something that we can climb. And so indoor setting was somewhat based off of outdoor features. But now it's its own thing, and it's kind of become isolated to the the body movement. And then you just learn the body. and then when you're outside, it's kind of different sort of thing

g: that is so cool. Dude. It's like climbing inside is like an abstraction.

S: *Yes.* and like comp climbing is a further abstraction.

Planning a route [nah]

g: Amazing. I have 3,000 more questions. Okay. Can you describe your thought process. Well, I guess my 1st question is, do you plan a route?

S: Okay, yeah, I don't do any planning.

g: Is that, do you think that's due to your sight loss. Or is that just your like? You like to figure it out on the spot?

S: I like to figure it out on the spot. I I think mentally, I've stopped myself from doing things I'm scared of. And so if I have no expectations. I have no like, if I expect that I'm gonna do something hard. I'm kind of like scared. But if I'm just in the moment and I'm working through something, and I have no actual like expectation of how hard it's going to be. Then it's easier. Okay, I don't like. I don't like to dwell on grades either.

g: What about in a comp when your partner is calling for you or like planning beforehand.

S: That's, Okay, yeah, we we usually talk through it together. like we have the 6 min that we're on the stage, and we're staring at a route and come up with a plan together. And I think that's different. It's all. It's all scary, and you want to give yourself the the most tools and the like, the greatest chance of success possible. And I think that very different kind of mentality versus, you know, casually planning and just kind of like, oh, what's this? What should I do here like I don't know.
This is, I think it separates like pre planning and structure and
And that sort of like that's sort of a concrete problem solving versus in the moment, kind of like in not innovation, but just like spontaneity. Yeah.

G: it's like, improv versus choreography. Right? Okay?

Different disciplines of climbing

g: S : you have these like different dimensions of climbing. You have your outdoor climbing, you have your gym climbing, and you have your comp climbing like. how do those interact with each other? Or like, I guess, like also, like, how has comp climbing change the way that you approach outdoor, climbing like, how do all those different disciplines interact with each other?

S: I, this is this is a good question. I think, i've been…. Well comp climbing is so stressful, I have now discovered the most scared and most stressed I can possibly be. even even like you're climbing outside, your actual safety could be in question. But: it's up to you : kind of decide like, do I need to place another piece of protection, or do I just like move right? But in a comp, You're so so like unilaterally focused on, like,I need to be as strong and as ready and as mentally chill and as make like a dialed as possible to do the thing.I think physically I can get to the top. But like I don't want to mess up mentally or have a weird slip up until you get so caught up in perfection. every move has to be secure which is a greater motivator than outdoor climbing safety. And it's like, maybe really, social pressures, i think that's kind of trickled down. whereas before, like I like, I mean, I like climbing outside. It was a really cool way for me to explore spaces. And now, climbing outside in the last 2 years I have increased my confidence in part by the comp climbing and how i now deal with that pressure. It has helped me to understand where my limits are, in a way that before I was like I could climb well *sometimes,* i could climb poorly *sometimes,* and i didn't understand why. I know i improved in part because of volume and being around experienced people, it raises the tide for sure.
I think I'm starting to like comp climbing. It is really, . It's really exciting. And it's just definitely it's really fun,But I just put a lot of pressure on myself. And and so I think the more I do hopefully, I'm just like a little easier on myself.

S: to to be in a situation where there's no actual danger. There's no actual like, even at Nationals this year I was the only person in my category, : but I was still really stressed because I wanted to top the route. And so like understanding all of that's just like a mental construct. Even when like there's no real danger, It makes like when you're climbing. And *there is* danger. It is a bit easier, I think to just be like able to work through the fear

g: Did you find that it helped you in the bugaboos?

S: Yeah. like, the bugaboos was cool. I kind of felt like it was part of like the sandbag. and it ended up being like I did the best climbing of my life on the top pitches. and it was like a a moment of pressure like we switch teams, and I was in a situation that I didn't expect to be where I got to lead all of the remaining pitches and kind of like the pressure of the moment. it was likeI didn't have a ton of fear. I just kind of had to climb.

g: My God, all right, we're doing great. About 10 min left. I have 3,000 more questions for you, but I'm going to be an ethical researcher. I love everything you're saying. It's cool because we're meeting on Friday. So I can like distill my questions because I'm like, I just have so many. So you're talking about like problem solving with your body in the gym. And it seems like you're kind of making this distinction

between mental problem, solving and physical problem solving like what is the difference between those 2 different types of problem solving like there seems like you talk about mental in this one way and physical in this one. Yeah, are they connected? How are they different?

Mental Vs. Physical

S: I think, like, one is, feeling feeling like when you're on a a hold, and you're looking up at the next several moves. I I actually don't know in my brain like how this works, but I always like stare and look at the hold and kind of like: figure out where they are and then kind of like in those moments. It's like, okay, how do I actually lean my body one way, how do I like press up? And it's almost like when I'm looking at at the hold and seeing what's around me. I'm like setting up eventually, like. Okay, this is where I'm gonna and it is like like a : process like this is what I'm going to do. This is what I'm going to do. This is what I'm going to do. But then, in the moment you grab that hold, and it's not as good as you thought, or it pulls your body in the wrong place. And so then you improvise, and you put your body kind of into the location that allows you to use that hold better. And then you readjust right? Then you look back at Where's like the next set of holds gonna put me. , and then, like your body feelslike you can, you can look at the route and know what holds to use. But you have to kind of like feel in the moment what your body's actual balance and movement is going to be.

g: like Tanner talks about this. He's like, there's different types of problem solving. He says there's like the cerebral approach where you can sit there all day and think about it and explore it. But then, at the end of the day, when you go to do it, things might not plan out. And so that's the more physical approach is that kind of what you're saying?

S: Yeah, okay, your body is gonna sit kind of where it wants to, based on like your position.
you have to be able to adjust for it.

Process of climbing

g: okay, what is your process when you are climbing like, what can you see like, how does that work?

S: so I can see the holds further above me better than I can the stuff right in front of me. So I do actually kind of have to like scan. A lot like my head is always moving around. And so that's why I think, especially outdoor climbing is easier in that way, but in indoor climbing, You're looking for all of these like: assorted steps that are. And I have to look around and find all the little chips and handholds and figure out is the route kind of like going in that direction like that? Do I need to be trending to the left, because otherwise I might get to a hold and not know how to proceed … That's like the one thing we're planning would be super beneficial for me is if I knew just like where the route went. I think I'd save a lot of time. I mean ultimately like, when you're a blind climber, time is your enemy. You spend a lot of time on your fingers, looking, waiting. trying to find, like that foot that you need, or that handhold that you need-- you're just a little bit desperate all the time, *like figure it out, my fingers cannot take it any more but were am i going!?*

g: let's say, like, when you're about to climb today, like you're not looking up and figuring like you're not anything like, you're just really winging it?

S: Yeah, okay. Even even when I say, like, I stop and I look up above me. I still feel like I'm winging it because, like I said, I'm likefor someone who works with processes when it comes to, just like, you know. I'm I'm I think I'm just very intuitive. Okay, and I I don't come up with like something that I could verbalize, but : just kind of get a sense of as soon as I start moving. It's like my body knows where to go.

Intuition

g: How do you define intuition

S: when I can't think? Basically, when I can't put to words, or to mind: the the way or means by which I've solved something like, instead of instead of using a proof to know what one plus one equals. It's just kind of like. No, of course, that would be, two. And it's like making that leap without necessarily articulating the steps in between.

G: It's cool, because Chaz is super intuitive, too. And I wonder if that just, you know, is almost a byproduct of sight loss. Where like do you think it is?

S: *Maybe*. Because you have to intuit the world without like. If you actively thought about everything like I have to look down and look for every single fucking step your brain would just explode. when I'm hiking I do have to like be super mentally engaged, that is, maybe scarier than climbing, sometimes walking has more obstacles, constantly looking: for like things that could hurt you. You're looking for things at head level. You're looking for things at feet level. People are moving all around you. You have to like, hear where they are, because you can't see them. You have to navigate them, you know. Like, okay, they're walking in this direction. So they're going to be in front of me. So I have to like, wait for a second, but you can't look up, and look down, and like, be in all of these places at once. You just kind of have to *Move.* if you, if you actively think about all of these things, you go crazy. : And you also just kind of the through the world, and sometimes you guess wrong and you walk into something. But most of the time that works out.

g: so then we decide. Okay. So your definition of intuition is awesome, like not putting towards not being able to put to words or to mind the way that you solve problems. You just kind of get there. It's like making. I like them making the leap without articulating steps in between. Yeah, how would you define embodiment?

Define embodiment

S: oooo. Yeah, I think I think embodiment is kind of where I'm thinking about the boulder problem that Teach you all these skills. And when you do them for the 1st time or first, several times, you have to actually like, think about them. But then, at a certain point. It's you've embodied it kind of understood or like created the muscle memory to just do that. That like movement. And so you don't have to think about it anymore.

g: Sounds like intuition. Do you think embodiment is intuition, or is there a difference?

S: yeah shoot. But No, I feel like intuition isn't necessarily as trained as embodiment I think embodiment implies that you've practiced something until it becomes just instinctive. But intuition is like a bird learning to fly. like I never went to--I just haven't actually done anything to teach myself how to be a blind person. : but I've kind of just kind of
work through it without using specific techniques. I think if I'd done a class, or using specific techniques to get through the world, then I would say, that's an embodiment. I'm like using these skills until they become instinctive. But then, to just kind of *know* how to navigate a space is different.

g: So embodiment is like the accumulation or aggregation of skill, acquisition, and intuition is just kind of something that you might be more like biological like, when you're bringing that example of the bird flying by. Yeah, okay.

Disability and PS

g: I guess my question. I I'll ask 2 more. In what ways do you feel like your disability has impacted your problem solving?

S: Hmm. I think I've moved away from from, uh, concrete like solutions, and have become just more Fluid. Because it does--- abstract, well, not abstractions, what do you call it--- But the tangents and tangents and tangents of like kinds of problems, too. are just like so many that instead of having the prescribed way of dealing with the problem, now, you have to deal with all of these one offs. So like, How do I deal with this exact scenario? It's tricky for a blind person, but would never have been difficult for a sighted person. and so I just have to be in the moment. I don't have time, I think, to to come up with it. Better solution. So I rely on in the moment.. It's really quick. like the quick and dirty kind of okay approach to things. I need to figure out how to get to this bus. Stop, but I can't. I don't know if I need like. Need to cross the street here, and there's no like clear direction. or, you know, like moving through spaces.,I don't know the best way to navigate through this space, but just starting to walk forward.I'm just going to try and like, listen and pay attention to as many things at once. Okay, move through there. But it's not like, there's a specific path.

g: So how much? How does that translate to the way that you solve problems? So it's like you're talking about like quick and dirty and more l, like quick and dirty solutions, like more fluidity, more flexible and adaptable. How does that translate to the way that you engage in problem, solving in like your work, for instance.

S: So like, I studied systems and like how I should lay out problems into broken down ways that you would solve each problem. Kind of one at a time, And there's like one variable right? Like that's the cleanest kind of problem is a 1 variable problem, and breaking it down and breaking it down into its individual components. And I think with disability, you don't have any one variable problems. You have exclusively like multivariable problem that can't be solved like one at a time necessarily. They are multidimensional and changing all the time. And I think because of that, I've been less and less effective at breaking down problems to individual components and have been more well, we should just deal with several things at once, which is sometimes, more efficient, time-wise. but isn't always necessarily as clean. But I think a lot of of other people i work with are more comfortable with dealing with one variable, or like one problem at a time., or are better at thinking in that way. but it is. It is like I feel like it is harder to summarize or point things down

g: that seems like it translates in your climbing because you're like, I don't break down problems. I just kind of figure it out as I go, even though there might be more against me at that time. Yeah, how does that relate to the efficiency?

S: it might be more efficient to solve several problems at once, unless, it doesn't work, in which case you essentially have to take a step back and and actually break it down. So it's almost like, my, oh, okay, my default is to try and do multiple things at once, which sometimes works. But when it doesn't work I take a whip and I have to go back to the problem. Then it's like, okay, well, those parts weren't the issue. This part. I might be difficult. But I know how to do that. So you have to identify one thing that it's like prevented you from doing the move on the route.

G: so like, identifying the variable that impeded you from solving the problem which therefore, might affect the efficiency, because you kind of were like, oh, I don't know what variable was, because I was tackling 8.

S: So whereas, like, when you're trying to do 8, if it works like, if you're climbing up 5, 9, and there's a bunch of variables and you can manage them all. It's fine. But if you're trying to do something more difficult at higher level, and it's just too many variables. And it's hard for you to understand what's what's the issue? You've lost time, tried it, and it didn't work. So you have to take a step back and then actually do the work of breaking it down.