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Hello and welcome to Telling Science Stories. Once a publishing course at Simon Fraser University, this show is all about what makes good science communication. From journalism to YouTube videos, I speak with experts in the field about the techniques and theories they use to tell better science stories. I'm your host Alice Fleerackers, and this podcast was originally recorded on the unceded and traditional territories of the Musqueam, the Squamish, the Tsleil-Waututh and Shishalh nations.

Today's special guest is Mark Winston, who is a leading expert on bees and pollination, and also an internationally recognized researcher, teacher, and writer. His book, Bee Time, Lessons from the Hive, won a 2015 Governor General's Literary Award for nonfiction, and his book, Listening to the Bees, won an Independent Publisher's 2019 Gold Medal for an Ipby Award. There are lots of other impressive things I could say about Mark, but for now, I'll just say thank you for being here today. It's really a pleasure to have you. So as I mentioned, you've done a lot of work that's relevant to science communication, but I'd really like to focus on books. So my first question is actually, what makes a book, in particular, a useful vehicle or mode for telling a science story?

I think it has to be a tell a story. A book is a pretty big thing. But when you break it down, a book is basically storytelling. And if all your book does is expose the facts of science, it's not going to be as compelling as a book that puts those facts into the context of a story. So how does the science that we're exposing here in the book, how does it change the world? How did it develop? What were the challenges? Who did it? What were their personalities like? Where were the conflicts? Where did they hit the tough spots at the end of the day? Why did it make a difference? Do we know some little sliver of the universe a little more closely as a result of all of this work? So I'd say storytelling. Maybe one other subtext is personalization. But that's been of my own style is I think, bringing a bit of ourselves into a book, opens a book up to a reader in a way that the storytelling does. But if we're let ourselves be a little bit involved in the story, then we too become a participant. And I think that's a very attractive aspect of book writing for an audience. That you can kind of put yourself into the shoes of the characters, so to speak? Or bring your own shoes in. You can, you know, you can, understanding the persons who are central to the story is definitely an important part of a writer's mandate. But why not also say, here's how I feel about this. Here's something that happened to me that helps me to relate or not to relate. We're personalizing. We're taught in various formats and ways not to bring ourselves into stories, particularly if we come from a journalist background, but definitely if we come from a science background, as I do. I'm a scientist, and I had it beat into my head. You never use the word I in a scientific article. It's not about you. Well, I would disagree with that. It is about you in some way. You know, it's not only about you. So you can overdo it. You can just navel gaze and write about yourself. And that's, of course, not the way to go. But readers and books thrive when there's a dynamic between who the writer is, what the writer feels, and what they're writing about.

And that's really interesting because when I think about the people engaged in science communication, I often end up thinking about either the researchers or the audience. And in a book, when you're writing a book, it's kind of interesting because you don't necessarily get to see your audience. Or I know journalists now have all this feedback around who is reading the work that they're writing. And how does that affect you? I mean, you mentioned writing from your own perspective, but do you know who your readers are? Do you have an image of them in your mind as you're writing? Or are they sort of this unknown audience that could be anybody anywhere, anytime?

Usually I'm writing for a generic audience, but that generic audience, I like to use a street that I used to live on. I lived in a house with a single family housing street for a while. And the guy next to me was a commercial fishing. The woman across the street was a public school teacher. Another 90-year-old gentleman across the street was a beekeeper. He used to be a janitor in a school system. Those are the people I have in mind when I'm writing. I want to write so that anyone can understand and feel impact from the writing I'm doing. So I'm very much a public writer. I have written, I imagine, 60 or 70 scientific publications that were written for peers. And the writing in those is not interesting to me anymore. That's a very specific genre. You're writing for your scientific peers in an extremely structured format. That's not the books I write. The books I write are for a very public audience. I've been all around the world hanging around with beekeepers who are a wild and wacky and diverse and crazy group of people. And so beekeepers, generically, also form this audience of people who I keep in mind as the ones I'm writing for. Did that answer your question, I think?

Yeah, I think so. It made me think of another question. For people who are like yourself coming from this very specific genre of scientific writing where you're writing for your peers and you already know they're interested in this very specific niche that you're writing about. And for the people who are coming from that and want to branch into something like writing a book for a general audience, what strategies can they use to sort of switch that mindset?
It's culturally hard because we're not, as academics, we're trained to stay insular. But there's two or three things I can recommend, I guess. The first is get the heck out of the ivory tower. Whatever you do, go out into the world around you and talk to the people who are affected by that work. And there is no line of work that any academic does that could not be of interest to a public audience. We just don't take the time to find those nuggets that are of interest and learn how to communicate it. So the first thing I'd say is get out into the community, give talks at public libraries, give talks to the stakeholder or interest groups. My life was profoundly changed by the gazillion talks I've given to beekeepers. That's a crucible of people who range from completely uneducated to PhDs that come from every possible walk of life you could imagine economically, culturally, religiously. And you get up in front of a group like that, you have to learn how to communicate what you're doing in a clearly and effective way. So that would be the first thing I would say is come down from the ivory tower. And I don't mean that pejoratively. I love academia. But academia is this box. And like any box, when you get out of it, life is so much more enriched. So not meaning to be critical of the academic world, just saying, if that's all you do, you're missing so much breadth and depth of understanding why and how and what you're doing. Second thing I would say, and this is probably boilerplate advice for absolutely every writer in the world, is you got to read. And you got to read outside your discipline. You've got to read trade books. You got to read stuff written for public audiences. Don't just read the academic stuff. For a lot of my courses, I've often, you know, in science, I've often had students require reading of novels. I require them to read, you know, magazines and newspapers and blogs and all kinds of other things. If you're really interested in learning to communicate in a bigger sphere than just the academic, I would also say you got to read a lot and read widely and broadly. Don't just read in your field. Don't just read the expected. Read a lot of fiction. If you're a nonfiction writer, if you're a guy that's interested in bees like I am, you know, read about I just went through a phase of reading about a bunch of Nigerian writers that really helped expand my consciousness about what a public audience might look like.
Yeah, expand your box in a different way or get outside of your box in a different way.

Yeah, it's just mysterious to me why this culture of boxing up academics into very narrow little containers. We're taught that that's how to be successful. And maybe, I mean, maybe it works, but so much less interesting than breaking out of that box.

So you've mentioned now a couple times the value of bringing a storyline or telling stories within a book. But I think for people who have never written a book, especially a science book, it seems not so obvious what the story would be when you are writing about something that's really based in fact. So what kind of work do you do when you're starting a new book to kind of start to tease out what some of those storylines might be to kind of uncover some characters or some potential plot?

Let's say each one of my books is different. I wrote a book called Nature Wars, People vs Pests. I was in a pest management program at Simon Fraser University that had lots of people that studied pests. So I knew a bit about pests, but I never thought about writing a book about them. Then one year there was a gypsy moth infestation in Vancouver, and the government decided to spray the city of Vancouver with the bacteria. It's an organic thing that would kill the gypsy moths. But there was a huge outcry, of course, people were terribly upset. I had a fellow named German Foley who headed an anti-pesticide group was quoted in the newspaper saying, this is a war against nature that will go on forever. And that term Nature Wars jumped into my head. And literally almost within an hour, this entire book just fell into place. I saw the story clearly of how we try to manage pests to our own detriment. It became a fairly successful book. Probably my most well-known book was Bee Time. And that emerged from trying to tell a different story I closed down my research lab about 20 years ago and became the director of Simon Fraser University's Morris J. Watts Center for Dialogue, in which we had a teaching program called the Semester in Dialogue. And it's a really interesting program, teaching students to connect with public issues and kind of dialogue work we did, something I had no training in, but seemed to be pretty well. And after doing that for 10 or 15 years, I thought, wow, it's a great story here about using dialogue as a means of public interaction, public engagement. And I started to write a book about it, a book about dialogue and education. So I just called it something like Experiencing Your Education. There were little Bee motifs throughout the book. And I wrote about 30,000 words and woke up one day and I realized, I think this actually sucks. It's not a very good book. I'm not telling a very good story. And I sent it to my publisher and he kindly got back to me a few weeks later and said, yeah, this really stinks. I put it aside, but a year or two later, I came back to it because my wife kept pointing out, maybe you didn't want to write a book about dialogue with a few Bee themes. Maybe you want to write a book about bees, kind of a legacy book about all you've learned from bees with a bit of a dialogue flavor. And then bingo, the real story that I wanted to write came out. It was a story of seven or eight or 10 things that I've learned from bees, each own chapter, flavored by my interest in dialogue. And now I saw a clear story. And so it became a very successful book. So just a couple of examples of how story for me developed. The last thing I'll say, I've always written shorter pieces to try my way through. So I'd write a magazine piece or a chapter and through the writing help that would help me evolve the story that it was that I wanted to tell. So for people getting into books who aren't quite feeling the way forward, I always suggest write a magazine article first, just a little piece of it, just help find your voice to help find the storyline to help you get the momentum you need to finally get into writing a full book.

So there's two questions that this raised for me and I'll start with the first one. And it kind of when you were talking about the about bee time and about your first attempt that was sort of so almost like focused on getting the lesson across that the value of dialogue and then the second attempt, which was sounded like it was more rich and more like a true story. And when I used to work in book publishing, we would always talk about stealth, stealth publishing. And this was mostly about our environmental books. The environment is obviously really important, but unfortunately, sometimes people are turned off by environmental communication, because there isn't an obvious story or because the story isn't doesn't feel close to us. And so the editors were always trying to find the second storyline that could carry readers through the book. And then they wove in whatever that that sort of bigger lesson was

whatever that science was. So does this resonate with you? Like do you think about your writing in this way? Or is it something that seemed maybe happens organically that there's sort of these two parallel goals going on or stories being told?

Fortunately, that happens to me organically. And I usually am not even conscious that I'm thinking today, for example, I was working on writing a book review. And all of a sudden, two or three things came right together that maybe I thought of separately, you know, it's that thing that goes on in the unconscious mind, I've been fortunate in being able to easily access it, let it percolate. And so I often sit down and ignore do everything right. And five minutes later, I'm often running because something comes up, I do a lot of editing, manuscript consultations, and that sort of thing. And I have noticed that with a lot of writers, the story they start to tell is not the story that they need to tell. It's not the most interesting story. If you read it on read and gone, okay, and all of a sudden, bang, hidden somewhere in there, some killer sentence or paragraph, from which an entire book should flow, burying the lead somewhere deep. And so I always have my eye out, you know, reading through something, is this the story? Or bingo, this thing I just read, that's the story. And if you if you start with that, and weave that together as a central thing, then you're going to have gold. That's one reason that's one reason editors are useful is they can often help you find that the real story that may still be buried within the story you think you're trying to tell.

And as an editor, you know, what is the question you ask? Or how do you identify that real story that's hidden underneath?

Well, as an entomologist, I'll say my antennae quiver. I don't know, I read stuff, and all of a sudden, wow, that jumps out at me. And I trust that incident. I get bored very easily. So if something is of interest to me, I figure it's probably going to be interesting to other people. And if I'm just reading through this stuff, and it just seems like it's okay, then I'm guessing it's not going to be a great interest to others either.

I guess this is maybe again, another sort of cultural difference that might be really hard for someone from a science background is to listen to your gut, and to your personal response, maybe sometimes above the logical, you know, components that you might be thinking about as you're crafting a thesis or writing in that more structured way.

Every successful scientist has had some eureka moment where, you know, they get up in the middle of the night, or they're taking a shower and bingo, this research problem they've been worrying over, suddenly they see the way forward. What's unfortunate is that scientists aren't trained to use that same instinct to apply to their writing. And I think it's there in all of us. But we're trained not to cultivate that in some context, because if we do that, then we're going to be too personal. And then our science will suffer. Whereas I would argue our science is actually better when we apply that instinct to the writing as well as the thinking as well as science.

You know, you mentioned writing as a way to get unstuck when you've gone blank, you don't know what's next. But if that strategy isn't working, do you have a fallback for getting unstuck in writing?

I'm actually very rarely stuck in writing. Where I do get stuck is in thinking. And I find, you know, taking the walk, letting things percolate. I think the writing part, people tend to give a little too much drama to that writing part, and not enough drama to the thinking part. A little small example from from Bee Time. One of the chapters in Bee Time is about honey and how it's produced. And some of the beekeepers I

met are producing it and Dark Side of Honey, which is adulteration. It's actually quite a beautiful chapter. It starts with a story about me, and it ends with a story about my own experiences keeping bees in the Fraser Valley of British Columbia and some of the residents I met and what the bees meant to them. And it's really a lovely chapter. And I got to the, I couldn't finish it. Like the last paragraph, there were a couple of days I'd come back and look at it and nothing would come to mind. So I just let it percolate. And then one day, I got up at like five or six in the morning as I usually do. And the whole paragraph is there like fully written. It didn't come out of a dream, but it just came out of the unconscious. And I'll just read it to you. "The core of what I learned from my 30 years of harvesting, bottling, selling and giving away honey is this. Food at its best carries memories and reflections that go beyond sustenance to connect the personalities who harvest and the land from which they gather, making holy simple act of eating, making holy the simple act of eating." That just came to me and it came from sitting back and not forcing it, just letting the time follow the letting the thinking go on. I always think of that paragraph partly because it's one of my favorite things I've ever written, but also because it's a reminder that the unconscious mind is just got to let it work. You got to trust it.

Create some space for the mind to work its wonders. I want to go back briefly to dialogue because there's been a lot of conversation within the field of science communication and the value of dialogue, but it's not something that I immediately associate with something like a book, which doesn't seem like an obvious space to be in dialogue. And so I'm wondering, do you agree with that? Or is there a way to bring dialogue into your work as an author?

All my books are dialogues. Now I'm the writer and it is one way, but first they emerge from conversations. I have never written a book where I did not begin with a lot of conversations with people and those become dialogues. So in that way, the book is flavored by those interactions. The second way it's a dialogue is when I'm writing for this audience, I am thinking about them talking back. And in fact, once the book is out, you go on these reading and writing speaking tours and you do have an audience and they do talk back. So it does become a dialogue. So I'm, I see, okay, I'm writing this stuff. This stuff is designed not to go one way, but it's designed so eventually I will hear back from you. So in those ways, both how I start books with personal conversations and interactions and the way I end the process by here's what I wrote. Now let's talk about it. It becomes very much a dialogue for me.

I think as you were speaking, I found myself thinking about some of my favorite books and the conversations that they have spurred and how a book is, it's really physically a vehicle that can make its way around communities of people.

You know, when I'm interviewing people for my books, yes, I'm looking for information, but the real goal for me is somewhere in that conversation. I'm hoping they say something, just some killer comment that I can quote. And in that way, their conversation comes into the book and it is a dialogue. I'm not saying here's what I think, but here's also what somebody else thinks and not always things that I agree with. Sometimes the things I quote are antithetical to what I'm writing.

The last sort of thing I wanted to touch on is what are some of the most common issues that you see new writers come across?

Not understanding what the story is, being afraid to bring in their own personal stories, overwriting way too many words to say something. My students one year gave me a little plaque and they coined a word to Winstonise. And the definition of the word was to cut out half the words and get to the point. And then they say, you know, the way we use it is, you know, we better Winstonise this before we send it to

Mark. I think about that a lot because that is a fundamental problem with many writers is they don't get to the point quickly enough. And that doesn't mean writing can be beautiful and miracle and full of the best words, but you need to know your point. I find less experienced writers write around the point than get to it quickly enough. So that's one thing I think is quite common. Also finding a voice that sounds like your own, rather than some stilted version of what you think writing should be about. Not understanding who their audience is. That's always a big one. Writing in a style or in ways that won't be very attractive to the audience they really want to read. Maybe also not thinking ahead to where do you want to publish this. Part of thinking about the audience is who's going to publish it. You want to write in your journal, that's great, but if you want to be published, you got to, right from day one, approach it professionally and think about where will this piece fit? And if I write it this way, will it fit?

It's almost like a secondary question about audiences. It's not always something that people consider when they're writing at the beginning of their writing journey. What sort of research do you do or how do you figure out what an appropriate publisher would be? Like how do you make that decision?

Well, I got locked into a publisher very early on who was the appropriate publisher for my very first book. You know, when I was still a writer who's got a manuscript and he asked me who should I publish it with, go to the bookstore, go to the library, and see who published other books in the same genre. And you know, make a list of the publishers that already have a track record of success in what you want to write. I say the same for magazine pieces. I think that's probably the best way to get started. But you know, there's also the magic sauce who really understands what you're trying to do. Our last book that I wrote with Renee Sargeni-Saklcar is Listening to the Bees. I published that one with Knightwood Editions with Harvard Press. My previous publisher, Harvard, was not interested in the book and it actually was not a good fit for them. You know, they don't write, there's a book of essays and poetry together and it's just not something they do. Whereas Knightwood has a little more willingness in their part. So you know, they were the right publisher for that book. Establishing that rapport with your editor is also, I think, an important part of choosing a publisher.

Find the people who really get you and get what you want to write.

That crazy award. If I ever get too full of myself, I just say, yep, I won a yippie.

Is there anything that I didn't ask you today that you want to add before I let you go?

I think science writers in particular really need to understand that yes, they have to be clear about the science. But if that's where they stop, it's not going to be a good book. Science is not enough. And in fact, in our world, science is not enough. We need to reflect on culture. We need to expect reflect on spirituality. We need to reflect on why are we here? Science can't tell us those things. I love science. I believe in data. Science is such an important part of figuring out our way forward in so many ways. But it's not enough. You got to find that bigger picture in which you can embed the science. You can do that. You'll have yourself a killer piece of writing.

Well, on that nice and optimistic note, I just want to say thank you once again for joining us and sharing all of your knowledge. It's been a real pleasure to talk to you.

Yes, wonderful to chat with you as well.