



TRANSCRIPT

ENTERPRISE + STEM

DR TANYA HILL

Astronomer

Hi, I'm Dr. Tanya Hill.

I'm the astronomer for the Melbourne Planetarium here at Scienceworks.

So right now, here we are in the planetarium. I often call it my planetarium, but it's a great place to work, and I really love the fact that we can take the enormity of space and share that wonder and awe with all the people who come and visit us.

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My role at the planetarium is mainly behind the scenes.

One of the fun things that I get to do are to create the planetarium shows. So they're our 30 minute movies on science, on astronomy. I work with a fantastic team. I've got a great colleague who comes from the film industry, yet I come from my area of science - loving how you can use the planetarium to better be immersed in the universe, and we mesh really well in terms of both of us are creative and curious with that different backgrounds and then being able to bring that together.

Then the other thing that I'm doing is being able to keep up to date on what's going on in astronomy.

If we go right back to the beginning, I don't really have the best start for being an astronomer because I was actually scared of the dark.

But the thing is that because I was so scared, I still remember the night when my dad took

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me outside and it was a beautiful starry night and all of a sudden realising that when it was night and it seemed dark and scary, there was also this beautiful starry night sky to enjoy as well.

Then the next kind of step on the journey was when I was in high school and Halley's Comet was in the sky.

It comes around every 76 years, and it turned out that my school had what I now know was quite an impressive telescope. But at that moment, when I got to look through a telescope and realised that there were all the stars that I had become familiar with in the night sky... but then through the telescope, there were even more stars.

And then in fact, you could see beautiful nebulae where stars were being born.

Then you could see galaxies where stars live out, millions and billions of stars live out, their lives. And that just grabbed my attention.

I love teaching. I've always loved maths and puzzles, and so that's what I thought I would do.

But I got the advice, "when you go to university, you love maths and science, why don't you do a maths and science degree and you can always add the teaching."

So the next fantastic opportunity came when I was at university and I applied for a summer job, a three month job at... It was then called the Anglo-Australian Observatory, and it's now called the Australian Astronomical Observatory.

The great thing for me was that I was paired up with a young postdoc and that post was Charlene Heisler.

I must admit, I think it was probably the first time that I saw someone who looked like me 10 years into the future. It really opened my eyes that maybe in fact, this could end up being a job rather than just a hobby.

I was the first in my family to go to university, and so even the idea of having a career in academia, I had no idea what that actually meant.

I do think that having a mentor like that, where I could actually see myself in those shoes was really, really eye-opening.

I see it more in this younger generation that you can be curious about everything, and that's a lot of what science is, because these days science and technology touches so much of our lives.

Just having that science literacy and understanding of a bit of what's going on, even if you don't do that deep dive, I think is going to be really important.

I think what we are seeing is that if you do have that drive and interest in trying to build a career out of science, then doors are just going to be open for you.

I was the first in my family to go to university, and so even the idea of having a career in academia, I had no idea what that meant.

So whether you start out collecting that data of what a galaxy looks like, or the image of a black hole at the centre of our galaxy, the skills that you learn can then go on to help us in other areas as well, in terms of making life a better place for all of us.

Also just, I think, informing policy as well. You often say, "Oh, once I get the PhD, then life will start and I'll know what I'm doing." You sort of put these milestones in place that, "Once I get to this point, life will begin."

Message that I often say is to remember that life is happening right now.

Life can be very messy, but it's about enjoying that process and just being open to opportunities that might come up and see where your path will end up, because in the end, most of us work out a plan at some point, even if there's lots of twists and turns in the way, and sometimes that's the exciting bit.

That's the times when you take a chance and can see where new things might lead.

One of the lessons that we get told as females is that we have to change. We have to be more confident.

We have to speak in certain ways so that we more fit the mould of what is expected of a male scientist or an authority figure.

I would hope to see that we're slowly seeing a change in that.

It's not about you changing or being something else for what society expects of you.

It's more 'be your own cheer squad and be true to yourself about what you want to learn and what you want to know, and the questions that you want to ask'.

As more of us do this, and if you've got the right support around you that you can just be yourself and be able to show that science is something that everybody can do, no matter how different we may all seem, we all bring something important.

The discoveries we're making are so much bigger than just a lone individual, and so you get to work with a whole group of people, often all around the world, and in that, we are changing the way that is a more diverse group and having more people at the table to be able to come up with new solutions.

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