Introduction

It was five years into my life on Earth that I started to think I'd landed in the wrong place. I must have missed the stop.

I felt like a stranger within my own species: someone who understood the words but couldn't speak the language; who shared an appearance with fellow humans but none of the essential characteristics.

In our garden at home I would sit in a multicoloured tent tilted sideways – my spaceship – with an atlas laid out in front of me, wondering what it would take to blast off back to my home planet.

And when that didn't work, I turned to one of the few people who maybe did understand me.

'Mum, is there an instruction manual for humans?' She looked at me blankly.

'You know . . . a guidebook, something that explains why people behave the way they do?'

I can't be certain – picking up on facial expressions was not, is not and never has been my forte – but in that moment I think I saw my mother's heart break.

'No, Millie.'

It didn't make sense. There were books on almost everything else in the universe, but none that could tell me how to *be*; none that could prepare me for the world; none that could teach me to place a comforting arm around the shoulder of

one in distress, to laugh when others laughed, to cry when others cried.

I knew I must have been put on this planet for a reason and, as the years passed and my awareness of my conditions developed and my interest in science grew, I realized it was this. I would write the manual that I had always needed – one that explained humans to others like me who didn't under- stand, and which would help those who thought they understood to see things differently. The outsider's guide to life. This book.

It didn't always seem obvious, or achievable. I'm someone who was reading Dr Seuss while revising for my A levels. Reading fiction actually makes me afraid. But what I lack in almost everything else, I make up for with the distinctiveness of howmy brainworks, and my overwhelming love for science. Let me explain. The reason I never felt normal is because I'm not. I have ASD (autism spectrum disorder), ADHD (attention deficit hyperactivity disorder) and GAD (general- ized anxiety disorder). Together, these might combine to make life as a human impossible. It's often felt that way. Having autism can be like playing a computer game without the con-sole, cooking a meal without pans or utensils, or playing

music without the notes.

People with ASD have a harder time processing and understanding events on an everyday scale: often we have no filter in what we see or say, get easily overwhelmed, and can display idiosyncratic behaviours that mean our talents can be overlooked and ignored. I'm someone who will tap the table in front of me a lot, make weird squeaking noises, and twitch constantly, nervous tics assailing me at random. I'll say the wrong things at the wrong time, laugh at the sad bits of films

and ask constant questions through the important parts. And I'm never far away from a total meltdown. To get an impression of how my mind works, think of the Wimbledon tennis final. The ball – my mental state – is being rallied back and forth, faster and faster. It's bouncing up and down, side to side, constantly in motion. Then, all of a sudden, there's a change. A player slips, makes an error or outwits their opponent. The ball spins out of control. A meltdown begins.

Living like this is frustrating, but also completely liberating. Being out of place also means you are in your own world – one where you are free to make the rules. What's more, over time I have come to realize that my curious cocktail of neurodiversity is also a blessing, one that has been my superpower in life – equipping me with the mental tools for fast, effi cient and thorough analysis of problems. ASD means I see the world differently, and without preconceptions; while anxiety and ADHD allow me to process information at rapid speed, as I pogo between boredom and intense concentration, and men-tally envisage every possible outcome of each situation I find myself in. My neurodiversity created so many questions about what it meant to be human, but it also gave me the power to answer them.

I've sought those answers through the one thing in life that gives me the greatest joy: science. Where humans are ambiguous, often contradictory and hard to understand, science is trustworthy and clear. It doesn't lie to you, mask its meaning or talk behind your back. At the age of seven, I fell in love with my uncle's science books, a source of direct, concrete information I simply couldn't find elsewhere. Every Sunday I would go up to his study and immerse myself in them. It was like a pressure valve being released – for the first time in my

life I had found something to help explain the thing that con-fused me most: other humans. As someone who has constantly sought certainty in a world that often refuses to provide it, science has been my staunchest ally and most trusted friend.

And it's provided the lens through which I now see the world, explaining many of the most mysterious aspects of human behaviour that I have encountered during my adventure on Planet Human. While science may seem abstruse and technical to many, it can also illuminate the most important things in our lives. Cancer cells can teach us more about effective collaboration than any team-building exercise; the proteins in our bodies offer a new perspective on human rela-tionships and interaction; and machine learning can help us to make more organized decisions. Thermodynamics explains the struggle to create order in our lives; game theory provides a path through the maze of social etiquette; and evolution demonstrates why we have such strong differences in opinion. By understanding scientific principles, we can better under- stand our lives as they really are: the source of our fears, the basis of our relationships, the functioning of our memory, the cause of our disagreements, the instability of our feelings and the extent of our independence.

Science has been the key to unlocking a world whose door was otherwise closed to me. And I believe the lessons it has to teach are important for all of us, whether neurotypical or neurodivergent. If we want to understand people better, then we actually need to know how people work: the functioning of the body and the natural world. The biology and physical chemistry that most of us have only glimpsed as diagrams in a textbook actually contain personalities, hierarchies and communications structures all of their own-reflecting those

we experience in everyday life, and helping to explain them. Trying to understand one without the other is like reading a book with half the pages missing. A better understanding of the science that underpins our humanity, and the world we live in, is essential to a clearer understanding of ourselves and those around us. Where we normally rely on instinct, guess- work and assumptions, science can bring clarity and provide answers.

I was someone who had to learn people and human behaviour as a foreign language. By doing so, I have recognized that those who claim to be fluent have gaps in their vocabulary and understanding too. I believe this book – the instruction manual I had to create for myself through necessity – can help everyone to better understand the relationships, personal dilemmas and social situations that define our lives.

Since I can remember, my life has been dominated by one question: how do you connect with other people when you're not wired to do so? I'm someone who doesn't instinctively know what love, empathy and trust feel like – but I desper- ately want to. So I have become my own living science experiment: testing the words, behaviours and ways of think- ing that will allow me to become, if not completely human, then at least a functioning member of my own species.

In this quest I've been fortunate to have the love and sup-port of my family, friends and teachers who looked out for me (contrasted with others, who you will read about, who did the opposite). Because of all the privileges I have had in life, I want to share my experiences of what is possible, and what can be achieved from a starting point of difference. With my Asperger's syndrome, often referred to as a high-functioning form of autism that makes you too 'normal' to be

stereotypically autistic, and too weird to be neurotypically normal, I see myself as an interpreter between both worlds in which I have lived.

I also know that what changed my life was being aware that I was seen and understood. Realizing that I was a person, and had the right to be myself: in fact the duty to be. Every- one has the right to human connection – to be heard and taken seriously. Especially those who, by nature and instinct, struggle to connect. I hope through all the experiences and ideas I share in this book, I will be able both to emphasize the importance of common ground between us as people, and to offer new thoughts on how to achieve it.

So I invite you to join me, on this journey into the strange world of my Aspergic, ADHD brain. It's an odd place to be, but certainly never dull. As well as a notebook, pack your headphones – mine rarely leave my ears, a useful barrier between me and the sensory overload of the outside world. And with that, you're ready. Let's go.