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“Life Is Dangerous”: An Interview with Alan Lightman

Cassandra Atherton

I'm waiting at Concord station, Massachusetts, with his book, Reunion, in my hand and his Tennessee drawl in my head. Alan Lightman has agreed to let me interview him at his home and I am feeling nervous. And I have every reason to be. After reading Reunion on my birthday late last year I was overwhelmed. Its exploration of relationships and memory through the powerful evocation of ballet and astronomy wove a seductive web. I found myself wondering how I could ever achieve that kind of perfection in my own writing. I looked for the answers in his biography but it only made me feel worse; Lightman is a genius.

He was a post-doctoral fellow in astrophysics at Cornell, research scientist at the Harvard-Smithsonian Center for Astrophysics and he was head of the Program in Writing and Humanistic Studies at MIT where he helped to create the requirement that all undergraduates have a course equivalent in writing or speaking. He also co-founded the Graduate Program in Science Writing at MIT and in 2001 he elected to become an adjunct professor at MIT to allow him more time to write. In addition to this, Lightman has been extensively published in prestigious literary and scientific journals and his novel, Einstein's Dreams which creatively imagines the dreams Einstein may have had as he grappled with theories of relativity, space and time, has been translated into thirty languages. It was runner up for the 1994 PEN New England/Boston Globe Winship Award. There have even been more than two dozen musical theatre productions based on this novel. The Diagnosis also concerns time, but this finalist for the 2000 National Book Award in fiction presents a confronting image of corporate obsession with productivity. Reunion, my favourite of his novels, was a Boston Globe/New England bestseller, a Washington Post bestseller and a finalist for the Massachusetts Book Award.

In addition to fiction, Lightman has also written many books of essays and I have just finished A Sense of the Mysterious, an incredible book exploring Lightman's dual impulses for science and the arts. In the end I decided that my questions could only be answered by the man himself.

So I am waiting at Concord station and I recognise him from his photograph on the dust jacket of his book. He is walking his dog and I wave to him. We walk back to his house chatting. I try hard not to pre-empt any of my questions, he is humble and articulate and I never feel intimidated by his incredible credentials. Lightman's house is charming; filled with his wife's paintings, photos of his two daughters and a huge library. I settle down with his dog and we begin.

WOE: Given your credentials in astrophysics I'm wondering what your childhood was like. Were you ambitious? Did you have a natural curiosity?

Lightman: I'd say I certainly had a natural curiosity. I was very passionate about both the sciences and the arts. My fascination was for sciences initially.

I first of all loved science and math subjects at school, especially I loved doing math problems. When the teacher would assign problems for homework, most of my classmates would groan, but I would really save them until last—after a dutiful meal of history and Latin, I would save the math problems for my dessert. But also I built things. I built rockets and made my own rocket fuel, and I built some electrical devices—for example, remote controls that would turn the lights on and off in different rooms of the house. I had younger brothers and they were my greatest fans, and on the artistic side, I read a lot and I wrote poetry and some stories.

WOE: At school you are pressured into either becoming a science student or an arts student. How did you avoid being pigeon holed into either a science student or an arts student? How did you pursue both?

Lightman: I just felt that both of those worlds were part of my world, that I couldn't do without either one. I just resisted the pressures to go in one direction or the other. It's not just the career or the life of the scientist or the artist, but it's the whole way of thinking about the world, you know. With the scientific career, you associate a more general way of being in the world—being a rational, deliberative, logical person. And with the artistic career, you associate being a more intuitive person, acting more spontaneously. So there are a lot of different qualities and even worldviews that go along with that dichotomy of the scientist versus the artist. I believe there are a lot of forces that push you in one direction or the other and I just couldn't really be pushed.

I did make some decisions about where to put the emphasis on my formal education at university because I did take lots of courses all over the map at university, but I chose to major in physics. When it was time to go to graduate school, I knew that whether or not I pursued my artistic career (which of course I did), it would be impossible to become a scientist without getting advanced training in the sciences, so I decided to get my PhD in physics. I knew of a few scientists who later became writers, like C.P. Snow in England, or Rachel Carson in the U.S., but I didn't know of any people who began their careers as artists and then later in life became scientists. Although I didn't understand the reason for that pattern, I observed it to be true and therefore I made a decision that I would get myself well established in science before I began putting a lot of time into my writing. Now I did not stop writing for a moment. In fact I was still publishing poetry in small magazines. It's just that I put most of my emphasis on science until I was probably in my mid 30s. But somewhere around then, I felt like it was time to begin putting more emphasis on the writing and that became a bigger and bigger portion of my life and my ambition. But even then, I didn't stop doing science. It just tapered off. When I got to my 40s, I stopped doing research, a casual change of emphasis.

WOE: It's clear how science has influenced your writing because you often use science and scientific themes in your writing, but how has your writing had an impact on your teaching?

Lightman: Well, in the teaching it's easy to say, because when I was teaching science courses, I would often require students to write an essay. It's very unusual to do that in a science class, especially at the higher levels, and my students would always complain because that's not what they had signed up for. But I would force them to do it, and I think in writing an essay about a scientific figure, putting him in some historical context, they would have to think about their subject in a way that they did not normally think about it. I thought that exercise was very good for them, so I continued to do that despite the threats of mutiny. A more difficult question to answer is how my artistic interests affected my actual research in science, and I don't really know for sure about that. I do know how often I've been attracted to the aesthetic sides of science, but I think a lot of scientists are, especially in physics. There is a lot of aesthetic beauty. But I couldn't point to a particular research project that I did and say, "This part of the calculation is where my artistic interest influenced me."

WOE: I know that MIT is renowned for its science curriculum but you said in an interview once that the students come out with things in writing that you won't see anywhere else. Could you elaborate on that?

Lightman: What is unique about MIT students and creative writing is their originality. It is fantastic. It's a very good, useful quality for a writer to be original, and it's one that I value tremendously. I'm not talking about just science fiction. The naive assumption would be that creative writing students at MIT would write in science fiction, but they also write a lot of different styles and a lot of different genres. I just remember the clever and unexpected turns in a story, a very strong intellectual component behind the story. Now of course, intellectualism is not always a good thing in creative writing – in fact, it's often fatally bad. So it has to be handled like high explosives, very, very carefully. Sometimes it works. But it must be subtle. A writer like Franz Kafka or Italo Calvino has a lot of intellect in his stories. They're able to make that element work for them.

WOE: How do you handle so many different roles – Head of Humanities, teaching in physics, supervising post-graduate students, administrative tasks and writing?

Lightman: There was only about a ten-year period where I was doing all of those things. I don't think that I have any superhuman powers by a long shot, but I am very organised and I am able to decide how long a particular task will take in advance, which I think is a skill. I'm able to set aside time to schedule my day or my week or my month so that different tasks are put in

different time slots and I can pretty much figure out how long something is going to take. My family has often complained about that particular skill of mine because it sometimes makes me act in a very mechanical way. So it's not necessarily an attribute for getting along with people, but it has allowed me to get a lot of different tasks done.

I did find eventually that I could not continue with all of those activities, and in particular, I wanted to put much more time into my writing. Especially when I started writing novels, I found that I needed very long uninterrupted blocks of time, and the university calendar and rhythm of life just does not fit the needs of the novelist. Different universities that have novelists on their faculties have struggled with this and have tried to come to some compromise with them. At MIT I found that I was not able to reach a successful compromise, and therefore I gave up my administrative work, my chairmanship, and eventually I gave up my professorship. Now I just teach there part time. So I've made a series of steps backing away from a full involvement with the academic world.

WOE: After the success of *Einstein's Dream*, how did you begin the next novel and how do you prevent its success overshadowing everything else?

Lightman: Well, it's very easy for me to deal with that problem because every time I start a new book I am frightened. I don't feel like any past success has helped me at all. When I sit down to write a new book, I am starting every new book from scratch, as a beginner. I think one of the reasons for that is, as I mentioned earlier, I value originality above all other things in writing. A great book for me is one that's original and one that's powerful and one that's beautiful – those are the three qualities that I value in a novel (or any piece of fiction). So if you really want to be original and you do not want to duplicate yourself, then you're starting every new book from scratch. So I'm terrified when I start a new book. The fact that I might have had a previous success with another book doesn't have any impact at all on me.

WOE: Your mother was a dance teacher, and I wondered if this is where some of the inspiration for *Reunion* came from? What other research did you do?

Lightman: I was exposed to this life. I learned quickly that I was a terrible dancer. My mother forced me to take ballroom dancing and I was awful. I was scared of girls in general, and this fact made me even worse. But even though I have no talent whatsoever as a dancer, I have always been fascinated by the use of the human body as an artistic instrument. To use the whole body as an art form fascinates me and I have always admired the gracefulness of good dancers.

When I worked on *Reunion*, I did a fair amount of research in ballet. I went to ballet performances and rehearsals and ballet practice sessions of companies and read some biographies of ballerinas and that's how I learned

most of what I did. But I began with a basic love of dance, even though I'm still an amateur.

WOE: Why did you decide to make Juliana a ballerina?

Lightman: I wanted Charles to have a love affair with someone who is a strong contrast to him, something that at the same time had a certain purity about it that would resonate with his love of poetry. So a ballerina just seemed the right kind of person for him. Once you start conceiving a book, sometimes the geography of the book will dictate the characters, and you don't know exactly why you decided to make one of the characters a certain kind of person. They announce themselves to you. I think part of that was going on while I was sort of conceiving the general outline of the book.

WOE: You say that characters announce themselves to you, but is it harder to hear this when your character is a ballerina and you're an amateur in that area and she's female and you're male?

Lightman: No. It wasn't. The fact that she was in ballet and I have never been in ballet was not hard. I think that whenever you create a character there has to be something about the character that you can identify with, but it doesn't have to be the superficial things and what I was able to identify with Juliana was the intensity of her passion since I have had intense passions in my life as well. I think that anyone who has had this ferocious passion about any activity would be able to identify with her obsession with ballet. It's the obsession that I was able to identify with, and once I understood that obsession, the rest of it came. The fact that she is female, yes, that caused me some difficulty, but I think I have been slowly improving my ability to get inside the minds of a female. I struggled with this difficulty a lot in the previous book, *The Diagnosis*. There's a strong female character in it, the wife of the main character, and I made some improvements there as I rewrote her character a number of times.

Another thing that I often do if I'm having trouble with a female character is let some of my women friends read a scene. I've already written a scene in which my female character does X or Y and I want to have some understanding of why she did that. What I ask my women friends is, "Can you give me some insight as to why she did this?" My instinct as a writer tells me that she did do X or Y, and I'll write it that way, but then I ask my female friends to help get inside of her mind and tell me why she did that.

WOE: Why did you choose to set the book at a reunion?

Lightman: It was a neutral experience, and I thought that it was a plausible way to revisit the past. And it offered the opportunity for humour. I could have had him read an old letter from Juliana and go back that way, but the reunion seemed like a colourful way to begin the man's reflection. It offered a

context in which I could blur the distinction between reality and memory. So that it was more than just a memory. That in some magical, realistic, realist way, he was actually transported back and actually relived the affair with Juliana. I was able to create that illusion rather successfully with the miniature college campus that he sees. That allowed me to introduce a physical dimension, and, again, it's blurring reality and writing.

WOE: Is memory dangerous?

Lightman: Well, it doesn't have a hard surface. It's unreliable, malleable, an object of wishful thinking. I mean, that's life. All of those descriptions apply to life, and life is dangerous.

WOE: Proust uses the madeleine to trigger memory and to take him back to a place and time in his past. Is place similarly significant in your writing?

Lightman: I think place is very important, especially in creating a scene. I am very scenically orientated and when I visualise my character in a place, I like to try to create that place, using all of the senses – smells and sounds and sight and touch. I think places are very important for creating a sense of reality. Place, of course, is also important metaphorically. Some writers will use the surrounding landscape to suggest the themes of the book. Without having those themes articulated by the characters, they will use the place to explain a theme or to reinforce a theme. But I think an equal importance of place is the creation of the illusion, which is what fiction does; you are bringing your reader into a world that you have created and you have to make that world plausible and tangible and one of the ways you do that is through a very detailed description of place.

WOE: How do you feel about David Malouf comparing *Reunion* to Fitzgerald's *The Great Gatsby*?

Lightman: It's very flattering. I don't know exactly what he had in mind when he said that – they're both short novels, so that's maybe one comparison. He might have just been referring to the brevity of both books. But he might have referring to the way that it left him, that they both haunted him. *The Great Gatsby* is a haunting novel and one of my favourite qualities about a novel is that it leaves you haunted and you don't forget it as soon as you close it. That is often true of novels that don't have full resolution, and *Reunion* does not have a full resolution in the end. So he may have been referring to that quality of the book, too. But I'm guessing.

WOE: Is *Reunion* partly autobiographical? You and Charles have backgrounds in science and you write creatively and you teach writing.

Lightman: I'm sure there are some similarities, but I don't think that Charles was much of a scientist. In fact he pretty much loathed science, so I think that that's one of the ways that we are strongly different. I have a rational, scientific side of myself and I don't think that Charles does. On the other hand, I think that he is a spiritual person, and I regard myself as a spiritual person, too, although not a religious person.

I think a broader answer to your question is that I believe every novel is partly autobiographical because a novelist has to draw on emotional experiences he or she has had. Of course you change the circumstances and the details, but you can't really fake the emotional experience. The novel that I wrote after *Einstein's Dream*, *Good Benito*, is much more autobiographical than *Reunion*.

WOE: I'm sure that you have to connect with your characters.

Lightman: You always have to connect. I did feel myself to be a little bit out of the main stream, like Charles during the hilt of the 1960s.

WOE: Why did you decide to switch from third person to first and have the older and the younger Charles in dialogue?

Lightman: I switched from first person to third because I wanted a clear distinction between the older and the younger Charles. I struggled with this for a long time before I started writing. I wanted a first-person narrative in there, but I realised that if I had that throughout the book for both the older Charles and the younger Charles, then I would have problems.

I remember that with *Good Benito*, I initially wrote the entire novel in the first person, and it didn't feel right. And so then I thought, "Well, I'll change to the third person and try that" – I had it all on my computer – "I'll just use a search-and-change command and change every 'I' to 'he.'" I found that didn't work at all, that there was a tremendous amount I had to change in going from first person to third person. It's just a totally different way of conceiving the writing.

WOE: The Schmeken subtext is brilliant. I love that and the comparison drawn between Lena and Juliana. How does Sheila fit in there?

Lightman: I see Sheila as a softer character than Lena or Juliana. I wanted her to be softer and a little bit more accommodating. I think that the older Charles would be threatened by a strong woman. I don't think that his self-confidence and self-esteem are strong enough to be able to negotiate a relationship with a very strong woman. She refuses to go to the reunion with him because she didn't realise how important it was to him. She probably would have gone if she had realised how important it was to him and he pressed the point. I just think that she would be the kind of woman that he could be with for a few years at that age.

WOE: He talks about the ospreys in summer and animals that are monogamous. Do you think monogamy is realistic?

Lightman: There are two questions here. There's what mother nature intended or requires and then there's human culture and human values. I think that mother nature probably requires that mates stay together long enough to raise the children to an age when they can fend for themselves. So that requires monogamy through the child-growing period which varies with animals. I think that's all mother nature requires.

Human societies vary from one culture to the next. I have two aspects of my attitude. One is I think there's no absolute morality that comes into it. The question to me seems not to be moral. But I do believe that monogamy (or lack of monogamy) should be something that applies equally to both sexes — there should be total equality between the sexes. But other than that, I don't think that the moral question is relevant. It's totally a matter of agreement and cultural value.

WOE: Do you work on more than one book at a time?

Lightman: I work on only one book at a time. When I'm working on a book, I can take interruptions of a month to do an article or an essay, but I can't work on two books at the same time. I find I need to be totally immersed in a book when I'm working on it.

WOE: What are you currently working on?

Lightman: I have a new collection of essays that are coming out in a couple of weeks that are about the human side of science. The subtitle of the book is *Science and the Human Spirit*. I'm working on a much longer book that will be out in about a year which is also about science. So I'm taking a break from fiction for a little while. This new book is about the great twentieth-century discoveries in science. It is about the nature of discovery and common patterns of discovery in physics, chemistry, biology. I'm treating the great scientific discoveries like great works of art.