

6 December 2020

Dear Friends of Elmwood,

Do you know this funny folk tale? It arose centuries ago, probably in India. The characters change in the telling, but the substance stays the same. Here's Stephen Hawking's version of it. (You can find it on the opening page of his book, *A Brief History of Time* – “the most unread bestseller of 1988” according to *The Times Literary Supplement*.)

“A well-known scientist (some say it was Bertrand Russell) once gave a public lecture on astronomy. He described how the earth orbits around the sun and how the sun, in turn, orbits around the centre of a vast collection of stars called our galaxy.

“At the end of the lecture, a little old lady at the back of the room got up and said: ‘What you have told us is rubbish. The world is really a flat plate supported on the back of a giant tortoise.’

“The scientist gave a superior smile before replying, ‘What is the tortoise standing on?’

“‘You're very clever, young man, very clever,’ said the old lady. ‘But it's tortoises all the way down!’”

I've heard this story told in different ways in different settings. Sometimes the ‘scientist’ is the hero, sometimes it's the witty questioner.

### **In Praise of Useless Knowledge**

There are people, I've noticed, who have no patience for “the ultimate questions of life, the universe, and everything.” They have even less for the people that do.

When my brother studied astronomy at a very advanced level – a love he'd nurtured from childhood – he was grilled to the point of rudeness by people who sneered at his choice of study. “What's the use? What's the *point* of it?” they demanded to know. Then they'd follow it up with the real clincher: “What are you going to *do* with that, huh?”

He'd shrug and smile, letting them believe they'd made a knock-out blow in an important contest. The pursuit of knowledge for its own sake, the “pleasure of finding something out” (as Richard Feynman, a Nobel Laureate in Physics, called it), offended them.

“The only knowledge worth any effort,” they insisted, “is practical and profitable knowledge. *That’s* where the pleasure lies. There’s no need to know something just for the sake of knowing it. That’s a waste of time and money” – (big Protestant sins!). “Idiots, even if they’re ‘savants’, are still idiots.”

My brother spent many long hours of his long life as a research student in the Observatory maintained by the University of Toronto. It was built in the 1930s on land north of the city. Back then, it was far from city lights. But by the 1980s ‘light pollution’ from the encroaching suburbs hampered the usefulness of its massive telescope.

No one but astronomers cared. “Nature must be subdued! Drain that swamp! Cut those trees! Plough that land! Now pave it over! Now dig it up and do it all over again! Land must be *built* upon! What *use* is Nature if we can’t turn a profit from it?”

This voice controls and narrates the ‘Canadian story’. We’re hewers of wood and drawers of water. Those ‘National Film Board’ productions I saw in public school hectored us into a patriotic pride for the St Lawrence Seaway, the open pit mines of the Far North, clear-cut lumbering, paper mills, mine smelters, hydro-electric dams, railways carved through mountains, fish trawlers, urban sprawl, and the conversion of wilderness into proper agricultural *use*. Oh, and also, paradoxically, our land’s untouched beauty!

But if Canada won’t save the habitat of animals, why would we do so for astronomers? My brother travelled instead to Observatories perched high in the mountains of Chile and Hawaii. Research grants funded him, which angered his detractors that much more. “What a waste of *my* tax money!” (Don’t worry, I strongly doubt the grants are as generous now.)

High on a mountain, where the air was thin and cold and less distorting, he observed the night skies. He made an original study of a star – one of a class of oddly behaving stars – whose ‘oscillations’ were variable in an irregular way. That’s what made it interesting to him. And it earned him a PhD degree. I don’t fully understand his findings, or their import. But I’m certain they’ll never have any application to your life or mine.

Yet I’ll always remember the moment, in air that was quiet and clear, on a winter’s night that was as cold as a mountain top, when he let me gaze through his modest telescope – a cardboard tube with a three-inch mirror that gathered star light and reflected it to a rudimentary eyepiece. We were still boys.

“To gaze upon starlight is to look far, far back in time,” he explained. “The light you see now was made many thousands of years ago.” I remember the *frisson* of wonder rushing through me. It still does.

My brother knew that Canada had no use for him, though it might have welcomed him back if he’d found a way to make his esoteric knowledge of the heavens into something we *could* use in industry, or apply in medicine, or patent for profit. He never did.

When he finished all the advanced degrees he could, he accepted a position in Germany, and then the United States, where he still lives and works. He has a hand in NASA’s next version of the ‘Hubble Telescope’ – the ‘James Webb Telescope’ it will be called. (“And a great waste of money,” say many. My brother shrugs and smiles.)

But here’s where, at long last, I finally outdo my older brother. He pursues questions whose answers have no immediate use. But I’m drawn to questions that have no answers. How useless is that? Very! And more! His questions yield new knowledge; mine take us further into mystery. He works in physics, I get lost in metaphysics and myth.

So, I think I’ve a right to claim victory in the contest of uselessness. (I must remember to tell him that.)

### **The Infinite Fun of Infinity**

In my first year at University, I took an ‘elective’ in philosophy. It wasn’t a whim and it wasn’t a ‘bird course’. It was one of my deeply hidden and hitherto undisclosed interests – hidden because philosophy, too, was ‘worse than useless’, and I wasn’t as able as my brother was to smile and shrug off criticism.

There came a moment in that course when the seasoned, learned lecturer spoke about the philosopher Plato, the mystery of mind, and the problems of knowledge. Then he related it all to a Greek religious myth, which he proceeded to tell with the riveting skill of an actor performing a moving soliloquy on Stratford’s Festival Stage.

I was transfixed and transported, and I stumbled from the lecture hall enraptured by these questions, this way of thinking that yields no final answer. I was weaned away forever from ‘practical pursuits’. I was destined, it seemed, for poverty.

That moment at the feet of a wise and courteous teacher re-set the sails of my life’s journey. But I was too shy ever to tell him so, or even to share the

discovery that I was in the process of making (which he, of course, already knew). It was this: even the most 'useless' knowledge may affect us, and have effect in us.

I think many children have, as I secretly had, an inwardly philosophical disposition, a quizzical curiosity for questions that have no use, and perhaps no answer at all. But it's drummed right out of them.

I remember walking home from school with a friend. We were about seven or eight years old. 'Spring' was trying its best, but it hadn't yet managed to defeat the dirty snow banks that were sinking into slush. The wind was icy cold, but we stopped to jump on the ice that covered a puddle, just for the fun of breaking through.

That's when my friend suddenly said, "Have you ever thought about infinity?"

I was gobsmacked. No one dared to speak this way in our suffocating classrooms. And never would such talk be heard on the playground. The playground was for fighting, swearing, chasing 'weaklings' and taunting them, and other kinds of cruelties perfectly suited to prepare us for the so-called 'real world'.

Not even in Sunday School would we blurt out such existential conundrums as those that surround the concept of 'infinity'. We'd have been shushed the way Alvy Singer was scolded by his mother in Woody Allen's *Annie Hall*. Poor Alvy, you see, had discovered the dreadful truth that the universe was expanding and disintegrating, so he stopped doing his homework.

"What has the universe got to do with it!" she shouts. "You're here in Brooklyn! Brooklyn is not expanding!"

Now it was my turn to kick through the ice and reveal the brown water beneath.

"Yes," I shouted to my friend. "Isn't infinity weird?" And we began to entertain all the ways that infinity could *not* be made sense of. But, then, how could infinity *not* 'exist'?

"Think of space, think of time, think of numbers – how can they ever end? They can't! I can always 'go one more!'" We thought about infinity with the same *frisson* of wonder I'd felt when I gazed through my brother's telescope. It was our version of "tortoises all the way down".

Years later, thinking back, I'd realise my friend and I had hit on one of the 'antinomies of reason' that Immanuel Kant explored in his *Critique of Pure Reason*, the Bible of the 18<sup>th</sup> century Enlightenment – or one of them.

There's more to this story (isn't there always?). But I have wearied you sufficiently for now, haven't I? In truth, I've worn myself out. So, I'll store it up for another time.

### **In other news**

Bill Booth has had good reports from his physicians. Let us rejoice with him and for him.

Jenny Murray, though, has had to be admitted to Parkwood. It's not clear if she'll be able to return home.

Many of you will remember Rev. Dr David McKane. He's the retired minister of First St Andrew's United Church, a good friend to Elmwood, and also to me personally. He suffered a stroke last week. He's receiving excellent medical care, and we pray he'll make a good recovery.

### **Listen Again**

Were you able to tune-in 'online' to the Annual Christmas Service of Lessons and Carols presented by the London Centre of the Royal Canadian College of Organists? If not, or if you wish to enjoy it all over again, click this link:

<https://youtu.be/na3vnSUM454>

You'll see people you know, but 'masked'. (Don't worry, it's not me.)

Yours in the faith,  
Andrew