

Relatives and Relativity

by Robert Bee

“Tell me again,” Jackie Wheelan said, “just how long will it take you to get there?”

Her twin brother Steve sighed. “Twenty five years if...”

“If?”

“... if Einstein was right about special relativity,” Steve said.

“And if he was not right?”

“He was... and still is,” Steve said, exasperated with his sister and angry with himself for using the word ‘if’. He knew there was no ‘if’. Einstein’s special theory of relativity had been proven correct time and time again, yet Jackie still had her doubts, refused to listen. She was the same with global warming. All the empirical evidence in the world still couldn’t convince her on that subject. How on Earth did he and his troglodyte sister ever come from the same parents? Yet he loved her.

“So, how long to get back?” Jackie sulked.

“Der,” Steve said. “Twenty five years? How many times..?”

“That means...” Jackie interrupted, then paused. Steve could see her mentally adding twenty five to twenty five without a calculator and was amazed when she came up with the right answer. “That means we’ll be fifty years older when you get back.”

“Right...”

“Oh,” Jackie sighed, picturing herself seventy five years old.

“... and wrong.”

“Huh? What do you mean..?”

“Twin paradox, Jackie, I explained it to you, remember?”

“Um...”

“Okay. I’ll be in a spaceship going faster and faster away from Earth...”

“And me,” Jackie said glumly.

“...and you, with its ion drive until it approaches the speed of light. Time on the ship will slow down compared to your time back on Earth and...”

“Why?” Jackie asked.

Steve took a deep breath and counted to ten. “Because of Einstein’s...”

“Stupid theory of relat... relatives.”

“Relativity,” Steve corrected her. “And it’s not stupid. It’s a proven fact.”

Jackie looked into her brother’s eyes, eyes she will soon be saying farewell to and not seeing for another fifty years, at least. If ever. Eyes she loved so much. They were blue, like hers, like the sky above the towering spaceship that stood on its launch pad a kilometre down the space centre’s runway.

“And,” she prompted.

“And?” Steve said.

“You were explaining... close to the speed of light... time on Earth, you know.”

“Ah, yes.” Steve too had just seen the similarity of the sky to his sister’s eyes. Strange, in all the years he had been a fighter pilot and then a trainee astronaut, with the sky always above and about him, he had never noticed before. What a time to realise. He swallowed the lump that had suddenly appeared in his throat, and continued his explanation.

“So, while the actual time for the ship to reach Alpha Centauri will be twenty five years, in Earth time, by the ship’s clock it will only be one year.” He took hold of his twin’s hands. “You’ll have aged twenty five years while I will have aged only...”

“One year,” Jackie whispered. “And when you come back, I’ll have aged fifty years and you only...”

“Two years,” Steve nodded.

“Oh Stevie,” Jackie was on the verge of tears, just like when he had first told her all this. Then she felt Steve’s grip on her hands tighten slightly.

“That’s if I was to come back,” he said.

Jackie gasped, letting go of Steve’s hands as if they had burned her. “What do you mean? You are coming back. You must.”

Steve Wheeler gently turned his sister to face the towering spaceship. They stood on the space centre’s rooftop viewing platform. From there they could see all the launching pads for the smaller rockets and space shuttles. But pride of place on Pad 32G was taken by Exodus I, a massive rocker towering two hundred metres into the sky, surrounded by countless gantries and fuel hoses, all steaming their evaporating explosive gases into the air.

“Sis,” he said, still gripping her shoulder’s gently, “that rocket is about to enter history. It’s the start of a pathway between Earth and the nearest known inhabitable planet outside our solar system. When it launches, it will head off way past Mars, Jupiter and the outer planets, past the Kuiper Belt of dwarf planets, through the Oort Cloud of comets and on and on through empty space.” He waved his arm in the air, as if painting a picture in the sky. “It will carve out a road, a highway between Earth and planet Alpha Centauri B1, humanity’s best hope for survival as we do our darndest to destroy this one.” He looked to see that Jackie was staring up at him, her eyes wide open as if seeing his passion for the first time.

“And I’m going to be on that ship and send back the message to Earth that life is sustainable on that planet, and...”

“And?” Jackie whispered.

“And come and join us.”

“But you can come back after you sent that message. Come back to me.”

“Oh Jackie, think. You’ll be over fifty years older than me, even if...”

“Even if I’m still alive,” Jackie said. She took a deep breath. “So, what will you do while you wait for the others?”

“It’ll be another twenty five years or more wait. Plenty of time for us to build a city for them to live in. Grow crops, all that pioneering stuff.”

Jackie nodded, looking around at some of the other crew members sharing the last moments before launch with their families. “That explains why there are so many females in the crew.” Jackie laughed and punched his shoulder. “I hope you pick a pretty one. Maybe that redhead over there?”

“Shoosh,” Steve said, pushing down his sisters pointing arm.

“You’re blushing...”

Jackie was interrupted by an announcement. All the crew members started kissing family and, reluctantly, but with shoulders back, headed for the crew shuttles.

Steve looked into his sister’s eyes. “Well, it’s time...”

Jackie gave her brother the tightest of hugs he’d ever had. “Yes, I know. To be hitting that road.”

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