

## FICTION AND POETRY

### Phantom impressions

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I almost missed the train. It jerked into motion just as I scrambled into the coach. I heaved a sigh of relief as I settled down in my seat, conscious of the disapproving gaze of my co-passengers. Blame it on the Bangalore traffic and my sprained ankle – I wanted to yell! But better sense prevailed and I reached for my bag to dig out a book.

While the pony-tailed teenager seated next to me fiddled with his cell phone, the little girl precariously perched on her mother's lap buried her face in a sack of chips, and most of the rest of my co-passengers dozed off, I tried to focus on my book.

I was reading *Phantoms in the Brain* by V. Ramachandran, an Indian American neuroscientist I not only admired, but was smitten by. His recent visit to my institute for a talk had left me awe-struck.

I was immersed in the book, oblivious to my surroundings, until stacks of plates with "meals" from the pantry arrived and everybody prepared to devour their pre-ordered supper. I fished out the home-cooked food from my bag and started to eat as well.

"Are you a doctor, madam?" asked the young man seated opposite me.

"Yes" I said, surprised. .... "But how did you know?"

"I guessed from the book you were reading. I read about the author and his work on the phantom limb in a magazine, a long time back," he said. "By the way, I am Rohan – I am a software engineer by profession," he introduced himself.

"Wonderful!" I exclaimed, elated at the very thought that a lay person knew about this fascinating work by one of the most interesting neuroscientists of our times.

"So do you know what a phantom limb is?" I inquired.

"Well, I wouldn't know the scientific facts, but I ...."

"Oh, that is some mumbo jumbo cooked up by doctors for another ailment they don't know much about, I guess," sniggered the gentleman seated next to Rohan.

For a moment, I was taken aback ... this gentleman had been inconspicuous all this while! Needless to say, I was not amused.

"Rohan, I am sure you would be interested to know more," I said, wilfully ignoring the cynic (Mr C—with a capital C!) and trying to regain my composure. ....in fact, just recently we had a talk on the phantom limb at our institute, by none other than Ramachandran!" I recalled with gusto.

"Yes, of course," said Rohan eagerly.

"Some people need to undergo amputation of their limbs for various reasons, following severe injury, cancer or other diseases. But even several years after the amputation, many of them continue to feel the presence and normal movement of the missing limb. That's called a phantom limb," I explained.

"They continue to feel some sensations in the missing limb and most often, it is a sensation of pain," I added. "It's termed phantom pain."

"I see....," said Rohan, ruminating over what I had said.

"But the pain is real, ain't it? Why call it phantom pain then?" Mr C (C for Caustic!) offered his pearls of wisdom.

"Yes, but the pain is felt in the limb which does NOT exist any more," I retorted, trying to mask my exasperation.

"That must be a really weird feeling," said Rohan, visibly disturbed.

"Yes. Can you imagine perceiving sensations in a body part that does not exist any more?" I pondered aloud. "Say you have an intense itching, but cannot scratch?"

"Yes, I can understand.....," Rohan remarked, appearing concerned for such patients.

"Ask me! Would anyone else know better? I have worked in the army for 20 years. I can narrate volumes of ..." chipped in Mr C (C for oh-so-Caring!).

"But, believe me Sir, even if you are compassionate to the core, you can never truly fathom the agony of people who suffer," I interrupted Mr C, before he trivialised the matter yet again. "These are ex-treme-ly distressing symptoms," I tried to emphasise my point.

"Now, doctors can try to treat pain in your hand or your leg or your shoulder, but how do they help patients with excruciating pain in a limb that was amputated years ago?" I exclaimed, despair writ large on my face. "For many years, doctors have

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tried various forms of treatment, but none of these helped much. Ramachandran and his colleagues have discovered a simple treatment using an inexpensive mirror box," I proclaimed with excitement.

"How does that work?" Rohan asked, eager to know.

"Let me explain," I offered, only too keen to have an audience. "Ramachandran devised a box with a mirror placed at its centre. He asked his patients to place the good limb on one side of the box, facing the mirror, and the stump of the amputated limb on the other side. He then asked them to move the good limb as well as the affected limb (in their mind). Gazing through the open top of the box they could see the good limb moving and its mirror image, creating an illusion which made them feel that both their limbs were 'normal' and moving! Patients could thus 'unclench' or 'relax' their phantom limb from 'painful' positions."

Rohan was all ears for my animated elucidation, but Mr C (C for Crude) let out an audible yawn. I pretended not to have seen him. But I could have bet I had seen his uvula.

"With regular use of the 'mirror-box,' many patients experienced a dramatic relief in their phantom pain," I declared.

"But, how exactly does that happen?" Rohan wondered aloud.

"Well, let me simplify it for you," I volunteered. "When a limb is amputated, the nerve transmissions from that area to the brain are cut off and the brain thinks that probably the limb is restricted or paralysed. The mirror-box tricks the brain, suggesting movement in that limb, 'unclenching' it from its restricted painful position. Repeated use of the mirror-box 're-wires' the brain circuit, and the patient starts experiencing pain relief!"

"In short, Ramachandran fooled the brain into easing the pain," I smiled, recalling the catchy title I had read somewhere. I wasn't sure whether Rohan could comprehend all that I had said, but I was pleased with my attempt.

"Is this type of treatment available in India?" he enquired.

"Mirror-boxes are now available online, but anybody can craft one even at home," I declared.

"Such fancy treatments look good in books and on TV. I doubt if they work for all patients," Mr C (C for Crepehanger) grunted disdainfully.

"If such a simple treatment can ease the pain of even a few patients, isn't it a fascinating concept worth all the attention?" Rohan tried to reason with Mr C.

"Can we please pull up the middle berths? I want to sleep," said the pony-tailed teenager to nobody in particular.

"Oh, sure," said Rohan, rising from his seat. Everybody else, too, got up to help with the task.

I realised I had been allotted the upper berth, while Mr C had the lower berth to himself. Since I had sprained my ankle, I decided to request him to swap berths. The other lower berth was occupied by the child and her mother, so there was no way I could get that berth.

"Sir, would you please mind sleeping on the upper berth and allow me to use the lower one? I have sprained my ankle," I requested earnestly, pointing at my crepe-bandaged foot.

"I am sorry madam, I cannot, because...."

"No problem, Sir...I think I can manage," I said, politeness personified, before he could proffer some ridiculous excuse.

I climbed up to my berth with a vengeance, sprained ankle, clenched teeth et al, and prepared to get some sleep.

*Where had male chivalry disappeared?* I fumed to myself.

I did not realise when the gentle rocking of the train lulled me to sleep. I woke up to the sudden hustle and bustle of passengers. The train had halted and I could hear the raucous hawkers on the platform. I squinted at my watch. *Two more hours to my destination; let me catch some more sleep.*

Looking down, I caught sight of Mr C sitting up on his berth and preparing to alight. He hastily shoved his shawl and water bottle into his bag. And then, as I watched stunned, he sat on the edge of his seat and swiftly rolled up the right leg of his trousers. A pale amputation stump stood exposed against the dark trousers. He reached out for the prosthetic limb placed by his side and deftly strapped it on.

The next moment, bag in hand, he stood up and walked away.

### **Note**

*"Phantom impressions" is based on a true experience shared with me by my colleague and friend, a neuropathologist at NIMHANS who wishes to remain anonymous.*