A Journey Inside the Brain - The New York Review of Books

Frigyes Karinthy (born in 1887 in Budapest) was a well-known Hungarian poet, playwright, novelist, and humorist, when he developed, at the age of forty-eight, what in retrospect were the first symptoms of a growing brain tumor.

He was having tea at his favorite café in Budapest one evening when he heard "a distinct rumbling noise, followed by a slow, increasing reverberation,...a louder and louder roar..., only to fade gradually into silence." He looked up and was surprised to see that nothing was happening. There was no train; nor, indeed, was he near a train station. "What were they playing at?" Karinthy wondered. "Trains running outside,...or some new means of locomotion?" It was only after the fourth "train" that he realized he was having a hallucination.

In his memoir A Journey Round My Skull,[1] Karinthy reflects on how he has occasionally heard his own name whispered softly—we have all had such experiences. But this was something quite different:

The roaring of a train [was] loud, insistent, continuous. It was powerful enough to drown real sounds.... After a while I realized to my astonishment that the outer world was not responsible...the noise must be coming from inside my head.

Many patients have described to me how they first experienced auditory hallucinations—usually not voices or noises, but music.[2] All of them, like Karinthy, looked around to find the source of what they were hearing, and only when they could find no possible source did they, reluctantly and sometimes fearfully, conclude that they were hallucinating. Many people in this situation fear that they are going insane—for is it not typical of madness to "hear things"?

Karinthy was not concerned on this score:
I...did not find the incident at all alarming, but only very odd and unusual.... I could not have gone mad for, in that event, I should be incapable of diagnosing my case. Something else must be wrong....

So the first chapter of his memoir ("The Invisible Train") opens like a detective story or a mystery novel, with a puzzling and bizarre incident that reflects the changes which are starting to happen, slowly, stealthily, in his own brain. Karinthy himself would be both subject and investigator in the increasingly complex drama that he was subsequently drawn into.

Gifted and precocious (he had written his first novel at fifteen), Karinthy achieved fame in 1912, at the age of twenty-five, when no fewer than five of his books were published. Though he was trained in mathematics and actively interested in all aspects of science, he was especially known for his satirical writings, his political passions, and his surreal sense of humor. He had written philosophical works, plays, poems, novels, and, at the time of his first symptoms, had started writing a vast encyclopedia, which he hoped might be the twentieth-century equivalent of Diderot's monumental *Encyclopedia*. With all of this previous work, there had always been a plan, a structure, but now, forced to pay attention to what was happening in his own brain, Karinthy could only record, make notes, and reflect, without any clear notion of what lay ahead, of where this new journey would take him.

The hallucinatory train noises soon became a fixture in Karinthy's life. He started to hear them regularly, at seven o'clock each evening, whether he was in his favorite café or anywhere else. And within a few days, even stranger events started to occur:

The mirror opposite me seemed to move. Not more than an inch or two, then it hung still.... But what was happening now?

What was this—queer feeling—coming over me? The queerest thing was that—I didn't know what was queer. Perhaps there was nothing else queer about it. Yet I was conscious of something I had never known before, or rather I missed something I had been accustomed to since I was first conscious of being alive, though I had never paid much heed to it. I had no headache nor pain of any kind, I heard no trains, my heart was perfectly normal. And yet....

And yet everything, myself included, seemed to have lost its grip on reality. The tables remained in their usual places, two men were just walking across the café, and in front of me I saw the familiar water-jug and match-box. Yet in some eerie and alarming way they had all become accidental, as if they happened to be where they were purely by chance, and might just as well be anywhere else.... And now the whole box of tricks was starting to roll about, as if the floor underneath it had given way. I wanted to cling on to something.... There wasn't a fixed point anywhere.... Unless, perhaps, I could find one in my own head. If I could catch hold of a single image or memory or association that would help me to recognize myself. Or even a word might do.

This is a remarkable description of what it feels like to have the very foundations of perception, of consciousness, of self, undermined—to descend (perhaps for a few moments, but they may seem an eternity) into what Proust called "the abyss of unbeing," and to long desperately for some image, some memory, some word, to pull oneself out.
At this point Karinthy started to realize that something might be seriously and strangely the matter—he wondered if he was having seizures or working up to a stroke. In the weeks that followed, he started to get further symptoms: attacks of retching and nausea, difficulties with balance and gait. He did his best to dismiss and discount these, but finally, concerned by a steadily increasing blurring of his vision, he consulted an ophthalmologist, and started on a frustrating medical odyssey:

The doctor whom I called to consult shortly afterwards did not even examine me. Before I could describe half my symptoms he lifted his hand: "My dear fellow, you've neither aural catarrh nor have you had a stroke.... Nicotine poisoning, that's what's the matter with you."

Were doctors in Budapest in 1936 worse than doctors in, say, New York or London seventy years later? Not listening, not examining, being opinionated, jumping to conclusions—all are as ubiquitous, and dangerous, now as they were then and there (as Jerome Groopman describes so well in his book *How Doctors Think*[^3^]). Wholly treatable disorders can go unrecognized, undiagnosed, until it is too late. Had Karinthy's first doctor examined him, he would have found a disorder of coordination indicating a cerebellar disturbance; looking into the eyes, he would have seen papilloedema—a swelling of the papillae, the optic discs—a sure sign of increased pressure in the brain. Had he paid attention to what his patient tried to tell him, he would never have been so cavalier: no one has such auditory hallucinations or sudden undermminings of consciousness without a significant cerebral cause.

But Karinthy was a part of the rich and fertile café culture of Budapest, and his social circle included not only writers and artists but scientists and doctors, too. This may have made it difficult for him to get a straightforward medical opinion, for his doctors were also his friends or colleagues. As the weeks passed, Karinthy, though making light of his symptoms, started to be haunted by two memories: that of a young friend who had died of a brain tumor, and that of a film he had once seen, showing the great pioneer neurosurgeon Harvey Cushing operating on the brain of a conscious patient.

At this point, suspecting that he, too, might have a brain tumor, Karinthy insisted that the ophthalmologist, a friend of his, examine his retinas closely. His vivid recounting of this scene is both shocking and richly ironic, and shows his sharp eye and comic gifts at their best. Taken aback a little at Karinthy's insistence, the doctor who had jollied him along a few months earlier now pulled out his ophthalmoscope and looked:

As he bent close over me, I felt the ingenious little instrument brushing my nose and I could hear him draw his breath with a slight effort, as he strained to observe me closely. I waited for the usual reassurance. "Nothing wrong there! You just want new glasses—a trifle stronger this time...." The reality was very different. I heard Dr. H. give a sudden whistle....

He laid down his instrument on the table and tilted his head on one side. I saw him look at me with a kind of grave amazement, as if I had suddenly become a stranger to him.

Suddenly Karinthy ceased to be himself, a social acquaintance, an equal, a fellow human being with fears and feelings—and became a specimen. Dr. H. "was as pleasantly excited as an entomologist who has stumbled on some coveted specimen." He ran out of the room to summon his colleagues:

In an incredibly short space of time the room was full. Assistants, house physicians, students, came pouring round, greedily snatching the ophthalmoscope from one another.
The Professor himself came, turned to Dr. H., and said, "My congratulations! A really admirable diagnosis!"

As the medical men were congratulating one another, Karinthy tried to speak:

"Gentlemen...!" I began modestly.

Every one swung round. It was as if they had only just realized that I was of the party, and not only my papilla, which had become the centre of interest.

This scene is one that could occur, and does occur, in hospitals all over the world—the sudden focus on an intriguing pathology, and the complete forgetting of the (perhaps terrified) human being who happens to have it. All doctors are guilty of this, which is why we continue to need books from the vantage point of patients. It is salutary to be reminded by a patient as witty and observant and articulate as Karinthy of how easily the human element is apt to be forgotten in the raptures of such an "entomological" excitement.

But one needs to remember, too, how difficult and delicate an art it was, seventy years ago, to diagnose and locate a cerebral tumor. In the 1930s, there were no MRI or CT scans, only elaborate and sometimes dangerous procedures, such as injecting air into the ventricles of the brain, or injecting a dye into its blood vessels.

So it took months as Karinthy was referred from one specialist to another, and meanwhile his vision was growing worse. As he approached virtual blindness, he entered a strange world, where he could no longer be certain whether he was actually seeing or not:

I had learnt to interpret every hint afforded by the shifting of light and to complete the general effect from memory. I was getting used to this strange semi-darkness in which I lived, and I almost began to like it. I could still see the outline of figures fairly well, and my imagination supplied the details, like a painter filling an empty frame. I tried to form a picture of any face I saw in front of me by observing the person's voice and movements.... The idea that I might already have gone blind struck me with sudden terror. What I fancied I saw was perhaps no more than the stuff that dreams are made on. I might only be using people's words and voices to reconstruct the lost world of reality.... I stood on the threshold of reality and imagination, and I began to doubt which was which. My bodily eye and my mind's eye were blending into one.

Just as Karinthy was on the verge of permanent blindness, a precise diagnosis of the tumor was made, finally, by the eminent Viennese neurologist Otto Pötzl. Immediate surgery was recommended, and Karinthy, accompanied by his wife, took a series of trains to Sweden to meet the great Herbert Olivecrona, a student of Harvey Cushing's, and one of the best neurosurgeons in the world.

Karinthy's portrait of Olivecrona, which occupies an entire chapter, is full of insight and irony, and written in a new, spare style, quite different from the lush description that precedes it. The courtesy and reserve of the cool Scandinavian neurosurgeon is delicately brought out, in contrast to the Central European emotionalism of his illustrious patient. Karinthy is done with his ambivalence, his denials, his suspicions, and he has at last found a doctor whom he can trust and even love.
He was told that the operation would last many hours, but that only local anesthetic would be used, because the brain itself has no sensory nerves, does not feel pain—and general anesthesia for such a lengthy operation was too risky. And some parts of the brain, while not sensitive to pain, may, when stimulated, evoke vivid visual or auditory memories. Karinthy described the first drilling into his skull:

There was an infernal scream as the steel plunged into my skull. It sank more and more rapidly through the bone, and the pitch of its scream became louder and more piercing every second.... Suddenly, there was a violent jerk, and the noise stopped.

Karinthy heard a rush of fluid inside his head and wondered if it was blood or spinal fluid. He was then wheeled into the X-ray room, where air was injected into the ventricles of the brain to outline them and delineate the way in which they were being compressed by his tumor.

Back in the operating room, Karinthy was immobilized, face down, on the operating table, and the surgery began in earnest. The greater part of his skull was exposed, and then much of it removed, piecemeal. Karinthy felt

a straining sensation, a feeling of pressure, a cracking sound, and a terrific wrench.... Something broke with a dull noise.... This process was repeated many times ...like splitting open a wooden packing-case, plank by plank.

Once the skull had been opened, all pain ceased—and this itself was paradoxically disturbing:

No, my brain did not hurt. Perhaps it was more exasperating this way than if it had. I would have preferred it to hurt me. More terrifying than any actual pain was the fact that my position seemed impossible. It was impossible for a man to be lying here with his skull open and his brain exposed to the outer world—impossible for him to lie here and live...impossible, incredible, indecent, for him to remain alive—and not merely alive, but conscious and in his right mind.

At intervals, the cool, kindly voice of Olivecrona broke in, explaining, reassuring, and Karinthy's apprehension was replaced by calm and curiosity. Olivecrona, here, seems almost like Virgil, guiding his poet-patient through the circles and landscapes of his brain.

Six or seven hours into the operation, Karinthy had a singular experience. It was not a dream, for he was fully conscious—though, perhaps, in an altered state of consciousness. He seemed to be looking down on his body from the ceiling of the operating theater, moving about, zooming in and out:

The hallucination consisted in my mind seeming to move freely about the room. There was only a single light, which fell evenly on to the table. Olivecrona...seemed to be leaning forward...the lamp on his forehead threw a light into the open cavity of my skull. He had already drained off the yellowish fluid. The lobes of the cerebellum seemed to have subsided and fallen apart of themselves, and I fancied I saw the inside of the opened tumour. He had cauterized the severed veins with a red-hot electric needle. The angiom [the tumor made up of blood vessels] was already visible, lying within the cyst and a little to one side of it. The tumour itself looked like a great, red globe. In my vision it seemed as large as a small cauliflower. Its surface was embossed so that it formed a kind of pattern, like a cameo with a carved design.... It seemed almost a pity that Olivecrona was to destroy it.
Karinthy's visualization or hallucination continued in minute detail. He "saw" Olivecrona skillfully removing the tumor, sucking his lower lip with concentration, and then with satisfaction that the essential part of the surgery was done.

I do not know what to call this intense visualization, informed and conjured up by his detailed knowledge of what was actually happening. Karinthy himself uses the word "hallucination," and the aerial viewpoint, looking down on one's own body, is very characteristic of what is often called an "out-of-body experience." (Such OBEs are often associated with near-death experiences such as cardiac arrest or the perception of imminent catastrophe—and they have been associated with temporal lobe seizures, or stimulation of the temporal lobes during brain surgery.)

Whatever it was, Karinthy seemed to know that the operation had been successful, that the tumor had been removed without any damage to the brain. Perhaps Olivecrona had said this to him and Karinthy had transformed his words into a vision. After this intense and reassuring vision, Karinthy fell deeply asleep and did not wake up until he was back in his own bed.

The surgery, in Olivecrona's masterly hands, had gone well—the tumor, which turned out to be benign, was gone, and Karinthy made a complete recovery, even recovering his vision, which, it had been thought, would be permanently lost. He could read and write once again, and with an exuberant sense of relief and gratitude, he rapidly composed A Journey Round My Skull, and sent the first copy of the German edition to the surgeon who had saved his life. He followed this with another book, The Heavenly Report, somewhat different in style and approach, and then started on yet another, Message in the Bottle. He was apparently in full health and full creative swing when he died suddenly in August of 1938. He was only fifty-one. It is said that he had a stroke while bending to tie his shoelace.

I first read A Journey Round My Skull as a boy of thirteen or fourteen—I think it influenced me, when I came to write my own neurological case histories—and now, rereading it sixty years later, I think it stands up remarkably well. It is not just an elaborate case history; it depicts the complex impact of a sight-, mind-, and life-threatening illness in a man of extraordinary sensibility and talent, and even something approaching genius, in the prime of his life. It becomes a journey of insight, of symbolic stages.

It has its faults: there are long digressions, philosophical and literary, where one might want a tauter narrative, and there is a certain amount of fanciful contrivance and extravagance—though this is something that Karinthy becomes more and more conscious of as he writes the book, as he is sobered by his experience, and as he tried to weld his novelistic imagination to the factual, even the clinical, realities of his situation. But despite its flaws, Karinthy's book is, to my mind, a masterpiece. We are inundated now with medical memoirs, both biographical and autobiographical—the entire genre has exploded in the last twenty years. Yet even though medical technology may have changed, the human experience has not, and A Journey Round My Skull, the first autobiographical description of a journey inside the brain, remains one of the very best.

Notes


[2] See Oliver Sacks, Musicophilia: Tales of Music and the Brain (Knopf, 2007); reviewed in these pages by Colin McGinn, March 6, 2008.