A visionary man

In an age of instant, undeserved celebrity, Zoltan Torey's name is unknown to most. Yet his life story is among the most inspiring I know of, writes Roy Williams

oltan Torey (BA '61) has endured enormous hardships, not least the loss of his eyesight at the age of 21. Yet now, at 80, his achievements are – by any standards – truly remarkable. Chief among them is his acclaimed book *The Crucible of Consciousness: An Integrated Theory of Mind and Brain*, first published by Oxford University Press in 1999.

Torey was largely self-taught, unknown in academic circles, but his manuscript received endorsements from distinguished experts such as Oliver Sacks and Professor Charles Birch. Earlier this year the book was revised and republished by MIT Press. It carries a foreword by Daniel C Dennett, a world authority in the field of cognitive studies. He lauds Torey as a "pathfinder" and the book as a "quite bountiful source of arrestingly different slants".

One reviewer wrote of the first edition: "I think I have just read one of the great books of this century – no, of several centuries – comparable with Darwin's *On the Origin of Species* or Einstein's *Special Theory of Relativity.*" Torey has also written an engaging memoir, *Out of Darkness* (Picador, 2003).

He was born in Hungary in 1929 into a privileged upper-middle class milieu. His father ran a motion picture studio in Budapest, a thriving cosmopolitan metropolis. Among many happy childhood memories, Torey recalls hiking with his beloved father: "We often roamed the forest together, stalking deer, sharing sunsets and sunrises in the wooded mountains above the river Danube."

Torey's high school education was well rounded. Notably, he went to Lutheran church services and learnt the fundamentals of each main branch of science. He also studied French, German, English and Latin. "There was," he recalls, "no forced premature specialisation into streams... I was educated rather than trained."

Life seemed full of promise. But the last years of World War II changed everything. Hungary was nominally a German ally, and events converged horribly for its citizens. In March 1944 the Nazis moved in, bent on their Final Solution. Worse followed at Christmas when the Russian Red Army arrived from the east.

Torey's family sheltered in their coal cellar for six weeks. When they emerged, he recalls, "There was little trace of our human habitation: a single small piece of bent metal reminding me of my toy railway, an occasional shard of crockery among the charred rubble of dust and brick".

The following year Torey's father was arrested as a "liberal subversive". Hungary had become a bleak totalitarian state, part of the Soviet empire. Torey remembers advice from a business associate of his father's: "If you don't have the stomach for it, then leave, preferably tomorrow."

In August 1948, aged 18, Torey and three companions escaped. It required a 100m dash past an observation post manned by Soviet snipers at the Hungarian-Austrian border. Torey can repeat the final instructions still: "We are moving targets, the range is longish, our chances are fair. Do not stop whatever happens. Now go." They made it, and almost a year later Torey embarked for Australia and arrived in Melbourne on 17 July 1949.

He gained admission to the Faculty of Dentistry at the University of Sydney and began his studies in February 1950. To support himself he took a number of menial part-time jobs, including stints at the NSW railways and a milk factory. He didn't mind the exertion: "What with all the lifting, stowing, stashing and running I felt thrilled and amused." However, in mid-1951 he was working a shift at a battery plant when his face was sprayed with acid. The accident irrevocably changed his life. He was blinded in both eyes and his vocal cords were fused, reducing his voice to a rasping whisper.

Torey managed to teach himself to "see" again, through a process of internal visualisation and heightened use of his other senses. "My brain ... began using its processing techniques in reverse," he explains. "Previously it perceived and made inferences on the basis of visual data, now it gathered any data, data formerly ignored, and together with shrewd guesses it generated perceptions from within."

Developing these abilities was a slow and painful process, exacerbated by his isolation from family and friends back in Hungary, a deeply strained first marriage ("an emotional write-off"), their raising of a son ("I cannot say we were good parents"), lack of money, and his limited English. Despite these obstacles, Torey graduated from the University in 1959 with a degree in psychology (Hons) and philosophy. Later he practised as a professional marriage counseller. "I enjoyed counselling for a few years," he says wistfully, "but then the same problems kept coming back again and again. It fatigued me."

All the while he was educating himself in linguistics, neuroscience, neuro-psychology, anthropology, evolutionary biology and cosmology. "These were preparatory years for me," he recalls, "getting ready to tackle the big questions. Previous attempts at tackling the consciousness problem failed because they were monodisciplinary."

In 1980 he began writing the manuscript that became *The Crucible of Consciousness*. He finished in 1992, having "worked on it almost continuously, a labour of love and concentration."

In retrospect, he says, it would not have happened but for his blindness. "I would probably have become a dentist



and settled into a busy and comfortable lifestyle instead."

Torey's basic thesis is that consciousness – our knowing that we know – is both an entirely physical phenomenon and unique to human beings. It is a "value-added variant of its ground state [awareness]", a by-product of the twosidedness of the human brain, and, just as crucially, of the relative "plasticity" of the infant child's brain. The key is our use of language, both speech and thought.

"Language," Torey argues in his book, "is neither innate nor learnt. It is neuro-functionally grown in every normal individual exposed to it."

Is free will an illusion? His answer is a qualified "no": consciousness enables us to choose whether to abort an action which the subconscious brain has already selected and initiated. We have about 100-150 miliseconds to "decide". Free will, on this theory, is more like "free won't", the exercise of a power of veto - an idea postulated by the late American neuro-scientist Benjamin Libet (1916-2007).

"I have a plan," Torey says, "to explore these issues as part of my next project."

Is he an atheist? The vehemence of his answer is surprising: "I am not even remotely an atheist!" Although he insists that consciousness is a product of purely natural forces, it also "imposes a fantastic obligation on us." Why? "Because we are part of a miracle, but consciousness is not the miracle... It is just our instrument to see it."

What about Richard Dawkins, author of The God Delusion and unofficial leader of today's "New Atheists"? Torey's verdict: "A clever fellow, but I just can't buy him."

In his memoir, Torey describes a scene he witnessed as a volunteer stretcher-bearer: "A half pyramid of naked corpses piled up in the back corner ... a heap of young human beings, Russians, Germans, Ukrainians, Hungarians, now all equally dead."

"I can still picture that sight with total clarity," he says and is unashamed to admit that he supported his national government's policy of "prevarication and minimalist war participation, at least until March 1944" – as did most of his fellow Hungarians. "It was clearly the lesser evil."

A desperate Torey was part of Australia's seminal post-war immigration program and he remains extremely grateful. Asylum-seekers today, he says, must regard Australia as "heaven ... divine ... Christmas every day!"

Sixty years on, what are Torey's own views of Australia? We've made huge advances, and not merely in the obvious ways, he thinks. "An outsider can see these things better." He writes in his memoir that, in 1950, "this country had not evolved an acceptable authentically Australian role model for the intelligent citizen, male or female." The options were to "turn into an Englishman or into a Marxist".

Today, he says with enthusiasm, there are many excellent examples to follow. There can be few better examples than Zoltan Torey himself. SAM

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