I First Things

Whatever native intelligence and intellectual curiosity I may have, I owe to my parents, and, in particular, my father. In my memories, his own native intelligence is becoming more and more apparent to me.

My grandfather, a Romanian immigrant, had risen to the middle class as a linguist in the civil service of the municipal courts in New York. He had been revered among the city's judiciary for his ability to translate the testimony and papers of other immigrants in myriad European languages.

One of his children, my father, born in America, fell in love with a beautiful, chic, quick-witted city girl from Berlin, Eva Israel, my mother. She had come to New York with her sister in 1928. Unable to fund both a family and a higher education, and fearfully insecure in the Great Depression, my father clung to civil service within New York's judicial system, as had his linguist father before him. My father, like his, also became famous among local trial judges, in his case, as the fastest court stenographer in the city, even after machine stenography came in. Judges would ask for him, as they had asked for his father.

He was determined that I should have the chances that had been out of reach for him. I remember the heterogeneous books he brought home and studiously did not bring to my attention. He bought used books literally by the bagful, and treated them as if bought for himself. This bulging library of miscellany was an exciting feature of my boyhood. I think my father understood that books in themselves were an education, and needed to be available to his son – and that the more I read, of anything, the better off I would be.

One of these books had a great impact on me. It was the dawn of my interest in cosmology. It came to me in a curiously primitive but beautiful vision of the creation of the universe, the Kearys' *The Heroes*

of Asgard. This was a retelling of Norse myths from the Poetic Edda, written in medieval Iceland, and also from Saemund's Edda. The book was not just a collection of myths; rather, it anthologized fine translations from the Old Norse. I found the poetry arresting and the mystery transforming. Here are lines from the Edda's story of creation:

Once was the age
When all was not –
No sand, nor sea,
No salt waves,
No earth was found,
Nor over-skies,
But yawning precipice
And nowhere grass.

When I wrote *The First Three Minutes* (1977), my book on modern cosmology for the general reader, I began it with the Edda's cosmogony. Near the end, describing the idea of an oscillating universe, I referred to the story of Ragnarok, the story of the end of the world. There it is predicted that, afterward, the sons of Thor would come up from Hell carrying their father's hammer, and the whole story would begin again. Today, in a similar spirit, with the suggestion of late-twentieth-century string theory in physics, we can conceive of the strange possibility of a multiverse.