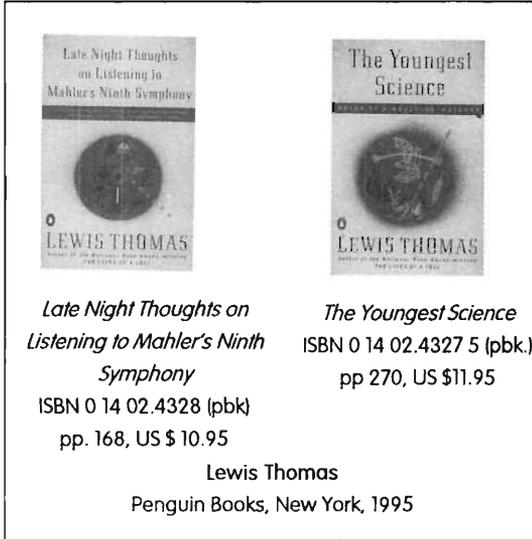


Late Night Thoughts ...

Harini Nagendra



Late Night Thoughts on Listening to Mahler's Ninth Symphony. Whew, what a mouthful of a title! The sheer absurdity and charm of that wonderful line should prepare you for what lies within this book, the third in a collection of essays by that eloquent writer, scientist and doctor, Lewis Thomas. Thomas published this series of articles in the *New England Journal of Medicine* and other periodicals, which were later reprinted in book form by The Viking Press, and Penguin. These delightful essays are a collection of random explorations into various aspects of biology, medicine, science in general, linguistics, philosophy and what-have-you: and provide a fascinating glimpse into the way science in general, and medicine and 'classical' biology in particular, have evolved and shaped our lives over the past century. The first two of these books, *The Lives of A*

Cell, and *The Medusa and the Snail*, have been reviewed in previous editions of *Resonance*. In this article, I discuss the 3rd book, *Late Night Thoughts...* and the last, *The Youngest Science*.

My first thought on re-reading *Late Night Thoughts* (its been several years now since I read it last), was the depth of the writer's commitment to humanism, and the extreme relevance of the issues he considers, in our present fragile world. A large part of the book is taken up with discussion of the US Government's focus on military research for the development of nuclear weapons, and the virtual abandonment of basic scientific research due to lack of financial support. Thomas brings up practical issues of managing complex circuitry, given intense electromagnetic surges that must ensue after nuclear bombs are exploded. He discusses the human misery involved, and the tragedy that ensued in Hiroshima in 1945. Most of all, though, he discusses how war is really a psychological game: in trying to discern what your opponent will do, you are often reduced to guesses. Thus in practice, the limits of effectiveness of a nuclear arsenal might be set by the nature of the human brain, rather than any complicated technological 'fixes'. Challenging and terrifyingly poignant, as only a medical doctor can be when confronted with the prospect of human annihilation, these essays force us to confront issues of technology and its social impact on our lives. One presumes that *Late Night Thoughts* was written during a period when America was going through the cold war, and the dangers

and absurdity of the situation had struck Thomas rather forcibly. In contrast, *The Youngest Science* (a collection of essays written subsequently) is a far more dispassionate look at the manner in which his life had evolved: from a young trainee doctor, to his war career, his research projects, subsequent work as an administrator, and finally comes a full circle with accounts of his experiences as a patient in one of his own hospitals. In the process, through descriptions of Thomas's early career, as well as narratives of his father's career as a doctor and his mother's as a nurse, one gets a fascinating sense of the manner in which medicine was practised in the early part of the last century. The 'youngest science', medical practice prior to the advent of immunology and antibiotics was primarily about cleanliness, and nursing care. The most dreaded diseases were typhoid and syphilis, and the advent of antibiotics truly revolutionized the way in which medicine was practised. Until then, the only way to treat major diseases was to provide good care and nourishing food, and hope for a miracle. The science of biochemistry and immunology changed the face of modern medicine, and this book provides fascinating glimpses into its history.

Perhaps many of you are now close to completing undergraduate degrees, and wondering what turn your professional lives might take. Thomas seems to have gone through the entire gamut. Although he began his career with professional medical practice, he quickly moved to research into experimental pathology, and vividly compares the excitement (and frustration) of scientific research

and professional practice. Later on, he traded hats to become a hospital administrator: another challenging task, but one that required skills completely different from those used thus far. His reminiscences provide food for some interesting essays on committees, and their usefulness (or lack of it!). He describes his experiences as a patient towards the end of his career, and states that it is his firm belief that every doctor should be made to live life as a patient for a few days, to enable them to see the other side of life in a hospital! That seems like an excellent idea, for several professions I can think of.

The variety of subjects covered by Lewis Thomas in this four-book collection of essays, truly needs to be experienced: from linguistics to philosophy, history to research ideology, a discussion of ethics to a debate of technology vs. science, these were one of the most inspiring and thought provoking books I read as a younger student. Perhaps one of the most fascinating pieces is an essay in the *Youngest Science*, where he describes how he began writing these essays. These books inspire one to know more about the whys and hows of things, be it the stars, or biology, or politics today: above all, to *think*, to question everything. Which can't be all that bad... go and read these books, I can promise you won't regret it.

Harini Nagendra, Asia Research Coordinator, Center for Study of Institutions, Population, and Environmental Change (CIPEC), Indiana University, 408 N Indiana Avenue, Bloomington, IN 47408, USA. Email: nagendra@indiana.edu, Internet: <http://mypage.iu.edu/~nagendra>