an impoverished young woman anguishes over stealing meat to feed her starving siblings. Lightman uses the exchanges between Mr g and Belhor to riff on good and evil, free will and relative morality.

Lightman's grasp of the science, in all its gory detail, is unerring. His ability to interweave the fantastical with the factual is impressive — not surprising, given his background. In the 1970s, Lightman established himself as an astrophysical relativist, writing several important papers and books. I still use them. In 1993, he published a magical collection of short stories, *Einstein's Dreams* (Pantheon), in which he took the strange concepts and consequences of Einstein's principle of relativity and wove them into vignettes. I was shocked at how well it worked — and I was not alone. The book has been translated into 30 languages and has led to several stage productions around the world.

Lightman had done something that I had thought impossible: he had brought in the hard science and softened it up. *Einstein's Dreams* is sensual; it breathes. *Mr g* is different. Much more abstract and almost pedagogical, it is a detailed description of the birth and evolution of the Universe that reads like a Rushdiesque fable about an invented place and time. The facts are faultless. Yet the book can occasionally be unintelligible.

For example, Lightman defines a tick of a clock in terms of a particular frequency of the hydrogen atom. Beautifully precise and clear. But as a result, any other timescales that he mentions must be written in scientific notation. And, of course, other big numbers — such as the number of neurons in a brain or of Universes in what he calls the Void — can also be accurately presented only in scientific notation. You begin to wonder about the readership. Are these nuggets meant to be seen as just icons, like hieroglyphs? Or is the generalist supposed to know what they mean?

It has to be said too that Lightman's work could have worked well as a short story. It loses steam early on and sometimes feels like interspersed vignettes on science and morality with a dose of 'magic' thrown in. Finely crafted it may be, but it can be hard going. Throughout, I had a pretty good idea of what was going to happen and, given the nature of the story, the characters didn't need to be developed. There was nothing to wait for.

Yet ultimately, this is a marvellous counterpoint to all of the other nonsense out there on creation. Lightman writes exquisitely, so this fable on the origin of space, time, matter and life is a wordfest that is securely pinned to the rational — making him a 'magic realist' of a refreshingly different stripe. ∎

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Books in brief

The Green Paradox: A Supply-Side Approach to Global Warming
Hans-Werner Sinn MIT PRESS *288 pp. $29.95 (2012)*
Frustrated by "counterproductive" climate policies, economist Hans-Werner Sinn proposes a radical alternative. Policy-makers, he notes, have ignored the oil sheikhs and coal barons who supply the fossil-fuel market. Yet it is they who call the shots, as shown by the 'green paradox' — announcements of future reductions in carbon consumption that drive carbon-resource controllers to bump up production. Sinn's antidote to the ideology that plagues policy-making is a "Super-Kyoto" system: unified countries, coordinated caps and trade, and taxation designed to curb the 'extraction habit'.
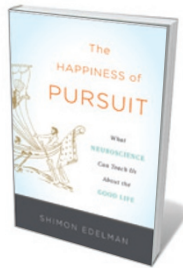
The Happiness of Pursuit: What Neuroscience Can Teach Us About the Good Life
Shimon Edelman BASIC BOOKS *256 pp. $25.99 (2012)*
The mind, says cognitive psychologist Shimon Edelman, is a literal "meat computer". Our experience of the world is a series of computations carried out by neural wetware. But where does that leave philosophical conundrums such as joy? Taking passages by luminaries including Homer, William Shakespeare and Jorge Luis Borges as touchstones, Edelman powers along on his "quest for an algorithmic understanding of happiness", revealing that it is this computational journey itself that constitutes the good life.

How Not to Be Eaten: The Insects Fight Back
Gilbert Waldbauer UNIVERSITY OF CALIFORNIA PRESS *240 pp. $27.95 (2012)*
Insects and their predators use a vast, often bizarre array of strategies to eat or to avoid being eaten. Entomologist Gilbert Waldbauer tours tactics on both sides, from sticky lures to kamikaze speed. His fascinating cast ranges from goatsuckers (birds in the order Caprimulgiformes) that can catch massive moths in their bristled gapes, to the brilliantly hued lubber grasshopper (*Romalea guttata*), which, when threatened, both vomits a noxious substance and hisses as stinking froth erupts from its thorax.

Knowing Nature: Art and Science in Philadelphia, 1740–1840
Edited by Amy R. W. Meyers and Lisa L. Ford YALE UNIVERSITY PRESS *432 pp. $65 (2012)*
When writer Thomas Paine saw Philadelphia in 1774, he noted that nearly every citizen had "some scientific interest or business" — a state that persisted to the mid-nineteenth century. The city boasted artist-naturalists such as John James Audubon, and the study of nature filtered through all strata of society. These 14 illustrated essays, edited by art historians Amy Meyers and Lisa Ford, trace a century of influential scientific endeavour, from botanic gardens and cabinets of curiosity to pioneering colour-plate techniques.

Vegetables: A Biography
Evelyne Bloch-Dano (translated by Teresa Lavender Fagan) UNIVERSITY OF CHICAGO PRESS *128 pp. $20 (2012)*
Next time you chop a carrot, spare a thought for the centuries of breeding, farming technology and trade that brought it to your kitchen. In brief 'biographies' of 11 vegetables, from pumpkins and artichokes to chard, writer Evelyne Bloch-Dano serves up a feast of associated genetics, agriculture, history and culture. From the role of chillies in world trade to the strange link between peas and the court of Versailles in France, there is much to savour.