Radar, Hula Hoops, and Playful Pigs: 67 Digestible Commentaries on the Fascinating Chemistry of Everyday Life

by Joe Schwarcz

ECW: Toronto, 1999. 296 pp. ISBN 1-55022-384-4. \$16.95 (pb)

reviewed by Jay Labinger

Joe Schwarcz, the 1999 winner of the American Chemical Society's James T. Grady-James H. Stack Award for Interpreting Chemistry for the Public, regularly contributes to newspapers and other popular media, and a number of his pieces are collected here. Each of the 67 "digestible" essays in this book serves as a little dose of antidote against the evil words—unnatural, toxic, polluting—commonly associated with chemistry, as well as a reminder that all of life is, basically, chemistry. The intriguing and attractively written articles include explanations of how shampoos work, why chicken soup is good for colds. what can be done with polyethylene (the source of the book's title). a possible cause for the Salem witch episode. and many others. More than half the pieces have to do with either food or health (or both); the rest cover a wide range of topics, all maintaining close connections to the familiar.

Dr. Schwarcz's straightforward, not overly technical language and breezy style are very well suited to the general audience for whom this book is primarily intended. Chemists should also find much to interest them, but perhaps may occasionally feel a little frustrated. A few explanations are oversimplified to the point of being somewhat misleading (e.g., the details of how the oxidation of glucose generates damaging free radicals). There are no chemical structures at all (or, indeed, any illustrations, except for a handful of little cartoons), even when the close resemblance between compounds is central to an argument. A chapter on homeopathy makes no reference to the Benveniste brouhaha. Presumably these and other decisions were intended to keep the level well within the comfort zone of the typical reader. In general that was probably the right approach, but a few judicious pushes on the envelope might have been worthwhile.

I was also disappointed in the absence of any bibliography, particularly with regard to the more controversial issues addressed, such as the safety of genetically modified foodstuffs, whether MSG is harmful, or the efficacy of dietary supplements. In nearly every such case Schwarcz takes a clear position; he even goes so far as to suggest appropriate dosages! But the sources of the studies on which he bases his opinions are given only sketchily—perhaps the name of a journal, or the location where the work was carried out—or not at all. It would not have been much trouble to provide a few references for those interested in following up on any of these stories, and I assume Schwarcz would hope to stimulate such initiative, so why not make it easier for the reader?

Aside from these reservations, I quite enjoyed browsing through the essays, and I expect most general readers and chemists will too. Every one is entertaining and most are informative as well, though some, such as the curious history of Joseph Pujol, "Le Petomane", are not so obviously relevant

to chemistry. But I feel the book could have been made stronger still; in its present form, the impact of the whole is a bit less than the sum of its parts.

Jay Labinger is at the Beckman Institute, California Institute of Technology, Pasadena, CA; jal@cco.caltech.edu.