light (UV) damages the precious DNA, resulting in mutations, the death of cells and sometimes malignant transformation. The latter effect would be intolerably frequent were it not for cellular enzymes that constantly monitor the DNA to identify and repair the lesions that UV inflicts. This is dramatically illustrated by the rare hereditary disease, xeroderma pigmentosum, in which DNA repair deficiency renders the victims exquisitely sensitive to sunlight-induced skin tumours.

Biological effects of UV was an excellent choice of topic for this first volume in a new series sponsored by the International Union of Pure and Applied Biophysics, since UV is both an important biophysical probe for DNA repair systems and an environmental hazard of some concern. The books in this series are meant to serve as specialized texts for advanced students in particular fields of biophysics. The author, Walter Harm, was one of the pioneers in the field of UV photobiology and he was therefore in a good position to provide the kind of historical perspective that could bring the subject to life and excite students. Unfortunately this monograph doesn't really gain much vitality as it plods ponderously through the details of classical bacterial UV photobiology.

Without first surveying the range of interesting biological effects, the first chapter launches into electronic excitation and the practical nuts-and-bolts details of experimental UV photobiology. Chapter 2 carries on with more practical advice for the researcher, including some useful numerical examples to illustrate important points. A carefully detailed consideration of UV interactions with biologically important molecules is followed by a not-so-useful chapter on classical target theory and survival curve shapes. (The word "multihitlike" was a new one to me.) I would have preferred more discussion of why shoulders on survival curves may be explained by existence of repair systems. The terms excision-repair and post-replication repair are introduced but not defined until three chapters later.

The subject of enzymatic photo-reactivation is treated in great detail, reflecting the recent research interests of the author. In contrast, the discussion of dark repair systems is incomplete and contains a number of inaccuracies, such as a reference to sequential action of the *uvrA* and *recA* systems (p.107). The book is nearly devoid of discussion of our current understanding of the enzymology of dark repair and its genetic control. Yet this is perhaps one of the most exciting areas of research in UV photobiology.

The predominant emphasis in the text is on UV inactivation of bacteria and their phage, even in the chapter on solar UV radiation effects. Sunlight effects on human skin are relegated to less than two pages followed by a brief chapter on UV carcinogenesis and an even shorter one on sensitized UV effects on DNA.

I must say that I would find it difficult to teach a course using this book as a text but I find it quite useful as a reference work. It does provide a comprehensive treatment of the now classical studies on UV effects in prokaryotes. It might have been more aptly titled *Microbial Effects of UV Radiation*; as Dr Harm emphasizes, much of our

understanding in UV photobiology and DNA repair has been based upon the solid foundation of early studies with simple prokaryotes. □

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Social science and the stomach

John Yudkin

Consuming Passions: The Anthropology of Eating. By Peter Farb and George Armelagos. Pp.279. (Houghton Mifflin: 1980.) \$12.95.

THE past 25 years have seen not only a rapid growth in research in nutrition, but the increasing recognition that nutrition is as much a social as an experimental science. Its wide span is encompassed in the short definition of nutrition as the study of the relationship between people and their food. Thus, there are now fewer academics who consider nutrition to be a section of biochemistry or of physiology, and few among the growing number of university departments of nutrition that do not include in their courses relevant aspects of social nutrition from economics, sociology, anthropology and psychology.

This book will certainly be of interest to nutritionists and dietitians, as well as to anthropologists, but its appeal is very much more general since it contains a mass of fascinating information. Its wide range is best indicated from this quotation near the end of the work: "The thesis of this book has been that to know what, where, how, when and with whom people eat is to know the character of their society". For example, you will learn from the book that "cannibal" is derived from "Carib" (as in "Caribbean") and that a "companion" is the person with whom you eat bread; that among the people of Trobriand it is unseemly for couples to eat together before marriage, just as it is (was?) for unmarried Western couples to sleep together; that cultural customs such as not eating pork or the reverence of the Hindu for cattle often have a biological or ecological basis.

The authors deal first with the evolution of human dietary patterns, how they have adapted to the availability of local foods, and the differences called for, and met, at different phases of the life of the individual. There follows a description and suggested explanation for the myths and religious concepts that influence eating behaviour, and the rules that different people have adopted towards food in their relationships with family, clan and strangers. There is considerable discussion of food preferences and avoidances, and the development of national cuisines.

It would be pleasing to be able to say that this book had achieved a synthesis between those aspects of eating that belong to the social sciences and those that belong to the natural sciences. The fact is, however, that until recently at any rate most people who have become professionally interested in nutrition have come through the separated and narrowly confined and demarcated pathways of these two groups of disciplines. It is understandable then — but a great pity — that the data on the nutrient content of foods have not been properly checked.

It is not true that one person may "burn calories ten times faster" than another "of the same age, sex and physical proportions". It is misleading, too, to worry about the fact that a portion of canned peas contains 100 times as much salt as do fresh peas, when in absolute terms this would still be about one-fiftieth of the amount taken in a day; more importantly, it ignores the fact that people add very much more salt when cooking vegetables than that present in the canned peas. The plausible suggestion that pica usually has a nutritional significance — for example, that eating clay provides minerals lacking in the diet — has been repeatedly disproven.

One last grumble is that the authors have adopted the somewhat hysterical current concern about the safety of modern food processing. For example, they say categorically that food colours are carcinogenic, a statement that, of all countries, is highly unlikely to be true in America with its rigid food laws that are especially sensitive about suspected carcinogenicity of food additives.

Nevertheless, for the general reader this is a book that is well and clearly written (except for the use of "human" as a noun!) and is full of interesting facts about what and why we eat what we do. For the specialist reader, too, there is a host of references. If, therefore, you are dubious about the theories of Claude Levi-Strauss on attitudes and behaviour towards food, you will be directed to the writings of several other authors, some of whom agree and some of whom disagree with his views. □

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