

Book reviews

Stress and Distress in Response to Psychosocial Stimuli. Edited by Lennart Levi. (Pp. 166; £3.50) Oxford: Pergamon Press. 1972.

This book is primarily a collection of reports of five experiments on stress in human beings. There are also, however, introductory and final chapters setting out a general point of view and implications, and a chapter outlining methodological problems of such studies. Each chapter is very copiously provided with references to the literature in the subject.

The experiments themselves all take the form of exposing a group of people in a laboratory to a situation broadly resembling something met in real life. In one case, it was the viewing of films of the ordinary commercial thriller or comedy kind, and in another case the viewing of sexually arousing 'blue' movies. Two other studies were the sorting of ball-bearings in a noisy and distracting environment, and doing clerical work with and without payment by piece-rate. Lastly, a group of soldiers were expected to fire on a simulated shooting range, with infrequent breaks for food, for three days and nights. The main effects examined were the excretion of catecholamines, although in individual experiments other measurements were taken of performance or of physiological state.

The main conclusion is that every one of these conditions increased the excretion of adrenaline, and the book therefore provides a handy refutation to any sceptic who thinks that such a change cannot be produced by an abstract and psychological condition such as the method of payment for work. There are also a large number of interesting detailed points: for example, the fact in the military experiment that the reported fatigue and distress of the subjects was negatively correlated with the excretion of adrenaline, but positively correlated with that of noradrenaline. These points will certainly be of interest to research workers taking the matter further.

For immediate practical application, there are unfortunately still some difficulties. The editor links the results to the possible rôle of the social environment in causing disease, and indeed there may well be such a link. The difficulty lies in the very unspecific nature of the response to stress: it appears to sexual stimuli, or to watching 'Charley's aunt', and if we use it as an argument against piece-work we should presumably use it also as an argument against these other stimuli. How much arousal is beneficial, and how much harmful? How far is exposure to factory conditions for a year or more the same as exposure for a couple of days in a laboratory?

These questions remain for further investigation. At the present stage, perhaps the most practical point is the reminder that pleasant and sought after forms of excitement may have some of the same effects as those which are disliked and shunned. The implications here are the same as those of more epidemiological studies which relate illness to the number and size of preceding changes in style of life. Apart from this general implication, the volume is a useful sample of the current state of the art of measuring the bodily effects of mental events.

DONALD E. BROADBENT

Pesticide Residues in Food. World Health Organization Technical Report Series No. 502. (Pp. 46; 40p.) Geneva: WHO. 1972.

This is a report of the November 1971 meeting of the Joint FAO/WHO Working Party of Experts on Pesticide Residues in Food, the latest of an almost annual series of meetings begun in 1961. It provides some interesting references to the difficulties frequently encountered in obtaining enough experimental animal data on which to base sound toxicological judgements, and to the multitude of factors which influence the extent and significance of a chemical residue in food before and after cooking. The general impression created is that despite the technical difficulties encountered, the experts find no reason to be anxious about the levels of pesticide residues occurring or likely to occur in foodstuffs. Usefully, an appendix lists all FAO/WHO recommendations on acceptable daily intakes and tolerances for all those pesticides so far considered by the Working Party. This comparatively reassuring report will be of most interest to those directly concerned with food safety, crop protection regulations, and pesticide toxicology. Less specialized industrial medical officers may well envy the deliberate effort to create international standards of safety for these potential food contaminants by comparison with similar standards for air contamination levels in workplaces where these and other chemicals are manufactured.

E. F. EDSON

Environmental Mercury Contamination. Edited by Rolf Hartung and Bertram D. Dinman. (Pp. 345; £9.40.) Chichester: John Wiley. 1972.

A number of symposia have been held over the last four years in response to increasing interest in the rôle of the