

the reported failure rate is below 1%. When the calculations were done with reference to the number of expected pregnancies derived from Tietze or Dixon, the true failure rate was substantially higher (table II). In one of the studies,⁵ it was as high as 48% (Tietze) or 15.9% (Dixon). In only one of the five studies was no pregnancy reported.

The data in the 5 studies evaluating the efficacy of CEP (table I) are more relevant than those in the studies of high-dose oestrogen PCC. The reported failure rates of CEP, which range from 0.16 to 5%, are somewhat higher than those reported with high-dose oestrogen PCC. When we take into account the expected number of pregnancies before CEP derived from Tietze, the true failure rate is in the range 4.2–100% (table II). When we did the calculations using Dixon's table, the true failure rate ranges from 5.9 to 44.4%.

From our calculations, the reported failure rate of PCC with either high-dose oestrogen or CEP is grossly underestimated because of the methods used. The main reason for such an underestimation is that in all the studies the investigators have used the total number of women included as the denominator, and not the number of women potentially pregnant—a number that is obviously smaller. In some studies a substantial number of women who had had intercourse outside the fertile period were included; this would have decreased the number of potentially pregnant women compared with the total number of women included.

Our recalculation of reported data in large series of PCC studies casts some doubt on the efficacy of PCC, especially when CEP are used. It seems therefore that a prospective controlled assessment of PCC with either high-dose oestrogen or CEP is needed in addition to a comparison with other means of PCC, such as emergency insertion of an intrauterine device or late luteal administration of an antiprogesterone.¹²

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Measuring Human Problems: a Practical Guide

Edited by D. F. Peck and C. M. Shapiro. Chichester: Wiley. 1990. Pp 406. £39.95/\$91.90. ISBN 0-471912069.

Human Psychopharmacology, vol 3: Measures and Methods

Edited by I. Hindmarch and P. D. Stonier. Chichester: Wiley. 1990. Pp 224. £40/\$92. ISBN 0-471927430. (Vols 1–3 available together at £80/\$165.)

Measurement is the keystone of science. As Thorndike, the pioneer psychometrician, put it, "Everything which exists, exists in some quantity and can, therefore, be measured". Both these books include measurement in their titles, but their editors have very different philosophies. Peck and Shapiro's book has all the grim tedium of a spare-parts catalogue—a bare listing, with no attempt to be a consumer guide to the various inventories; few authors emulate Tyrer's example and recommend particular measures for specific contexts. By contrast, although Hindmarch and Stonier's book is based in what to many may seem the barren desert of psychopharmacology, it is by far the more stimulating and interesting—more reminiscent of a Christmas toyshop catalogue, designed to stimulate the imagination and open up new worlds of possibility.

Peck and Shapiro not only fail to excite, they also fail to convey the subtlety and complexity of the problems that they tackle. Reliability and validity are given only a cursory and superficial account, with no description of measurement theory, Likert and Guttman scaling, item analysis, generalisability theory, factor analysis, and structural modelling, and of specificity, sensitivity, predictive validity, or signal detection theory—the essential core constructs of modern measurement. There is little here beyond an uncritical listing of published tests and measures, with no examples of methods in use nor of the distributions that one might expect from them. Many chapters finish with bright-eyed descriptions of brave new biochemical or neurological assessments of psychological processes, be they psychosis, dementia, or depression. These represent what Gilbert Ryle called a category error; psychological states require assessment primarily by psychological measures, not by fancy quasi-scientific laboratory instrumentation which misses the true phenomenon—the problems which are experienced. One suffers from depression, not from altered neurotransmitters.

The *Methods* in Hindmarch and Stonier's title is a recognition, as Popper has always emphasised, that pure measurement cannot exist in isolation. Measurement is by necessity deeply embedded in method and, therefore, in theory. We only recognise the need to measure because of problems of theory that need to be solved, and when we succeed at measurement we encounter new theoretical problems that require new measures. The book's intriguing contents include the uses of electroencephalographic brain mapping, critical flicker-fusion frequency, and oculomotor control to assess psychoactive drugs; the difficulty of assessment of the long-term as opposed to short-term efficacy of antidepressants; assessment of perceived risk and of alcohol's effects upon driving ability; and the direct monitoring of compliance by pill containers that contain a hidden microprocessor. The title of the final chapter by

Tober neatly encapsulates the problems, interest, and reality of scientific measurement: "Measuring drug misuse: a little art, a little science and a lot of shoe leather".

Academic Department of Psychiatry,
St Mary's Hospital Medical School,
London W2 1NY, UK

CHRIS McMANUS

Chemical Dependence: Diagnosis, Treatment and Prevention

H. Thomas Milhorn Jr. New York/Berlin: Springer Verlag. 1990. Pp 370. £66.50/DM 158. ISBN 3-540972927.

In his preface, Milhorn writes that this book represents his concept of what a medical school curriculum in chemical dependence should include, and recommends it to students and practitioners alike. Unfortunately, I cannot share his enthusiasm: he presents a particularly one-sided view in which the "disease model" predominates, with little awareness of the social, economic, and cultural factors that shape addictive behaviours. This is a treatment manual for the insured middle classes of middle America, and wider political realities do not intrude. No mention here of the restrictive legislations of many States, which reduce the range and availability of treatments for drug-users; no criticism of a health-care system in which many poor people have little access to emergency medical care, let alone treatment for addictive problems. The enormous impact of drug-use on urban America is currently met by bellicose policies and tired responses. There is little discussion of the pressing need for fresh and critical thinking, such as a re-evaluation of the expenditure of many millions of dollars on interception of drugs while public treatment programmes are impoverished.

The strengths of this book are a healthy endorsement for the abstinence-oriented approach, a lively awareness of the family's contribution to treatment, and a mass of factual information on a very wide range of psychoactive substances. Nicotine receives more attention than cocaine, which is probably appropriate, and there is interesting reference to the effects of novel designer drugs. Later sections describe the needs of special groups, such as women, adolescents, ethnic minorities, and HIV-positive patients—not forgetting a final chapter on impaired physicians.

But Milhorn seems to advocate an approach to addictive behaviour in which questionnaire and laboratory test are seen as more potent than understanding or empathy. Throughout his book, physical factors threaten to overwhelm psychological ones. This guide for students has no proper account of how to take a drinking history, nor how to appreciate the sociological context of drug-use; and the author's recommendation that most patients should be assessed on standardised personality scales is redundant in many clinical settings. The book is also marred by presentation of supposition as fact—not everyone would accept that benzodiazepines are teratogenic, or that maternal use of opiates leads to mental retardation—and little attention is paid to non-US research, with no mention of novel European concepts such as harm-minimisation and low-threshold prescribing. Most telling of all, Milhorn fails to convey what it is like to work with a real patient in the hard and faltering task of recovery.

Department of Mental Health Sciences,
St George's Hospital Medical School,
London SW17 0RE, UK

ANDREW JOHNS

The Metabolic and Molecular Basis of Acquired Disease

Edited by R. D. Cohen, B. Lewis, K. G. M. M. Alberti, and A. M. Denman. London: Ballière Tindall. 1990. Pp 2135 (2 vols). £175. ISBN 0-702014931.

"The burgeoning of information derived from advances in molecular and cell biology and in immunology over the last two decades has made it essential to interpret 'biochemical' in a wider sense than that of traditional metabolic pathways and disorders of their regulation." In their preface the editors thus distance themselves from Stanbury's *The Metabolic Basis of Inherited Disease*. There are similarities between the two books but the emphasis here is on acquired diseases, many of which are common causes of illness and mortality.

158 authors contribute 88 chapters, which can be roughly divided into five sections: accounts of general biochemical mechanisms and pathophysiological processes in acquired diseases; effects on the individual of the physical, chemical, and nutritional environment; reviews of disorders which have been the traditional interests of metabolic physicians, such as diabetes mellitus, hyperlipidaemias, and electrolyte disturbances; system-oriented accounts of the molecular basis and pathogenesis of many diseases often considered non-metabolic; and, finally, an extensive review of retrovirus infections in man. The text is copiously illustrated with excellent two-tone diagrams, much information is included in summary tables, and each chapter concludes with an extensive bibliography which extends in some cases up to 1988, a considerable achievement for such a substantial work. The 53-page index appears in both volumes for ease of reference.

The coverage is extensive and most physicians will find material of interest. But there are some omissions—perhaps because the editors considered a metabolic basis, however defined, not yet established. Although there is an excellent review of Alzheimer's disease there is no mention of affective disorders or schizophrenia, which may well have a metabolic basis; Creutzfeldt-Jakob disease and motoneuron disease are only briefly mentioned. On the other hand, genetic and possible environmental contributions are critically reviewed for many comparable conditions, such as multiple sclerosis. The strength of this book, however, lies in the detailed consideration given to many common cancers, atherosclerosis, and system diseases in which the interplay of metabolic and environmental factors is gradually being unravelled—for example, in emphysema and duodenal ulcer (although unfortunately the role of *Helicobacter pylori* is dealt with in only one short paragraph).

It is gradually becoming apparent that all acquired diseases (apart from those caused by trauma) probably reflect the interplay of environmental and genetic (molecular) factors, and in this respect could be considered to have a metabolic basis. The editors have clearly seized upon this idea and their book is likely to become a standard and widely consulted reference.

Green College,
Oxford OX2 6HG, UK

A. E. H. EMERY

New Editions

Clinical Diagnosis and Management by Laboratory Methods—18th edn. Edited by John Bernard Henry. Philadelphia: Saunders. 1991. Pp 1454. £44/\$75. ISBN 0-721622127.

Evans' Histological Appearances of Tumours—4th edn. D. J. B. Ashley. Edinburgh: Churchill Livingstone. 1990. Pp 1088. £150. ISBN 0-443026262.