

BOOK REVIEWS

Clare Porac and Stanley Coren

Lateral Preferences and Human Behaviour
New York: Springer-Verlag, 1981.

Pp. 295.

Reviewed by Ivan L. Beale.

In the 1960's some wit noted that extrapolation of the then current growth rate in MMPI research led to the expectation that within a decade every man, woman and child would be fully employed on MMPI research. Mercifully, the spectre has faded. The hordes bent on enslavement to the MMPI have apparently been seduced by the urgent rumblings of a swifter bandwagon, namely, laterality research. If there is one thing more compelling than knowing yourself and why you are so interesting, it is knowing yourself, your *left* self and your *right* self. As a result the area is growing rapidly and several books have now appeared, some frankly entrepreneurial, others suggesting synthetic themes or proposing particular explanations. Porac and Coren's book attempts some synthesis, but is largely a vehicle for new data and a strong message of caution in interpreting lateral preferences. Porac and Coren have studied preferences between ears, eyes, feet and hands of about twenty thousand human subjects. They show that sidedness is not unidimensional, and that lateral preferences are not simply a manifestation of underlying lateral dominance in the neural substrate. In this they merely confirm what was already understood on the basis of smaller studies by all but the most flagrant popularisers of laterality. They go on to consider biological and environmental factors influencing lateralisation, and offer a theory that lateralisation is primarily and ontogenic adaptation for efficiency. It is an advantage to the organism, they argue, that the hands learn specialised functions and became differentially practised in these from an early age. Biological factors are regarded as biasing development favouring the right hand for manipulation and the left cortex for speech, but emphasis is placed on lateralisation as adaptation to an environment requiring learning of skills. "Practice, (they say)

makes preference". Such a theory, emphasising as it does ontogenic factors in lateralisation, is inconsistent with many observations such as head-turning preferences in the newborn and inconsistent manual preferences in many primates.

The book includes a chapter on reading, featuring a study of relations between reading ability and lateral preferences of 1912 junior college entrants. Here comparisons are made between the top and bottom quartile on reading scores, where there turns out to be more hand and foot sinistrality as well as more crossed hand-foot preference in the bottom quartile than in the top quartile. Unfortunately, the reader is left in the dark as to the severity or the nature of the reading problems represented in the lower quartile so it is unclear whether these results are relevant to specific reading disability. The authors don't offer an opinion on this, nor do they present any clear picture of what significance their results might have for theories or treatment of reading disorders.

The main value of this book lies in the data on relations between different behavioral preference indices. This is of interest primarily to laterality researchers, who are probably the major market for the book. There seems insufficient in the way of synthetic themes to interest the general reader.

H. L. Swanson and B. L. Watson

Educational and Psychological Assessment of Exceptional Children

St. Louis: Mosby, 1982.

Pp. 468.

Reviewed by D. W. McKerracher.

It is not to be denied that, at this time, there is a pressing need for a good book on psychological assessment. Over the past fifteen years or so, the dominance of psychometric testing has been progressively subjected to increasing degrees of challenge, as the pendulum of professional emphasis has swung fully through the degree of arc

from Heredity control factors to sets of factors representing Environmental control and begun a homeostatic movement back again. Extreme behaviour reductionism has contracted from its zenith and with the introduction of cognitive behaviourism plus the strange tendency for some criterion referenced tests to be seen to require normative behavioural information, it is surely time to appraise current trends.

A balanced view based on an adequate survey of the literature would help pour oil on the turbulent surges of conflicting opinions which continue to reverberate on shores far from the source of their origin in the United States and often after the tide of opinions there has begun to alter. It is now eight or nine years since the passing of Public Laws 93-380 and 94-142, that provided a mandate for accurate, reliable and meaningful evaluations of children to be carried out in connection with the provision of appropriate education for them. The resultant rush of enthusiasm for individuation of programmes and attention to specificity of behaviour patterns, led to the rejection of the strictures of normative test construction. It also led to the creation of *ad hoc* criterion referenced tests that frequently abused the rules of item validation, reliability of measurement and rank-order hierarchy of difficulty which had, with some justification, been advocated as hallmarks of good test construction for the previous sixty years.

At first sight, this book promises to meet the stated needs. The intentions of the authors as expressed in the foreword and the comprehensiveness of the reading list supplied in the bibliography, indicate a wide knowledge of the subject areas together with an apparent grasp of the fundamental issues to be dealt with. Some disquiet might be felt in noting the wide variation in the amount of material devoted to each topic. For example, chapters vary in length from 57 pages to two and a half pages. Six out of 14 chapters have less than 20 pages. Two chapters have more than 40 pages. This affects the general tenor of the book which is one of unevenness. It is tempting to attribute some of this variability to different authorship of the chapters, but this would be an invidious exercise, since the editors

must accept joint responsibility for their publication. Some chapters are, nevertheless, eminently more readable than others, having a clarity of expression that is a relief from the more turgid style of the rest. In some, a pedantic adherence to a rigid pedagogic formula of specifying what is to be said, saying it in detail and then summarising what has been said, eventually becomes too involved, with too many sub-headings obscuring the main ideas. The reader has to keep referring back to previous pages to find where a particular thread of the argument originated.

I found the opening chapter difficult to follow because of its failure to discriminate clearly between chapter divisions (e.g. models of assessment), main paragraphs (e.g. descriptions of each model) and subordinate paragraphs intended to give some critical perspective to each of the major sections. A numbering or lettering system might have helped as the printed titles and subtitles were too similar in stylistic appearance to punctuate the thought divisions appropriately. Jargonese is to be avoided in textbooks at all costs. It was therefore irritating to find in this chapter (p. 24) the following sentence summarising the nature of an ecological model of assessment: ". . . this may include incremental valid and ultimately criterion-referenced analysis, but more specifically a general intensive analysis of decisional systems." Many a reader could be forgiven for giving up at this point and that would be a pity.

The book does attempt to approach the main issues in assessment from a different perspective. Where Mittler emphasised the assessment needs of classified groups of children and Anastasi favoured a frank appraisal of the major tests arranged in various functional categories, Swanson & Watson present an analysis of various models of assessment, such as behavioural, perceptual-motor, information-processing etc. Other related topics of importance to assessment include an excellent chapter in which criterion-referenced testing is compared with norm-referenced testing and another dealing with social and legal issues in testing. However, these are counter-balanced by an incredibly weak chapter on assessment of

"affective competence" and a very long chapter on language assessment which deteriorates into a descriptive catalogue of language tests available, without much critical appraisal of their worth. Other topics are handled competently in a mundane fashion: a discussion of reliability and validity which is pitched at an undergraduate level and one on a review of different models of intelligence that becomes a vindication of an information-process theory explanation of cognitive abilities and their measurement.

The appearance of the book is pleasing, like most C.V. Mosby productions, but is peppered with photographs of various test kits relevant to the themes of each chapter which add nothing to the text. If the reader already knows the test, it is pointless to show parts of it; and if he does not, then pictures of boxes and books with a few items of their contents on display are not going to be very enlightening.

In short, this is a book that attempts to appeal to too wide an audience of readers and varies in quality from excellent to mediocre. The erudition of its authors is not in doubt, but the text somehow lacks coherence.

K. Oates (Ed.)

Child Abuse: A Community Concern

Sydney: Butterworths, 1982.

Pp. 321, \$59.00.

Reviewed by Max Abbott.

The recently published Committee on Child Health Report estimated that a minimum of 1,500 cases of non-accidental injuries would be expected each year among children under the age of five. A true figure cannot be given as only a small minority come to official attention. Psychological and sexual abuse are even more difficult to detect although one New Zealand researcher has claimed that a conservative estimate of sexual abuse during the childhood years is one in five for girls and one in ten for boys.

While the figures can be debated, there is no doubt that child abuse and neglect, in its varied forms, is widespread in this country. Equally clear is that apart from pain and psychological trauma today, these figures

speak of suffering yet to come. Many children survive the most adverse of experiences. But many others carry psychological scars into adulthood, impairing the quality of their lives and transferring to the next generation the legacy of their troubled childhoods. Unless there is effective intervention to break the chain, child abuse of today reaches out to generations yet to come.

Health and welfare workers have been dealing with cases of child abuse for many years. However, it is only in recent years that public awareness of these problems has mounted and professional and lay groups have begun to address the issue of prevention. Similar trends in awareness and involvement have occurred in other countries and have been associated with a rapid increase in the number of relevant publications.

Many books on child abuse are now available. Some are excellent. However, even to the mildly cynical, at times the impression given is that this growth industry is a product of the academic promotions retrace—the publish or perish syndrome. This view is reinforced by the observation that most publications come from the competitive North American setting and that most are variations on the same theme. So why obtain or read yet another book on this topic? The answer is suggested by its title, 'Child Abuse—a *Community Concern*'.

The collection of papers has been organised around the theme of child abuse as a problem generated in our communities and affecting communities. Solutions through prevention and the treatment are similarly viewed as requiring changes in wider society and the involvement of many individuals and organizations. This broad perspective is reflected in the range of contributors in terms of occupation and nationality. It is not overloaded with North American input or with clinical and casework concerns. While it contains chapters that address these areas, some of them by familiar American and Canadian authorities, it also includes contributions from England, Europe and Australia. Apart from excellent coverage of clinical and early intervention issues including risk factors, diagnosis and early intervention in hospital settings, it has a strong emphasis on prevention and wider commun-

ity involvements. Lay-professional cooperation, multi-disciplinary teams and examples of effective treatment and prevention programmes are discussed. The difficult and controversial issue of cultural differences in childbearing patterns and perceptions of abuse and neglect are also covered.

For the New Zealand reader, the extensive coverage of work on child abuse in Australia is of particular interest. This is in large part a consequence of the background of Kim Oates, the editor, who is currently Director of Medical Services at the Royal Elexandria Hospital for Children in Sydney. It is also a reflection of some of the innovative projects that are underway across the Tasman.

Some of the chapters provide comprehensive coverage of more specific issues, others a starting point from which more detailed followup can be sought from the bibliographies provided. Inevitably, when a large number of contributions from different writers are brought together, the quality varies. However, for the reader seeking a broad perspective on child abuse and neglect in all their varied forms, I strongly recommend this book. It will prove equally valuable for the wide range of professional and lay workers who are looking for innovative approaches to child abuse prevention and treatment in this country.

Hilary Haines

Violence on Television

Auckland: Mental Health Foundation of New Zealand, 1983.

Pp. 83, \$5.90.

Reviewed by K. T. Strongman.

This report is in two interrelated parts. The first, entitled "Television and Violence", presents a thorough summary and evaluation of the evidence associating violence on television and aggression in real life. It portrays a chain of research leading convincingly to the all-import causal link. The second part, "The Media Watch Survey", describes an analysis of violence on New Zealand television based on measurements taken over one full week. Amongst other things, this shows that the number of violent episodes

per hour is high, putting New Zealand second only to the U.S.A. in the league table of nations from whom such information is available. Apart from brief appendices, the report ends with a set of cogently drawn conclusions and some firmly expressed recommendations for B.C.N.Z., educators and parents.

"Violence on Television" is a useful document, although there are some grounds for criticism. On occasion, the report makes hints and implications rather than direct statements. For example: "... casual observation shows that rape and sexual assault are not uncommon themes on New Zealand television." In a report which is aimed at a precise analysis of a social problem, there is no place for "casual observation". This example is symptomatic of a slight general weakness of the report as a whole. It ranges from the scholarly and academic to the overly simplified. In this, it is reminiscent of the problems of lecturing to an audience of extramural students with educational backgrounds ranging from doctorates to virtually nothing. It is difficult to find a level.

A second point of criticism, perhaps related to the first, is that at times the writing becomes too casual. There are a few "data is's" and journalistic phrases such as "... in front of the television" (*i.e.* watching) and "... on the New Zealand scene" (*i.e.* in New Zealand).

Thirdly, although the question of violence on television is properly addressed, some of the other, related, functions or possible effects of television are not considered in enough depth. For example, there is very little discussion of the way in which television helps to provide a (distorted) view of social reality in ways much less obvious and possibly more insidious than the direct crudeness of violence.

In spite of these shortcomings, Hilary Haines and the Mental Health Foundation, are to be congratulated on providing a useful document. It makes interesting reading and appears to be based on a careful, considered analysis. More important, it is a worthy example of the way in which it is possible for psychologists to perform a social service and use their expertise to influence society.

Max Abbott (Ed.)

Symposium on Unemployment

Auckland: Mental Health Foundation of New Zealand, 1982.

Pp. 197.

Reviewed by Michael P. O'Driscoll.

This book represents the proceedings of a symposium conducted at Victoria University in August 1981, under the aegis of the Mental Health Foundation and the New Zealand Psychological Society. Director of the MHF, Max Abbott, co-ordinated the symposium and edited the book. He has divided the twenty-nine individual papers into seven sections: wider perspectives on unemployment, health consequences of unemployment, unemployment and minority groups, unemployment and education, unemployment and the world of work, community initiatives, policy statements by political parties, unions and employers. These titles do provide a useful framework for the collection, although in some cases the link between section headings and the papers within them is not immediately evident. Overall, there is a very broad cross-section of viewpoints, attempts to minimize the impact of unemployment, and some research evidence. There are also reports from five workshops held during the symposium but attendance of these sessions would have been necessary for an understanding of what occurred during them; the brief reports provide only a sketchy outline.

In general, as a collection of individual papers the book contains some very worthwhile contributions to understanding unemployment and unemployed people. Some of the papers, however, are so short that they offer little in the way of new information or perspective. One further limitation, noted by the editor in his introduction, is that the group dynamics and "atmosphere" of the symposium could not be recorded. There was clearly a lot more going on during the unemployment symposium than can be gleaned from this book. Nevertheless, the book is an important event, as was the unemployment symposium itself, drawing together people from diverse backgrounds and interests. Anyone who did not actually attend the symposium would find it difficult

to capture the full essence. The book's most useful purpose would be to serve as a refresher for those who did attend and, for those who did not, to provide a glimpse of the perspectives and views expressed by participants.

L. B. Brown

Psychology in Contemporary China.

Sydney: Pergamon Press, 1981.

Pp. 291.

Reviewed by W. E. Willmott.

The social sciences have fared variously in China since 1949. One might have expected psychology to follow a similar path to sociology, but two factors combined to cause major differences. One was the astute emphasis Chinese psychologists placed on their discipline as a natural rather than a social science. The other was the presence of psychology in the Soviet Union, where sociology had long since been discarded as a "bourgeois science". This allowed psychology to continue in China during the early period of Soviet domination (1949-56), when sociology went into a partial eclipse. Since Soviet psychology had already established a dialectical-materialist approach, Chinese psychology was able to survive the subsequent Anti-Rightist Campaign of 1957 that wiped out sociology altogether. Indeed, psychology enjoyed a period of "prosperity", as the Chinese psychologists describe it, between 1959 and 1965. There followed a decade of total eclipse, when all intellectuals were under attack during the Cultural Revolution. Today, psychology counts among its veterans many in their late thirties who were trained during the "period of prosperity", whereas sociologists are all well into their sixties and seventies, since sociology had not been taught since 1952.

All the social sciences experienced a great resurgence in 1978, with a newly created Academy of Social Sciences to encourage them: In 1982, a new building for the Institute of Psychology was completed "that would provide facilities for a research staff of 200 psychologists" (p. 7), and even by 1980 the Institute had ninety psychologists on its staff when Professor Brown visited it

(p. 90). For us, an interesting aspect of this resurgence is the growing contact with Western counterparts, overseas study leave, and participation in international conferences. One of the Chinese preoccupations in this contact is to rediscover the roots of western psychology, which they take from W. M. Wundt and therefore define in experimental rather than psycho-analytic terms. It is not surprising that they continue to ignore the Russian stems through which these roots reached China, an ignorance that will last, no doubt, as long as relations between the two countries remain antagonistic. Meanwhile, they are turning their attention to Western experimental psychology with renewed interest. Those interested in advancing greater contact will find Professor Brown's work of great value.

This book could be used in a number of different ways, depending upon the interests of the reader. One could use it as a reference encyclopedia, consulting the index for items of interest, such as acupuncture, sociology, or violence, and find a few paragraphs about its relation to psychology in China. One could use it as a collection of Chinese writing in the field of psychology, since it includes thirty-six papers in translation dating from 1958 to 1979. Or one could read it through to develop useful insights into China, psychology in China, and the author's psychology in China.

This is to say that the rather idiosyncratic organisation of the book may be frustrating to the reader seeking an easily grasped account, arranged in some obvious pattern such as a chronological one, for there is no visible thread leading one from paragraph to paragraph, chapter to chapter. After a personal introduction, the next three chapters are annotated bibliographies of Chinese and Western writing on the subject, which can guide the keen student to pursue appropriate sources. There follows a collection of papers by Chinese psychologists, then a brief history of the discipline in China, including six papers on that subject. Another collection of papers in a chapter entitled "Chinese Theories" is followed by a chapter placing psychology in contemporary Chinese society. The next two chapters outline what is being written and researched, and where psychol-

ogy is being taught, in China today. In the penultimate chapter, Professor Brown presents views, based on his teaching experience in China in 1978 and 1980, on Chinese attitudes towards such diverse topics as violence, class, intelligence, death, and photography. A laconic conclusion, cryptically entitled "Friendship first and competition second", ends the book.

Antony J. Chapman and Anthony Gale
(Eds.)

Psychology and People: A. Tutorial Text.

London: The Macmillan Press for the
British Psychological Society, 1982.

Pp. xiii + 528.

Reviewed by George Shouksmith.

This is the last title in the series of texts sponsored by The British Psychological Society under the title "Psychology for Professional Groups". In some ways, the Society might be accused in this volume, of taking the series too far. Earlier books in the series, with titles like "Psychology for Social Workers", "Psychology for Teachers" and even "Psychology and Medicine" have clearly identified target readerships and specifically categorised subject areas. Chapman and Gale, who are also the series editors, say of these earlier books, that each one "shows in a fresh, original and authoritative way, how psychology may be applied in a variety of professional settings, and how practitioners may improve their skills and gain a deeper understanding of themselves". The idea behind the series is good and from the earlier ones he has read, this reviewer would conclude that they achieve their admirable aims.

In "Psychology and People", however, the aim has changed and the resulting shot does not quite hit the target—at least, not near the gold. "This book," as its Authors state, "is designed to meet the needs of a broad spectrum of newcomers to psychology". They add that it sets out to provide "appropriate material for school pupils preparing for examinations at an advanced level, for first year students at colleges, polytechnics and universities, and for students preparing for professional examinations in which psychol-

ogy is part of the syllabus." Thus, its audience is neither a specific group nor a predominantly professional one, as is the case for the other volumes. The diverse nature of the audience is matched by a diverse set of 24 authors contributing one each of 24 Chapters. This diversity of authorship, with a plethora of styles, makes for an indigestible meal, if one tries to read the text sequentially. The choice of subject matter for the individual chapters is also worthy of comment, seeming to reflect more the interests of the writers rather than anything else, although the editors suggest that "the coverage is biased towards topics and issues which hold direct and immediate significance within everyday life and personal experience". This unusual approach to an introductory text has its merit, but makes the whole lack cohesion.

In spite of the differences in style, the majority of the contributors present their materials in an academic manner, which to those of us used to the simpler North American approach, seems much too complex, requiring much too high verbal aptitude, for the average first year student, let alone secondary school pupil. Readers are not led gently into the subject, so that they can, as it were, test the water gradually, but are rather thrown in at the deep end. The second chapter, under the title "Personality and Individual Assessment", for example, begins by asserting that it is through the application of psychological tests and testing techniques "that individual differences have been discovered", then without defining what a psychological test is, moves immediately to a discussion of its reliability and validity. It seems unlikely that the unsophisticated reader for which the book is intended, will benefit greatly from explanations which then follow, such as, "A correlation of 0 shows random agreement". Some of them give the impression, of being written in the form of short notes, as in "Good tests should have a reliability coefficient of at least 0.7 which represents 49 per cent agreement (square the coefficient)". Further on, Chapter 9 illustrates once more the problems of understanding, beginning-students are likely to have. There are much simpler ways of explaining the 'self-concept' than through Kelley's personal

construct approach and than by speaking of assumptions of comparability of subjective experience as a basis for distinguishing self from others.

From the diversity of authors, one would expect some shining examples of clarity of exposition and reader impact, and in fact chapters within the text do reach these high standards. Ian Morley's chapter on 'Bargaining and Negotiating', for example, presents a sound integration of theory and practice, together with models for understanding how these twin social skills may be improved. Barry Hopson's chapter on "Counselling and Helping" is not only exceptionally clear and informative, it also gives an excellent overview and comparison of the major approaches to therapy. The final chapter, most befittingly, is on "Death and Bereavement" and is given succinct, unemotional yet telling treatment by its author, A. T. Carr.

One feature of the book which without question will endear it to many teachers of psychology, is the inclusion, at the end of each chapter of both a series of discussion questions and a set of practical exercises. In almost every case these are both truly practical and inspiring. This ingredient, together with the short, note-form structure of many of the chapters and the broad, sometimes unusual nature of its content areas, will make it more likely to be purchased by the teacher seeking a source book of ideas, than by the student searching for basic knowledge. This Department's copy has already been annexed by the staff member responsible for undergraduate practical work!

P. Kline

Fact and Fantasy in Freudian Theory
(Second Edition)

London: Methuen, 1981.

Reviewed by R. G. Knight

Is Freudian theory scientific? The first edition of Kline's major review of the significant postulates of psychoanalysis provoked a strong negative response to this question from Eysenck (1972) amongst others. In this the second edition, Kline begins by agreeing with its critics, that the indeterminant validity of the observations of

psychoanalysis, the many unquantifiable constructs from which are derived hypotheses which are themselves difficult to verify, make psychoanalytic theory unscientific. He argues however that the structure of psychoanalytic theory allows the derivation of simple propositions which are amenable to scientific scrutiny. To use an example he provides, the empirical proposition "around the fourth year of life boys regard their fathers as rivals" is capable of being tested, whereas the general psychoanalytic proposition "structure formation by means identifications and anticathexes explains theoretically the consequences of the 'decline of the Oedipus complex'" may not be. Kline's view is that one can usefully examine the psychological literature to determine if there are sufficient empirically tested propositions to support Freud's metatheoretical postulates. Further, since the theory is a loose aggregate of relevant components, disproving one part will not necessarily destroy the whole.

Accepting the validity of what follows depends on the extent to which this rationale is convincing. It involves the reduction of psychoanalytic theory to a level many will not find acceptable. It requires also the implicit belief that the theory is both useful and salvagable to undertake the review of the evidence Kline presents, and this may deter many from making the effort. But what a truly comprehensive account of the relevant research this is. More incisively critical than its major rival in the area (Fisher and Greenberg, 1977), for many purposes this review is invaluable. In each section, a different aspect of Freud's theoretical views is outlined, the pertinent empirical propositions explained and the evidence available carefully examined. At the end of each section, a summary is provided and the degree of support for each proposition succinctly recorded. It is not even necessary to take everything seriously. In one (presumably) satirical study which Kline reports, it was hypothesized "that women would open an American pack of cigarettes by lifting the flap to form a cavity, thus expelling the cigarette from the bottom. Men on the other hand, due to castration anxiety, would tend to castrate the pack and get the cigarette by thumping the bottom so that like an ejacula-

tion, it leaps out (p. 153)". The faintly ridiculous nature of many Freudian propositions considered for experimental analysis, must be a constant source of anxiety for many psychoanalytic apologists.

No-one who is seriously interested in the research Freudian theoretical speculation has provoked, or even the issues raised by the mere presence of these studies, can afford to ignore this work. Such a compendious and critical review has to be a resource valued by anyone working in the area. As Kline notes however, old theories never die, often they just fade into obsolescence, replaced by new constructs more in keeping with the prevailing metaphors and systems of a new age. In this light, the search for a physiological basis for Freud's tripartite division of the mind, which Kline outlines, may strike one as anachronistic rather than as a challenging concern for the future.

In the final paragraph the author comes to this conclusion: "The status of psychoanalytic theory must now be clear. It must be retained not as a whole but only after rigorous objective research has revealed what parts are false or in need of modification (p. 447)". Perhaps in the final analysis the success of Kline's project will depend on the extent to which it provides part of the stimulation needed to modify and to construct the new personality theory he envisages, based on the fundamental strengths of Freud's clinical insights. Without such stimulation, Kline may only have left us with an essentially sterile documentation of the passing of academic psychology's concern for psychoanalysis.

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D. J. Osborne

Ergonomics at Work
 Chichester: Wiley, 1982.
 \$NZ41.95.

Reviewed by A. R. Forbes.

There already exist several expository

texts on ergonomics, that interesting amalgam of applied experimental psychology, anatomy, physiology, engineering and a pinch of intuition, concerned with work and the working environment. Osborne's book has to be judged in comparison with, in order of most recent revision, Murrell (1971), Van Cott and Kinkade (1972), Kraiss and Moraal (1976), Grandjean (1980) and McCormick and Sanders (1982), and it must be said at the outset that *Ergonomics at Work* stands comparison with the best of these. (Like them, it is not an ergonomics handbook: for that one still has to reach for the encyclopaedic Woodson (1981).)

Since it is a text, and since the universe of content of ergonomics is fairly circumscribed, the structure of Osborne's book is fairly conventional. There is the expected account of those aspects of the sensory systems most germane to ergonomics, followed by one of functional anthropometry with the usual emphasis on strength and fatigue. The next chapter, on words and symbols as means of communication, is thoroughly sound in substance but, surprisingly, is rather short of illustration. Similarly, in otherwise excellent chapters on visual displays and operators' controls this reviewer found it surprising that predictor displays are described but not depicted, nor is there any depiction of shape-coded controls. The concept of personal space is introduced in the chapter on work-place design, flagging an issue that perhaps requires greater emphasis in ergonomics than has so far been granted it.

Of the descriptions of the effects of noise, vibration, temperature and illumination on performance, that of vibration is at last made comprehensible to the non-engineering or non-physicist reader and, not before time, with references other than obscure military or commercial ones. The chapter on safety is also noteworthy for describing Reason's (and, by implication, Norman's) information-

processing models of accident causation.

These and the earlier chapters represent the usual expository segments of ergonomics. Osborne elegantly illustrates their interplay in his penultimate chapter, on inspection and maintenance.

Apart from being addressed to errors of fact, criticism of any book must be subjective. This reviewer feels, for instance, that the absence of a discussion on user-computer interaction should be remedied in any future edition of this book, and that the underwater working environment is now sufficiently common for it to deserve quite full treatment in a book of this kind. Arguably, also, the design of information systems for vehicle-drivers is more properly dealt with by ergonomists than by traffic engineers, and Osborne's book could well have brought home many points about the visual display of information by sampling from the road-user scene.

But all that is really asking Osborne to gild the lily. Having taken the traditional areas of ergonomics for the content of this book, he has produced an excellently documented and well-wrought account of it. Whether as a primer for the undergraduate or a source of references for the applied ergonomist, it is to be highly commended.

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