

Book Review

James E. Birren and K. Warren Schaie 2001. *Handbook of the Psychology of Aging*, 5th Edition. Academic Press, San Diego. ISBN 0-12-101262-X. US\$ 89.95

The release of this fifth edition of the *Handbook of the Psychology of Aging* clearly demonstrates the impact that the book has had on the field as an authoritative reference source on adult development and aging. The first edition was published in 1977, and it is reassuring to see that the field of aging is regularly rejuvenating itself. The ever-expanding size of the literature in this area is such that the editors had to be selective, which means that it does not replace earlier versions. Instead it reflects advances in a number of areas that previous issues did not cover, but still gives a relatively comprehensive overview.

The book is divided into four parts:

1. Concepts, Theory, and Methods in the Psychology of Aging
2. Biological and Social Influences on Behavior
3. Behavioral Processes and Psychological Functions
4. Behavior in Social Contexts

These parts have rather different sizes, and the allocation of the chapters to these parts is not always easy to understand. Part 2 contains two chapters that clearly belong in part 4 on Behavior in Social Contexts, but that would leave only two chapters that actually focus on biological issues. In addition, the informative chapter on Social Relations by Antonucci would have served very well as introductory chapter of part 4, but has been assigned to part 3 on Behavioral Processes. As a consequence the book makes an unbalanced impression inasmuch as related chapters may appear widely apart in different parts. This said, the book also shows some careful editing, especially in the notation; similar abbreviations are employed throughout the book, and actual duplications are rare, and where they exist, they are appro-

priate. Another emphasis has been on recent and novel research results; many of the chapters do not provide a comprehensive overview, but tend to consider well-established findings as known, and go into detail about what actually has changed, and which new insights have been developed. In that sense it is not in all respects a book for starters, though it amply illustrates for starters what the scope of the field is.

Despite the selection that the editors had to make, the book impresses by its wide coverage. Even though some important topics have not got a chapter, many of them are touched upon by various authors throughout the book.

One issue that is quite relevant for some of the chapters is the exclusive focus on North America, and sometimes the USA only. This holds especially for the first chapter on the History of Geropsychology, where important developments in Europe that are covered quite well in other chapters are completely ignored. This chapter disappoints in more respects; it contains a host of far-fetched and artificial references to mythological sources, it does not cover well the early years of scientific development, and provides a poor view of current work. No such bias is evident in the chapter on Longitudinal Studies by Schaie and Hofer that neatly presents all important longitudinal studies that are conducted, or have been completed recently. Unfortunately, this chapter provides so little detail about the nature of longitudinal studies and on the current investigations, that its real contribution is doubtful. The American focus is most obvious in the last part on Behavior in Social Contexts. Working and living conditions, legislation, insurance, care management and medical practice can be markedly different in various countries, and has proved in e.g. the European Union to be a major stumbling block for standardization of practically all forms of care and legislation. The contribution of Gatz and Smyer on Mental Health and Aging, contains useful information on mental health developments in the population but also has this

narrow focus, which makes it less useful outside the USA. Family composition and demographics, culture and politics, that are representative for one country, can determine to a high degree the environmental conditions of the life of aging people, but there is no chapter in the book that gives this issue any attention at all.

Most of the chapters, however, do not have to cope with this limitation, and, perhaps as a consequence, mostly feature a broadly based list of references that are up-to-date and show interesting and relevant progress. There are two excellent chapters on methodological issues, one on Structural Equation Modelling and one on Intervention Research. Structural Equation Modelling, transparently described by Rudinger and Rietz, is an effort to provide a logical and integrating foundation for the quantitative modelling of change. Naturally, it presupposes knowledge of the traditional methodologies, and the technicalities involved will not ease the adoption of the proposed method for the average geropsychologist. The rationale of Rudinger and Rietz implies that much more care should go in the techniques of measurement applied to aging processes than is standardly done. It is true, however, that Structural Equation Modelling is applied to latent variables, and thus focuses on data collected by rating scales, paper and pencil tests and other derived measures. It would be useful to have corresponding methodology for process models, where more direct parameters can be established, like in memory research, attention, vision and hearing.

Willis discusses the methodology of intervention techniques in less technical, but very useful detail, and reading of this chapter is a must. In neither paper the problem of attrition is treated on a satisfactory technical level. Though a number of authors mentions the attrition problem, there is no adequate coverage of it anywhere in the book.

There are three chapters on Biological

Influences, if one counts the paper on Genetics that now is part of part 1 on Concepts, Theories and Methods as one of them. All three are succinct, but not very detailed overviews of recent developments, often enabled by imaging technology. Their relation with the other chapters is rather loose, and the conceptual distance between the level of description in the neurosciences and that in the understanding of e.g. AD behavior is rather considerable. Still, the biological aspects cannot be missed in a handbook like this one.

Leventhal, Rabin, Leventhal and Burns discuss Health Risk Behavior, and their level of description relates it closely to the final chapter of Powell Lawton on Quality of Life. One issue Leventhal et al. address is one of choice and motivation in aging, which is one that would deserve far more research and attention. There is a clear link with the discipline of Decision theory, which is not borne out in the writing. Instead the authors produce remarkably complex models, featuring more arrows than Custer's last stand, and in which the statistical identifiability of the various concepts is less than doubtful. The authors decry the lack of empirical data that would shed more light on choice processes of aged people. Also Wahl, discussing Environmental Influences mentions this state of affairs in citing Birren, who stated that the area is data rich but theory poor. What this seems to indicate is that the data are not sufficient to support any constraining theory, enabling a concise description and accurate predictions.

Part 3 on Behavioral Processes and Functions is as a whole of a homogeneous and high quality. The first half of the chapters are mainly of an incremental nature, mentioning mostly the newest insights and improvement on methodologies, as well as resolution of older controversies. Many of the chapters, therefore, are reassuring reading in that they provide stable findings and reliable effects. They comprise Visual and Auditory Perception, Attention, Speed and Timing,

Motor Control, Memory, and Language. Rogers and Fisk suggest intervention techniques and guidelines to optimise attentional behavior, which is a nice example of direct application of scientific research. Madden, on Speed and Timing, points out that nothing substantial can be said about timing and speed without adequate theoretical models. In general the idea is that general slowing may give rise to different rates of slowing in specific tasks, thereby providing a rational alternative in the controversy on global and modular slowing as a result of aging.

Kemper and Mitzner present recent techniques to probe the linguistic ability of older readers. Kemper's results from the nuns' studies have been publicized widely and the reader has the opportunity to see those results in a wider context here.

A new topic; that of emotions, is introduced by Magai. The chapter has a theoretical section and an experimental, without a very strong relation. It is curious that no reference is made to the recent attention for emotion and the structure of emotions in cognitive science and artificial intelligence. Also, considering the expression of emotion one would expect a reference to Parkinson's disease, which has a higher incidence in older people, but none of it is provided.

A concept that has been ignored for quite some time is Wisdom, specifically of course that which resides in older people. Sternberg, of intelligence fame, and Lubart provide a highly readable account of Wisdom, and connect it with the concept of creativity. This may be surprising, as earlier research, mainly dating back from the sixties and before showed fairly conclusively that creativity is something of the young; not the aged. It was also shown that this differs over areas of specialization. Mathematics seemed to restrict creativity to below thirty, but Chemistry was more lenient in allowing higher ages. Music seemed to be different again. Sternberg and Lubart hardly deal with such findings, and

neither with observations that creativity is also subject to social and environmental factors. A central problem is that definitions of creativity and wisdom are not very constraining. Conclusions from empirical research, hardly cited in the chapter, may therefore be explained in different ways. At any rate, it is made clear that tools for establishing wisdom and creativity will not be forthcoming soon.

The last part, on behavior in social contexts, is, despite its exclusive focus on North American conditions, an interesting one, not only because of its practical implications. Czaja observes that older pilots are not more involved in flying accidents than younger ones. This is a particularly interesting issue, as the prevalent opinion is that aging affects critical control and driving tasks negatively. This opinion is essentially confirmed by legislation in practically all countries, with the implication that driving and/or flying permits can be withdrawn at a certain age. Taking into consideration the actual accident statistics, it should be obviously clear that no one under 24 should have a driving permit, and that one should be very old before reaching the accident rate of the young. Czaja's finding that older workers essentially perform equally well, or better in critical control tasks than younger people because of the accumulated expertise is therefore a sobering thought before introducing old age-related legislation.

Another example of the prejudices about older people is the incidence of abuse and victimization. To complicate matters further, this is viewed very differently from one culture to another, so the lack of any discussion on cultural differences in the chapter by Wilber and McNeilly on Elder Abuse is inappropriate. As long as scientists from different cultures on gerontology conferences are baffled by what other speakers define as abuse, a multicultural approach is strongly indicated. However, as an issue that is to be taken seriously, the chapter is a welcome one, as it covers a number of relevant factors in this field full of embarrassment, and urgency of prevention.

The final chapter is a fitting one about the quality and the end of life. Sadly, the author M. Powell Lawton died after completing this contribution, but will be remembered as a distinguished scientist, and as one who has greatly enriched our thinking about the social and personal implications of aging. The chapter bears a clear testimony of this and is required reading.

What is missing in this book, despite all efforts that went into compiling it?

While some authors discuss motivational issues, there is a lack of research on choice and decision making by elderly. Both Leventhal et al. and Powell Lawton mention personal choice as important constructs but a more general treatment, backed by strong theory and empirical findings is lacking. This is partly due to the relative lack of attention of decision theorists to consider aging effects, but systematic research into the wants and desires of older people would be a proper reflection of how seriously this group of people is taken.

There is also a relatively limited coverage of cognitive issues in this handbook. Reasoning, prospective memory, planning, everyday memory get only fleeting references, if at all. One hopes that this may be picked up in the next edition of the handbook, which, based on its history, is due to appear in four years from now.

A final lack, which is of some heart-wrenching relevance to the readers of this journal, is the total lack of the concept of Gerontechnology. Only very few authors mention technology at all, but never as a topic that deserves scientific attention. This is the more surprising, as many authors of the handbook have been very active in furthering gerontechnology. The fact that the authors of the introductory chapter on the history and the status of geropsychology fail to mention the origin of the term geropsychology is one thing, but that they omit any reference to gerontechnology is a more serious point that certainly ought to be remedied in the next edition.

On the one hand, then, this handbook is an essential volume that any student of the field of gerontology and developmental psychology should have; on the other, it shows omissions that limit its value. Finally, if this handbook is to take a truly universal position in the field of the study of aging, it should shed its narrow national focus for those topics that require a more general and diversified cultural treatment.

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NEWS IN SHORT

Competing for Alzheimer's Research

Andrew Sixsmith has been involved in research in technology and ageing for a number of years. I am also a keen triathlete. Over the summer I have a schedule of 7 triathlons, two half-marathons and a full marathon. These include 2 Olympic distance triathlons (1.5 km swim, 40km bike, 10k run) and the final event of the season, the UK Half-Ironman in Wales (1.9km swim, 90km bike, 21km run). This season I am hoping to raise money on behalf of Alzheimer's Disease Research. If you would like to sponsor me, please contact me by e-mail. Any amount however large or small is welcomed.

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Breaking Barriers Awards

For the occasion of the European Day of Disabled People 2001, the European Commission in collaboration with the European Disability Forum (EDF) has invited organisations to take part in a 'Design-for-All' competition. 54 Organisations from all over Europe have entered 80 entries for the Breaking Barrier Award. The Jury has selected 38 nominees for the 3 categories of the award. Over 1200 people have also voted for the e-user award. The winners of the