An Introduction to Gerontology

With the world’s population getting increasingly older, there has never been a more pressing need for the study of old age and ageing. *An Introduction to Gerontology* provides a wide-ranging introduction to this important topic. By assuming no prior expert knowledge and avoiding jargon, this book will guide students through all the main subjects in gerontology, covering both traditional areas, such as biological and social ageing, and more contemporary areas, such as technology, the arts and sexuality. *An Introduction to Gerontology* is written by a team of international authors with multidisciplinary backgrounds who draw evidence from a variety of different traditions.

**Ian Stuart-Hamilton** is Professor of Developmental Psychology and Faculty Head of Research and External Activity at the University of Glamorgan. He has been teaching lifespan psychology for over twenty-five years and has written six textbooks including *The Psychology of Ageing*, which was the winner of an award from the British Medical Association and shortlisted for the British Psychological Society’s Book of the Year award.
AN INTRODUCTION TO
Gerontology

Edited by
Ian Stuart-Hamilton
Contents

List of figures vii
List of tables viii
List of contributors x

1 Introduction 1
Ian Stuart-Hamilton

2 The biology of ageing: a primer 21
João Pedro de Magalhães

3 Fostering resilience, promoting health and preventing disease in older adults 48
Sharon Ostwald and Carmel Dyer

4 Ageing and health: managing co-morbidities and functional disability in older people 87
Carmel Dyer and Sharon Ostwald

5 Social care and older people 126
Raymond Ngan

6 Cognitive processes and ageing 159
Paul Verhaeghen

7 The psychology of atypical ageing 194
Bob Woods

8 Sociological perspectives on ageing 226
Kate Davidson
## Contents

9 Retirement  
Lynn McDonald  
   251

10 Sexuality and ageing  
Rebecca Flyckt and Sheryl A. Kingsberg  
   283

11 Policies on ageing  
Suzanne Wait  
   317

12 Cross-cultural differences in ageing  
Sandra Torres  
   340

13 Technology and ageing  
Anthea Tinker  
   363

14 Literary portrayals of ageing  
Diana Wallace  
   389

15 Palliative care for older adults  
Lynn O’Neill and Sean Morrison  
   416

16 Conclusions  
Ian Stuart-Hamilton  
   430

Index  
   438
Figures

2.1 Prevalence of selected chronic conditions as a function of age. Values are expressed in percentage for the US population (2002–03 data set). page 23

2.2 Mortality rates as a function of age. Values are expressed in deaths per 100,000 people, plotted on a logarithmic scale, for the 2002 US population. 23

3.1 Projections of disabled population aged 65+ years based on actual disability figures for 1982–96 in the USA. 53

3.2 Prevalence of risk factors and health behaviours varies by disability status among older adults aged 65 or older. 57

3.3 Determinants of active ageing. 62

3.4 Percentage of adults 60 years of age and over meeting the dietary recommendations for the Healthy Eating Index components: USA, 1999–2002. 67

3.5 Force-field analysis of restraining and driving factors that influence an older spousal caregiver’s decision to engage in health-promoting behaviours. 75

5.1 Differences between the formal and informal care sectors. 130

5.2 Types of informal social support. 131

5.3 The caring dilemma. 137

5.4 A tiered model of service provision. 140

5.5 Social health and social capital. 142

5.6 The Personal Wellbeing Index (PWI) and subjective well-being. 145

5.7 Personal Wellbeing Index: all domains must contribute unique variance. 145

5.8 Pathways of interweaving formal and informal care. 150

6.1 Distribution of autobiographical memories over the lifespan. 172

6.2 Longitudinal changes in volume in the frontal cortex. 179

8.1 Life expectancy from birth 1986–2008, UK. 229

10.1 Cross-section of the penis. 288

13.1 Gerontechnology impact matrix. 365
Tables

1.1 Life expectancy of individuals born in 1400, 1841, 1981 and 2009 in the UK  
2.1 Diversity of mammalian life histories obtained from the AnAge database  
2.2 Genes associated with ageing and/or longevity per model organism  
3.1 Recommendations for screening and preventive care based on functional level and life expectancy  
3.2 Recommendations for food-based dietary guidelines that recognize the interactions between food and health within a social and cultural context  
4.1 Overview of the comprehensive geriatric assessment  
4.2 Selected depression-screening approaches  
4.3 Triggers for IADL  
4.4 Types of dementia  
4.5 Methods of treatment for dementia-associated behavioural problems  
4.6 Forensic markers  
8.1 Population projections by legal marital status 2007–31 (percentages)  
10.1 Changes in female sexual physiology with ageing  
10.2 Medical conditions known to be related to sexual dysfunction  
10.3 Medications known to have sexual side effects  
11.1 Objectives arising from the recommendations for action from the Madrid International Plan of Action on Ageing, 2002  
13.1 Percentage of total population aged 60 and over in 2006 and projections for 2050  
13.2 Percentage of population aged 80 and over as a percentage of all aged 60 and over in 2006 and projections for 2050
<table>
<thead>
<tr>
<th></th>
<th>List of tables</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>13.3</td>
<td>Potential support ratio in 2006 and projections for 2050</td>
<td>369</td>
</tr>
<tr>
<td>13.4</td>
<td>Where people aged 65 and over live</td>
<td>375</td>
</tr>
<tr>
<td>13.5</td>
<td>Percentages of people aged 65 and over unable to manage certain tasks without help, 1998–9</td>
<td>379</td>
</tr>
<tr>
<td>15.1</td>
<td>Tenets of palliative care</td>
<td>418</td>
</tr>
</tbody>
</table>
Contributors

Kate Davidson, University of Surrey

Carmel Dyer, University of Texas at Houston

Rebecca Flyckt, University Hospitals of Cleveland, Case Medical Center; MacDonald Women’s Hospital, Cleveland

Sheryl A. Kingsberg, University Hospitals of Cleveland, Case Medical Center; MacDonald Women’s Hospital, Cleveland

João Pedro de Magalhães, University of Liverpool

Lynn McDonald, University of Toronto

Sean Morrison, Mount Sinai School of Medicine, New York

Raymond Ngan, City University of Hong Kong

Lynn O’Neill, Mount Sinai School of Medicine, New York

Sharon Ostwald, University of Texas at Houston

Ian Stuart-Hamilton, University of Glamorgan

Anthea Tinker, King’s College London

Sandra Torres, University of Uppsala

Paul Verhaeghen, Georgia Institute of Technology

Suzanne Wait, University College London

Diana Wallace, University of Glamorgan

Bob Woods, Bangor University