Foundations of demographic theory

Choice, process, context
This book has been published in the PDOD publication series A (doctoral dissertations). This series has been established through co-operation between THELA THESIS and the Netherlands Graduate School of Research in Demography (PDOD).

The Netherlands Graduate School of Research in Demography (PDOD) was established in 1989, as a joint initiative of the University of Amsterdam (UvA, Secretariat), the University of Groningen (RUG), the University of Utrecht (UU), the Catholic University Brabant (KUB), and the Foundation Netherlands Interdisciplinary Demographic Institute (NIDI). It aimed at training researchers in efficiently gaining insight into demographic processes as such, and into the interdependencies between different demographic processes and the environment (context) in which these processes are taking place. The school combined half a year of curricular Ph.D. courses with three and a half years of dissertation research supervision. From January 1996, the Ph.D. course activities of PDOD have been incorporated in the course activities of the Research School NETHUR, under the name of Nethur-Demography. NETHUR, the Netherlands Graduate School of Housing and Urban Research, is a collaborative undertaking of four Dutch universities: the University of Amsterdam (UvA), Delft University of Technology (TUD), Eindhoven University of Technology (TUE), and Utrecht University (UU, Secretariat). NETHUR is accredited by the Royal Netherlands Academy of Arts and Sciences (KNAW). Disciplines represented in NETHUR are: architecture, planning, law, demography, economic geography, urban geography, urban sociology and geo-information technology.

From the same date, responsibility for PDOD’s dissertation research supervision activities has been transferred to local facultary research institutes: the Amsterdam Study Centre for the Metropolitan Environment (AME) in Amsterdam and the Institute for Spatial Research (IRO) in Utrecht, both participating in NETHUR; the Population Research Centre in Groningen, participating in the research school Systems, Organization and Management (SOM); and the Work and Organization Research Centre (WORC) at the Catholic University of Brabant, Tilburg.
Foundations of demographic theory
Choice, process, context

Proefschrift

ter verkrijging van het doctoraat in de Ruimtelijke Wetenschappen aan de Rijksuniversiteit Groningen op gezag van de Rector Magnificus Dr. D.F.J. Bosscher in het openbaar te verdedigen op donderdag 7 januari 1999 om 15.45 uur

door

Bart Jan de Bruijn geboren op 18 juni 1959 te Heemstede
Promotor: prof. dr. ir. F.J. Willekens
Preface

I tend to be fast in some things and slow in others. Writing this thesis definitely belongs in the second category. Although there was never a doubt - at least not in my mind - whether a final sentence would ever be committed to paper, for a long time it remained unclear when this would take place. In the event, the question turned into where it would take place: these final paragraphs were composed on the other side of the world. What better place to write such reflective words than an island in the middle of the Pacific? I know of some, but there cannot be many.

In accordance with one of the major themes of this book, the process of accomplishing this study has been as interesting as the final outcome. I would like to express my gratitude here to the people who facilitated and supported this process and made the outcome worthwhile. First of all I want to thank my supervisor Frans Willekens for taking me on this voyage of discovery: a voyage full of challenges, often demanding, often surprising, but above all, valuable. Time and again as I left his room in Groningen or his house in Voorburg after a discussion brimming with his ideas, I would be drifting along on his inspiration, be able to see things in a proper perspective and have at my disposal the simple means to tackle complex matters. But my thanks to Frans go beyond the bounds of intellectual encounter; they equally extend to the working atmosphere at the Population Research Centre and to such moments when I cycled through the Groningen darkness in the middle of the night, with him riding pillion on my bike, having spent several inspiring hours together in the pub. The rest of the staff at the PRC Groningen provided a pleasant working environment: special thanks go to Harrie van Vianen for his optimism, his down-to-earth criticism and for sharing the joy of mens sana in corpore sano. And of course to Inge Hutter, with whom I shared the room in Groningen, journeys in India, disappointment and success, anger and happiness, as a colleague but more importantly as a close friend.

Along with Claartje Mulder, Dorien Manting, Janneke Helleman, Leon Crommentuijn, Inge Hutter, Veronique Schutjens and Wim Konter, I was one of the participants in the first course of the Netherlands Graduate School of Research in Demography (PDO). I would like to express how much I have enjoyed being part of this group and now being able to share the experience of attaining a PhD degree and forming a new generation of demographers in the Netherlands.

I am greatly indebted to the Netherlands Interdisciplinary Demographic Institute for the facilities they provided in the last stages of this project. Among the present (although now distant) colleagues at the NIDI who showed their interest in my dissertation some deserve a special mention: Ewa Tabeau for her quiet but important encouragement during the pleasant time we shared a room; Nico van Nimwegen for always being ready and willing to help; Frank Eelens for his stimulation and his part in almost every stage of my demographic career since our stay in Sri Lanka; Jolande Siebenga for unlocking the library treasures and for her patience; Jeannette Schoorl and Liesbeth Heering, project leaders of the project Push
and pull factors determining international migration flows, for their flexibility and support when it was needed most. Moreover, I want to say thanks to Tonny Nieuwstraten and Jacqueline van der Helm for their help in preparing the final manuscript of this book.

There are a number of people outside this professional context who stood beside me in the years it took to finalise this dissertation. My mother and father, who spent so many days with their grandchildren and taught them the meaning of moorkop (with pleasure) and voetbalknie (with regret). Hans, Xan, Rutger and Larissa, who shared the dungeons of their château with me, as well as all the other conveniences a château should have, including high-spirited companionship. Their commitment has been crucial. Ton, who read parts of the manuscript and gave advice, precise and reliable as I know him to be. Lien, who corrected and enriched the English text and took care of the final manuscript. It was always a comforting thought that whenever or wherever the day would come, she would be there to provide the finishing touch. Wouter and Jeroen, who patiently waited for me to keep my promise for a game of football or other exciting things: be prepared, it may be shark hunting next.

And finally, but actually foremost, Leonieke who brought to a happy conclusion the task of living for so many years with a partner occupied by writing a dissertation, and of living for so many days without a partner occupied by writing a dissertation. Did you ever anticipate that you would find him again in the Solomon Islands? Well, here I am

Honiara, October 1998
## Contents

**Preface**

**Chapter 1. Introduction**

1.1. Background: theory in demography ................................................................. 1
1.2. Aim, approach and scope of the study .............................................................. 3
1.3. Outline of the book ....................................................................................... 5

**Chapter 2. Social Theory, Models of Man and the Concept of Rationality**

2.1. Introduction ........................................................................................................... 9
2.2. A model of man for demography ......................................................................... 9
2.3. Theory in social sciences .................................................................................... 14
   2.3.1. Explanation, understanding and levels of analysis ..................................... 14
   2.3.2. Basic conceptual components: initial specifications and integration .......... 18
2.4. The concept of rationality in social sciences ..................................................... 23
   2.4.1. Rationality in social theory and everyday life ........................................... 23
   2.4.2. Elementary notions of rationality and the actor’s perspective ................. 24
   2.4.3. Substantive rationality: the basis of rational behaviour ............................ 27
   2.4.4. Bounded and contextual rationality ......................................................... 31
   2.4.5. Procedural rationality .............................................................................. 33
   2.4.6 Expressive rationality: aiming at moving targets ...................................... 34
2.5. Conclusion ............................................................................................................ 35

**Chapter 3. Disciplinary Perspectives on Fertility Behaviour**

3.1. Introduction ........................................................................................................... 37
3.2. The status of fertility theory .............................................................................. 38
   3.2.1. Janus-faced with little vision ................................................................... 38
   3.2.2. Reviewing fertility theories .................................................................... 41
3.3. Determinants of fertility theory ....................................................................... 42
   3.3.1. Malthus in the background .................................................................... 42
   3.3.2. Transition theory: a demographic love-hate relationship ...................... 46
   3.3.3. Biological specifications of reproductive behaviour ............................... 52
   3.3.4. Choice and consumer durables: micro-economic theories .................... 55
   3.3.5. Choice and values of children: socio-psychological theories ............... 60
   3.3.6. Diffusion: technology and ideas .............................................................. 64
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3.7</td>
<td>Culture, structure and social organisation</td>
<td>65</td>
</tr>
<tr>
<td>3.4</td>
<td>Conclusion</td>
<td>73</td>
</tr>
<tr>
<td>3.4.1</td>
<td>Summary of findings</td>
<td>73</td>
</tr>
<tr>
<td>3.4.2</td>
<td>Prospects, problems and promises</td>
<td>78</td>
</tr>
<tr>
<td>4.1</td>
<td>Introduction</td>
<td>83</td>
</tr>
<tr>
<td>4.2</td>
<td>The role of information in choice and context</td>
<td>84</td>
</tr>
<tr>
<td>4.2.1</td>
<td>Information, meaning and considerations</td>
<td>84</td>
</tr>
<tr>
<td>4.2.2</td>
<td>Emotion and consciousness</td>
<td>86</td>
</tr>
<tr>
<td>4.2.3</td>
<td>Cognitive schemes</td>
<td>87</td>
</tr>
<tr>
<td>4.3</td>
<td>An elaboration of choice</td>
<td>89</td>
</tr>
<tr>
<td>4.3.1</td>
<td>Situating choice and the standard notion of decision making</td>
<td>89</td>
</tr>
<tr>
<td>4.3.2</td>
<td>Setting the problem space</td>
<td>92</td>
</tr>
<tr>
<td>4.3.3</td>
<td>Motivation</td>
<td>96</td>
</tr>
<tr>
<td>4.3.4</td>
<td>Styles of decision making</td>
<td>106</td>
</tr>
<tr>
<td>4.3.5</td>
<td>The concept of control in human behaviour</td>
<td>114</td>
</tr>
<tr>
<td>4.4</td>
<td>Abstracting choice</td>
<td>119</td>
</tr>
<tr>
<td>5.1</td>
<td>Introduction</td>
<td>121</td>
</tr>
<tr>
<td>5.2</td>
<td>Context, institutions and rules</td>
<td>122</td>
</tr>
<tr>
<td>5.2.1</td>
<td>Context in an institutional perspective</td>
<td>122</td>
</tr>
<tr>
<td>5.2.2</td>
<td>Institutions and rules: meaning-giving and behaviour-guiding</td>
<td>124</td>
</tr>
<tr>
<td>5.3</td>
<td>Individual agency and the life of institutions</td>
<td>127</td>
</tr>
<tr>
<td>5.3.1</td>
<td>Emergence of social institutions</td>
<td>128</td>
</tr>
<tr>
<td>5.3.2</td>
<td>Maintenance of social institutions</td>
<td>128</td>
</tr>
<tr>
<td>5.3.3</td>
<td>Institutional change</td>
<td>129</td>
</tr>
<tr>
<td>5.4</td>
<td>Institutional structure</td>
<td>131</td>
</tr>
<tr>
<td>5.4.1</td>
<td>The institutional environment as a multi-levelled structure</td>
<td>131</td>
</tr>
<tr>
<td>5.4.2</td>
<td>Institutions and communities: some common ground</td>
<td>132</td>
</tr>
<tr>
<td>5.4.3</td>
<td>Dimensions of institutional forms</td>
<td>134</td>
</tr>
<tr>
<td>5.4.4</td>
<td>Institutional impact on life domains</td>
<td>135</td>
</tr>
<tr>
<td>5.4.5</td>
<td>Formal and informal institutions and social engineering</td>
<td>136</td>
</tr>
<tr>
<td>5.5</td>
<td>Choice in context</td>
<td>137</td>
</tr>
<tr>
<td>5.6</td>
<td>Implications for theory and research</td>
<td>139</td>
</tr>
<tr>
<td>6.1</td>
<td>Introduction</td>
<td>141</td>
</tr>
<tr>
<td>6.2</td>
<td>Time and change</td>
<td>141</td>
</tr>
</tbody>
</table>
6.1. Introduction ................................................... 141
6.2. Time and change in human sciences ................................ 142
  6.2.1. Static and dynamic approaches ................................ 142
  6.2.2. Dimensions of time ......................................... 144
  6.2.3. Interrelatedness of dimensions of time ....................... 147
  6.2.4. A note on age ............................................. 149
  6.2.5. Time in a microlevel perspective ............................... 151
6.3. The life course as a design for behavioural structure ............. 151
  6.3.1. Introduction .............................................. 151
  6.3.2. Diachronic aspects of the life course ............................ 153
  6.3.3. Synchronic aspects of the life course: interdependency ......... 156
  6.3.4. Life domains and the structure of the life course .............. 157
  6.3.5. A staging approach to fertility and family planning ........... 159
6.4. Personal development ............................................ 162
  6.4.1. Introduction .............................................. 162
  6.4.2. Structuralistic development approaches: stages .................... 163
  6.4.3. Social learning theory ....................................... 167
  6.4.4. Evaluating developmental theories ............................. 169
6.5. Towards a dynamic conceptual framework ............................ 171

CHAPTER 7.  AN INTERDISCIPLINARY PERSPECTIVE ON FERTILITY ............ 173
7.1. Introduction ................................................... 173
7.2. An integrated framework for fertility ................................ 174
  7.2.1. The conceptual framework: levels, concepts and change ........ 174
  7.2.2. The components of the conceptual framework .................... 178
7.3. The conceptual framework in broader perspective ...................... 194

CHAPTER 8.  APPLICATION OF THE MODEL: THE CASE OF INDIA ............ 199
8.1. Conceptual and contextual orientation ................................ 199
  8.1.1. Organisation of theoretical concepts ............................ 199
  8.1.2. India as a research setting .................................... 200
8.2. Institutional backgrounds of fertility ................................ 202
  8.2.1. Introduction .............................................. 202
  8.2.2. Non-formal institutions ...................................... 203
  8.2.3. Formal institutions ......................................... 209
  8.2.4. Summary: institutions in individual perspective .............. 215
8.3. Fertility in a dynamic perspective ................................... 216
  8.3.1. Introduction .............................................. 216
  8.3.2. Reproductive behaviour in a life course perspective ........... 217
8.4. Personal considerations .......................................... 221