

Stephanie Steinmetz

The Contextual Challenges of Occupational Sex Segregation

Stephanie Steinmetz

The Contextual Challenges of Occupational Sex Segregation

Deciphering Cross-National
Differences in Europe



VS VERLAG

Bibliographic information published by the Deutsche Nationalbibliothek
The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie;
detailed bibliographic data are available in the Internet at <http://dnb.d-nb.de>.

Dissertation University of Mannheim, 2009

1st Edition 2012

All rights reserved

© VS Verlag für Sozialwissenschaften | Springer Fachmedien Wiesbaden GmbH 2012

Editorial Office: Dorothee Koch | Anita Wilke

VS Verlag für Sozialwissenschaften is a brand of Springer Fachmedien.
Springer Fachmedien is part of Springer Science+Business Media.
www.vs-verlag.de



No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the copyright holder.

Registered and/or industrial names, trade names, trade descriptions etc. cited in this publication are part of the law for trade-mark protection and may not be used free in any form or by any means even if this is not specifically marked.

Cover design: KünkelLopka Medienentwicklung, Heidelberg
Printed on acid-free paper
Printed in Germany

ISBN 978-3-531-17964-3

Acknowledgments

This doctoral thesis is the result of one of the longest and most adventurous journeys I have ever made. It was full of experiences and thus one of the most instructive periods of my life. I have not only explored the academic world but also learned a lot about myself. My research activities took me to Nuremberg, Barcelona and Mannheim. That I have finally reached the harbour in Amsterdam is due to the help and guidance of many people. Without them I would never have accomplished this task and here is the place to thank all of them.

First and foremost, I would like to express my deepest gratitude to my supervisor, Prof. Dr. Dres. h.c. Walter Müller, whose expertise, stimulating suggestions and encouragement added considerably to the completion of my PhD journey. To no lesser degree, I owe thanks to Prof. Dr. Johann Handl, who guided me through the years of research not only with his in-depth knowledge in the field of gender inequality but also with his understanding and patience. It is due to the work with him in the FENICs project that I entered the world of econometrics and statistical analyses.

This research would not have been possible without the support of the Mannheim Centre for European Social Research (MZES) which financed the dissertation not only with a pre-doctoral scholarship, but also by offering the opportunity to work in an excellent academic environment. I benefited a lot from the many opportunities to present and discuss my ‘work-in-progress’ at the MZES and within the various networks, like EQUALSOC, in which the MZES is involved. I also want to thank Marlene Alle and Dr. Cristian Melbeck from the IT unit at the MZES for providing technical support and for staying calm when I had yet another special request.

During my work at the MZES, several colleagues have become friends: Prof. Dr. Irena Kogan, who is not only one of the best room mates and bosses I ever had, but who also supported and motivated me constantly. Thanks also to Dr. Simone Abendschön, Dr. David Reimer and Dr. Jean-Marie Jungblut - besides inspiring and helpful scientific discussions and comments on my work, you also provided the mental support and confidence necessary to go through this time.

One thing I also learned during the years of writing a thesis is that I have some very good and enduring friends outside the academic world. They accompanied me patiently during all the ups and downs and never complained when I chose one of my self-imposed asylums or showed eccentric behaviours. I deeply thank Eva Marel Jura, Rebecca Frings, Dr. Birte Marei Müller, Linda Magnberg, Egle Juzenaite, Prof. Dr. Melanie Arntz, Karen Ling, and Prof. Dr. Gunnar Otte for having always been there for me!

Finally, this is also the right place to thank my family, for all the support, love, understanding and patience. I am deeply grateful to my parents Barbara and Erich Steinmetz. Their emotional support and encouragement was essential to the completion of this book.

My last and deepest thanks go to Martin. He was the one who accompanied me on this journey without complaining, and who fought more than once on my side in all the hurricanes I have gone through. Thanks for your love, for being with me all the time but most importantly for believing in me!

Amsterdam, October 2011

Stephanie Steinmetz

Contents

1. The state of the art in occupational sex segregation research	17
1.1. A short review of issues in occupational sex segregation research	19
1.1.1. Different working spheres - occupational sex typing and concentration	20
1.1.2. Development of occupational sex segregation - change or persistence?	22
1.1.3. Occupational sex segregation across nations	24
1.2. Occupational sex segregation and European gender policies	26
1.3. Research questions	29
1.4. Data and limitations of the study	30
1.5. Outline	34
2. Explaining occupational sex segregation	37
2.1. Neo-classical theories of human capital	37
2.2. Sociological and feminist theories	42
2.3. Segmentation and institutional theories	45
2.4. The importance of education for occupational sex segregation	48
2.5. The rationale for an integrated approach to occupational sex segregation	51
2.6. Conclusion	56
3. The problem of the measurement of sex segregation revisited	57
3.1. The different approaches to the measurement of occupational sex segregation	57
3.1.1. The traditional indices	59
3.1.2. The log-linear approach	62
3.1.3. Further determinants on segregation indices	65
3.2. Learning from advances in mobility research - the multi-dimensionality of occupational sex segregation	68
3.3. Conclusion	74
4. Female labour force participation and patterns of occupational sex segregation in Europe	75
4.1. Female employment in the EU - developments and characteristics	76
4.1.1. Development of female employment	76
4.1.2. Characteristics of female employment in the EU	79

4.2. The development of occupational sex segregation throughout the 90s	87
4.2.1. Which countries are most segregated? - Some descriptive results	87
4.2.2. Where do women and men work? Dimensions of occupational sex segregation in 2004	91
4.2.3. The development of occupational sex segregation over the 90s	96
4.3. The vertical dimension of occupational sex segregation – gender stratification throughout the labour market	99
4.3.1. Reaching management and high-status positions	99
4.3.2. The gender wage gap	104
4.4. The national institutional context	106
4.4.1. The role of education and training systems	107
4.4.2. The role of welfare states: gender legislation and social policies	110
4.4.3. ‘Gender culture’ - the role of social-cultural norms and attitudes	115
4.5. Conclusion	117
5. Variations in occupational sex segregation across EU Member States - creating a typology of ‘sex segregation regimes’	121
5.1. Previous typologies of occupational sex segregation	121
5.2. A refined typology of cross-national occupational sex segregation	125
5.3. Data and methods	129
5.4. Characteristics of sex segregation regimes	130
5.4.1. Presentation of findings	130
5.4.2. Sensitivity analysis of the cluster solutions	137
5.5. Conclusion and further expectations with respect to occupational sex segregation	139
6. Institutional constraints on cross-national differences in occupational sex segregation	143
6.1. Theoretical background and hypotheses	144
6.1.1. The organisation of the educational system	145
6.1.2. Post-industrialism - the situation of women on the labour market	148
6.1.3. Family Policies	151
6.1.4. ‘Gender culture’	154
6.2. Data and research methodology	156
6.2.1. Data	156
6.2.2. Variables	157
6.2.3. Method of analyses	162
6.3. Results for being in a typically female, male or integrated occupation	166
6.3.1. Descriptive results	166
6.3.2. Odds of being in a typically female, male vs. an integrated occupation - testing the hypotheses	169
6.3.3. Variance components - what does the institutional context explain?	185
6.3.4. Summary	186

6.4. Results for being in a management or non-management position	188
6.4.1. Descriptive results	188
6.4.2. Odds of being in a management or non-management position - testing the hypotheses	189
6.4.3. Variance components - what does the institutional context explain?	199
6.4.4. Sensitivity analyses applying a broader definition of management positions	200
6.4.5. Summary	203
6.5. Discussion and conclusion	204
7. Conclusion	211
7.1. Summary of the main findings	212
7.2. Contextual challenges of horizontal and vertical occupational sex segregation	215
7.2.1. The role of the educational system	215
7.2.2. The role of the post-industrial developments	216
7.2.3. The role of family and gender policies	217
7.2.4. The role of the 'gender culture'	217
7.3. Open questions and future research	218
7.4. Political implications	221
Appendix	225
References	263

Tables

Table 3.1:	Constructed cross-tabulation of broad occupational groups by sex	58
Table 3.2:	Major categories of ISCO88 (1-digit)	66
Table 3.3:	Theoretical dimensions of occupational sex segregation	71
Table 4.1:	Development of female employment rates, 23 EU MS, 1985-2004	77
Table 4.2:	Development of female employment rates in different economic sectors, 1995-2004	82
Table 4.3:	Different segregation indices, 2004	88
Table 4.4:	Direction of change for both aspects of sex segregation, 1995/2004	97
Table 4.5:	Overview of relevant educational system characteristics for 21 EU MS	108
Table 4.6:	Selected EU policy measures for gender equality in employment since 1957	110
Table 4.7:	Maternity leave, parental leave, provision of childcare and taxation systems in EU MS, 2003/4	113
Table 5.1:	Description of selected macro-level indices	128
Table 5.2:	Results for the different cluster solutions	131
Table 5.3:	Expectations regarding differences of horizontal and vertical sex segregation for the different sex segregation regimes	142
Table 6.1:	Micro-level variables and descriptions	159
Table 6.2a:	Individual-level coefficients being in typically male vs. integrated ('male') and typically female vs. integrated ('fem.') occupations	169
Table 6.2b:	Individual-level coefficients being in typically male vs. integrated ('male') and typically female vs. integrated ('fem.') occupations	170
Table 6.3:	Results for the division between typically male vs. integrated ('male') and typically female vs. integrated ('fem') occupations - defined segregation regimes	172

Table 6.4a:	Results for the division between typically male vs. integrated ('male') and typically female vs. integrated ('fem.') occupations - educational system indices	174
Table 6.4b:	Results for the division between typically male vs. integrated ('male') and typically female vs. integrated ('fem.') occupations - educational system indices	175
Table 6.5a:	Results for the division between typically male vs. integrated ('male') and typically female vs. integrated ('fem.') occupations - post-industrial indices	177
Table 6.5b:	Results for the division between typically male vs. integrated ('male') and typically female vs. integrated ('fem.') occupations - post-industrial indices	178
Table 6.6a:	Results for the division between typically male vs. integrated ('male') and typically female vs. integrated ('fem.') occupations - family and gender policy indices	180
Table 6.6b:	Results for the division between typically male vs. integrated ('male') and typically female vs. integrated ('fem.') occupations - family and gender policy indices	181
Table 6.7:	Results for the division between typically male vs. integrated ('male') and typically female vs. integrated ('fem.') occupations - 'gender culture' indices.....	183
Table 6.8:	Variance components of the random slope models	185
Table 6.9:	Individual-level coefficients to be in a management or non-management position	191
Table 6.10:	Results for the division between management and non-management positions - education indices	193
Table 6.11:	Results for the division between management and non-management positions - post-industrial indices	194
Table 6.12:	Results for the division between management and non-management positions - family and gender policy indices	196
Table 6.13:	Results for the division between management and non-management positions - 'gender culture' indices	198
Table 6.14:	Variance components of the random slope models for holding a management or non-management position	199
Table 6.15:	Results for the cross-level interactions	205
Table B:	ISCO88-classification (1- and 2-digit) and related ISEI and EGP-scores	226
Table C:	EGP class scheme summarised	227
Table A3.1:	Change in segregation indices with and without agriculture, 2004	228

Table A3.2:	Correlations for D, D _{st} , IP, L and A without agriculture, 23 EU MS, 2004	228
Table A3.3:	Correlations for IP without agriculture, 22 EU MS, 2004	229
Table A4.1:	Share of female tertiary graduates across different fields of study, 22 EU MS, 2004	229
Table A4.2:	Involuntarily fixed-term contracts and total fixed-term contracts, 2000 and 2005	230
Table A4.3:	Female and male unemployment rates, 23 EU MS, 1995, 2000 and 2004	231
Table A4.4:	Development of occupational segregation, 23 EU MS, 1995-2004	232
Table A4.5:	Gender-specific occupational status gap, 23 EU MS, 2004 ...	233
Table A5.1:	Selected macro-level indicators for the cluster analysis	239
Table A5.2:	Agglomeration schedule	241
Table A5.3:	Cluster membership	241
Table A5.4:	Summary statistics - segregation patterns within four clusters	242
Table A5.5:	Sensitivity analysis for the four- and six-cluster solution	243
Table A6.1:	Pearson's correlations: educational system indices	250
Table A6.2:	Pearson's correlations: post-industrial indices	250
Table A6.3:	Pearson's correlations: family and gender policy indices	250
Table A6.4:	Pearson's correlations: 'gender culture' indices	251
Table A6.5:	Results for the division between typically male vs. integrated ('male') and typically female vs. integrated ('fem.') occupations - additional EPL indicator	252
Table A6.6:	Results for the division between typically male vs. integrated ('male') and typically female vs. integrated ('fem.') occupations - alternative gender policy indices	253
Table A6.7:	Results for the division between management and non-management positions - additional EPL indicator	254
Table A6.8:	Results for the division between management and non-management positions - finer gender indices	255
Table A6.9:	Individual-level coefficients to be in management or non-management positions (EGP)	256
Table A6.10:	Results for the division between management or non-management positions (EGP) - education indices	257
Table A6.11:	Results for the division between management or non-management positions (EGP) - post-industrial indices	258
Table A6.12:	Results for the division between management or non-management positions (EGP) - gender policy indices	259

Table A6.13: Results for the division between management or non-management positions (EGP) – ‘gender culture’ indices	260
Table A6.14: Variance components for holding management or non-management positions (EGP)	261

Figures

Figure 2.1:	Index of dissimilarity for educational and occupational sex segregation, 21 EU MS, 2004	50
Figure 2.2:	Interplay of micro- and macro-level determinants on occupational sex segregation	53
Figure 3.1:	Correlation between different measures of occupational sex segregation, 2004	73
Figure 4.1:	Percentage of female tertiary graduates in education and engineering, 2004	80
Figure 4.2:	Patterns of sex typing of fields of study for selected EU MS and different age cohorts, 2004	81
Figure 4.3:	Cross-national comparison of part-time work (%), 2004	83
Figure 4.4:	Positioning of 23 EU MS for both sex segregation aspects, 2004	89
Figure 4.5:	Patterns of occupational sex typing for selected EU MS, 2004	92
Figure 4.6:	Percentage of employed men and women by occupations and selected countries, 2004.....	94
Figure 4.7:	Female participation rate in the 10 most common occupations, 2004	95
Figure 4.8:	Male and female participation rates (%) in management positions, 2004	100
Figure 4.9:	Sex-specific occupational status gaps, 23 EU MS, 2004.....	102
Figure 4.10:	Development of the overall sex status gap, 23 EU MS, 1995/2004	103
Figure 4.11:	Development of the gender wage gap, 23 EU MS, 1995 and 2004	105
Figure 4.12:	Share of persons disagreeing with selected statements concerning gender equality, 2002/3	116
Figure 4.13:	Dimensions of occupational sex segregation, 2004	119
Figure 5.1:	Dendrogram using 16 indices, 21 EU MS	130
Figure 5.2:	'Lineplots' (average scores) of the four cluster solutions	132

Figure 6.1:	Empirical Bayes Predictions of country-specific regression lines for random slope models to be in a typically female, male vs. integrated occupation	165
Figure 6.2:	Percentage of men and women in typically male occupations, 21 EU MS, 2004	167
Figure 6.3:	Percentage of men and women in typically female occupations, 21 EU MS, 2004	168
Figure 6.4:	Percentage of men and women in management positions, 21 EU MS, 2004	189
Figure 6.5:	Percentage of women and men in management positions (EGP), 21 EU MS, 2004	201
Figure 6.6:	Patterns of occupational sex typing by age cohort, selected EU MS, 2004	206
Figure A2.1:	Bivariate correlation between educational and occupational sex segregation, 22 EU MS, 2004	227
Figure A4.1:	Sex typing profiles of the remaining EU MS, 2004	234
Figure A4.2:	Gender gap in management positions, 2004	236
Figure A4.3:	Male and female participation rates in management and professional occupations, 2004	236
Figure A4.4:	Sex-specific occupational status gaps, 23 EU MS, 2004	237
Figure A4.5:	Changes in the gender status gap between 1995 and 2004, non-manual sector	238
Figure A4.6:	Changes in the gender status gap between 1995 and 2004, manual sector	238
Figure A5.1:	Inverse Scree Diagramm	244
Figure A5.2:	Dendogramm, sensitivity analysis	245
Figure A6.1:	Empirical Bayes Predictions of country-specific regression lines for random slope models, management vs. non-management position	249