Contents

Preface

PART I COMPARATIVE METHODOLOGY
Hans Keman

1 THE COMPARATIVE APPROACH AND POLITICAL SCIENCE
- 1.1 Introduction 1
- 1.2 The comparative approach to political and social science: theory and method 6
- 1.3 Developing empirical-analytical comparative analysis 15
- 1.4 How you can use the book 18
- 1.5 Endmatter 19

2 THE COMPARATIVE APPROACH: THEORY AND METHOD
- 2.1 Introduction 21
- 2.2 Delineating the comparative approach: scope of comparison and research questions 23
- 2.3 Comparative research and the relation between politics and society 26
- 2.4 Modes of explanation by means of comparative analysis: the need to control the context 31
- 2.5 The core subject and the comparative approach: politics and society 33
- 2.6 Endmatter 39

3 THE ART OF COMPARING: DEVELOPING A RESEARCH DESIGN
- 3.1 Introduction 41
- 3.2 The problem of variables, cases and interpretations 43
- 3.3 The role of space and time 49
- 3.4 Developing a Research Design 55
- *3.4.1 Concepts, definitions and operationalization* 59

3.4.2 Conceptual and operational definitions 60
3.4.3 Extensional and intensional definitions 62
3.4.4 Levels of measurement 66
3.5 Organizing and collecting data 68
3.6 Conclusion 70
3.7 Endmatter 70

PART II STATISTICS IN POLITICAL SCIENCE
Jan Kleinnijenhuis

4 CONCEPTS, CASES, DATA AND MEASUREMENT
4.1 Data and data collection in political science 75
4.1.1 Data obtained from official statistical agencies 75
4.1.2 Verbal and visual accounts, content analysis 76
4.1.3 Questionnaires and surveys 78
4.2 Sampling and the basics of statistical testing 79
4.2.1 Statistical inference from a random sample 80
4.2.2 Random samples and non-random samples 81
4.3 Operationalization and measurement: linking data with concepts and units 82
4.3.1 Handling missing data 84
4.4 Criteria to evaluate the quality of operationalization and measurements 85
4.4.1 Multiple indicators: the scalability (reliability) problem 88
4.5 Scalability analysis and cluster analysis 90
4.5.1 The cumulative scale: Guttman scale and Loevinger's H 93
4.5.2 Likert scale and Cronbach's alpha 96
4.5.3 Principal components: differently weighted indicators to increase discriminatory power 98
4.5.4 Factor analysis 101
4.5.5 Digression: an unknown number of dimensions 104
4.5.6 Unfolding analysis 107
4.5.7 Hierarchical cluster analysis 109
4.5.8 Summary 111
4.6 Summary 112
4.7 Endmatter 112

5 EXPLORATIVE AND DESCRIPTIVE STATISTICS
5.1 The univariate distribution of a nominal variable 116
5.1.1 Measures of central tendency for nominal variables: the mode 117

5.1.2 Measures of dispersion for nominal variables: entropy and the Herfindahl-index 117
5.2 The univariate distribution of ordinal, interval and ratio variables 119
5.2.1 Measures of central tendency 119
5.2.2 Measures of dispersion 121
5.2.3 The shape of the entire distribution of a variable with interval measurement 123
5.3 Relationships between variables with nominal measurement levels 124
5.3.1 The Chi-square measure of association in a cross table 127
5.4 The bivariate distribution of two ordinal, interval or ratio variables 128
5.4.1 Exploring the bivariate distribution: the scattergram 129
5.4.2 Bivariate regression analysis 131
5.5 The relation between an interval or ratio variable and a nominal variable 139
5.5.1 An interval variable and a bivariate nominal variable: the comparison of two means 140
5.5.2 Analysis of variance: an interval variable by a nominal variable with j values 141
5.6 Populations, samples and inferential statistics 145
5.6.1 The urn model 145
5.6.2 Unbiasedness, efficiency and robustness of an estimator 147
5.6.3 The general procedure used in hypothesis testing 149
5.6.4 Four common probability distributions of test statistics: z, t, χ^2 and F 150
5.6.5 Degrees of freedom 153
5.7 Commonly used statistical tests 154
5.7.1 The univariate nominal distribution 154
5.7.2 The univariate interval distribution 155
5.7.3 The bivariate distribution of two nominal variables 159
5.7.4 The bivariate distribution of two interval variables 160
5.7.5 The bivariate distribution of an interval variable by a nominal variable 161
5.7.6 Sense and nonsense of statistical tests 162
5.8 Summary 163
5.9 Endmatter 164

6 MULTIVARIATE ANALYSIS AND CAUSAL INFERENCE
6.1 Causality and multivariate relations 168
6.1.1 Pure additivity, intervention, spurious correlation and interaction 169
6.1.2 Association and causal effect 170
6.1.3 Endogeneous and exogeneous variables and the identification of causal models 171
6.2 An overview of multivariate data analysis techniques 172
6.3 The case-oriented approach 173
6.4 Nominal dependent and independent variables: cross table elaboration 177
6.4.1 Cross table elaboration 179
6.5 Nominal dependent variable, interval independent variables 181
6.5.1 Discriminant analysis example: explaining the type of government 181
6.6 Interval dependent variable, nominal independent variables: analysis of variance 186
6.7 Interval dependent and independent variables: regression analysis 188
6.7.1 The multiple regression model 189
6.7.2 Assumptions of the Ordinary Least Squares estimation method 192
6.7.2.1 The outlier problem 195
6.7.2.2 Heteroscedasticity 197
6.7.2.3 Multicollinearity 199
6.7.3 Direct causes, intervening variables and antecedent variables 200
6.7.4 Interactions in the multivariate regression model: multicollinearity 201
6.7.5 Time series analysis: the autocorrelation problem 204
6.7.6 Pooled time series analysis: autocorrelation and heteroscedasticity 212
6.7.7 Reciprocal causal relations: linear structural equation models 218
6.8 Epilogue 220
6.9 Endmatter 220

PART III DOING POLITICAL RESEARCH
Paul Pennings

7 HOW PROBLEMS ARISE
7.1 Processes of electoral change 227

7.1.1 The problem of change 227
7.1.2 Measuring electoral change 229
7.1.3 Modeling change 232
7.2 Processes of party change 237
7.2.1 The role of parties 237
7.2.2 Parties and ideology scales 239
7.2.3 Parties and issues 244
7.2.4 Public opinion and party responsiveness 247
7.3 Conclusions 251
7.4 Endmatter 252

8 HOW DECISIONS ARE MADE
8.1 Introduction 256
8.2 Types of democracies 259
8.3 Party systems 264
8.4 Cabinet formation and duration 267
8.5 Institutions, economic growth and the public sector 278
8.6 Interest intermediation 283
8.7 Federalism, centralism and institutional autonomy 287
8.8 Presidentialism 290
8.9 Conclusions 296
8.10 Endmatter 298

9 HOW PROBLEMS ARE SOLVED
9.1 Introduction 302
9.2 Welfare-related outputs and performance 304
9.3 Actors and socio-economic problem-solving 307
9.4 Institutions and socio-economic problem-solving 313
9.5 Electoral cycles and macro-economic policy 322
9.6 Democratic performance 325
9.7 Parties and accountability 331
9.8 Outputs and outcomes in the international arena 336
9.9 Conclusions 339
9.10 Endmatter 341

Appendix: Statistical tables 345

Bibliography 351

Index 363