

# Doing Research in Political Science

An Introduction to Comparative Methods and Statistics

Paul Pennings, Hans Keman  
and Jan Kleinnijenhuis



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**second edition**

**Paul Pennings, Hans Keman  
and Jan Kleinnijenhuis**

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# Contents

*Preface*

ix

<b>PART 1</b>	<b>COMPARATIVE METHODOLOGY</b>	<b>1</b>
<b>1</b>	<b>Comparative Methodology and Statistics in Political Science</b>	<b>3</b>
1.1	Introduction	3
1.2	The comparative approach to political and social science: theory and method	6
1.3	Comparing data: selecting cases and variables	8
1.4	Developing empirical-analytical comparative analysis	13
1.5	How to use this book	15
1.6	Endmatter	16
<b>2</b>	<b>The Comparative Approach: Theory and Method</b>	<b>18</b>
2.1	Introduction	18
2.2	Comparative research and case selection	19
2.3	The use of comparative analysis in political science: relating politics, polity and policy to society	23
2.4	Endmatter	28
<b>3</b>	<b>Meaning and Use of the Comparative Method: Research Design</b>	<b>30</b>
3.1	Introduction	30
3.2	The problem of variables, cases, and interpretations	32
3.2.1	<i>Context matters</i>	35
3.2.2	<i>Logics of comparison</i>	36
3.3	The role of space and time	39
3.3.1	<i>Time and history</i>	40
3.3.2	<i>Space and Cross-Sections</i>	41
3.4	Developing a research design	42
3.5	Transforming concepts into units of measurement	48
3.6	Conclusion	50
3.7	Endmatter	51

<b>PART 2</b>	<b>STATISTICS IN POLITICAL SCIENCE</b>	<b>53</b>
<b>4</b>	<b>Concepts, Cases, Data and Measurement</b>	<b>55</b>
4.1	Data and data collection in political science	56
4.1.1	<i>Data obtained from official statistical agencies</i>	56
4.1.2	<i>Verbal and visual accounts, content analysis</i>	58
4.1.3	<i>Questionnaires and surveys</i>	59
4.2	Sampling and the basics of statistical testing	60
4.2.1	<i>Statistical inference from a random sample</i>	60
4.2.2	<i>Random samples and non-random samples</i>	61
4.3	Operationalization and measurement:	
	Linking data with concepts and units	62
4.3.1	<i>Handling missing data</i>	65
4.4	Criteria to evaluate the quality of operationalization and measurements	66
4.4.1	<i>Multiple indicators: the scalability (reliability) problem</i>	69
4.5	Scalability and cluster analysis	70
4.5.1	<i>Likert scales and Cronbach's alpha</i>	74
4.5.2	<i>Factor analysis</i>	75
4.5.3	<i>Principal axis factoring and confirmative factor analysis</i>	78
4.5.4	<i>Digression: an unknown number of dimensions</i>	80
4.5.5	<i>Explorative cluster analysis</i>	82
4.5.6	<i>Summary</i>	85
4.6	Conclusion	86
4.7	Endmatter	86
<b>5</b>	<b>Explorative and Descriptive Statistics</b>	<b>88</b>
5.1	The univariate distribution of a nominal variable	89
5.1.1	<i>Measures of central tendency for nominal variables: the mode</i>	90
5.1.2	<i>Measures of dispersion for nominal variables: entropy and the Herfindahl Index</i>	91
5.2	The univariate distribution of ordinal, interval and ratio variables	92
5.2.1	<i>Measures of central tendency</i>	93
5.2.2	<i>Measures of dispersion</i>	94
5.2.3	<i>The shape of the entire distribution of a variable with interval measurement</i>	97
5.3	Relationships between variables with nominal measurement levels	99
5.3.1	<i>The chi-square measure of association in a cross-table</i>	100
5.4	The bivariate distribution of two ordinal, interval or ratio variables	103

5.4.1	<i>Exploring the bivariate distribution the scattergram</i>	104
5.4.2	<i>Bivariate regression analysis</i>	106
5.5	The relation between an interval or ratio variable and a nominal variable	114
5.5.1	<i>An interval variable and a bivariate nominal variable: the comparison of two means</i>	114
5.5.2	<i>Analysis of variance: an interval variable by a nominal variable with j values</i>	115
5.6	Populations, samples and inferential statistics	119
5.6.1	<i>The urn model</i>	120
5.6.2	<i>Unbiasedness, efficiency and robustness of an estimator</i>	121
5.6.3	<i>The general procedure used in hypothesis testing</i>	123
5.6.4	<i>Four common probability distributions of test statistics</i>	124
5.6.5	<i>Degrees of freedom</i>	127
5.6.6	<i>Sense and nonsense of statistical tests</i>	128
5.7	Summary	128
5.8	Endmatter	129
<b>6</b>	<b>Multivariate Analysis and Causal Inference</b>	<b>132</b>
6.1	Causality and multivariate relations	133
6.2	Overview of multivariate data analysis techniques	136
6.3	The case-oriented approach	137
6.4	Nominal dependent and independent variables	141
6.4.1	<i>Cross-table elaboration</i>	142
6.5	Nominal dependent variable, interval independent variables	145
6.5.1	<i>Discriminant analysis example: explaining the type of government</i>	146
6.6	Interval dependent variable, nominal independent variables: analysis of variance	150
6.7	Interval dependent and independent variables: regression analysis	152
6.7.1	<i>The multiple regression model</i>	153
6.7.2	<i>Assumptions of the ordinary least squares estimation method</i>	157
6.7.3	<i>Direct causes, intervening variables and antecedent variables</i>	164
6.7.4	<i>Interactions in the multivariate regression model</i>	164
6.7.5	<i>Time series analysis: the autocorrelation problem</i>	166
6.7.6	<i>Pooled time series analysis: autocorrelation and heteroscedasticity</i>	174
6.7.7	<i>Reciprocal causal relations: linear structural equation models</i>	180
6.8	Epilogue	180
6.9	Endmatter	181



<b>PART 3 DOING POLITICAL RESEARCH</b>	<b>183</b>
Introduction to Part III: Doing political research	183
<b>7 How problems arise</b>	<b>187</b>
7.1 Processes of electoral change	187
7.1.1 <i>The problem of change</i>	187
7.1.2 <i>Measuring electoral change</i>	189
7.1.3 <i>Modelling change</i>	193
7.2 Processes of party change	198
7.2.1 <i>The role of parties</i>	198
7.2.2 <i>Parties and ideology scales</i>	200
7.2.3 <i>Parties and issues</i>	206
7.2.4 <i>Public opinion and party responsiveness</i>	209
7.3 Conclusions	213
7.4 Endmatter	214
<b>8 How Decisions are Made</b>	<b>217</b>
8.1 Introduction	217
8.2 Types of democracies	219
8.3 Party systems	225
8.4 Cabinet formation and duration	229
8.5 Interest intermediation	239
8.6 Federalism, centralism and institutional autonomy	243
8.7 Presidentialism	248
8.8 Conclusions	252
8.9 Endmatter	252
<b>9 How Problems are Solved</b>	<b>258</b>
9.1 Introduction	258
9.2 Welfare-related outputs and performance	260
9.3 Actors and socio-economic problem-solving	263
9.4 Institutions and socio-economic problem-solving	270
9.5 Electoral cycles and macro-economic policy	276
9.6 Democratic performance	279
9.7 Parties and accountability	289
9.8 Conclusions	293
9.9 Endmatter	295
Appendix	299
Bibliography	305
Index	317

# Preface

This second edition of *Doing Research in Political Science* is a thoroughly revised and updated version of the book that was originally published in 1999. In revising this edition we have benefited from several constructive and positive reviews and personal communications. One comment in particular made us reconsider the target readership for which this textbook is intended. Apparently – so some of the critics maintained – the level of information makes the book especially suitable for *advanced* students (e.g. in the final year of BA training, during MA studies and in the preliminary stages of a PhD). With this caveat in mind we have rewritten parts of the book and attempted to improve the presentation.

The book maintains its original structure consisting of three parts representing in our view the basic stages of any theory-driven empirical-analytical research in the social and, in particular, the political sciences. In each chapter there is an introduction to its contents, and at the end there is a list of the main topics covered, which may help both teacher and student to find the information she or he needs. In addition, each chapter contains examples that are taken from existing comparative research and are partially based on data made accessible by us via the World Wide Web (<http://research.fsw.vu.nl/DoingResearch>).

In Part 1 we present our own arguments concerning the comparative approach in the social sciences: namely, that any empirical research ought to be theory-driven and must be formulated in a well-elaborated research design. Part 2 is essential reading for those who wish to understand the use of (advanced) statistics in order to be able to conduct an explanatory analysis (including its caveats and pitfalls!). Part 3 can be seen as an attempt to pull together the threads of our way of doing comparative research and will be of interest to any reader, whether a freshman or an advanced student of comparative politics and social sciences at large.

Without claiming that this approach is the one and only way to teach comparative methods and statistics in political science, we are certain that it offers a valuable ‘springboard’ to judging the comparative information with which most, if not all, students are confronted. It will help the student to shape a theory-inspired research design in such a way that it leads to plausible and adequate results. These are valuable skills that are lacking in too many textbooks that focus on methodology.

During the process of writing this book, we have benefited from contributions many institutions, scholars and students, to whom we wish to express our thanks. First of all, the Essex Summer School in Social Science Data Analysis and Collection gave us the chance to test the draft version of the book on an international group of graduate students. We thank a number of colleagues for their detailed and helpful corrections to the manuscript. Linde Wolters, an assistant in our department, carefully organized the references and bibliography. Sabine Luursema has been helpful

in producing the manuscript. Klaus Armingeon, Ian Budge, Kaare Strøm, Ross Burkhart, Michael S. Lewis-Beck and Alan Siaroff kindly permitted us to use their data in this book. Valuable advice on the whole or parts of the manuscript have been given by Klaus Armingeon (Berne), Francis G. Castles (Edinburgh), Jan-Erik Lane (Geneva and Singapore), Arend Lijphart (San Diego), Peter Mair (Leiden), Michael McDonald (Binghamton), Lawrence LeDuc (Toronto), Guy Whitten (Texas) and Ekhart Zimmerman (Dresden).

Finally, we wish to note that this book has been a genuine example of ‘collective action’. At the same time the ‘order of appearance’ of the authors indicates the relative input given by each author.

Class material is available at <http://research.fsw.vu.nl/DoingResearch>

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Amsterdam, Summer 2005

**Part 1** ● ● ●

## **Comparative Methodology**



# 1

## Comparative methodology and statistics in political science

### CONTENTS

<b>1.1</b>	Introduction	3
<b>1.2</b>	The Comparative Approach to Political and Social Science: Theory and Method	6
<b>1.3</b>	Comparing Data: Selecting Cases and Variables	8
<b>1.4</b>	Developing Empirical-Analytical Comparative Analysis	13
<b>1.5</b>	How to Use This Book	15
<b>1.6</b>	Endmatter	16
	<i>Topics highlighted</i>	16
	<i>Questions</i>	16
	<i>Exercises</i>	16
	<i>Further reading</i>	17

### 1.1 Introduction

Almost everyone watches daily TV, regularly reads a daily newspaper and often discusses what goes on in the world. These activities shape our views on society and, in particular, influence our views on and perspective of the role and impact of politics on societal developments. In this era of easy access to electronic communication (e.g. Internet), worldwide TV coverage of events (e.g. CNN) and rapid changes in the political mapping of the world (globalization), one is confronted not only with a multitude of bits and pieces of information, but also with various and often conflicting opinionated views what events may mean and what consequences they may have for our lives and the society we are part of and live in.

Although we do not realize it all the time (or at all) we use this information in its multifarious forms in a comparative way. Both the ‘messengers’ (e.g. journalists, political spokesmen and so-called opinion leaders) and the ‘receivers’ (readers, TV watchers, person-to-person communicators) are, more or less consciously, using the ‘art’ of comparing in order to come to a more or less well-founded interpretation of what goes on in public life.

The *first* point of departure of this book is therefore not only that students of social and political sciences are in fact comparing information to form an opinion, but that everyone is doing this in assessing the facts of life around him or her. For instance, how often do you use the words ‘more’ and ‘less’ or ‘bigger’ and ‘smaller’, and this is ‘different’ from or ‘similar’ to that, and so on? All these expressions, used by everyone in their daily conversation, basically imply that you (seem to) have a comparative idea about what occurs in reality. And not only that – most of the time, if not always, you do deliver a statement about, for instance, politics and society that is, more or less, implicitly of an evaluating nature. To give an example: in New Zealand in 1996 the first elections were held under a new system (it used to be ‘First Past the Post’ and it is now a variation of a proportional representation electoral system). The electoral outcome necessitated the formation of a coalition government instead of a one-party government. Apart from the fact that this type of government and the related procedure of government formation were new to both the public and the politicians, everyone could now compare the actual result of changing the electoral system and what it implies in reality. Hence, one could now evaluate what goes on by means of comparing the old with the new situation.

The ‘art of comparing’ is thus one of the most important cornerstones to develop knowledge about society and politics and insights into what is going on, how things develop and, more often than not, the formulation of statements about why this is the case and what it may mean to all of us. To take another example: in a number of Western European democracies one can witness recently a rise of so-called ‘populist’ parties (e.g. in Austria, Belgium, France, Italy, and the Netherlands; see Mair, 2002). The problem that emerged was *how* to define ‘populism’ as such in order to indicate which party was more (or less) populist, or – for instance – extreme right-wing or not, and therefore a threat to the existing party system (Mény and Surel, 2002). Hence, the problem was *less* to observe the phenomenon, and more *how* to measure it properly from a comparative point of view.

Yet, and this is our *second* point of departure, the use and application of the *comparative method* is often not systematic, nor is it applied rigorously in most cases. This may result not only in unfounded opinions or flawed conclusions, but also in biased views of reality as well as in inappropriate generalizations about what goes on in society. In this book we wish to introduce you to the comparative method and related statistical tools in order to help you to reduce these hazards and to develop standards for you and others to gain a more sustainable view on the world. In addition, we shall provide you with a clear schedule to develop an adequate research design that helps to avoid the mistakes and biases. This is the assignment of Part I.

In this chapter we shall therefore discuss how to do research in 'comparative politics'. This means that the focus is on the development of a proper research design that enables one to translate questions about real-world events into observations, which allow for drawing systematically conclusions that can be generalized. For instance: is there a relationship between the (electoral) rise of populist parties and a growing dissatisfaction of the public with the working of parliamentary democracy? This type of Research Question can and should be elaborated in a proper Research Design. This crucial step in doing research in political science is the subject of the next chapter. It requires the *elaboration* of the phenomenon under review (e.g. what is populism, and which parties can be viewed as 'populist' or 'right wing'?), the *mode of analysis* that makes a comparison useful and meaningful (e.g. relating the emergence of populist parties to subsequent events such as elections and stable government), and – in addition – the *empirical* investigation of *all* relevant cases (in comparing political systems that allow for corroborating hypotheses). Hence, instead of focusing on 'events' or isolated developments, the point of departure of our approach is:

- developing systematic knowledge that transcends mere description and allows for generalizations (i.e. external validity);
- deriving answers to questions on the basis of existing *theory* or, if possible, plausible hypotheses (i.e. theory guidance);
- striving for exact information and comparable indicators that are *reliable* and open to replication (i.e. internal validity).

*In summary:* without a proper research question and research design, the 'art of comparing' becomes meaningless and – which is worse – may lead to dubious evidence and conclusions that affect many in society. Max Weber – the famous German sociologist – warned against these practices in 1918 in his major work *Economy and Society* (Weber, 1972), by discussing value-free science *vis-à-vis* ideologically driven analysis, which would not only harm scientific progress, but also jeopardize the correct use and application of social scientific results in practice (see Bendix, 1977; Giddens, 1971).

From this follows, as the *third* point of our presentation, that it is crucial to know from the beginning *what*, *when* and *how* to compare. Seemingly this triad goes almost without saying. Yet, it is vital for any comparative analysis to ask him or she whether or not there is indeed a proper answer to these methodological questions. If not, the chances to come up with valid and reliable answers will be reduced and the quality of knowledge advanced will be less. Hence, you must know beforehand what the phenomenon is that you wish to research, when – or at what point of time or period under review – the phenomenon can be best studied, and how to do this.

This highlights perhaps the most important message we wish to emphasize. We view the 'art of comparing', or what is generally called the 'comparative approach' to political and social science, *not* as an 'art' in itself (or a method *per se*), but as one of the most adequate ways to connect ideas (theory) about society and politics with what is actually going on in the world we live in (i.e. empirically



founded facts). In short, we wish to introduce you to the comparative approach in such a way that one can explain convincingly and plausibly what is going on in the real world of politics and society.

### Box 1.1 Comparing as a basic tool of the social sciences

The British poet Rudyard Kipling (1865–1936) wrote: ‘And what should they know of England who only England know?’ He meant to say that without comparing there is little to gain from a description only. Therefore the ‘art of comparing’ is a basic tool for linking ideas and, eventually, theory to evidence. Conversely, without theory a comparison remains meaningless. Our view is thus that ‘doing research’ in the social sciences always implies – be it implicitly or explicitly – the application of the comparative approach to gain knowledge of politics and society and to assess its plausibility.

## 1.2 The Comparative Approach to Political and Social Science: Theory and Method

We contend that the comparative approach and its methodological application must be conducted by means of theory-driven research questions. This is to say: a research question must be formulated as a point of departure of comparative investigation, which enables the student to reflect on what, when and how to compare and for what purpose. If not, the comparison becomes a recording instrument only. This, however, is not our goal, nor is it in our view scientific. Scientific activities always imply the quest for explanations, which are not only empirically based and yield systematic results, but also lead to results which are plausible. It is vital to realize that throughout this book we shall contend that empirical-analytical analysis is an instrument to develop social and political knowledge that is both scientifically valid and plausible for a wider audience.

Valid means here not only whether or not it is devoid of mistakes of the ‘Third Order’ (Blalock, 1979), i.e. avoiding wrong operationalizations, incorrect indicators and inadequate levels of measurement and inferring false causal conclusions – these matters will be dealt with in Part II of this book – but primarily whether or not the research design is indeed adequately derived from the research question which underlies the comparative research. Validity in comparative (and other types of) research is a very central concept. However, more often than not, it is used in different ways and its use may well confuse the student. Throughout this book we shall employ the concept as follows:

- *Internal validity* concerns the question whether or not the measurements used in a given research are properly, i.e. correctly, operationalized in view of the theoretical concept as intended. For instance: in a research project on political parties, can *all* the parties under review be considered to be identical in terms

of their properties (e.g. participating in elections by putting forward candidates for office), and can they be seen as unique entities and not be confused with other types of social and political movements (like interest groups or new social movements)? Hence research results are internally valid if and when they are *truly* comparative, i.e. yield the *same* results for all cases under review (if not, then a case is 'deviant').

- *External validity* presupposes that the concepts used in a given piece of research, and the related outcomes, apply not only to the cases under review but to *all similar* cases that satisfy the conditions set out in the research question and related research design. Similarity implies here comparability through space or time. For example, the factors found to explain the variations in government formation in terms of the resulting types of government (e.g. majority or minority and one-party versus multi-party governments) should also apply to those cases that were not included or in periods that were not covered in the original analysis. Another example would be the study of populism, right-wing parties and party system development (see, for instance, Kitschelt, 2002; Pennings and Keman, 2003). Obviously this requires careful and qualified arguments and spills over into the quality of operationalization and measurement (i.e. internal validity!). Hence research results are viewed as externally valid if they yield *truly* comparable results for *similar* cases that have *not* yet been under review. This implies that one would expect that a replication of such a research should produce by and large the same results (King et al., 1994: 100).

It should be realized that the concepts of internal and external validity are of an *ideal-typical* nature: in a perfect world with complete information the standards of validity may well be met, but in practice this is not a realistic goal. Yet, and this is what we put forward, one should try to get as close as feasible to these standards (see Mayer, 1989: 55; King et al., 1994). Only by keeping these standards is it possible to strive for *positive* theory development, that is, systematically relating extant theory to evidence and so improving the theory.

To enhance this process of theory development we argue throughout this book that one needs to formulate a Research Question (RQ) first, in order to be able to decide what, how and when to compare. This leads in turn to the development of a Research Design (RD) in which these matters are addressed and elaborated in such a way that the research results will be valid, reliable and plausible. It is also important to note that the comparative approach allows for two types of analysis: one is the explorative type that aims at identifying relationships which may be conducive to theory *formation*; the other is driven by theory and aims at *testing* causal relationships, which is necessary to corroborate extant theory and to develop these further. Only then it is possible to decide which data must be collected to carry out the empirical and statistical analysis for a meaningful comparison that may produce substantial explanations of *why* societal and political events and developments have taken place. In short: substance comes before method, questions come before answers, and theory always precedes comparative analysis.

The issue at stake is therefore what, when and how to compare. As the relation between politics and society is not only dynamic but also obviously a process, we need a clear and systemic *model* that can be applied to various situations and related questions that cry out for explanatory analysis by means of the 'art of comparing' (see, for example, Lane and Ersson, 1994; Keman, 1993c; Schmidt, 1995). Hence, we are interested in how to consciously make correct choices to allow for proper answers to the question(s) asked in a systematic fashion; this is conducive to furthering theory as well as valid answers and plausible results. We shall demonstrate that on the basis of a research question it is possible (and sometimes inevitable) to develop a research design (RD) that allows for different answers which can be considered as equally plausible. In Chapter 3 we shall elaborate on this by introducing the central concepts of any political analysis – actors, institutions and performances – that will figure eventually in Part III of this book (for this kind of approach to the political process, see Hague and Harrop, 2004; Almond et al., 1993).

However, before jumping to matters of measuring and modelling politics in relation to society and discussing related matters such as the use of statistics, we must and shall discuss how to organize matters related to collecting data. Data, in general, are the information we wish to gather with a view to supplying a research answer. This can be quantitative or qualitative information (i.e. numbers or descriptions related to various events). These terms are often considered as mutually exclusive. We do not think this to be the case: all information used in social science, if used comparatively, needs to be subject to the rule of reliability, validity and replicability (see also King et al., 1994; Burnham et al., 2004: 140). Hence, data – quantitative and qualitative – can be considered as equivalent, if and only if they are correctly organized. We need therefore to develop a collection of data in order to carry out a systematic comparison.

### 1.3 Comparing Data: Selecting Cases and Variables

The term 'cases' is often used in the comparative literature in various ways. On the one hand, cases may simply refer to the units of observation in a data matrix. This is the general meaning of the term and will be found in most textbooks on methodology. On the other hand, the comparative approach generally uses the term 'cases' to refer to the combination of the level of measurement employed (e.g. individuals, parties, or government) and the units of variation or variables employed (e.g. electoral attitudes, party programmes, or government policies). The problem which arises from this kind of formulation boils down to the difference between seeing cases as an *empirical* entity (fixed in time and space – see Ragin and Becker, 1992: 4–5; Lijphart, 1975: 160) and as a *theoretical* construct or convention. An example of the first kind are representatives of any type of system, such as countries, parties, voters, years or decades. This type of case defines the boundaries of investigation. The second type refers to theoretical properties from which the researcher derives the units of observation, i.e. cases.

Welfare states, left-wing parties or coalition governments are examples. Whatever way one argues, however, we feel that cases should always be defined as empirical entities in relation to the research question asked. We shall therefore define cases as those *units of observation* that are:

- identically defined by time and place; and
- logically connected to the research question under review.

Cases are then 'carriers of information' which must and can be collected by means of translating concepts into empirical indicators, such as having a written constitution or not, having a certain type of multi-party system, the size of the electorate, and so on.

In comparative research the term 'cases' is reserved for the units of observation that are compared, be it voters in different countries or regions, parties in various political systems, or welfare states across nations. The information in each row of the data matrix is two-dimensional: it concerns the voter in country A, B or C or it refers to a party family X, Y or Z (if we wish to compare differences between party families and/or within party families). Or, for example, the row displays information on welfare states as a whole (equals one country). In the same vein, variables may well represent conceptual information *over time* (e.g. years), and the number of cases is still the number of variables times the number of units of observation. Hence the term 'case' basically refers to the units of observation that are compared. The following rule of thumb may be of help to the reader: if the research question is elaborated in terms of an *international* comparison, the number of cases is identical to the number of nations included; if the research question is said to be *cross-national*, the number of cases is defined by the units of observation, such as parties or governments, regardless the number of nations or systems; finally, if the research question focuses on change over time (i.e. *inter-temporal*) then the time units included indicate the number of cases. In summary: what is compared determines the number of cases rather than the total number of cells in a data matrix. In other words, a 'case' carries vital information that varies according to a theoretical concept (e.g. type of welfare state) and this concept is usually operationalized by means of quantified indicators (e.g. public expenditure on social security as a percentage of GDP). Together this leads to unique information that is comparable between cases and variables across cases (number of variables  $\times$  number of values). That outcome (denoted  $N$ ) is used in statistical procedures, in particular for tests of significance, and refers to the total number of observations or *values* under scrutiny (see Figure 1.1).

- *Units of variation*  $\Rightarrow$  *Variables* = columns of data matrix indicating the *variation* across the units of observation according to empirical features derived from theoretical concepts.
- *Units of observation*  $\Rightarrow$  *Cases* = objects of comparison with *separate* values for each variable along the row of the matrix representing the universe of discourse.

## 10 Doing Research in Political Science

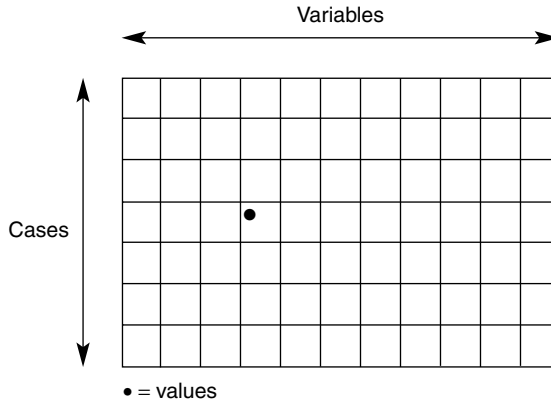
- *Units of measurement*  $\Rightarrow$  *Values* = operational *features* (i.e. scores) of each separate case on each variable presented in the cells in the matrix. The total number of values or the cells is represented by the *N*.

Another important matter with regard to the number of cases is thus the question to what extent the cases under review indeed represent the so-called *universe of discourse*. As we shall elaborate in Chapter 2, there is quite some variation in various research designs as to how many relevant cases can or should be involved. This depends not only on the research question under review, but also on the mode of analysis which is considered to be proper for answering it. For example, if we study the development of welfare states, we may opt to compare them all, or a number of them. This choice, i.e. of the number of (relevant) cases involved, is related to the dichotomy – proposed by Przeworski and Teune (1970) – between a ‘most similar’ and a ‘most different’ design. In the former instance we seek to analyse a causal relationship by collecting data for all the cases that can be assumed to be similar in terms of their contextual features. In the latter case it is assumed that the causal relation under review remains identical notwithstanding systemic differences. Francis Castles has put the difference between the two approaches succinctly as follows:

A most similar approach implies that ... the more circumstances the selected cases have in common, the easier it is to locate the variables that do differ and which may thus be considered as the first candidates for investigation as causal or explanatory variables. A most different approach involves ... a comparison on the basis of dissimilarity in as many respects as possible in the hope that after all the differing circumstances have been discounted as explanations, there will remain one alone in which all the instances agree. (quoted in Keman, 1993: 37)

Hence, the issue is how to control for contextual or exogenous variation given the Research Question. For instance, if we wish to analyse the role of parties in government with regard to welfare statism, we could decide – on the basis of the research question – to restrict ourselves to a certain type of party or government. In this case not the system as such, nor its features are decisive with respect to the research design, but the actual unit of variation that is central in the theory underlying the research question (i.e. how do parties matter in or out of government?).

Another issue is then that the research question – which forms the starting point for the research design – informs us on the implicit or explicit causality by means of a controlled comparison. In the example we use in this section the comparative issue is the explanation of the degree of ‘welfare statism’ as a result of the behaviour and actions of parties in government (see Castles, 1982; Keman, 1988; Janoski and Hicks, 1994; Swank, 2002). Hence, it is expected that party



**Figure 1.1** Units of variation, observation and measurement (NB: cases  $\times$  variables = total N of values). Unit of variation = variable; unit of observation = case; unit of measurement = value

differences matter with respect to the level and type of welfare services organized and supplied in a country. Obviously, political parties are considered to be effect-producing for welfare statism. The latter is then the *dependent* variable, whereas parties in government are seen as the *independent* variable. This distinction is not only crucial as regards the organization of the units of variation – observation – measurement (see Figure 1.1), but also with respect to the determination of the ‘universe of discourse’ and whether we must employ a ‘most similar’ or ‘most different’ research design. Obviously, in this example, we must exclude political systems without parties (the effect-producing variable). Secondly, we can opt for systems where either welfare state development is (more or less) comparable or include all systems with an established practice of party government. The first option allows the researcher to explore variation that is truly comparative and enables the inclusion of many variables. The second option makes it possible to include all relevant systems (i.e. democracies) in order to test the hypothesized causality of the argument. Whatever the options, it is clear that the choices made on the basis of the research question will direct the research design and the problems (and caveats) that must be overcome. These have been listed in Table 1.1. The four clusters in Table 1.1 represent choices as regards relating the research question to an adequate research design. Secondly, the clusters are steps the researcher must take in order to establish a comprehensive and feasible research design.

So, the first step is to assess whether or not we try to find answers to a specific question or a general one. For instance, Lijphart’s analysis of the Dutch system (Lijphart, 1975) was based on the explanation of a *deviant* case (i.e. consociationalism) within a general theory (of stable democracy). The problem he was confronted with was whether or not his comparative case study allowed for external valid conclusions. Later on he has remedied this problem by using

**Table 1.1** *Summary of choices that link the research question to the research design*

	Research question	Research design	Problem or caveat
1	General Or Specific	Most similar Or Most different	Internal validity and External validity
2	Descriptive Explorative Testing	Truly comparing Selecting cases Causality	Many Variables Comparability Ecological fallacy
3	Units of variation Units of measurement Units of observation	Variables Indicators Cases	External validity Internal validity Proper selection
4	Qualitative Quantitative	Equivalent information Reliable data	Systematic comparison Parsimony

more comparable cases to corroborate his ideas (Lijphart, 1977). Hence, although the research question remained the same, a different research design was developed to improve the generalizing capacity of his conclusions regarding the occurrence and working of consociationalism as a subtype of stable democracy. This example of Lijphart's work also can serve to illustrate the second step: from a descriptive study the research design was changed in the direction of consciously selecting a number of cases to explore the original explanation in order to study its occurrence and working elsewhere. The problem for Lijphart was, however, to enhance the comparability, since the cases selected had less in common than seems admissible. To remedy this apparently valid criticism, Lijphart revised and extended his analysis of consensus democracies (originally published in 1984) by including more variables and concomitant indicators (e.g. on policy performance) as well as the number of observations from 21 to 36 cases in all (Lijphart, 1999). This example on the basis of Lijphart's work only shows how important the third step is as well, for critics of Lijphart pointed out that the internal validity was insufficient due to the fact that the indicators used as units of measurement were not comparable for the cases involved. In fact, the critics claimed that a qualitative approach should have been pursued rather than a quantitative one.

Step four rests on this choice. For some time a debate has raged around this topic, but it remains difficult to say which direction, qualitative or quantitative, should be preferred. In fact, this again is a choice the researcher ought to make him/herself depending on the research question. Yet, each direction has its hazards, and the problem of data availability *and* its comparability should not be underestimated regardless what direction is chosen. Hence, it is not only crucial to establish a proper relation between the research question and research design, but also to employ the correct methodology, the proper data, and the adequate statistical tools. And that is what this book is about.

**Box 1.2 Comparing without theory and method is useless**

Lord Bryce was one of the first political scientists who attempted to systematically compare political systems. In his two volumes on *Modern Democracies* (Bryce, 1921) he compared the institutional organization of democracy. His point of departure was that what was needed is 'Facts, facts, facts': if you knew how political systems are institutionalized, you would know how they operated. Yet, as history has proven, pure description was not good enough to understand the actual working of many a democracy before the Second World War. In fact, a theory of the democratic process, including its pitfalls and vulnerabilities, was absent. The lesson that was derived from this is that without theory-guided research the comparative method cannot provide adequate answers or give a proper explanation for actual developments.

## 1.4 Developing Empirical-Analytical Comparative Analysis

In Part II of the book we shall introduce and elaborate the tools of comparative *statistical* analysis. Also, in Chapter 4 the issue of organizing data is taken up in conjunction with problems of measurement. In other words, how to transform the proposed theoretical relations as derived from the research question into testable propositions. 'Testable' means first of all the elaboration of the research question in terms of relations between independent (X) and dependent (Y) variables. This important step means the transformation of the research question into an empirical investigation by means of the process of operationalization and by means of developing empirical indicators which allows us to start the – often difficult and seemingly tedious – task of collecting the proper data for analysis.

In Part III of this book we shall demonstrate that there is more than one way to develop variables and indicators of politics. To give an example: political parties perform various functions at the same time, and thus the study of their behaviour should be analysed according to these functions or roles. On the one hand a party is, for instance, striving for maximum influence by acquiring as many offices as possible (such as representatives in parliament or ministers in a coalition government). On the other hand, a party is more often than not the bearer of an ideology by means of a programme, which is conducive to its policy-making behaviour. In this way it is possible not only to compare parties in performing their different functions, but also analyse to what extent parties *per se* behave differently within a system as well as across systems. Other examples can be given (and will be elaborated in Part III) of party behaviour in differently organized democratic systems, such as has been distinguished by Lijphart (1999), or the behaviour of organized interests, as Siaroff (1999) has done.

Another type of comparative investigation in which the importance of a proper operationalization of the research question will be highlighted is that in



which one shows how existing variables representing public policies and related performances can be developed into proxies and composite indicators (examples of this practice are the Misery Index and fiscal and monetary policy instruments as well as functional expenditures by state agencies: Keman, 2000a; Lane and Errsson, 1999; Swank, 2002). These procedures are vital in order to be able to construct a proper data set on the basis of the empirical model representing the relation between research question and research design. In Part II we will present the statistical techniques available to describe the model in empirical terms (Chapter 5) and how to find out which answers appear statistically valid with regard to the research question posed (in Chapter 6).

Finally, we shall discuss in Part III the topic of a 'truly' comparative analysis: instead of endeavouring to explain the 'universe of discourse' *per se*, the mode of explanation is directed to test the theoretical relations as such. In other words, how to develop and test a theory empirically rather than to confirm or falsify a theory as applied to reality. Przeworski and Teune (1970) attempt to make this difference clear by suggesting that 'variables replace proper names' and are meant to explain empirical phenomena by concepts independent of their empirical origins.

Yet, one should be aware of the caveats present and the pitfalls lurking as we are dealing with social reality and related political action. This implies that the relationship between theory (Research Question) and empirical analysis (Research Design) not only is dynamic, but also can only produce 'middle-range' theories. The term *middle-range* indicates here the situation that only in a perfect world could the results of comparative inquiry be considered as an absolute truth for all times and situations. Of course, this cannot be the case. However, one should always aim at comprehensively analysed results, which allow for valid and plausible research answers (RA). Hence, the bottom line is and ought to be that a research question is translated into a proper research design leading to plausible research answers.

In Part III of this book we also turn to what partially could be labelled as the manual for doing your own research. We shall then be applying what has been put forward in Parts I and II. To this end we take as a point of departure one of the best-known (and often disputed on various grounds) comparative models used in political science: the input-throughput-output model, or the empirical elaboration of the political systems approach (Powell, 1982; Almond et al., 1993; Lane and Errson, 1994; Keman, 1997; Hix, 1999).

This general model, introduced by Easton (1965), places the *polity* (the political-institutional framework of any society) in a dynamic context. The political system receives 'inputs' from its environment (i.e. society) in the form of demands (e.g. issues and conditions that are considered to influence societal development) or support (e.g. allegiance to leaders, and acceptance of the existing rules of the game by the population). These inputs are subsequently handled by means of the conversion process of the system (e.g. decision-making by means of democratic procedures or binding regulation through a political elite or bureaucracy), resulting in 'outputs' (public actions and expenditures). Eventually, so the argument goes, the *performances* or, effects of the outputs, are

monitored back by an information feedback loop, affecting the ensuing societal demands and support for the political system that is conducive to a 'stable equilibrium'. It is obvious that this model of politics and society can be formulated in terms of *politics* (issue competition and choosing preferences for action = input), *polity* (relating inputs to outputs by means of rules that direct decision-making = throughput) and *policy* (public action by means of regulation and provisions = output).

In Part III of this book we focus explicitly on comparing democratic systems by means of the 'democratic chain of popular control and political command' (Keman, 1997). Yet, it should be noted that the principal aim of these exercises is not to confirm or disprove the empirical quality of systems theory, but rather to make the student familiar with doing comparative research in practice. This means that the world must be decomposed first, before we can start – on the basis of valid and plausible findings – to *integrate* the various answers to research questions posed into genuine models that are based on 'truly' comparative knowledge. Such knowledge can be acquired by any student of social and political sciences and can be applied by her or him if, and only if, he or she is conscious of the steps to be taken in the process of developing the relationship between question and answer on the basis of an adequate research design and employing the correct statistical tools and methods.

## 1.5 How to Use This Book

This book consists of three parts which represent in our view the basic stages of any empirical-analytical research driven by theory in political and social sciences. As the aim of the book is to serve as a coursebook, we feel that students should go through the whole text, chapter by chapter. In each chapter there is an introduction to its contents, and where necessary there is a glossary of the core terms used, to help both teacher and student to find information she or he needs (e.g. whilst doing research). In addition, each chapter contains examples which are taken from existing comparative research that has been published elsewhere and is partially based on data that are accessible (provided by us, or we specify where to obtain them). Finally, some texts are mentioned for further reading on the topics discussed in the chapter.

In Part I we present our own arguments concerning the comparative approach: namely, that any empirical research needs to be theory-driven and must be formulated in a well-elaborated research design. Chapter 6 is essential reading for anyone wishing to understand the use of advanced statistics in order to be able to conduct explanatory analysis (including its caveats and pitfalls!). The final part can be seen as our attempt to pull together the threads of our way of doing comparative research and will be of interest to any reader, whether a freshman or an advanced student of comparative politics and sociology.

Part II can also be used independently by anyone who wishes to 'catch up' with the statistical techniques whilst conducting research. Part III may also be used separately and will be very useful for those who are investigating the

dynamic and interactive processes of politics and society. Without claiming that this approach and its elaboration is the one and only way to do it, we feel that it offers a valuable 'springboard' to judge comparative information confronting you or to shape your own theory-inspired research design in such a way that it leads to positive theory development. This is the subject of Chapter 2.

## 1.6 Endmatter

### Topics highlighted

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- The 'art of comparing' as a theory-driven method for empirical analytical research.
- The types of explanation that can be developed from research questions into research designs.
- The meaning of cases, variables and measurement in comparative empirical research.
- System theory as a descriptive analytical model of politics in society.
- How to use this book for different types of students.

### Questions

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- Why is the 'art of comparing' not only useful but rather a *necessary* part of the toolkit of any social scientist? Give an example.
- Try to elaborate whether or not the rules of *internal* or *external* validity are violated in the following statements:
  - 1 Political parties and social movements are functional equivalents and can therefore be compared throughout the whole world.
  - 2 The study of government as a system must be researched cross-nationally.
  - 3 Party government in whatever political system provides a representative basis for analysing the process of government formation.
- Is there a difference between a theoretical proposition and posing a research question? Whatever your answer is, give an example of a proposition and a question to support your view.

### Exercises

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If you look up Volume 31: 1–2 (1997) of the *European Journal of Political Research* in your library, you can try to answer the following questions:

- 1 Reproduce by means of a 'diagram' the research design as described by Geoffrey Roberts on pp. 100–1. What are the *units of variation* and what are the *units of*

*observation* (for this, see also Castles and McKinley: pp. 102–6 in the same volume).

- 2 Ask the same question by using pp. 159–66 of the same volume. However, focus now on the *units of measurement*.
- 3 Now turn to pp. 83–93 of the same volume and describe the *unit of observation*, which is central here and is related to a crucial *unit of variation*. To what is it crucial? (Explain)

## Further reading

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*Key texts:* Landman (2003), Peters (1998), Lane (1997).

*Advanced texts:* Kamrava (1996), Stepan (2001), Lichbach and Zuckerman (1997).

# 2

## The comparative approach: theory and method

### CONTENTS

<b>2.1</b>	Introduction	18
<b>2.2</b>	Comparative Research and Case Selection	19
<b>2.3</b>	The Use of Comparative Analysis in Political Science: Relating Politics, Polity and Policy to Society	23
<b>2.4</b>	Endmatter	28
	<i>Topics highlighted</i>	28
	<i>Questions</i>	28
	<i>Exercises</i>	29
	<i>Further reading</i>	29

### 2.1 Introduction

In this chapter we shall elaborate on the essentials of the ‘art of comparing’ by discussing the relation between theory and method in the comparative approach. In order to clarify this point of view, we shall first discuss some of the existing ideas about what the comparative approach is in terms of a scientific undertaking. In addition, we shall argue in Section 2.2 that one can distinguish in comparative politics a ‘core subject’ that enables us to study the relationship between ‘politics and society’ in a fruitful and viable way. In Section 2.3 we shall enter into the important topic of the comparative approach, i.e. the comparative method and its implications for a ‘proper’ research design. The central argument will be that a coherent framework of theoretical references and a corresponding logic of inquiry are required. If it is not possible to do this, the comparative approach will still remain a valuable asset to political and social science, yet any

claim of being a 'scientific' approach should then be put to rest (Mayer, 1989; Keman, 1993a; Lane and Ersson, 1994; Lichbach and Zuckermann, 1997).

A final concern involves scrutinizing existing logics of comparative inquiry to account for the observed variation by means of testing empirical hypotheses, thereby either corroborating or falsifying them (Lijphart, 1975: 159; Przeworski and Teune, 1970; Peters, 1998). Hence we explicitly aim at the relation between proposition and empirical evidence and consider that as the cornerstone of social science. This implies the use of *positive theory development* as a stepping stone to advancing our knowledge of politics and society. The central feature of this approach to social science is embedded throughout this book by the relationship between research question, research design and empirical data analysis on the basis of (statistical) methods.

All these concerns are in themselves worthy of serious discussion and deliberation, and the main issue at hand is that the comparative approach often lacks coherence in terms of a set of theoretical references and related logics of inquiry. Therefore this chapter must be seen as an attempt to relate theory and method in order to gain a viable and feasible approach to explaining political and social processes. To this end we propose the following guidelines to define the comparative approach as a distinctive way of analysing and explaining social and political developments. The guidelines can be considered as 'flags' that mark the process of doing research by means of the comparative method:

- 1 Describe the core subject of comparative inquiry. In other words, formulate the question of what exactly is to be explained and how we recognize a need for comparison – i.e. what are the essential *systemic* features?
- 2 Develop a view on the theoretical concepts that can 'travel' comparatively as well as measuring what is intended (internal validity) as well as possessing a unifying capacity for explaining political and social processes in general (external validity).
- 3 Discuss the logic of the comparative method as a *means* to an end, rather than as an end in itself. In other words, which instrument fits the research questions to be answered best by means of what type of research design?

We therefore now turn to the next point on the agenda: the comparative approach as an important instrument of researching the relationship between politics and society.

## 2.2 Comparative Research and Case Selection

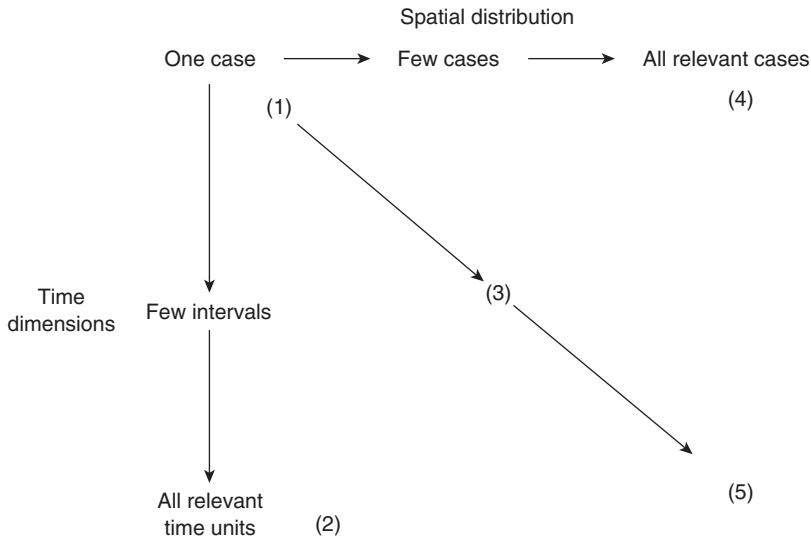
Comparative political and social research is generally defined in two ways: either on the basis of its supposed core subject, which is almost always defined at the level of political and social *systems* (Lane and Ersson, 1994; Dogan and Pelassy, 1990; Keman, 1997), or by means of descriptive features that claim to enhance knowledge about politics and society as a *process* (e.g. Roberts, 1978;

Macridis and Burg, 1991; Almond et al., 1993). These descriptions are generally considered to differentiate the comparative approach from other approaches within political and social science. Although it is a useful starting point, it is not sufficient. The comparative approach must be elaborated in terms of its theoretical design and its research strategy on the basis of a goal-oriented point of reference, i.e. what exactly is to be explained.

A way of accomplishing this is to argue for a more refined concept of 'politics and society' and develop concepts that 'travel' – i.e. are truly comparative – and can thus be related to the political process in various societies (Collier, 1993; Landman, 2003). In addition, a set of rules must be developed that direct the research strategy, aiming at explanations rather than at a more or less complete description of political phenomena by comparing them across systems, through time, or cross-nationally. At this point most comparativists stop elaborating their approach and start investigating – often, however, without realizing that theory and method are mutually interdependent (Keman, 1993c; Stepan, 2001). For the goal of comparative analysis is to explain those 'puzzles' which cannot be studied without comparing *and* which are derived from logical reasoning. Hence, there can be no comparative research without an extensive theoretical argument underlying it, or without a methodologically adequate research design to undertake it. A first and vital step in the process is to ponder the relationship between the cases under review and the variables employed in the analysis (Landman, 2003; Peters, 1998; Keman, 1993c). There is a trade-off between the two: in general, the more cases one compares, the fewer variables are often available and vice versa (Przeworski, 1987; Ragin, 1987). In Chapter 3 we shall elaborate this problem in full; for now it suffices to suggest that the conversion of research question into a viable research design is confronting the researcher with this inevitable problem. To complicate things even more, one has also to consider whether or not 'time' is a relevant factor to be taken into account (Bartolini, 1993). This problem of choice is illustrated in Figure 2.1. Figure 2.1 shows that there are five options available:

- 1 The *single* case study (either a country, an event or systemic feature)
- 2 The single case study *over time* (i.e. a historical study or time series analysis)
- 3 *Two or more* cases at a *few time* intervals (i.e. closed universe of discourse)
- 4 *All* cases that are relevant regarding the research question under review
- 5 *All* relevant cases across time and space (e.g. pooled time series analysis).

Obviously a single case study (see Yin, 1996; Peters, 1998) cannot be considered as genuinely comparative. Implicitly it is, but in terms of external validity it is not. Nevertheless, it is used for developing hypotheses and reasons of validation *post hoc* to inspect whether or not the general results of a comparative analysis hold up in a more detailed analysis (see, for instance, Castles, 1993; Vergunst, 2004) or to study a *deviant* case for theory generation (i.e. a case that is seemingly an 'exception to the rule'; see Lijphart, 1968). A single case study has the advantage that it allows for the inclusion of many variables. This method is often referred to as 'thick description' (Landman, 2003: Chapter 2).



**Figure 2.1** *Selecting the number of comparable cases and variables with respect to the research question: (1) case study (at one time point); (2) time series (one case over time); (3) closed universe (relevant cases in relevant periods); (4) cross-section (all cases at one time point); (5) pooled analysis (maximizing cases across time and space). NB: these terms are explained in depth in the following chapters*

A single case study over time is often used as a theory confirming or contesting analysis based on a country's history with a specific focus derived from the research question in use (Lijphart, 1971: 692). Examples of such studies can be found in the analysis of consolidation of democracy (Stepan, 2001). This type of case analysis can be performed qualitatively or quantitatively. In the latter case it is often applying econometric models over a set of many time points (Beck and Katz, 1995).

The third option in Figure 2.1 concerns the 'few' cases alternative, and more often than not takes time into account (be it before/after an event – like war or economic crisis – or certain periods that are seen as crucial for the cases involved; Berg-Schlosser and Mitchell, 2002). A few(er) cases research design is seen as a 'focused comparison' which is directly derived from the research question under review (Ragin, 1991). Here the specific features of core subject under study explicitly direct the inclusion of relevant cases, more or less forming a 'closed shop'. A good example of this is the qualitative study of revolutions by Theda Skocpol (1979), on the one hand, and the quantitative analysis on the same topic by Gurr (1970), on the other hand.

Option 4 is the most prevalent one in comparative research: it concerns those cases that have more in common than they differ from each other, *depending* on the research question (Collier, 1993). The advantage is that the universe of discourse is limited on the basis of the 'most similar systems design' and therefore that *both* internal and external validity are considered to be enhanced. Examples



of this approach are the numerous analyses of industrial democracies (Bryce, 1921; Almond and Verba, 1965; Lipset and Rokkan, 1967; Powell, 1982; Hibbs, 1987; Keman, 1997; Lane and Ersson, 1999; Gallagher et al., 2001).

The fifth and final option is the subject of fierce debate among comparativists. On the one hand, the number of cases is indeed maximized, but, on the other hand, there is the pitfall that time is considered to be constant across all cases – or, at least, that change is consistent within the cases (see Janoski Hicks, 1994; see also Chapter 6 in this book, where the statistical problems related to pooled time series are discussed). Yet, the obvious advantage is that the universe of discourse can be extended and thus the scope of comparison widened across time and space (Stimson, 1985). If one went through the literature or a major political science journal (such as the *American Political Science Review*, *Comparative Studies*, or the *European Journal of Political Research*), one would find numerous examples of how a research question is indeed translated into a research design in which each of the possibilities has been chosen. For instance, the study of Dutch consociationalism is a one case/time series research design (no. 2 in Figure 2.1) whereas Lijphart's study of consensus democracies (Lijphart, 1999) is a cross-sectional analysis of *all* relevant cases (no. 4). Many studies on welfare states more often than not use a research design in which *all* relevant cases are included and studied over time, albeit for a few points in time only (no. 3; see Castles, 1993; Esping-Andersen, 1999). The analysis of the working of coalition governments (see Laver and Schofield, 1990; Budge and Keman, 1990) is often done in combination with as many relevant cases as possible and for as many points in time as feasible. This is what is often called a pooled time series research design (no. 5). In fact, the last example also demonstrates that we are interested not only in countries as cases, but also – depending on the research question – in elements central to the political system such as governments, parties, interest groups, voters and institutions. In these instances the number of cases will often be much larger, if and when all relevant cases are included. Yet – and this is an important point – the options for choice as depicted here are not free.

However, in most discussions of the comparative approach, it appears that both theoretical and methodological aspects of case selection are divorced, or at least treated separately. For example, Ragin (1987) and Przeworski (1987) emphasize predominantly the methodological aspects of the art of comparison as a 'logic of inquiry', which is often underdeveloped or incompletely elaborated. At the same time these authors argue their case by means of examples that are seemingly picked at random. Theoretical progress and explanatory results appear then to emanate from their 'logic' (see Przeworski, 1987: 45ff.; Ragin, 1987: 125ff.). Yet, the comparative analysis of the political process must be instead founded a priori in theory and then related to the best-fitting 'logic of inquiry' or, in our terms: a proper research design.

The principal message is that much of the research that is labelled as comparative either lacks theoretical foundation of why mechanisms in various systems have much in common or not, or is based on a research design that is not comparative but is rather a collection of bits of information about a number

of systems. The main lesson that can be drawn from the examples listed here as an elaboration of Figure 2.1 is that the research question *per se* directs the research design in terms of the central units of variation (governments, elections, welfare state, etc.) which imply the theoretical relations under review and also direct the units of observation (e.g. years if change is focused upon or all parliamentary governments across the whole universe of discourse). These choices or decisions – made by the researcher – also dictate, then, the units of measurement (or values) that make up the total number of cases. Given this line of reasoning, which is essential to our approach to comparative research, it is crucial, therefore, to develop a theoretical perspective in order systematically to relate the research question to possible research designs and not simply to gather information about a lot of cases, which are often only included for pragmatic reasons.

### **2.3 The use of Comparative Analysis in Political Science: Relating Politics, Polity and Policy to Society**

Usually the comparative approach to politics and society is defined both by its substance (the study of a plurality of societies or systems) and by its method (e.g. cross- and international, comparable cases, longitudinal, etc.; see Schmitter, 1993: 177; see also Figure 2.1). Such a description, however, undermines the necessary link between theory and method as well as the distinctiveness of the comparative approach in terms of what, when and how to compare. Theory here equals the propositions concerning the explanation of a relationship between politics in social reality and the societal developments that are (seen to be) affected by it. Method is then the most appropriate way to investigate the proposed relationships empirically. As we have stated before, comparing as such is one of the common tenets underlying much, if not all, research in the social sciences. Yet, one needs to realize all the time that this refers to the ‘logic’ of systematically finding answers to questions about the complexities of reality. This logic has a long history and was described by John Stuart Mill (1872) as the *methods of agreement and difference* (see also Janoski and Hicks, 1994: Chapter 1; Landman, 2003: Chapter 2). Comparison is then an instrument to verify or falsify relationships between two phenomena. Yet, here in this book we consider the logic as an integral part of the comparative approach by stressing the crucial importance of the link between the research question, on the one hand, and the research design, on the other. For this we need to reduce the complexity of reality and thus to control for variation – this is what the comparative method allows for.

As Sartori (1991: 244–5) stresses, we need to compare in order to control the observed units of variation or the variables that make up the theoretical relationship. In fact, what the researcher is attempting is to identify the necessary and sufficient conditions under which the relationship occurs in reality. This would entail the researcher assuming that all other things (or conditions) are