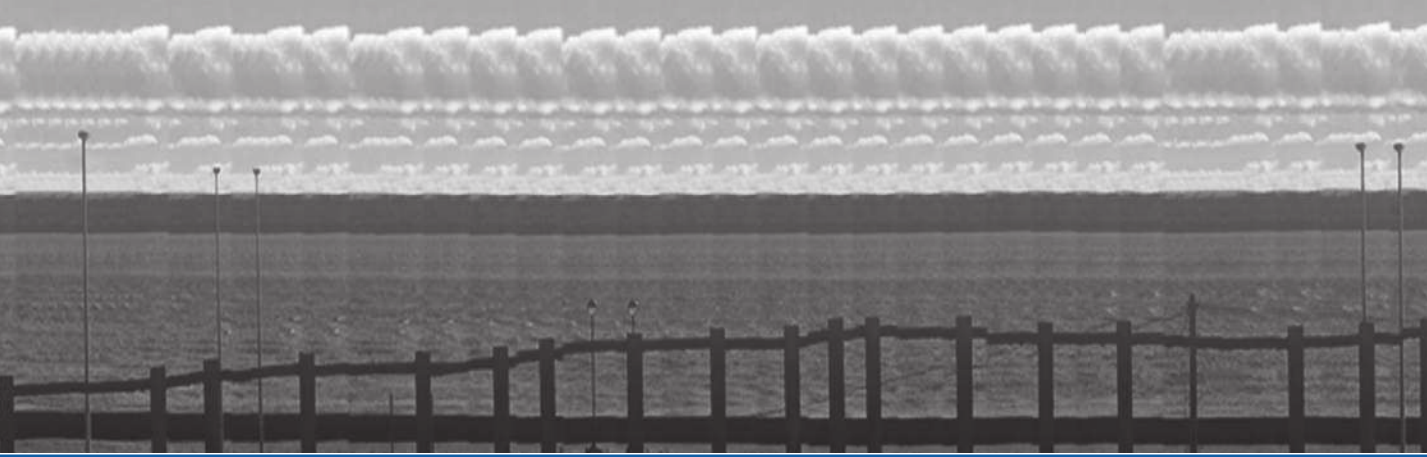
I Building Blocks

This part of the book is focused on fundamental elements of social science, elements that form building blocks for everything else. In Chapter 1, we lay out the rationale for a unified approach to our subject, social science methodology. In Chapter 2, we discuss social science arguments, with primary attention to descriptive and causal arguments. In Chapter 3, we turn to the topic of conceptualization and measurement. In Chapter 4, we discuss the generic features of empirical analysis.



1 A Unified Framework

The purpose of social science is to make a difference in the world by applying reason and evidence to problems of general concern. Every question of social science relates (or *ought* to relate) to normative concepts such as justice, democracy, human rights, prosperity, happiness, or equality.

What distinguishes **social science** from casual conversation, journalism, or political rhetoric may be summarized as follows. First, social science involves the systematic application of reason and evidence to problems with explicit attention to method and to possible sources of error. Second, social science is accompanied by realistic estimates of uncertainty with respect to whatever conclusions are drawn from the evidence. Third, social science attempts to provide a comprehensive treatment of a subject within whatever scope-conditions are defined by the study. All relevant information should be included; none should be arbitrarily excluded. Finally, social science adopts a disinterested posture with respect to all goals except the truth. Its purpose is to get as close to the truth as possible, in all its complexity, rather than to provoke, entertain, elucidate moral truths, or advance polemical claims.

These features render social science less stimulating than other media, where there is generally a premium on brevity, accessibility, provocation, righteousness, or humor. Social science is a sober profession. However, for those excited by the prospect of getting it right, and willing to expend some energy to get there, the practice of social science may be highly rewarding.

Consider the problem of *crime*, a topic that often evokes hot rhetoric and strong opinions. Most media reports and political speeches offer little useful information about the prevalence of crime, its sources, and its potential solutions. Instead, they exploit the public's fascination with gruesome events and, in the process, provoke fear. From this perspective, the cold gaze of social science offers some relief.

Researchers have spent a good deal of time studying the rise and fall of violent crime in the United States and elsewhere. In the early 1960s, the United States enjoyed a low homicide rate of 5 murders per 100,000 inhabitants. Over the next two decades this rate doubled – to 10 per 100,000 inhabitants – peaking in the late 1970s or early 1980s, at which point the United States could claim the highest rate of violent crime of any advanced industrial country. Subsequently, the crime wave began to fall, and it now rests approximately where it was in 1960.[3] What factors might explain this extraordinary rise and subsequent decline?[4] What impact did

the rise-and-fall of crime have on attitudes (e.g., toward immigrants and minorities) and on behavior (e.g., voting turnout and party affiliation)?

Those who study crime cross-nationally also rely on murder rates to measure overall crime. Although cross-national statistics are prone to error, the greatest over-performers and under-performers are evident. At present, the highest violent crime rates in the world are found in Belize, Côte d'Ivoire, El Salvador, Guatemala, Honduras, Jamaica, and Venezuela – where there are 38–96 murder victims per 100,000 inhabitants every year. By contrast, murder rates in 25 countries are equal to, or less than, one per 100,000. This is an extraordinary range of variation, and it is only partly a product of economic development. Note that the murder capitals identified above are by no means the poorest countries in the world, and many relatively poor countries have murder rates of less than three per 100,000 – including Algeria, Armenia, Azerbaijan, Bangladesh, Bhutan, China, Egypt, Fiji, Iran, Jordan, Maldives, Micronesia, Nepal, São Tomé, Tajikistan, Tonga, and Vanuatu.[5] Another fascinating puzzle.

These questions are causal. But if we probe a bit we will quickly encounter issues of conceptualization and measurement. How shall we define criminal activity? Is murder a useful proxy for crime in general? What distinguishes murder from politically motivated acts of violence such as those accompanying terrorism or civil insurrection? (Is the Oklahoma City bombing, which claimed the lives of 168 Americans in 1995, a multiple homicide, or an act of domestic terrorism?) How has the definition of crime changed over time? How does it differ across countries or across regions within a country? How is crime understood within different communities?

These are the sorts of questions social science aims to address, and they are highly consequential. Improvements in our understanding of crime should help us to design better criminal justice policies. Does community policing work? Does cleaning up visible manifestations of lawlessness in a neighborhood (e.g., fixing broken windows) affect the crime rate in that neighborhood? How effective are deterrents such as harsh jail sentences or capital punishment? How effective is the alternative approach based on rehabilitation of convicted criminals? Do features of our educational system affect the propensity of children to engage in criminal activity? Is crime rooted in socioeconomic deprivation? How is it affected by different social policies? Do different policy solutions work in different contexts, or for different sorts of criminal activity?

Those interested in questions like these should also be interested in social science **methodology**. The reason is that complex questions elicit debate among scholars. To understand this debate – to see why researchers agree and disagree and to make a determination about which is most believable – one needs to understand the nature of the theories and the evidence employed to evaluate theories and test related hypotheses.

Of course, most citizens and policymakers do not spend a great deal of time reading social science. Instead, they read journalistic accounts of social science research. There is surely nothing wrong with this. At the same time, one must bear

in mind that newspaper articles and blog postings rarely explain the sort of background considerations that would allow one to informatively choose among rival conclusions about the same subject. This is not their fault; it is a limitation of the genre. The attraction of journalism is that it offers a brief account of a complex subject, suitable for consumption over breakfast, in the car, or on the train. If one wishes to go deeper – to read the reports upon which journalistic accounts are based – one must have a passing knowledge of social science methodology. (One would hope that journalists who offer pithy summaries of social science work also possess that deeper knowledge.)

Methodology should not be confused with a mastery of facts. While the latter is important, it is by no means sufficient to a determination of truth. Indeed, when experts disagree it is rarely over the facts of a case. It is, rather, over how those facts should be interpreted. An understanding of methodology involves an understanding of the logic of inquiry, i.e., the way in which one reaches conclusions from a body of evidence. This is what an informed consumer of social science must have if she is to decipher social science work on a subject.

For those who aim to become *producers* of social science the importance of methodology is even more apparent. Anyone who is dissatisfied with the field of criminology as it now stands would do well to design their own study. And designing such a study will require considerable training in the wiles of methodology if the result is to add anything to our knowledge of this complex subject. Methodology thus lies at the heart of contemporary political debates, providing the set of tools by which we might tackle social problems in a rational fashion.

The Purpose of Unity

This book embraces a broad view of social science. It encompasses work that is primarily descriptive as well as work that is primarily causal. It encompasses work that is experimental (involving a randomized treatment) and observational (i.e., non-experimental). It encompasses quantitative and qualitative research. It encompasses a range of strategies of data collection, from standardized surveys to ethnography.

The book is also intended to encompass a wide range of disciplines, including anthropology, communications, criminal justice, economics (and subfields such as business, finance, and management), education, environmental policy, international development, law, political science, psychology, public health, public policy, social work, sociology, and urban planning. Although these fields focus on different substantive problems, the methods they employ – and the methodological obstacles they encounter – are quite similar. Indeed, there is almost as much methodological diversity *within* a single discipline such as anthropology, sociology, or political science as there is *across* these disciplines.

Of course, there are many ways to do good social science. Sometimes, it makes sense to combine diverse methods in a single study – a **multi-method** approach to

research (see Chapter 10). In any case, much depends on the nature of the evidence available and the nature of the question under investigation. It would be folly to propose a uniform method or theoretical framework for all of social science, or even for a single discipline. Methods pluralism is easy to justify. Indeed, it is impossible to avoid.

However, beneath the diversity of methods there is (or at least ought to be) a degree of methodological consensus.[6] Note that if standards of truth are understandable only within the context of specific fields or theoretical traditions there is no way to adjudicate among contending views. Each truth becomes entirely self-reflective. Thus, while it is reasonable to cultivate a diversity of tools, it is unreasonable to cultivate a diversity of methodological standards. A discovery in sociology ought to be understandable, and appraisable, by those who are not sociologists; otherwise, it cannot claim the status of truth. Nor will it be of much use to anyone outside of sociology.

Moreover, as a matter of good scholarship, writers in the social sciences ought to be able to converse with one another. Economists interested in political economy should be cognizant of – and should seek to incorporate, wherever possible – work in political science. And vice versa. Even arguments demand a common frame of reference. Without such shared ground they are merely statements of position. Here, science degenerates into a chorus of yeas and nays reminiscent of *Monty Python*'s "Argument Clinic" sketch.[7]

This is why the natural scope for the present volume is social science writ-large rather than a single field or subfield. Thinking about methodological topics in diverse settings forces us to think in new ways, to justify our choices on methodological grounds rather than on grounds of convenience or familiarity. It is not sufficient for sociologists to say that they do things in a certain way because that's what they have always done. Likewise for economists, political scientists, and the rest of our quarrelsome band.

Accordingly, this book aims to provide a framework that reaches across the social sciences, providing common ground for those engaged in diverse topics and diverse research methods. We have looked to uncover the shared norms that govern activity – implicitly or explicitly – in the community of social scientists. What makes a work of social science true, useful, or convincing ("scientific")? Why do we prefer one treatment of a subject over another? These are the sorts of ground-level judgments that define the activity of methodology. With these judgments, we hope to identify the threads that tie our methodological intuitions together into a relatively unified framework across the disciplines of social science.

Our approach centers on the identification of basic *tasks* of social science, *strategies* enlisted to achieve those tasks, and *criteria* associated with each task and strategy. These are laid out schematically in tables throughout the book.

Note that each task and criterion is viewed as a *matter of degree*. Achieving precision, for example, is not an either/or proposition. One tries to obtain as precise an estimate as possible, in full knowledge that there will always be some element of imprecision (variability). The same goes for other tasks and criteria.

Note also that the tasks, strategies, and criteria laid out in the subsequent pages are sometimes in conflict with one another. For example, theories aim for both precision and breadth; however, achieving one may involve sacrifices for the other. Methodological *tradeoffs* of this sort are ubiquitous. This means that every task, strategy, or criterion must be understood with a ceteris paribus caveat. Precision is desirable, all other things being equal.

Although a relative and multidimensional standard may seem rather open-ended, this does not imply that anything goes. It means that the researcher must search for the theory and research design that maximizes goodness along a set of (relatively fixed) dimensions, reconciling divergent demands wherever possible. The goodness of a theory or research design is therefore judged only by reference to all possible theories or research designs that have been devised, or might be devised, to address the same research question. Best means *best possible*.[8]

This allows for all sorts of theories and research designs to enter the social science pantheon without shame or disparagement – but only if no better expedient can be found. It supposes that studies with weak theories or evidence answer a very difficult question: could an argument or research design be improved upon? What is achievable, *under the circumstances*?

If a research ideal is entirely out of reach – by virtue of lack of data, lack of funding sources, lack of cooperation on the part of relevant authorities, or ethical considerations – it is pointless to admonish an author for failing to achieve it. Perfection becomes the enemy of scientific progress. We must guard against the possibility that work adding value to what we know about a subject might be rejected even when no better approach is forthcoming. Standards must be realistic.

If, on the other hand, a better approach to a given subject can be envisioned and the costs of implementation are not too great, a study that chooses not to utilize that demonstrably better approach is rightly criticized. We must guard against the possibility that second-best approaches will drive out first-best approaches simply because the former adopt easier or more familiar methods. Mediocrity should not be the enemy of excellence. This is what we mean by *best-possible, under the circumstances*.

Equally important is to embrace the uncertainty of our enterprise, honestly and forthrightly. Weaknesses in design and analysis should be openly acknowledged rather than hidden in footnotes or obscured in jargon and endless statistical tests. This is important not just as a matter of intellectual honesty but also for the long-run development of the social sciences. The cumulation of knowledge in a field depends more on methodological transparency than on "statistically significant" results.

Examples

The following chapters intersperse abstract methodological points with specific examples. While these examples vary, we draw repeatedly on three subjects that

have played a key role in contemporary social science and in recent methodological debates: **worker-training programs**, **social capital**, and **democracy**. Readers who are unfamiliar with this terrain may use the following sections to acquaint themselves with these subject areas – though we do not pretend to offer anything like a comprehensive review.

While each has its disciplinary home turf – economics, sociology, and political science, respectively – it should be appreciated that these disciplinary categories are increasingly fluid. Economists, sociologists, and political scientists have worked on all three issue-areas. And these subjects are also important for cognate fields such as business, education, public policy, and social work. In this sense, our exemplars encompass the far reaches of social science.

Readers should also be aware that the three topics exemplify very different kinds of social science work. The first embodies a specific causal intervention – participation in a worker-training program – that operates on an individual level. We utilize this example frequently because many methodological principles are easier to discuss at the individual level. The other two topics embrace broader and more diffuse social and political institutions that are usually understood to operate at a societal level.

Worker-Training Programs

Unemployment is a problem not only for those who find themselves without a job but also for society at large, which must bear the costs of supporting the unemployed (provided there are systems of relief, either private or public) and must bear the negative externalities brought on by unemployment (e.g., an increased tendency for criminal activity). The public policy question is how governments can best deal with this byproduct of capitalism.

One approach centers on worker-training programs. These programs enroll unemployed, or under-employed, persons with an attempt to boost their job-relevant skills. Programs may also seek to enhance morale and to educate participants in job-search strategies and workplace norms. Programs may be short in duration, or longer-term. They may be administered in conjunction with an apprenticeship. They may be accompanied by incentives for employers to participate. In short, there is great variety in the implementation of this category of social program directed at the unemployed.

The key question of interest is whether participation in such a program enhances a person's probability of finding a job or enhances their long-term earnings. Insofar as there may be such an effect, we wish to know why – that is, the mechanisms through which the causal effect operates. Is it because participants are more persistent in their search for work? Is it because they have better skills, better morale, or better workplace behavior? Is it because employers view participation in a program as a sign of motivation? Many explanations might be offered.

For present purposes, what bears emphasis are the methodological properties of this field of research. There is, first of all, a key concept – the worker-training program, which seems fairly clear in most settings but is actually rather blurry

around the edges. Does a one-day program focusing on advice for job-hunting qualify? How about a person who enlists government support to take classes at a community college? How about a program that emphasizes job placement with relatively little emphasis on training? There is, second, the hypothesis – that participation in such a program enhances employment and salary. There is, third, the theory, which concerns all the reasons that the hypothesis might be true (if indeed it is true).

Social Capital

Our second example, centering on the concept of social capital, is considerably more complex. We shall define social capital as the benefits that derive from social networks that extend beyond family and clan. Where networks are intensive and extensive, societies should experience higher trust, lower crime, better public health, better governance, and as a result of these first-stage benefits, stronger growth. Likewise, individuals with more extensive networks should experience greater benefits (e.g., more economic opportunities) than individuals with circumscribed networks.

Indicators of social capital include membership in voluntary associations (e.g., unions, fraternal and sororal organizations, neighborhood associations, and clubs) and political engagement (e.g., voter turnout). These may be explored separately or combined in a single index.

Some years ago, Robert Putnam discovered that many indicators of social capital in the United States showed a marked downturn beginning in the 1950s, suggesting a deep and far-reaching decline in social capital.[9] (Similar patterns were found in some other advanced industrial countries, though not quite to the same degree.[10]) This spurred a good deal of hand-wringing about the state of the union, along with many social science studies. Some of these studies showed a mixed picture – decline in some areas but not in others, or a redirection of activity from some areas to other areas.[11] Another interpretation is that the decline is real but largely a function of the extraordinary high level of social capital found among members of the "greatest generation" – those who came of age in the 1930s and 1940s. From this perspective, the postwar decline represents a return to a normal level of social capital. The controversy has been difficult to resolve because most of the available measures of social capital stretch back only to the mid-twentieth century; thus, we have only a vague sense of the level of social capital existing in the United States prior to the 1940s.

Another set of controversies concern the *causes* of this decline. Are they the product of a general disenchantment during the turbulent 1960s, the entry of women into the labor force (pulling them away from social networking activities), migration, suburbanization, increasing diversity, or changing technologies (especially television and the Internet)?

Still another set of controversies concern the possible *effects* of this decline. At first, the decline of social capital was linked to a rise in the crime rate. The rate of

violent crime began to decline in the 1990s, however, casting doubt on a possible link between social capital and crime. The decline of social capital may also be linked to social and political instability, though evidence of such effects is thin. A third sort of effect may be decreasing concern for others, as manifested in lower public support for welfare programs intended to help less privileged members of society. Finally, one may conjecture that declining social capital imperils the willingness of citizens to support government, as manifested in anti-tax crusades and declining faith in political institutions.

Leaving aside various controversies that attend the "decline of social capital" thesis, let us take a moment to consider the possible impact of social capital on governance and economic development more generally. Putnam's first book on the subject argued that differences in social capital between the northern and southern regions of Italy could account for differences in the quality of governance across the (well-governed) north and the (poorly-governed) south.[12] Specifically, where reciprocity-relationships were extensive and social trust was high this boosted the quality of government. Where social networks were limited to the extended family and social trust was low, as it seemed to be in the southern regions of Italy, it was difficult to establish effective government. This had repercussions for growth and that is why, Putnam reasoned, we see a prosperous north and a much less prosperous south. One can also hypothesize that there might be direct effects from social capital to growth.[13] For example, where networks are limited and trust is low, markets are more difficult to maintain, competition is likely to be limited, and transaction costs will be high. Indeed, scholars have argued that the strength or weakness of social capital is a key to long-term patterns of development around the world.[14]

In recent years, proponents of social capital have confronted the apparent fact that there are "good" and "bad" sorts of social capital. It is often noted that gangs are a voluntary network of individuals who prey on society. Likewise, neighborhood associations sometimes form in order to exclude social groups deemed threatening to the community. At the extreme, race riots may be understood as an expression of social capital. Indeed, Weimar Germany, which spawned the xenophobic ideology of Nazism, was a society rich in extra-familial social networks.[15] In response, theorists now distinguish between "bonding" and "bridging" social capital. The first relates to social networks among people who are similar to each other – ethnically, socioeconomically, and so forth. The second refers to social networks that reach across social divides. The claim is that these two types of social capital have divergent effects on a variety of outcomes. In this fashion, a significant modification of the original theory is introduced.

Of course, these matters are complicated. What we have offered above is a brief review of a large and complex literature. Our purpose is not to represent the entirety of these debates but merely to illustrate several key elements of social science argumentation. Note, first, the key concept, social capital, and various indicators that have been used to measure it. Note, second, the descriptive

hypothesis that social capital has declined in recent decades in the United States (and perhaps elsewhere). Note, finally, various hypotheses about the causes and effects of that decline and theoretical expectations about why (i.e., the mechanisms by which) social capital might lead to enhanced governance and economic development.

Democracy

Democracy refers generally to rule by the people. Below this level of abstraction, there is great debate about how to best define this key concept. Most definitions include the idea of electoral contestation. That is, in order to be considered democratic a polity must allow free and fair elections with a broad electorate; those elected must be allowed to take office; and elective bodies must not be constrained by unelective bodies such as a military tribunal or monarch. Additional attributes such as constraints on the exercise of power, civil liberty, political equality, deliberation, and full participation might also be included in a definition of this key concept.

There are a variety of cross-national indicators of democracy. However, most of these empirical measures focus on the electoral component of the concept, as set forth above. Most also regard democracy as a matter of degrees, stretching from autocracy (i.e., dictatorship, authoritarian rule) to full democracy. This includes the widely-used indices produced by Polity ("Polity2," a 21-point scale) and Freedom House ("Political Rights," a 7-point scale).[16]

Sometimes, however, it is important to divide up the world of polities into those that are (predominantly) autocratic and those that are (predominantly) democratic. The most widely employed binary indicator (0 = autocracy, 1 = democracy) is the Democracy–Dictatorship (DD) index developed by Adam Przeworski and colleagues.[17] Accordingly, a regime is a democracy if leaders are selected through contested elections. To operationalize this conception of democracy the authors identify four criteria:

1 The chief executive must be chosen by popular election or by a body that was itself popularly elected.
2 The legislature must be popularly elected.
3 There must be more than one party competing in the elections.
4 An alternation in power under electoral rules identical to the ones that brought the incumbent to office must have taken place.[18]

All four conditions must be satisfied in order for a polity to be considered democratic.

With respect to democracy, it is helpful to distinguish several sorts of research questions. First, what is the empirical pattern of democratization throughout the world? Samuel Huntington discerns three democratic "waves" in the contemporary era – the first beginning in the early nineteenth century, the second after the