EXPLAINING SOCIAL BEHAVIOR

《《《

More Nuts and Bolts
for the Social Sciences

JON ELSTER
COLLÈGE DE FRANCE

CAMBRIDGE
UNIVERSITY PRESS

For Jonathan and Joanna

sources of causal hypotheses. We would be cutting ourselves off from many insights if we ignored the mechanisms suggested by philosophy, fiction, plays, and poetry. If we neglect twenty-five centuries of reflection about mind, action, and interaction in favor of the last one hundred years or the last ten, we do so at our peril and our loss. I cite these authors not so much to appeal to their authority as to make the case that it is worth one's while to read widely rather than narrowly. In direct opposition to what I perceive as the relentless professionalization of (especially American) social science, which discourages students from learning foreign languages and reading old books, the present volume is an extended plea for a more comprehensive approach to the study of society.

(((

In preparing the manuscript I received assistance and comments from many people. I should first thank my students at Columbia University for their incisive questioning and comments in the course where I first presented the material that turned into this book. Suggestions from Pablo Kalmanovitz were particularly useful. In Collioure, Aanund Hylland and Ole-Jørgen Skog spent three days with me discussing a draft of the whole book. In Oslo, Hylland, Karl O. Moene, and John Roemer continued the discussion over a day and a half. Their comments not only saved me from many (many!) errors but also suggested how I could supplement and consolidate the exposition. I am grateful to Roemer in particular for urging me to write a conclusion. I received written comments on the whole manuscript from Diego Gambetta, Raj Saah, and an anonymous reviewer. Gambetta's comments were particularly detailed and helpful. I had useful conversations with Walter Mischel about the ideas – largely originating with him – presented in Chapter 10. I also received valuable written comments from George Ainslie on the ideas – many of them raised by him – presented in Part I of the book. Bernard Manin commented constructively on Chapter 25. Robyn Dawes offered incisive comments on Chapter 7 and Chapter 12. Finally, over the several last years I have presented drafts of chapters for this book to the

members of the "Monday group" that has met weekly in New York City each fall and more occasionally in the spring since 1995: John Ferejohn, Raquel Fernandez, Russell Hardin, Stephen Holmes, Steven Lukes, Bernard Manin, Pasquale Pasquino, Adam Przeworski, and John Roemer. I thank them all for their friendly and constructive objections.

I dedicate the book to Jonathan and Joanna Cole – they will know why.

(((

I cite Montaigne's *Essays* from the translation by M. Screech (London: Penguin, 1971); Proust from the new translation edited by C. Prendergast (London: Penguin, 2003); Pascal's *Pensées* from the translation by A. J. Krailsheimer (London: Penguin, 1995); La Rochefoucauld's *Maxims* from the translation by L. Tancock (London: Penguin, 1981); La Bruyère's *Characters* from the translation by H. van Laun (New York: Scribner, 1885); Stendhal's *On Love* from the translation by G. Sale, S. Sale, and J. Stewart (London: Penguin, 1975); and Tocqueville's *Democracy in America* from the new translation by A. Goldhammer (New York: Library of America, 2004). Other translations from French are mine.

(((

III ⟵ Lessons from the Natural Sciences

- Why are parents much more likely to kill adopted children and stepchildren than to kill their biological children?

- Why is sibling incest so rare, given the temptations and opportunities?

- Why do people invest their money in projects undertaken by other agents even when the latter are free to keep all the profits for themselves?

- Why do people take revenge at some material cost to them and with no material benefits?

- Why do people jump to conclusions beyond what is warranted by the evidence?

IV ⟵ Interaction

- Why do supporters of a Socialist party sometimes vote Communist and thereby prevent their party from winning?

- Why do some newly independent countries adopt as their official language that of their former imperialist oppressor?

- Why are ice cream stalls often located beside each other in the middle of the beach, when customers would be better off and the sellers no worse off with a more spread-out location?

- Why does an individual vote in elections when his or her vote is virtually certain to have no effect on the outcome?

- Why are economically successful individuals in modern Western societies usually slimmer than the average person?

- Why do people refrain from transactions that could make everybody better off, as when they abstain from asking a person in the front of a bus queue whether he is willing to sell his place?

- Why did President Nixon try to present himself to the Soviets as being prone to irrational behavior?

- Why do military commanders sometimes burn their bridges (or their ships)?

- Why do people often attach great importance to intrinsically insignificant matters of etiquette?

- Why do passengers tip taxi drivers and customers tip waiters even when visiting a foreign city to which they do not expect to return?

- Why do firms invest in large inventories even when they do not anticipate any interruption of production?

- Why, in a group of students, would each think that others have understood an obscure text better than he has?

- Why are votes in many political assemblies taken by roll call?

- Why is logrolling more frequent in ordinary legislatures than in constituent assemblies?

Suggested explanations for these phenomena will be provided at various places in the book and briefly summarized in the Conclusion. Here I only want to make a general remark about two types of explanation that are *not* likely to be useful. As readers will see in the very first chapter, with several reminders along the road, one of the aims of the book is to inculcate skepticism toward two common lines of reasoning. First, with very few exceptions the social sciences cannot rely on functional explanation, which accounts for actions or behavioral patterns by citing their consequences rather than their causes. Do norms of tipping exist because it is more efficient to have customers monitor waiters than to have the owner do it? I do not think so. Second, I now believe that rational-choice theory has less explanatory power than I used to think. Do real people act on the calculations that make up many pages of mathematical appendixes in leading journals? I do not think so.

On three counts at least, rational-choice theory is nevertheless a valuable part of the toolbox. If understood in a qualitative commonsense

way, it is capable of explaining much everyday behavior. Even when it does not explain much, it can have immense conceptual value. Game theory, in particular, has illuminated the structure of social interaction in ways that go far beyond the insights achieved in earlier centuries. Finally, human beings *want* to be rational. The desire to have sufficient reasons for one's behavior, and not simply be the plaything of psychic forces acting "behind one's back," provides a permanent counterforce to the many irrationality-generating mechanisms that I survey in this book.

Even though I am critical of many rational-choice explanations, I believe the concept of *choice* is fundamental. In the book I consider several alternatives to choice-based explanation and conclude that although they may sometimes usefully supplement that approach, they cannot replace it. The fact that people act under different *constraints*, for instance, can often explain a great deal of variation in behavior. Also, in some cases one may argue that *selection of agents* rather than *choice by agents* is responsible for the behavior we observe. By and large, however, I believe that the subjective factor of choice has greater explanatory power than the objective factors of constraints and selection. This is obviously an intuition that cannot be proved in any rigorous sense, and in any case social scientists ought to have room for all the factors in their toolbox.

<p align="center">⟨⟨⟨</p>

I

EXPLANATION AND MECHANISMS

<p align="center">⟿</p>

This book relies on a specific view about explanation in the social sciences. Although not primarily a work of philosophy of social science, it draws upon and advocates certain methodological ideas about how to explain social phenomena. In the first three chapters, these ideas are set out explicitly. In the rest of the book they mostly form part of the implicit background, although from time to time, notably in Chapters 14 through 17 and in the Conclusion, they return to the center of the stage.

I argue that all explanation is causal. To explain a phenomenon (an *explanandum*) is to cite an earlier phenomenon (the *explanans*) that caused it. When advocating causal explanation, I do not intend to exclude the possibility of intentional explanation of behavior. Intentions can serve as causes. A particular variety of intentional explanation is *rational-choice explanation*, which will be extensively discussed in later chapters. Many intentional explanations, however, rest on the assumption that agents are, in one way or another, *irrational*. In itself, irrationality is just a negative or residual idea, everything that is not rational. For the idea to have any explanatory purchase, we need to appeal to specific forms of irrationality with specific implications for behavior. In Chapter 12, for instance, I enumerate and illustrate eleven mechanisms that can generate irrational behavior.

Sometimes, scientists explain phenomena by their *consequences* rather than by their causes. They might say, for instance, that blood feuds are explained by the fact that they keep populations down at sustainable levels. This might seem a metaphysical impossibility: how can the

3. *The lawn-mowing paradox.* In a small suburban community, Mr. H. mows his own lawn. His neighbor's son would mow it for twelve dollars. He would not mow his neighbor's same-sized lawn for twenty dollars.

4. *The Christmas club puzzle.* In this system, customers deposit a monthly sum at low or no interest, which they can only withdraw at Christmas. The option of earning normal interest and costless withdrawal at will is also open to them.

5. *The credit card paradox.* When credit cards were introduced, the credit card lobby preferred that any difference between cash and credit card customers be labeled as a cash discount rather than as a credit card surcharge. Although the two descriptions are logically equivalent, consumers were more likely to use the cards if the difference was described as a cash discount.

6. *Two gamblers' fallacies.* If red has come up five times in a row, about one-half of gamblers believe that it is more than 50 percent likely to come up black next time. The other half believes it is less than 50 percent likely to come up black.

7. *The sunk-cost fallacy.* "To terminate a project in which $1.1 billion has been invested represents an unconscionable mishandling of taxpayers' dollars" (Senator Denton, November 4 1981). This fallacy is also sometimes referred to as "the Concorde fallacy," after the costly Anglo-French Concorde airplane project, or "the Vietnam fallacy," after the U.S. reluctance to disengage from Vietnam. If you buy tickets for an event and heavy snowfall makes it burdensome to get there, you might still go even though you would have refused the tickets had they been offered to you free.

8. *The dentist puzzle.* On March 1 I make an appointment with the dentist for April 1. On March 30 I call her to say that because of a (fictitious) funeral in the family I cannot keep it. Except for the sheer passage of time, no change has occurred in the interval. In particular, the pain from toothache is the same.

9. *Best- and worst-case scenarios.* Cancer patients in late stages often overestimate their chance of survival. Rather than palliative therapy to relieve their pain, they choose aggressive and painful chemotherapy with few benefits. When asked how much they would pay to reduce the likelihood of a low-probability disaster, people are willing to pay as much to have it reduced to one chance in 1 million as to have it reduced to one chance in 10 million.

10. *The equity premium puzzle.* Historically, the yield on stocks is vastly higher than the yield on bonds. A person who invested one dollar in stocks on January 1, 1928, would on January 1, 1998, have a portfolio worth eighteen hundred dollars, Somebody who invested a dollar in bonds would have a portfolio worth fifteen dollars. The puzzle is why this discrepancy has not led to a rise in the value of stocks to bring the return on stocks closer to the return on bonds.

11. *Effect of irrelevant alternatives.* If each of two options A and B is superior to the other along one of two relevant dimensions, people may find it hard to choose and instead decide to gather more information about the options. If a third option C, which is (1) inferior to A along both dimensions and (2) inferior to B on one dimension and superior on another, is introduced, there is a tendency to choose A without further search.

12. *The cold-water puzzle.* In an experiment, subjects who were led to believe that the length of time they could hold their arms in painfully cold water was the best indicator of longevity held their arms in the water longer than those not given this (false) information.

13. *The certainty effect* (Chapter 7). In experiments, a majority prefer to win a one-week tour of England with certainty to a 50 percent chance of winning a three-week tour of England, France, and Italy, but a majority also prefer a 5 percent chance of the second option to a 10 percent chance of the first.

14. *The disjunction effect.* If subjects in an experiment expect to win in a future gamble and are asked whether they will agree to take part in a further gamble, they tend to say yes. If they expect to lose, they are likely to state the same intention, If they do not know whether they will win or lose, they are less likely to do so. The same effect is observed in one-shot Prisoner's Dilemmas: a person is more likely to cooperate if he knows that the other cooperated than if he knows he defected, and – this is the disjunction effect – *even more likely* to cooperate if he is ignorant of the other's choice.

15. *The Winner's Curse.* In this experiment, subjects are asked to bid for a piece of land and told that the seller knows its exact value, whereas they know only that the value falls within a certain range, with all numerical values in that range equally likely. Buyers are also told that if they acquire the piece of land, it will be worth 50 percent more to