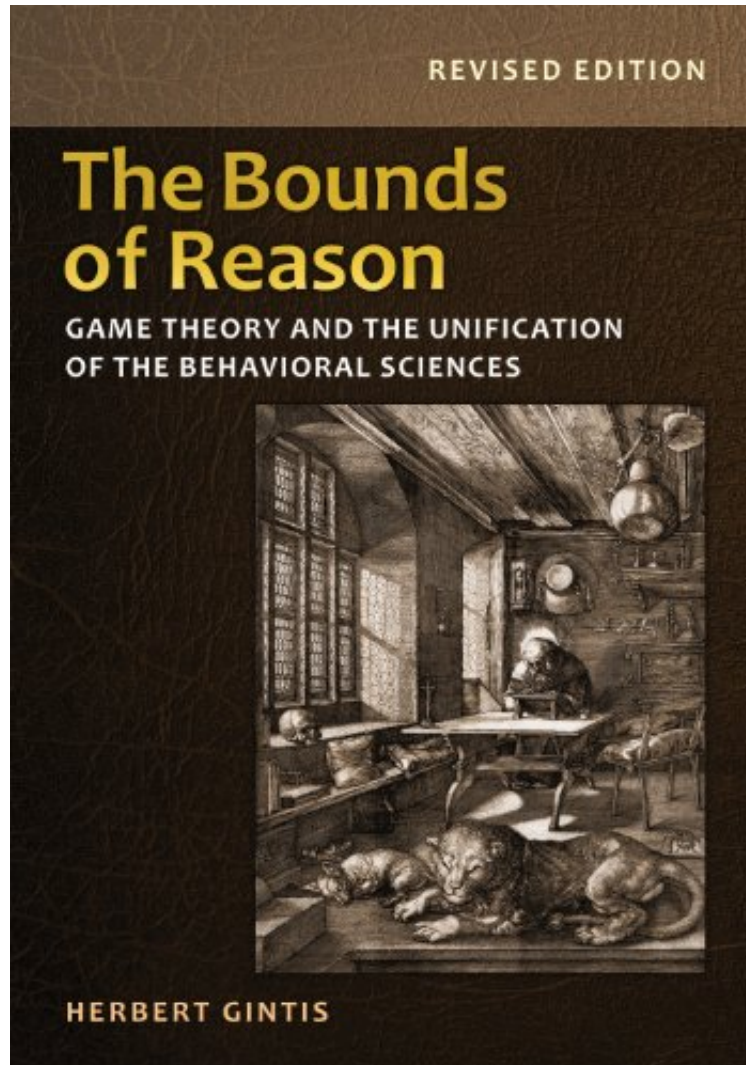


The Bounds of Reason: Game Theory and the Unification of the Behavioral Sciences

Herbert Gintis

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Herbert Gintis : The Bounds of Reason: Game Theory and the Unification of the Behavioral Sciences before purchasing it in order to gage whether or not it would be worth my time, and all praised The Bounds of Reason: Game Theory and the Unification of the Behavioral Sciences:

9 of 10 people found the following review helpful. Every economist should read this beautiful book!By Daniel O. CajueiroThis book aims at investigating whether some assumptions behind decision making models are valid. In order to do that Professor Gintis introduces several assumptions that support mainstream game theory and analyzes the bounds of these assumptions.It is worth mentioning that it is not necessary to know game theory or decision theory to read the book. However, I believe that if one is acquainted with them, then the reading is more pleasant.One

interesting point is that the book calls a special attention to the so-called correlated equilibriums that is not very popular in economic theory and the justification for that is very suitable. The main idea is that the equilibrium correlation concept is able to provide a mechanism (a kind of convention or social norm) to coordinate different players who are indifferent among some strategies. In fact, this book presents so many interesting issues that it is difficult to present all of them here. Among them, one may find well posed critiques to some assumptions used in mainstream economics, recent results of experimental economics, an interesting view of the above mentioned correlated equilibrium, an introduction to game theory, several examples of game theory, an agenda for unifying behavioral sciences (such as economics, biology, anthropology, sociology, psychology and political science) and so on....

0 of 4 people found the following review helpful. nice goods. ThanksBy WhitesheepPrompt delivery, nice goods. Thanks.53 of 54 people found the following review helpful. Great ideas for unification, that may fail to unify.By JJ vd Weele

This book departs from a very good set of questions: How can it be that several different behavioral sciences - sociology, social psychology, economics, biology - all study human social behavior, yet have vastly different conceptual frameworks? And perhaps more importantly: is there a way to unify these frameworks? Professor Herbert Gintis is uniquely qualified to tackle these questions: as any reader of his book reviews can see, he is very widely read in all the social sciences, and much of his own research is interdisciplinary. Gintis proposes that game theory - a mathematical framework for analyzing strategic interactions between individuals - can play the role of unifying framework for the social sciences. The first half of the book is dedicated to explaining the basic concepts of game theory, and how it applies to basic issues in human social behavior. The second half of the book is dedicated to connecting game theory to the sociological concept of a social norm. A central point in Gintis' argument is the concept of correlated equilibrium. A correlated equilibrium augments the well-known Nash equilibrium by adding a correlating device. A correlating device - or choreographer as Gintis' calls it - essentially is a random variable with the distribution over the set of strategy profiles. The correlating device selects a strategy profile (one strategy for each player) and tells each player what to do according to this strategy profile. If it is optimal for each player to follow the advice of the choreographer given her beliefs about what the choreographer advised the other players, a correlating equilibrium exist. As an example of this one can think of a traffic light. When the traffic light tells you to drive, it is optimal to do so, because you know the traffic light simultaneously tells other people to hold still. Thus, the traffic light coordinates the actions on the intersection. Gintis maintains that the correlating equilibrium is a better candidate to provide the technical underpinnings of the concept of a social norm than the Nash equilibrium. Gintis argues that the social norm functions as a correlating device, which assigns a particular action to everyone engaged in interaction. Actions are in equilibrium when it is in everybody's interest to follow the social norm if they expect others to do so. The reason that the correlated equilibrium is more suited to describe a social norm than the Nash equilibrium lies in the conditions that underly both concepts. While the Nash equilibrium relies on the assumption that all players in the game have correct expectations about the actions of all the other players, the correlated equilibrium merely requires that people share a common prior belief about the actions recommended by the correlating device. If the correlating device is a social norm, these prior beliefs are induced by indicators that activate the social norm. How such prior belief can come to be shared is the subject of an entire chapter. Professor Gintis should be praised for his commitment to methodological unification. Especially worthwhile in this respect is the last chapter, where he proposes several concepts that could form the shared theoretical background in all the social sciences. He also submits some sensible proposals, such as the use of the correlating equilibrium, and the comments on methodological individualism are provoking and stimulating. However, for several reasons I fear that the book will have limited influence in actually bringing together scientific disciplines. First, its organization is at times mysterious, and never argued for. The connections between the chapters are often unclear. There are some parts that will not interest most readers, like the extensive treatment of certain paradoxes in epistemic game theory. This relates to the second problem: the book is rather technical in its exposition. This will make it hard for anyone who is not steeped in mathematics or does not already know game theory. And anyone who has taken the trouble to learn game theory up to the technical level that is required to read Gintis' book will probably be already convinced of its usefulness. Third, the book is lacking in good examples. Although the argument surrounding the correlated equilibrium is connected loosely to a story about flagging taxis, this raises more questions than it answers. For someone who want to convince sociologists that game theory can be connected to basic sociological ideas like norm following and role theories, this is a rather serious omission. Finally, there are some harsh dismissals of alternative methodologies in the social sciences which, although I tend to find them reasonable, are bound to bruise some egos. Altogether, it is hard to escape the impression that this is a book for game theorists, by a game theorist, which is puzzling given its stated aim. In short, a stimulating and impressive book with sensible ideas. Unfortunately, I fear it lacks the didactic sensitivity to reach across scientific disciplines, and thereby does not quite fulfill its lofty aim.

Game theory is central to understanding human behavior and relevant to all of the behavioral sciences—;from biology and economics, to anthropology and political science. However, as *The Bounds of Reason* demonstrates, game theory alone cannot fully explain human behavior and should instead complement other key concepts championed by

the behavioral disciplines. Herbert Gintis shows that just as game theory without broader social theory is merely technical bravado, so social theory without game theory is a handicapped enterprise. This edition has been thoroughly revised and updated. Reinventing game theory, *The Bounds of Reason* offers innovative thinking for the behavioral sciences.

"The *Bounds of Reason* appears as two books in one. One part develops an epistemic theory of the rational actor as an alternative to what is provided by classical game theory, and the other part is a spirited plea to use behavioral game theory as a unifying tool in all behavioral sciences. Both objectives are highly valuable, but combining them both creates friction. Friction creates heat, and Gintis, who thrives gleefully on controversial issues, may be enjoying the prospect of heated discussions."--Karl Sigmund, *American Scientist*"The book is a combination of an excellent textbook on game theory and an innovation treatise advocating the unification of the behavioural sciences and refounding of game theory on different epistemic foundations. . . . It is clearly an important contribution to the current debate over the rational actor model that the rise of behavioural economics has provoked."--*Oxonomics*"Gintis' work reflects an amazing breadth of knowledge of the behavioural sciences. He is ever ready to pose unusual questions and to defend unorthodox proposals. *The Bounds of Reason* is Gintis' most ambitious project to date, one that draws upon all of his extraordinary originality and learning."--Peter Vanderschraaf, *Journal of Economics and Philosophy*"This is a lucid, intelligent and very important book. . . . [T]his book is highly recommended for its boldness, scope, technical clarity and intellectual stimulation."--Geoffrey M. Hodgson, *Journal of Bioeconomics*From the Back Cover"Gintis contributes importantly to a new insight gaining ascendancy: economy is about the unintended consequences of human sociality. This book is firmly in the revolutionary tradition of David Hume (Convention) and Adam Smith (Sympathy)."--Vernon L. Smith, Nobel Prize-winning economist"Herbert Gintis makes a strong case that game theory--by predicting social norms--provides an essential tool for understanding human social behavior. More provocatively, Gintis suggests that humans have a genetic tendency to follow social norms even when it is to their disadvantage. These claims will be controversial--but they make for fascinating reading."--Eric S. Maskin, Nobel Laureate in Economics"Recent findings in experimental economics have highlighted the need for a rigorous analytical theory of choice and strategic interaction for the social sciences that captures the unexpectedly wide variety of observed behaviors. In this exciting book, Gintis convincingly argues that an empirically informed game-theoretic approach goes a long way toward achieving this attractive goal."--Ernst Fehr, University of Zurich"This brave and sweeping book deserves to be widely and carefully read."--Adam Brandenburger, New York University"The *Bounds of Reason* makes a compelling case for game theory but at the same time warns readers that there is life beyond game theory and that all social science cannot be understood by this method alone. This splendid book makes skillful use of figures and algebra, and reads like a charm."--Kaushik Basu, Cornell University"Excellent and stimulating, *The Bounds of Reason* is broad enough to encompass the central concepts and results in game theory, but discerning enough to omit peripheral developments. The book illustrates deep theoretical results using simple and entertaining examples, makes extensive use of agent-based models and simulation methods, and discusses thorny methodological issues with unusual clarity."--Rajiv Sethi, Barnard College, Columbia UniversityAbout the AuthorHerbert Gintis holds faculty positions at the Santa Fe Institute, Central European University, and University of Siena. He is the author of *Game Theory Evolving* (Princeton) and the coeditor of numerous books, including *Moral Sentiments and Material Interests*, *Unequal Chances* (Princeton), and *Foundations of Human Sociality*.