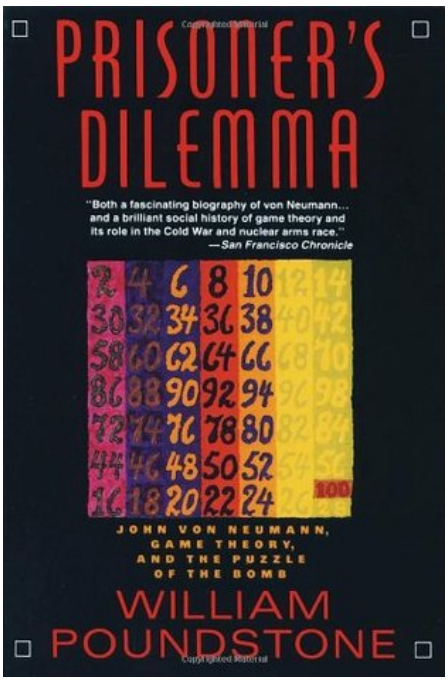


# Prisoner's Dilemma

*William Poundstone , John von Neumann (Based On Work by)*

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**Prisoner's Dilemma** William Poundstone , John von Neumann (Based On Work by)
Should you watch public television without pledging?...Exceed the posted speed limit?...Hop a subway turnstile without paying? These questions illustrate the so-called "prisoner's dilemma, " a social puzzle that we all face every day. Though the answers may seem simple, their profound implications make the prisoner's dilemma one of the great unifying concepts of science, an idea that has influenced leaders across the political spectrum and informed our views of conflicts ranging from the Cuban missile crisis to the Persian Gulf War. Watching players bluff in a poker game inspired John von Neumann--father of the modern computer and one of the sharpest minds of the century--to construct game theory, a mathematical study of conflict and deception. Game theory was readily embraced at the RAND Corporation, the archetypical think tank charged with formulating military strategy for the atomic age, and in 1950 two RAND scientists made a momentous discovery. Called the "prisoner's dilemma, " it is a disturbing and mind-bending game where two or more people may betray the common good for individual gain. Introduced shortly after the Soviet Union acquired the atomic bomb, the prisoner's dilemma quickly became a popular allegory of the nuclear arms race. Intellectuals such as von Neumann and Bertrand Russell joined military and political leaders in rallying to the "preventive war" movement, which advocated a nuclear first strike against the Soviet Union. Though the Truman administration rejected preventive war the United States entered into an arms race with the Soviets and game theory developed into a controversial tool of public policy--alternately accused of justifying arms races and touted as th only hope of preventing them. A masterful work of science writing, Prisoner's Dilemma weaves together a biography of the brilliant and tragic von Neumann, a history of pivotal phases of the cold war, and an investigation of game theory's far-reaching influence on public policy t

## Prisoner's Dilemma Details

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| Date | : | Published January 1st 1993 by Anchor (first published 1992) |
| ISBN | : | 9780385415804 |
| Author | : | William Poundstone , John von Neumann (Based On Work by) |
| Format | : | Paperback 320 pages |
| Genre | : | Nonfiction, Science, Mathematics, Economics, History, Philosophy, Psychology |

# From Reader Review Prisoner's Dilemma for online ebook

## Brian D. Mann says

### Much more a history

The book is a history of von Niewman and how game theory was used than a book about what game theory is and can be used.

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## Jessica says

Great book filled with fun facts that really color Neumann's life and the history of the Cold War from a game theory point of view.

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## Ron says

William Poundstone's "Prisoner's Dilemma" is a strange hybrid of a book. Not that history and pop science haven't ever been mixed together before. On the contrary, "Goedel, Escher, Bach" is a classic of the genre. GEB was also grossly misunderstood and people overlooked the history of AI (which was incredible) because of the relatively technical discussions involving formal logic and "TNT".

Poundstone seems determined not to suffer a similar fate. "Prisoner's Dilemma" tackles the fairly popular, yet grossly misunderstood, technical subject of game theory. Poundstone's treatment of the topic is excellent. Poundstone, a writer with a techincal background, knows how to explain to the layman without being condescending. The exposition is clear and of interest to anybody.

Poundstone spins case studies to which anyone can relate. One dilemma, the "Stag Hunt", concerns, say, two boys who agree to get silly haircuts for graduation. One or both of the boys may chicken out for whatever reason (parents, etc.), and may not warn each other. What should each boy do? This dilemma reminded me of my summer at Milton Academy in high school, when 3 of us tall, skinny kids with big noses and curly, black hair agreed to pull a "switcheroo" at our graduation ceremony. I chickened out, although I warned the others. Still, the fact that a dilemma such as that had been studied by the likes of RAND made me howl.

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## Tom says

Great book. It attempts to "package" a particularly interesting branch of mathematics (game theory) around the life-story of its creator - John von Neumann. Unfortunately, the final chapters are clearly weaker than the rest of the book.

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## Charles says

Should be required reading for all people active in geopolitical decision making

Simultaneously one of the most over and underrated areas of mathematics, game theory has many applications in the behavioral sciences. The classic example of this is illustrated by the problem known as the prisoner’s dilemma. Each arrested person must make a decision as to whether they should keep silent or confess and implicate both of them based on how they think the other person will act. Both gain the most by silence, but the worst possible outcome is to keep silent when the other talks. With applications in politics all the way up to the consideration of nuclear war, the problem is fascinating.
The treatment here is a combination of a biography of John von Neumann and a description of the (mis)uses of game theory. Clearly, the most interesting items are the descriptions of strategies advocating a “preventive” nuclear war in the late 1940’s. The end result of such a conflict would have been a world where the United States was overwhelmingly dominant and Washington D. C. would have been the de facto capital of a “world” government. As amazing as it sounds, there were people who rationally argued for such an action, Bertrand Russell being one of the most outspoken. Such positions continued to be argued until both sides developed a reliable second strike capability, which solidified the nuclear balance of terror. One of the most interesting what-if scenarios that once can imagine, a nuclear preventive war would make an exciting science fiction story.
John von Neumann clearly ranks as one of the most talented people of all time. Arguably the best mathematician ever, one of the original computer scientists, fluent in many languages and knowledgeable in many areas, his accomplishments are truly awesome. At one point he was one of the most powerful people in the world, influencing decisions affecting the lives of everyone on the planet. All of this is explained in a very readable style as very little mathematics is used in the descriptions.
This book should be required reading for all who rise to positions where national security decisions are made. It could also be used as a text for many courses in political and behavioral sciences. Even mathematicians will find it useful.

Published in “Mathematics and Computer Education,” reprinted with permission and this review also appears on Amazon.

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## Hesam says

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### Jessica says

Fantastic and extremely accessible intro game theory. Although I found the portions on von Neumann’s personal history less interesting, it was helpful to know the world in which game theory evolved. Many games are covered in the book beyond the prisoner’s dilemma (stag hunt, the dollar auction, tit for tat, etc), all followed by discussions on how they relate to military, economics, advertising, and even biology. One of the top two books I’ve read this year.

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### Dox Thanh says

Cu?n sách khá hay v? s? mâu thu?n d?n t?i hi?n tranh l?nh th? gi?i nh? hi?n t?i. Tuy nhiên, cu?n sách nói quá nhi?u v? l?ch s? nên ??c nhi?u thông tin th?c s? không c?n thi?t.

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### Steven says

Read this a bunch of times. If you find game theory fascinating it's the kind of book you can pick up and start reading and then find a hour or more has gone by.

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### Anh V? says

Cu?n sách v? ch? ?? Lý thuy?t trò ch?i (Game Theory) và v? m?t trong nh?ng th? l??ng nan n?i ti?ng c?a LTTT: Th? l??ng nan c?a ng??i tù. Mình ??c quy?n sách này sau khi xem gameshow Golden Balls. Cu?n sách vi?t v? l?ch s? ra ??i c?a LTTT, cu?c ??i c?a John von Neumann - cha ?? c?a LTTT, và các th? l??ng nan (Dilemma) c?a LTTT. Mình th?y ??c c?ng ?n, tuy nhiên c?m th?y ch? y?u là ?? hi?u thêm v? l?ch s? c?a LTTT, còn v? tính ?ng d?ng c?a LTTT trong cu?c s?ng, thì ?úng là ko nhi?u :D

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### Brett says

This book is three intertwined story lines, all separate, but related. The first is a short biography of John von Neumann, the founder of game theory. The second is a layman's explanation of game theory, with many examples of various games, their properties, and how they might be applied to real life. The third is a history of the middle of the 20th Century in relation to the atomic bomb, specifically the arms race between the USA and USSR that gave us the huge stockpile of hydrogen bombs and mutually assured destruction.

Poundstone does a good job of keeping the book fresh by switching between the various narratives, although occasionally the pieces don't fit together quite well. Dr. Neumann's life sometimes interrupts the bomb history only to be followed by the game theory discussion, leaving the reader holding a lot in his head. But in the end, I feel I have a much better understanding of what game theory is all about and why it is important. This is probably the best compliment any layman's science book can receive.

### Chris says

More of a biography than I thought it was going to be, it's really three books in one... part bio, part examination of Game Theory, and part history book....

Decent read despite being pulled in those directions. Neumann was a fascinating man. Very neat to get some insight into the minds of that time... especially Bertrand Russel of all people.

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### Ramin says

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### Roberts says

I picked this up in Long Beach when I was living there from Oct 1991-Mar 1992. Very good.

### Kevin Gross says

Quite a good book on the basics and history of game theory. The book also provides a biography of John von Neumann, albeit largely limited to his roots in Hungary and his contributions to game theory, not mentioning much about his other endeavors. Very readable and well paced, dragging only a bit in its extended ruminations on Prisoner's Dilemma and other games.

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### Mugizi Rwebangira says

Best intro to game theory ever!

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### Valerie says

My next book, continuing my quest to misunderstand nuclear physics. Word of the day mamihlapinatapai. Meaning "looking at each other hoping that either will offer to do something that both parties desire but are unwilling to do."

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### Greg says

When is a math book not a math book? How about when it's a biography, or a history of the early Cold War years? Clocking in at 278 pages, this book is sort of three books in one. It's kind of a look at Game Theory. Sometimes it's a biography of John Von Neumann, and then at other times it's a primer about early Cold War paranoia and the beginning of the arms race.

All three are pretty interesting subjects, and they are intertwined in ways that are fairly obvious (or at least fairly obvious if one reads the dust jacket), but unlike real brand Oreo's with their carefully calculated ratio of filling to cookie, this book is more like a cheap store brand that is skimpy on the filling and all about the cookie. That's fine, but it's not really a good proportion.

Problem one. (Spoiler?) John Von Neumann dies. It's inevitable, we all die. Historically he's dead. As the writer though he didn't need to kill off the central narrative strand of the book about sixty pages before the end. Once Von Neumann died it was like the book came to a slow halt, everything else after it felt like filer, even if it wasn't, it just felt like an after-thought, or like something Minor Threat would condone filling your head with (sorry, had to go with the Minor Threat / Filer reference). What follows Von Neumann's death is some explanations of different games, and maybe some Cold War stuff, but I kind of lost interest at this point (although the games are fun to read about, lots of little tricks you can pull on greedy friends if one was so inclined.)

Problem two. I don't know much about math, and reading this book I don't know anything more about math.

I kind of wanted to learn a little something about Game Theory here, but in a nice and easy to understand way that someone who got a D+ in his third quarter of high school algebra could understand. I got a tiny bit of math that someone who got A's in a couple of statistics classes in college could have easily figured out for himself, but nothing math-ish except for descriptions of the games in a narrative form. I don't know what I expected actually. I guess I was a little disheartened to find out I knew most of these games already, and more of the math behind them from watching a few seasons of *Numb3rs*, and could usually even remember which episode's Charlie would enlighten some member of the FBI about a particular game strategy and how it would help them capture a bad person.

Problem three. This is like problem one. Douglas Hofstader and Richard Powers are masters at running three parallel narratives at once and pulling them in and out of each other as their books progress. If you're going to do three narrative threads it should be as neat and tidy as they do it. This book doesn't, and once again I'm disappointed because the three narrative thread structure is one that I love. To be teased with this structure and then see it unravel until only one lone thread is left without a satisfying 'brining it all together' makes me sad.

Problems aside the book was a nice read, but not exactly what I wanted the book to be. I'll just have to go back to watching more *Numb3rs* to learn my higher math concepts for the mathematically retarded.

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### Richard says

This was a curiously fractured book. Those moderately rare folks expecting the subject to stay close to the title will be surprised: although Poundstone does spend quite a bit of time and text explaining the Prisoner's Dilemma (the archetypal game theoretic problem), this is almost as much a biography of the scientist John Von Neumann.

The nexus is the cold war fascination with the PD as a mechanism for strategic analysis of the arms race. Unfortunately, game theory was seized upon as a means of understanding long before academia (economics, mathematicians, philosophers, political scientists) actually understood what the games had to tell us in the abstract, thus horribly warping what we thought we could learn about interacting with the enemy. (Specifically, early examiners hadn't yet seen how *iterated* games radically changed the strategies and tactics of play.)

For most folks, Poundstone's book is weaker for the confusion. The tale isn't told well enough to draw the reader in, so only those who arrive already interested in each of the topic areas examined will tolerate the union.

Despite its somewhat more abstract presentation, anyone truly interested in the Prisoner's Dilemma would be better off tackling the seminal *The Evolution of Cooperation* by Robert Axelrod.

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