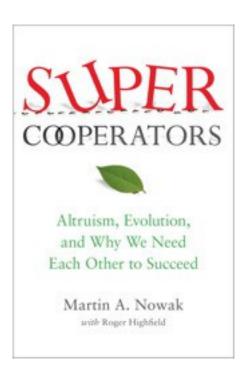
# SuperCooperators



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著者:Martin Nowak

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EVOLUTION IS OFTEN PRESENTED AS A STRICTLY COMPETITIVE ENDEAVOR. This point of view has had serious implications for the way we see the mechanics of both science and culture. But scientists have long wondered how societies could have evolved without some measure of cooperation. And if there was cooperation involved, how could it have arisen from nature "red in tooth and claw"?

Martin Nowak, one of the world's experts on evolution and game theory, working here with bestselling science writer Roger Highfield, turns an important aspect of evolutionary theory on its head to explain why cooperation, not competition, has always been the key to the evolution of complexity. He offers a new explanation for the

origin of life and a new theory for the origins of language, biology's second greatest information revolution after the emergence of genes. SuperCooperators also brings to light his game-changing work on disease. Cancer is fundamentally a failure of the body's cells to cooperate, Nowak has discovered, but organs are cleverly designed to foster cooperation, and he explains how this new understanding can be used in novel cancer treatments.

Nowak and Highfield examine the phenomena of reciprocity, reputation, and reward, explaining how selfless behavior arises naturally from competition; how forgiveness, generosity, and kindness have a mathematical rationale; how companies can be better designed to promote cooperation; and how there is remarkable overlap between the recipe for cooperation that arises from quantitative analysis and the codes of conduct seen in major religions, such as the Golden Rule.

In his first book written for a wide audience, this hugely influential scientist explains his cutting-edge research into the mysteries of cooperation, from the rise of multicellular life to Good Samaritans. With wit and clarity, Nowak and Highfield make the case that cooperation, not competition, is the defining human trait. SuperCooperators will expand our understanding of evolution and provoke debate for years to come.

### 作者介绍:

MARTIN A. NOWAK is Professor of Biology and Mathematics at Harvard University. He is Director of the Program for Evolutionary Dynamics, for which Harvard obtained a donation of \$30 million. Nowak studied biochemistry and mathematics at the University of Vienna where he received his Ph-D summa-cum-laude in 1989. Afterwards, he went to Oxford to work with Robert May (Lord May of Oxford). Nowak became Professor of Mathematical Biology at the University of Oxford at the age of 32. In 1998 he moved to Princeton to establish the first center in Theoretical Biology at the Institute for Advanced Study. In July 2003, Nowak was recruited by Harvard University as a full professor.

Nowak has won many prizes and has revolutionized the mathematical approach to biology. He has discovered fundamental principles of evolutionary dynamics according to which life unfolds. Nowak has made important contributions to the understanding of virus infections and cancer. He has pioneered the mathematical theory for the evolution of human language and altruistic behavior. Nowak has invented concepts like indirect reciprocity, network reciprocity, evolutionary graph theory, stochastic game dynamics, generous tit-for-tat, and win-stay, lose-shift. He is the author of over 30 papers in Nature, Science and Scientific American. In total, Nowak has published around 300 papers. Nowak is generally considered the world's foremost authority on evolutionary game theory.

Supercooperators will be Nowak's first book for a general audience.

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ROGER HIGHFIELD, Ph.D. (Co-Writer) studied for his doctorate at Oxford University and the Institut Laue-Langevin, Grenoble. He is Editor of New Scientist magazine, which is now the world's biggest selling weekly science and technology magazine. Prior to joining New Scientist, he was the award-winning Science Editor of The Daily Telegraph, where he worked for more than 20 years.

He has written/coauthored six popular science books, two of which have been bestsellers, including After Dolly, The Science of Harry Potter, The Physics of Christmas, The Private Lives of Albert Einstein, and Frontiers of Complexity. All of which have been translated into foreign editions.

His most recent work was as the outside editor on genomic researcher J. Craig Venter's autobiography, A Life Decoded, published in November, 2007 (Viking, US; Allen Lane, UK).

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# 标签 社会学 生物学 行为学 科普 博弈论 博弈 society-social-sci

## 评论

Amazing book for mass reading-1.A brief intro. linking together subjects he has done via the threads of evolution concept and mathematical tools (esp.system

dynamics,game theory);2.Main idea to convey is the existence and function of genetic mutation, multi molecular/cellular selection, human being's competition and cooperation in societal network
 何等的引人入胜!
 好书
书评
《超级合作者》是一本怎样的书,应该划归哪一类,我是有些困惑的。汪丁丁说,行为经济学的基本问题可表述为"合作何以可能",又让我突然一喜:合作不就是行为经济学的主题吗?我们身边的哪件事情不与合作有关呢? 《超级合作者》的作者叫马丁·诺瓦克。我喜欢诺瓦克,无
Professor: Does Altruism Require Consciousness? I: I agree with you that consciousness seems needed. But: 1. We cannot say that consciousness is exclusively defining property of human species, rather than of any other species (e.g., single cell bacteria)

夷长技以制夷",到80年代后期再一次启蒙,都是希望以先进的科技和管理方式实现富国强兵,以图"驱除鞑虏、
The author is an applied mathematician with special interest in biology. The book is a summarized introduction of evolutionary cooperation for mass reading. The contents link together various subjects (e.g., prolife, cells, cancer, language, punishment vs
一句话概括:跨越空间与时间的永恒博弈——合作或竞争。读后感: 囚徒困境是一个强大的数学隐喻。 一开始,我看到作者郑重其事的讲起囚徒困境,觉得不以为然,因为那个概念就是在非学术界都广为人知,这么做不是小看读者们么?但我越看到后面,我越觉得自己根本不了解我以为我
1只要做的好就坚持,否则就换。2高龄蚂蚁从事高危职业。3 全球蚂蚁重量和全球人口一般重,存在了一亿年.3 全球蚂蚁超过除人类之外陆脊椎动物总重,超过所有昆虫总重一半还多4 真社会性组织只有15种。裸鼢鼠是脊椎动物另一个唯一.5 真社会性:只有一个巢,雌性不分巢.6穷
得到听书: 首先讲到的第一个问题是,有哪几种机制可以催生自然界中的合作行为?诺瓦克通过把数学和生物学结合起来,并且借助计算机进行模拟后提出,自然选择可以通过直接互惠、间接互惠、空间博弈、群体选择和亲缘选择,这5种机制,来把竞争转换为合作。接下来的第二个问题是

REFERENCES AND FURTHER READING [Chapter 0]: The Prisoner's Dilemma References Ackermann, M., B. Stecher, N. E. Freed, P. Songhet, W. D. Hardt, and M. Doebeli. 2008. Self-destructive cooperation mediated by phenotypic noise. Nature 454: 987–90. Antal, T., ...

这本书让我吃了一大惊。"合作"还是"背叛",好比"价值观"。 "价值观"对企业而言是战略级问题,而战略级之上,有一个超战略级问题:适者生存问题。这个问题必须像作者那样,站在更高的生物进化视角,才能看到。 适者生存最好的策略是"赢定输移",它能打赢所有其他策略...

遗传突变和自然选择,是我们熟知的进化原则,而诺瓦克提出:合作是进化的第三原则。如果按进化论物竞天择,自然界应该只有竞争,但现实恰恰相反,自然界不仅有竞争,合作也很普遍。小到一个生物体内不同细胞的合作、大到不同物种间的合作。对于个体而言,背叛是有利的,是什么...

原本以为这是一本偏重方法论的书,读了才发现,作者结合多种学科知识,用大量实验数据和理论相结合,提出直接互惠、间接互惠、空间博弈、群体选择和亲缘选择这5种机制都可以促使自然选择把竞争转化成合作。相对于合作的可实践性,作者更偏向合作的自然选择性,或是说合作的必然…

读完列夫·托尔斯泰的《战争与和平》,我没有羞愧。他是个文学家,文学家就是跟卢梭一样,遇到了一个问题,就到森林里去冥思苦想,终于想出一个理由再出来。读完洛克的《政府论》,我没有羞愧。他还处于科学尚未到来的旧时代,虽然他没有像霍布斯、休谟这些耳聪目明的人已经注...

马丁·诺瓦克是研究进化生物学首屈一指的数学家。他在合作和利他方面所作出的突出贡献,为现代生物学开辟了一个最重要的新领域。 从生物学、数学、社会学、计算机科学等多学科角度出发,深入剖析并阐述了生物之间 "合作"得以达成的五种机制——直接互惠、间接互惠、空间博弈…

汪丁丁说过行为经济学的核心议题就是"合作何以可能?",哈佛大学教授马丁·诺瓦克代表作《超级合作者》便是研究人类合作的五种机制: 1、直接互惠直接互惠用通俗预言讲就是,我给你挠背,你也会给我挠。直接互惠促成人类合作的原理是通过重复博弈中的"争锋相对"最优策...

无语了,这也就学术!从头到尾印象最深的就是作者在大吹牛逼 用数学解决合作问题是作者极力吹牛逼的地方,遗憾的是你从来不会在书中找到这方面的有效办法,哪怕是让人信服的一点点。 用书里的一句话很恰当: 结论就像从魔术师帽子里跳出的兔子

朋友推荐了一本好书,《超级合作者》,很难归类。看书名像是管理学,作者是生物学 教授,描述的是生物学结论,内容却是人类行为学,很多概念却源自经济学,内行看门道,外行看热闹,观点很新颖,例子很有趣,逻辑很清晰,理论不深奥,所以我这外行 还觉得蛮有意思的。...

作者喜欢马勒的第三交响曲和第八交响曲,嘿嘿。一般来说这种博弈理论相关的书籍相对比较枯燥,而且这本科普著作涵盖很广,计算机科学,生物学,社会学,数学等等等等,作者能写成这样实属不易,书里不少自述人生经历的片段,比如漫步奥地利小村 庄求灵感都提到了好几次,类似...

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