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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Title; Copyright; Dedication; Contents; Preface; Acknowledgments; How to Use This Book; A Word to the Educator; Chapter 1: Introduction: A Grammar of Public Health Behavior; A Universal Grammar of Conditional-Interaction Rules; An Evolutionary Spatial Game Approach; Networks of Shared Conditions; Mental Conditional Interaction; The Power of Repetition in the Evolution of Thought and Behavior; Implications for Measurement of Behavior; Applications to Assessing Need and Planning Need Satisfaction; Chapter 2: Primer on Emergent Collective Behavior: Tolerance and Segregation; Board Game NetLogo CodeFind a Local Partner and Interact; Interact With All Neighbors, Then Select Locally Fittest; Imitate Local Majority; Microbial Cooperation; Local Versus Nonlocal; Plotting the Long-Term Results; Neighborhood Segregation; Segregation Board Game; Networks of Shared Conditions; Programming Segregation in NetLogo; Chapter 3: The Infection-Protection Game and the Evolution of Cooperation; The Dilemma of Public Health as Collective Condition; A Model of Shared Local Health; Two Forms of Protecting: Shielding and Containing; Selection

Islands of Cooperative Protection and Inroads of Exploitation
Deterministic Dynamics and Chaos; Invasion of Infected-Defectors; Invasion of Infected-Protectors; Contact Interface; Adding Incentive for Joint Protection and Individual Health; Stochastic Dynamics; Comparison of Select Locally Fittest Decisions with Decisions Based on Calculation of Individual Risk; Summary of Quantitative and Qualitative Results and Implications for Prediction; Implications for Health Behavioral Cooperation; Infection-Protection Board Games
Chapter 4: Public Health Behavior as Conditional Interaction in Evolutionary Games
Conditional Probability of Benefits and Costs; Conditional-Interaction Effects on Benefits and Costs; Behavioral Interaction Between Pairs of Individuals in Games; The "Food Trust Game" and "Food Dictator Game"; Design of the Food Trust Game; Design of the Food Dictator Game; Results of Food Trust Game; Results of the Food Dictator Game; Responses to Open-Ended Questions; First- and Second-Order Costs and Benefits; Cognitive Resources as Second-Order Cost Consideration
Collectively Emerging and Socially Imposed Costs and Benefits
Social Preferences; Working With One's Self Versus With Others; Simple Rules and Evolution; Interaction Between Collectives; Structured Versus Unstructured Collectives; Evolutionarily Stable Solutions; Symmetry and Simultaneity Versus Stochastic and Sequential; The Edge of Chaos;
Chapter 5: Thresholds, Metastability, and Behavioral Avalanches; Sand-Quake as Behavioral Threshold and Imitation; Power-Law Distributions; Public Health as Metastability; Chapter 6: Networks of Conditional Interaction; Button Connecting Exercise
Simulation to Illustrate Network Properties

Sommario/riassunto

This graduate text is the first to present methods for modeling health behavior dynamics, using numerous online interactive simulations, downloadable programs, and examples of applications to planning interventions. The book examines behaviors that range from simple individual health protective actions to complex cooperative public health actions. It provides a user-friendly and effective method for teaching systems thinking, a core competency now required by the Association of Schools of Public Health. The text presents evolutionary and ecological models of health behavior, which readers first
