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Nota di contenuto	Computational Approaches to Studying the Co-evolution of Networks and Behavior in Social Dilemmas; Contents; Preface; 1 Introduction; 1.1 Social dilemmas and social networks; 1.1.1 Cooperation and social networks; 1.1.2 Coordination and social networks; 1.2 Dynamic networks, co-evolution, and research questions; 1.3 Social networks and social dilemmas between sociology and economics; 1.4 Approach: Models, simulation, and empirical tests; 1.4.1 Theoretical models; 1.4.2 Empirical approach; 1.5 Description of the remaining chapters; References 2 Consent or conflict: Co-evolution of coordination and networks*2.1 Introduction; 2.1.1 Polarization, conflict, and coordination; 2.1.2 Coordination and social networks; 2.2 The model; 2.3 Stable states; 2.4 Simulation design; 2.5 Simulation results; 2.5.1 Predicting stable states I: Polarization; 2.5.2 Predicting stable states II: Efficiency; 2.6 Conclusions and discussion; References; 3 Cooperation and reputation in dynamic networks*; 3.1 Introduction; 3.1.1 Cooperation and network effects; 3.1.2 The case for network dynamics; 3.1.3 Learning in networks 3.1.4 Related theoretical literature 3.2 The model; 3.2.1 Formalization

of the problem; 3.2.2 Individual strategies; 3.2.3 Reputation; 3.2.4 Network decisions; 3.2.5 Convergence; 3.3 Analysis of the model; 3.3.1 Dynamics of behavior with two actors; 3.3.2 Stable states in fixed networks; 3.3.3 Stable states in dynamic networks; 3.4 Setup of the simulation; 3.4.1 Dependent variables; 3.4.2 Parameters of the simulation; 3.4.3 Initial conditions of the simulation; 3.4.4 Convergence of the simulation; 3.5 Simulation results; 3.5.1 Results for fixed networks; 3.5.2 Results for dynamic networks  
3.6 Conclusions and discussion References; 4 Co-evolution of conventions and networks: An experimental study\*; 4.1 Introduction; 4.1.1 Coordination, conventions, and networks; 4.1.2 An experimental approach; 4.2 Model and simulation; 4.2.1 The model; 4.2.2 Analytic results; 4.2.3 Simulation; 4.2.4 Overview of micro-level and macro-level hypotheses; 4.3 Experimental design; 4.4 Results; 4.4.1 Macro-level results; 4.4.2 Individual behavior I: Decisions in the coordination game; 4.4.3 Individual behavior II: Linking decisions; 4.5 Conclusions and discussion; References  
5 Alcohol use among adolescents as a coordination problem in a dynamic network\*5.1 Introduction; 5.1.1 Coordination, influence, and alcohol use; 5.1.2 Approaches to the study of selection and influence; 5.2 Predictions; 5.3 Data; 5.3.1 Data collection; 5.3.2 Variables and measures; 5.4 Methods of analysis; 5.5 Results; 5.5.1 Descriptive results; 5.5.2 Multilevel regression using combined network measures; 5.5.3 Multilevel regression using non-reciprocated friendship ties; 5.5.4 Additional analyses; 5.6 Conclusions; References; 6 Conclusions; 6.1 Summary of the findings  
6.2 Theory, computer simulation, and empirical tests

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## Sommario/riassunto

"Computational Approaches to Studying the Co-evolution of Networks and Behaviour in Social Dilemmas shows students, researchers, and professionals how to use computation methods, rather than mathematical analysis, to answer research questions for an easier, more productive method of testing their models. Illustrations of general methodology are provided and explore how computer simulation is used to bridge the gap between formal theoretical models and empirical applications. An accompanying website supports the text"--

"This book looks at an alternative approach to studying co-evolution of social networks and behaviour in social dilemmas that relies less on mathematical analysis, and instead uses computation methods to answer research questions"--

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