Interaction

Reading for Class #14: Monday, Oct 06, 2025

Contents

Reading:

Required Reading (everyone):

- Agent-Based and Individual-Based Modeling, Ch. 13.

Optional Extra Reading:

- Modeling Social Behavior, Ch. 6–7, 9.

Reading Notes:

The optional reading from *Modeling Social Behavior* may be interesting. Chapters 6–7 apply agent-based modeling to game-theory and chapter 9 looks into social networks among agents in detail.

Chapter 6 focuses on a class of strategic games, such as the Prisoner's Dilemma, in which the players do better when they cooperate with each other, but the game gives each player has a strong temptation to betray their partner. The chapter investigates a rich line of research, which shows that there may be reasons for natural selection to favor cooperation, so people may have evolved to be mostly trustworthy and cooperative.

Chapoter 7 focuses on coordination: The Prisoner's Dilemma game in chapter 6 looked at people who interact with a small number of neighbors, whom they can get to know well from experience. This chapter looks at coordination among large numbers of people, where there is no opportunity to develop that kind of deep knowledge of your neighbors' character and trustworthiness.

Chapter 9 presents more detail about social networks and the use of NetLogo links. The main reading from *Railsback & Grimm* covers the basics of links, but this chapter discusses the different kinds of social networks (different topologies) that can form using those links.