

Exercises

- *When in Rome.* Adapt the first model of symmetric coordination so that, instead of success-biased social learning, an agent observes several other agents and adopts whichever norm is more common among those observed. Does this assumption of conformity change any of your conclusions about either which norm will spread or how quickly it will do so? Consider how quickly norms spread as a function of the number of agents being observed at a time.
- *Changing norms is hard.* Consider the emergence of a more group beneficial norm b in a population where most people use norm a . This second norm confers a lower benefit than would norm b if it were common, but all norms do poorly when they are rare. Perform simulations in which a proportion p of the population begin to employ norm b . How large does p have to be for norm b to spread? Do your results track our calculation of p^* ?
- *Group, there it is.* Now consider our group-structured model, in which one group uses inferior norm a and the other group uses superior norm b . Let each individual observe a member of the other group with probability m . Show that sufficient out-group contact can facilitate the spread of group-beneficial norms, and that the amount of contact needed varies with the costs and benefits of each norm.