Game theory results and review

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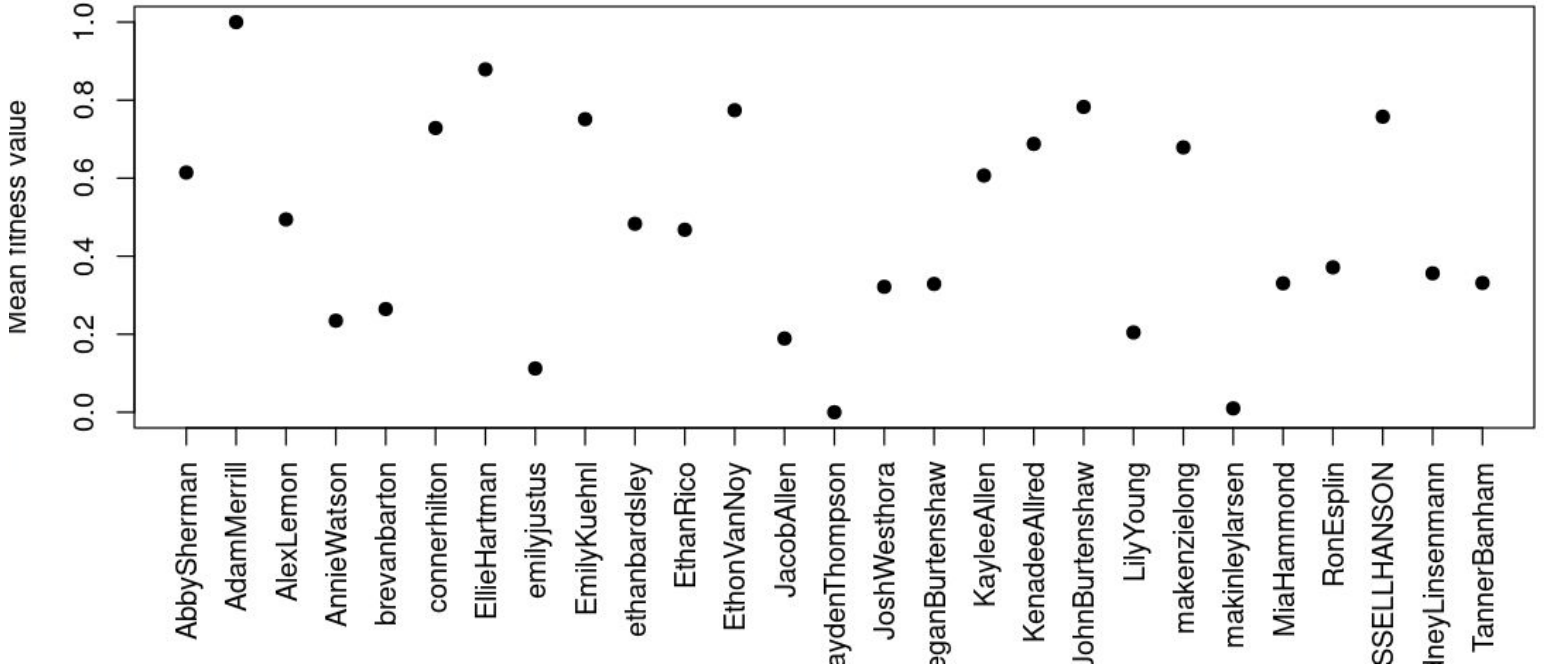
Today's outline

1. Programming Project 2 results
2. Midterm info and Coding quiz 3
3. Review exercise, then time for Programming Proj

Programming project 2 results



What strategies did well?

1. Starting off by building trust
2. Clear, predictable patterns that reprimand defection and praise cooperation
3. (Sometimes) very rare, random defections for extra resources

What strategies didn't work as well?

1. Starting off with defection, caused other models to distrust
2. Randomness/not using enough of the opponent's game information
    a. Made it hard to make predictions that would maximize resources
    b. Opponents less likely to cooperate
3. Might have made it hard to steal from, but they were also hard to work with

How does this apply to biological systems?

Think back to why we did this exercise in the first place, what was this supposed to show the evolution of? What strategies seem evolutionarily beneficial here? Talk among your group for a few minutes.

Midterm info

- No class next week, just work on the midterm
- Material from Weeks 1 to 6
- Could include anything from the biological topics we've covered (WF evolution) to basic coding problems (plots)
- Be sure to study all materials from the class. Notes, slides, handouts, etc.
- Open book, will likely require some coding
- No ChatGPT, discussing among peers, etc.

How to prepare

- Practice, practice, practice
  - Go through our past coding problems and try to do them again
  - Swirl package in R (as mentioned)
  - Ask ChatGPT for example problems
  - Try out online tutorials for tasks you still want practice in (eg. plotting, indexing)

How to prepare

- Define what you do/don't understand
  - While testing yourself on past material, write down ANYTHING you don't know. If you can't figure it out, go back to the material before it, etc.
  - Flashcards for memorizing specific rules (rbinom vs qbinom vs pbinom, indexing lists)

How to prepare

- Reach out to me. Canvas messenger, email, office hours, etc.
  - I’m more than happy to help you through certain topics if you’ve tried on your own and are still having trouble, it’s what I’m here for!

Group exercise

- Take 5-10 minutes to look back at our material and to find specific things you need to work on
- When you're done, make a shared document with your group, discuss what you all need to work on and add these items to your documents as a bulleted list
- Then, go through as a group and fill in the material that should include those topics for further study.

Group exercise

Use the rest of class to get started on this as a group, or to work on Programming Project 3