



SOCIAL DISTANCING MECHANISM

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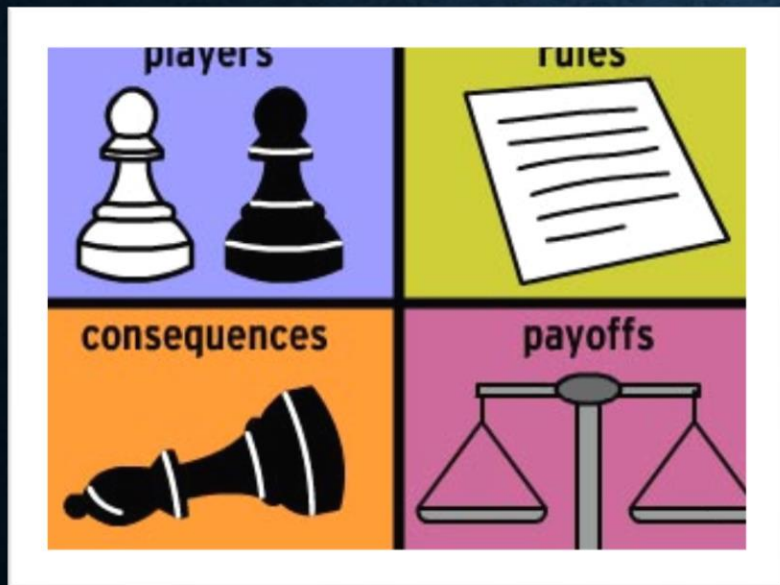
GOAL

- How Game Theory can relate to Coronavirus
- What strategies we can use based on this theory to limit spread yet return to normalcy



WHAT IS GAME THEORY?

- Strategic interaction
- I'll choose my best response, based on
What response you'll choose, based on
What I'll choose, based on
What you'll choose...



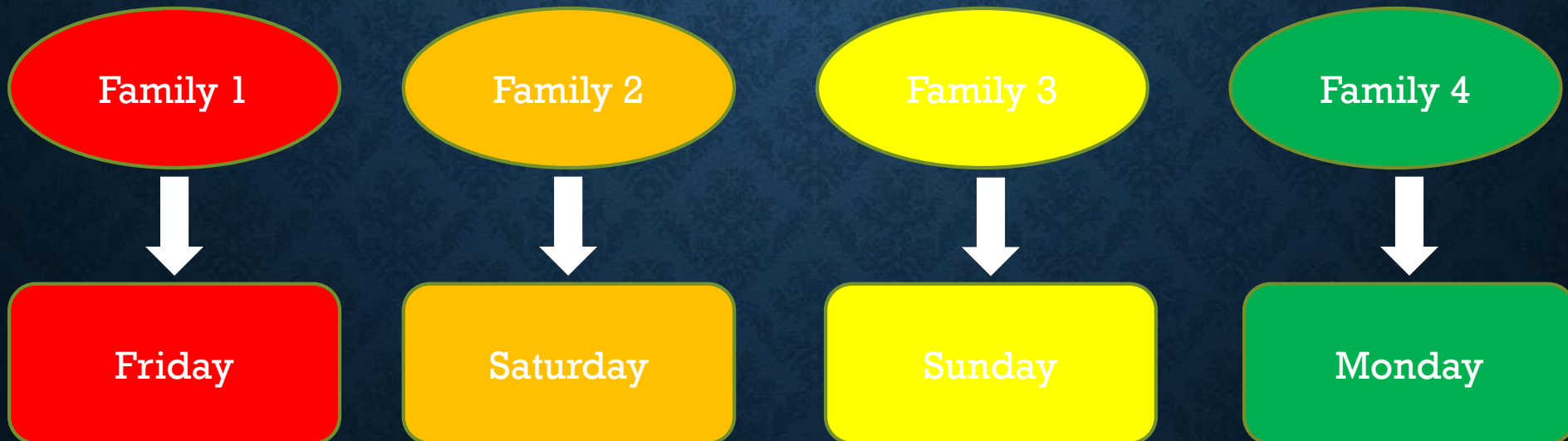
CORONAVIRUS AS A GAME

- The game takes place on a social network graph
- Players: People and the virus
 - Human Strategy: Stay healthy *and* happy
Selfish optimal may involve cheating
 - Altruistic Strategy: Limit spread of virus
 - Virus “Strategy”: Spread to as many people as possible (adversarial model)



COLOR CODING/NUMBER SYSTEM

- Strategy: partition population into groups to limit spread of virus
- Grocery Store Shopping → Certain groups can go certain days (avoid crowds & spread)



SCHOOL DAY SYSTEM

Team 1

- Attend school classes in person on odd days (1,3,5)
- Zoom classes on even days (2,4,6)
- Team zooms for 2 weeks if anyone gets virus

Team 2

- Attend school classes in person on even days (2,4,6)
- Zoom classes on odd days (1,3,5)
- Team zooms for 2 weeks if anyone gets virus

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