

444 Lecture 15

O'Connor Chapter 1

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3/7/23

Day Plan

Gender Division

Types

Complementary and Correlative Games

Norms and Conventions

Hawk-Dove

Notes

Genders in Society

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- The ubiquity of gender divisions in societies is really remarkable.
- What other things are this ubiquitous?
- Definitely language use, which is itself remarkable.
- And some age-related divisions, though with more variable manifestations.
- Language is the closest thing to gender; we see it in all societies, but the way we see it varies.

Other Divisions

Obviously there are other divisions we see in societies.

- Race

Other Divisions

Obviously there are other divisions we see in societies.

- Race
- Religion

Other Divisions

Obviously there are other divisions we see in societies.

- Race
- Religion
- Class

Other Divisions

But note two things about these other divisions.

1. Not nearly as ubiquitous.

Other Divisions

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1. Not nearly as ubiquitous.
2. They complement gender, not replace.

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Games with Types

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Games with Types

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- One is games where each player has a full awareness of the identity of who they are playing with, and can plan strategies that discriminate among these other players.
- At the other end is where a player just has to pick a strategy in complete ignorance of who the other player is.
- With types we get in between; you don't know who the other player is, but you know they are of type t .

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|---|------|------|
| A | 0, 0 | 1, 1 |
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- The only symmetric equilibrium is that we both play the mixed strategy half-A/half-B, with a return of 0.5.

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- Now imagine that we will first be assigned type-A or type-B, with probability 0.5 for each, and that types will be visible.

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- This will be called a **population equilibrium** in chapter 2, and we'll return to it.

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A Correlative Game

| | Bach | Stravinsky |
|------------|------|------------|
| Bach | 2, 1 | 0, 0 |
| Stravinsky | 0, 0 | 1, 2 |

A Complementary Game

| | Favorite | Other |
|----------|----------|-------|
| Favorite | 0, 0 | 2, 1 |
| Other | 1, 2 | 0, 0 |

The Same Game?

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- Not necessarily; depending on how we set the game up.

What makes something a move

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- The player must be physically capable of performing the move.
- But they must also be capable of performing it under that description.

What makes something a move

- Question: Can I call up Barack Obama?

What makes something a move

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- Positive answer: it's just a matter of dialing the right number, and I have the dexterity to hit the numbers.

What makes something a move

- Negative answer: I don't know his phone number!

What makes something a move

- Negative answer: I don't know his phone number!
- We're working with a system where the negative answer is the right one; which seems very natural.

Correlative and Complementary

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Correlative and Complementary

- Lewis: Correlative vs Complementary is just a matter of relabelling, it doesn't reflect a deep difference.
- O'Connor: That relabelling might convert things that the player can do under that very description into things they cannot do under that description.

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Norms and Conventions

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- Conventions are things where everyone goes along because they'd expect to do worse as long as everyone else is following the convention.
- Norms are things where everyone goes along because they'd expect to do worse as long as everyone else is endorsing the norm.
- These seem really similar.

Norms and Conventions

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- Roughly, social norms are where one expects to do worse because of punishment behavior by others.
- Conventions are where you do worse because of a failure to coordinate. The restaurant won't punish me for knocking on the door at 3 in the morning to see if they are open, they just won't open up. (Because they aren't there!)

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Examples of Norms and Conventions

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- There is an intermediate case - where we internalise the convention, and violating it generates *guilt*.
- This should probably go with the punishment - not all punishments are by others.

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- When I talked last week about whether some games were Prisoners' Dilemma or Stag Hunt, there was a third option, Hawk-Dove.
- And maybe that's the right model for some cases we discussed.

What is Hawk-Dove

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Everyone wants to be the only defector.

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What is Hawk-Dove

1. Everyone wants the other person to be Dove; that's the cooperative move.
2. If everyone is a Hawk, it's a disaster. It's even worse than in PD.
3. But if everyone is a Dove, it's better to defect and play Hawk. That's like PD and unlike SH.

Everyone wants to be the only defector.

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Simple Models

- We will come back to Hawk-Dove in chapter 2, so we'll talk about it more then.
- But for now it's good to have simple models in mind.
- Don't think *This coordination problem isn't PD, so must be SH.*
- It could be Hawk-Dove instead.

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Military

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- I think this turns on what you call a 'military'.

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- The guerilla war the Spanish people waged against Napoleon was much more successful than anyone their own army did.
- I don't think this makes a big difference to the story, but I was surprised to see this stated so categorically.