

444 Lecture 4.3 - Strategies

Brian Weatherson

Plan

To describe the notion of a strategy

Reading

Bonanno, section 4.2.

Definition

A **strategy** is a plan for what to do at each information set where the rules of the game give the player a choice.

Inputs to Strategy

- Strategies are for information sets, not nodes.
- Can't have a plan to do different things at different points in the information set.

Comprehensiveness

- Strategies include plans for what to do at nodes that are ruled out by one's earlier choices.
- Reason 1: Fallback.
- Reason 2: Understanding decisions by other players

Strategic Form

- We can turn any game, even ones with substantive information sets, into a single simultaneous move game.
- Just take the possible moves to be the strategies.
- In any realistic game, there will be a lot of these.

Strategic Form

- But the strategic form can obscure things, as we saw in the case of non-credible threats.
- Next time, we'll start looking at how to remove the obscurity.