


1-9-DomStrat-2

2020年6月5日 星期五 下午2:26



Dominates



strict $s_i, s'_i \quad \forall s_{-i} \in S_{-i} \quad u_i(s_i, s_{-i}) > u_i(s'_i, s_{-i})$

very weakly $s_i, s'_i \quad \forall s_{-i} \in S_{-i}, \quad u_i(s_i, s_{-i}) \geq u_i(s'_i, s_{-i})$

an


Dominant - Nash Equilibrium

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Game Theory Course:
Jackson, Leyton-Brown & Shoham

Dominant Strategies




Game Theory Course: Jackson, Leyton-Brown & Shoham

Dominant Strategies

Domination

- Let s_i and s'_i be two strategies for player i , and let S_{-i} be the set of all possible strategy profiles for the other players
 - What's a "strategy"?
 - For now, just choosing an action ("pure strategy")



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Dominant Strategies

Domination

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 - What's a "strategy"?
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every other thing do

every strategy of other agents

Definition
 s_i **strictly dominates** s'_i if $\forall s_{-i} \in S_{-i}, u_i(s_i, s_{-i}) > u_i(s'_i, s_{-i})$


Definition
 s_i **very weakly dominates** s'_i if $\forall s_{-i} \in S_{-i}, u_i(s_i, s_{-i}) \geq u_i(s'_i, s_{-i})$

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Dominant Strategies

Equilibria and dominance

- If one strategy s_i dominates all others, we say it is **dominant**.
- A strategy profile consisting of dominant strategies for every player must be a Nash equilibrium.
 - An equilibrium in strictly dominant strategies must be unique.

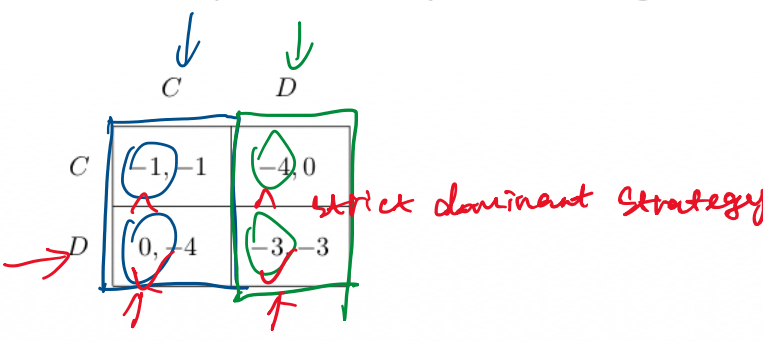


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Dominant Strategies