

The Candidate-Voter Model

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- ▶ Payoffs:
 - ▶ Utility of 200 for winning
 - ▶ Cost of 100 to run
 - ▶ Cost of $|x - y|$ for y winning (for x)

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 - ▶ No one can opt to run and tie or win

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 - ▶ Not everyone can practically run
 - ▶ Still assumes that politics lie on a single spectrum

Another Game:

- ▶ Consider the following outcome matrix:

	R	P	S
R	0, 0	-1, 1	1, -1
P	1, -1	0, 0	-1, 1
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 - ▶ This is an example of a **mixed strategy**

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- ▶ What is the expected payout of $(\frac{1}{3}, \frac{1}{3}, \frac{1}{3})$ against $(1, 0, 0)$?
 $(u((\frac{1}{3}, \frac{1}{3}, \frac{1}{3}), (1, 0, 0)))$

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 - ▶ 0
- ▶ Note that the expected payout is weighted average of the payouts of the pure strategies (with positive probabilities)

Weighted Averages

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		Date	
		C	D
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 - ▶ No - you should drop C

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 - ▶ If p_i is a best response to p_{-i} , the payouts of the pure strategies in p_i are equal
- ▶ Note that pure Nash equilibria are still Nash equilibria