

# Introduction to Group Choice

Shepsle and Bonchek, Chapter 3

# Choices Matter

- We saw last week that there is tremendous variation across states in the policies they choose and
- The outcomes these policies produce
- These outcomes involve life and death matters
  - It would be nice if we could understand this cross-state variance

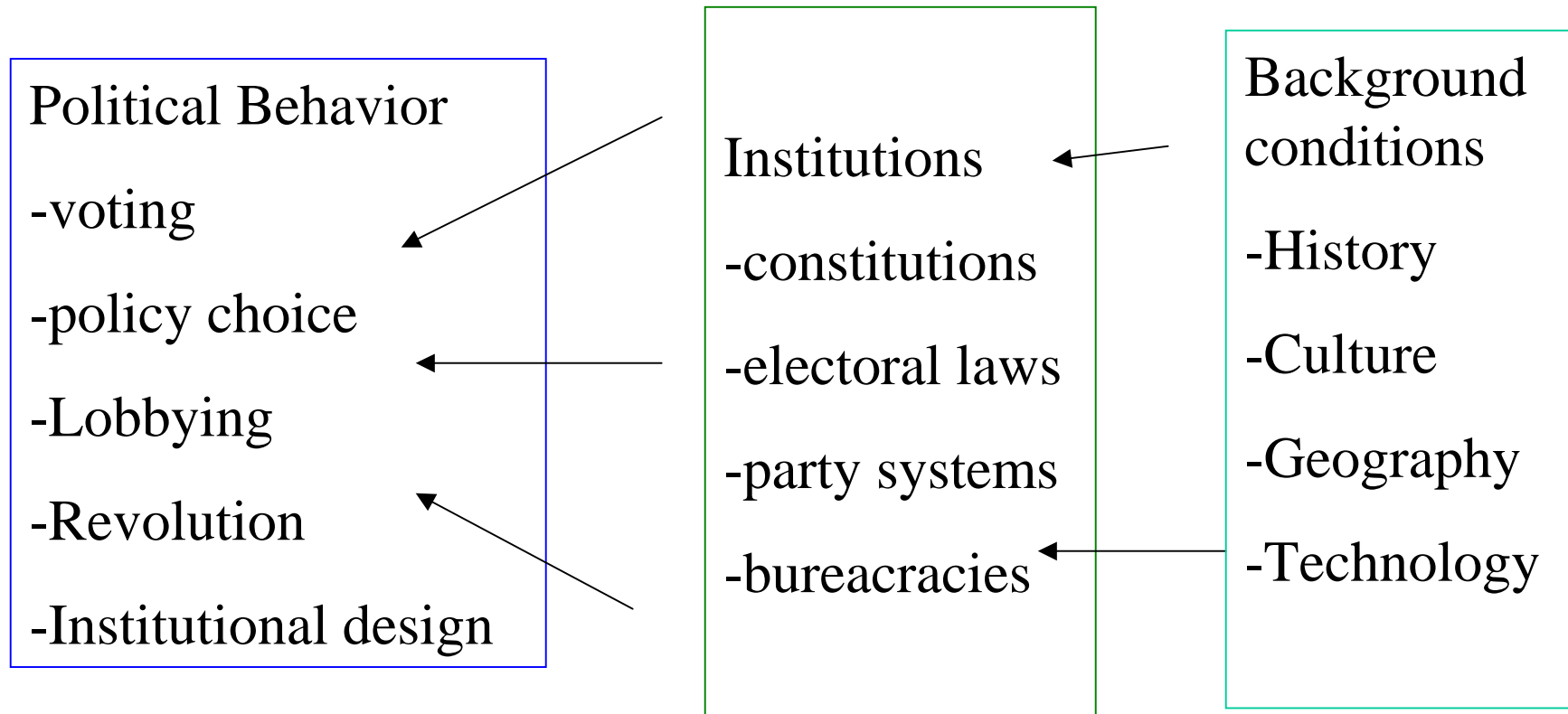
# What could account for these differences?

- Different histories?
- Different cultural endowments?
- Different geographic endowments?
- Different technological endowments?
- Different institutional endowments?

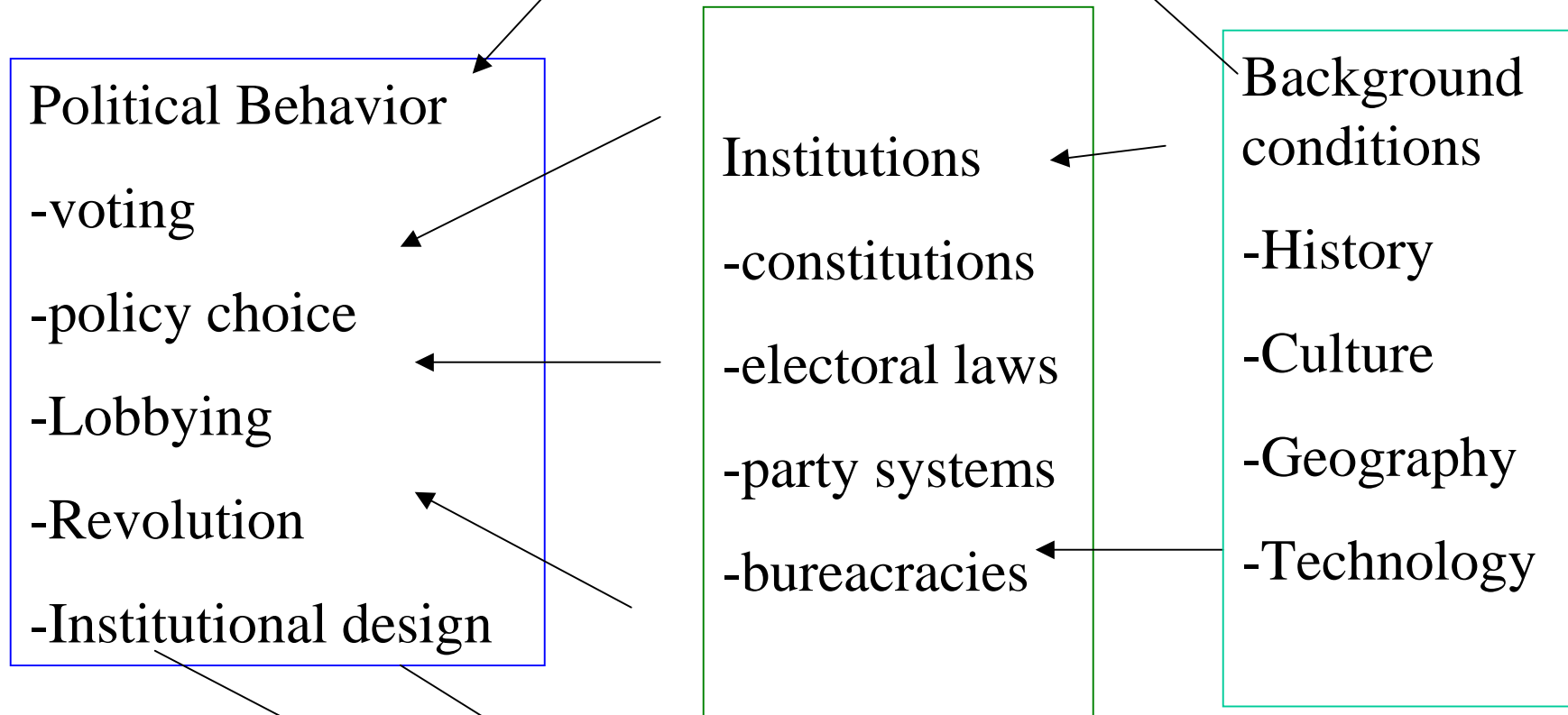
# A focus on institutions

- History, Culture, Geography, Technology, etc. all matter, but
  - Institutional endowment is more clearly the object of choice
  - Political institutions may be shaped by history, culture, geography, technology, etc. but they can plausibly be seen as a more proximate cause of political behavior and, therefore, may not be an unreasonable place to start.

# Institutions as a proximate cause



# Possibility of feedbacks and direct effects



# Focus on choice and institutions

- Choices made given a set of institutions
- Choice that directly effect the structure of institutions

# Rational Choice

- Much of modern political science attempts to explain differences in outcomes or behaviors in terms of the way individuals or groups of individuals make choices.
- A behavior, or an outcome, is considered to be “explained” when it can be seen as the consequence of a series of rational choices

# Common sense view of rationality

- "One doesn't cross a river to get a drink of water."  
– Jon Elster
- "Political actors do they best they can."
- A choice is
  - "rational if the object chosen is at least as good as any other available object according to the chooser's preferences."

or

- "if the object chosen is at least as good as any other available object according to the chooser's preferences."  
(Shepsle and Bonchek)

So, to understand an actor's choices, we compare their actions to their preferences

- Its difficult to do so unless we can conceptualize an actors preferences as a *preference ordering*.

# The preference and indifference relations

Let  $\succ$  be a preference relation such that if  $x$  and  $y$  are two outcomes,  $x \succ_i y$  means that if an actor  $i$  is given a choice between  $x$  and  $y$  she would choose  $x$ . In which case, we say that  $i$  prefers  $x$  to  $y$ .

Similarly, let  $\sim_i$  be an indifference relation such that if  $x$  and  $y$  are two outcomes,  $x \sim_i y$  means that if an actor  $i$  is given a choice between  $x$  and  $y$  she would choose either  $x$  or  $y$ . In which case we say that  $i$  is indifferent between  $x$  and  $y$ .

# Preferences are “well-behaved” when they exhibit the following properties:

- Property 1: Completeness. Actor  $i$ 's ordering over a set of outcomes is *complete* if for any two elements in the set of outcomes (say,  $x$  and  $y$ ), either  $x \succ_i y$ ,  $y \succ_i x$ , or  $x \sim_i y$ .
- Property 2: Transitivity. The strict preference relation  $\succ$  is transitive if for any three possible alternatives (say,  $x$ ,  $y$ , and  $z$ ) if  $x \succ_i y$  and  $y \succ_i z$ , then  $x \succ_i z$ . The indifference relation is transitive if  $x \sim_i y$  and  $y \sim_i z$ , then  $x \sim_i z$ .

# A preference ordering

- When *i*'s preferences satisfy completeness and transitivity, then *i* is said to possess a preference ordering.
  - Pretty much what we mean by saying someone is “rational”
  - No claim that all human behavior can be understood in this context.
    - But behavior that can't be understood this way is outside the domain of this paradigm

# Example: Three friends with a free afternoon

<i>Actor</i>	<i>Preference Ordering</i>
Andrew	Museum $\succ$ Concert $\succ$ Game
Bonnie	Concert $\succ$ Game $\succ$ Museum
Chuck	Game $\succ$ Concert $\succ$ Museum

# Round Robin Round 1

Actor	Museum	Concert
Andrew	√	
Bonnie		√
Chuck		√

# Round Robin Round 2

<i>Actor</i>	<b>Concert</b>	<i>Game</i>
Andrew	✓	
Bonnie	✓	
Chuck		✓

# Round Robin Round 3

<i>Actor</i>	<i>Game</i>	<i>Museum</i>
Andrew		√
Bonnie	√	
Chuck	√	

# Summary of round robin

<i>Round</i>	<i>Outcome</i>	<i>Support</i>
1	Concert defeats Museum	Bonnie, Chuck
2	Concert defeats Game	Andrew Bonnie
3	Game defeats Museum	Bonnie, Chuck

*Concert  $\succ_G$  Museum, Concert  $\succ_G$  Game, Game  $\succ_G$  Museum*

*Concert  $\succ_G$  Game  $\succ_G$  Museum*

# Will people vote sincerely, or strategically?

- Outcome depended on everyone choosing their most preferred outcome
  - Is this a reasonable assumption?

Strategic voting (voting for a less preferred alternative) is rational when:

1. It is feasible

- A strategic vote is feasible when an actor can change an outcome by changing their vote

2. It is desirable

- A strategic vote is desirable when casting it leads to a final outcome that leaves the actor better off than would have been the case as a result of a sincere vote

# Incentive for strategic voting?

<i>Round</i>	<i>Outcome</i>	<i>Support</i>
1	Concert defeats Museum	Bonnie, Chuck
2	Concert defeats Game	Andrew Bonnie
3	Game defeats Museum	Bonnie, Chuck

Feasibility? Any actor in majority support can change outcome by changing vote

Desireability?

# What if Chuck became convinced that going to the museum was better than the concert?

<i>Actor</i>	<i>Preference Ordering</i>
Andrew	Museum $\succ$ Concert $\succ$ Game
Bonnie	Concert $\succ$ Game $\succ$ Museum
Chuck	Game $\succ$ Museum $\succ$ Concert

# Round 1

<i>Actor</i>	<u><i>Concert</i></u>	<i>Game</i>
Andrew	√	
Bonnie	√	
Chuck		√

# Round 2

<i>Actor</i>	<u><i>Museum</i></u>	<i>Concert</i>
Andrew	√	
Bonnie		√
Chuck	√	

# Round 3

<i>Actor</i>	<u><i>Game</i></u>	<i>Museum</i>
Andrew		√
Bonnie	√	
Chuck	√	

# Summary of 2<sup>nd</sup> round robin

<i>Round</i>	<i>Outcome</i>	<i>Support</i>
1	Museum defeats Concert	Andrew, Chuck
2	Concert defeats Game	Andrew Bonnie
3	Game defeats Museum	Bonnie, Chuck

# Preference Cycle

- There's a different majority to support each alternative

# Agenda 1: Concert vs. Game, winner vs. Museum

Round 1	Actor	<u>Concert</u>	Game
	Andrew	√	
	Bonnie	√	
	Chuck		√
Round 2	Actor	<u>Museum</u>	Concert
	Andrew	√	
	Bonnie		√
	Chuck	√	

# Agenda 2: Concert vs. Game, winner vs. Museum

Round 1	Actor	<u>Museum</u>	Concert
	Andrew	√	
	Bonnie		√
	Chuck	√	
Round 2	Actor	<u>Game</u>	Museum
	Andrew		√
	Bonnie	√	
	Chuck	√	

# Agenda 3: Museum vs. Game, winner vs. Concert

Round 1	Actor	<u>Game</u>	Museum
	Andrew		√
	Bonnie	√	
	Chuck	√	
Round 2	Actor	<u>Concert</u>	Game
	Andrew	√	
	Bonnie	√	
	Chuck		√

# Outcome depends crucially on agenda

	Outcome selected	Happy Camper
Agenda 1	museum	Andrew
Agenda 2	game	Chuck
Agenda 3	concert	Bonnie

# Homework

- 1. Question... are there incentives for strategic voting in a model with exogenously imposed agendas?
- 2. Question... are there incentives for strategic voting in a model with endogenous agendas?