

Unidimensional spatial model

17.251/252

Spring 2015

Overall map

- Why do we care about theory or explanation at all?
- History of studying Congress
- Politics of Lineland

I. Why do we care about theory or explanation at all?

- That's what social scientists do
- That's what politicians do
- That's what citizens do

Different professions have different ways of theorizing about legislatures

- Activists: good guys and bad guys
- Reporters: *individual* stories about good guys and bad guys
- Political scientists: The general, generic, and predictable

II. Brief history of political science

- Early days to ~1880: formalism
- ~1800 to 1950: Progressive history
- 1950 to 1980: Sociology
- 1980 to the present: Economics

Formalism



Progressive history

- Wilson, inspired by Walter Bagehot's *The English Constitution*



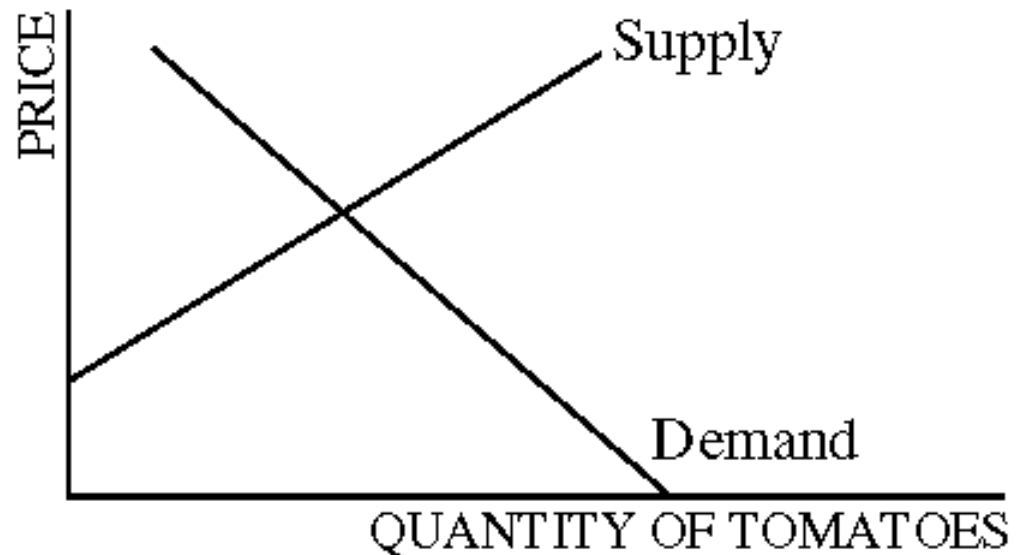
Sociology

- The group's what's important
- Congress is just a group



Economics

- The individual's what's important
- Collective behavior derives from individual behavior and interest



How each perspective would approach the current gridlock in Washington

- Journalism
 - Personal relationships between Obama/Boehner/McConnell/Reid, etc.

How each perspective would approach the current gridlock in Washington

- Formalism
 - What does the Constitution say about bicameralism?
- Progressive history
 - Where does the power *really* lie, in the struggle between Congress and the president?
 - The titanic struggle between the monied interests that dominate both parties

How each perspective would approach the current gridlock in Washington

- Sociology
 - Who are the actors and what roles do they play?
 - What are the factors that constrain actors to stay within their roles?
- Economics
 - Who are the relevant individuals and what are their goals? (Election, policy, power, etc.)
 - What are the sets of strategic moves these individuals can make to optimize?

Advancements in legislative studies

- Our understanding of legislatures has become more precise over time
- Modern legislative analysis focuses on the interaction between individuals and institutions
 - Without institutions, decisionmaking chaotic
 - Heritability problem
- Theoretical primitives
 - Preferences
 - Rules

Logic of next step

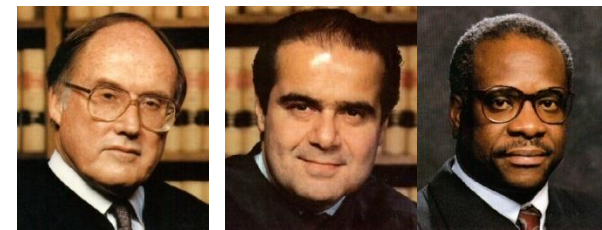
- Begin with simple preferences
- How does decisionmaking proceed *without* institutions?
- How does decisionmaking proceed *with* institution?
- Add complexity and stir

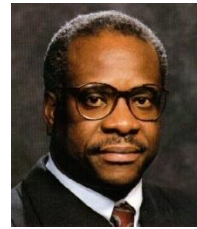
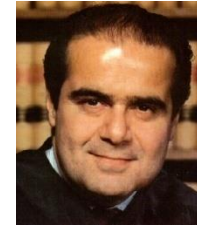
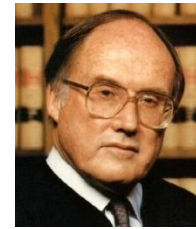
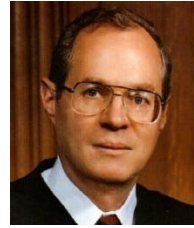
III. The Politics of Lineland

Though it is rare for a sitting Supreme Court justice to become chief justice, she said, Bush might go for O'Connor because "she doesn't pose a threat to *Roe v. Wade*," the 1973 decision legalizing abortion.

Bush might like the idea of having O'Connor, the swing vote on the court, as chief justice for just two to three years, after which she likely would retire -- giving the Republican president another crack at altering the court's makeup, Totenberg said.

From *The Buffalo News*, May 16, 2002, p. b4.





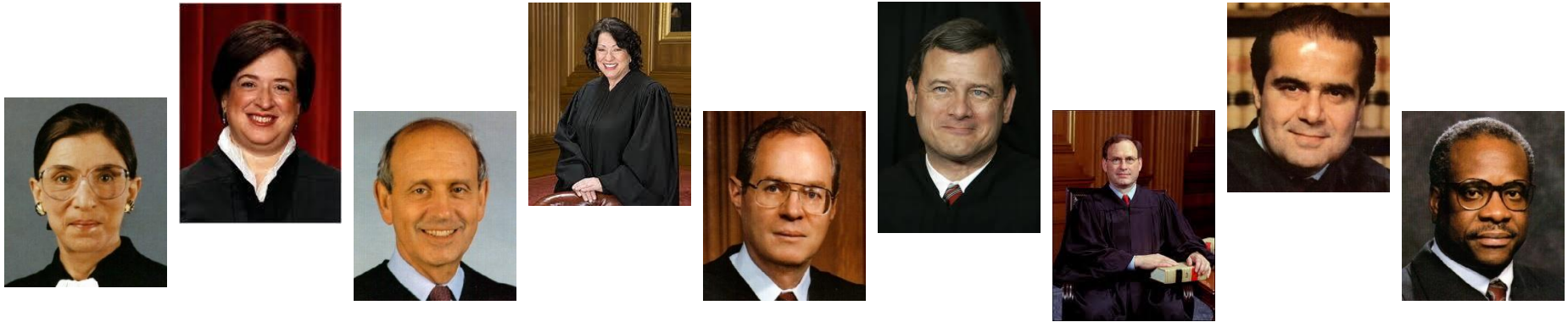
In seven years on the Supreme Court, Justice Anthony M. Kennedy has been neither ideological leader nor political strategist. His writings have drawn little attention from law reviews, and it is part of court lore that he's so little known a group of tourists once asked him to take their picture.

While Kennedy may lack the bold personality or compelling background of other justices, he has earned one important distinction: On a closely divided court, he holds the decisive vote.

Along with Justice Sandra Day O'Connor, Kennedy will be the justice to watch as the court in the weeks ahead decides major cases involving free speech rights, the separation of church and state and the constitutionality of government policies based on race. More often than O'Connor, however, it is Kennedy who casts the fifth -- and deciding -- vote and in recent years he has been in the majority on important cases more than any other justice.

Many of Kennedy's prominent "fifth votes" have led to liberal rulings. But Kennedy is overall a conservative jurist, refusing to expand the role of the courts in American life and believing social policy is best left to elected officials.

From *Washington Post*, June 11, 1995, p. a2



To be sure, the chief justice considers himself the custodian of the Supreme Court's prestige, authority and legitimacy, and he is often its voice in major cases. There was reason, then, to think he might have provided a sixth vote to uphold the law had Justice Anthony M. Kennedy joined the court's four-member liberal wing. That would have allowed Chief Justice Roberts, the thinking went, to write a narrow, grudging majority opinion. But almost no one thought that he would provide the fifth vote, joining only the liberals, to uphold a Democratic president's signal legislative achievement.

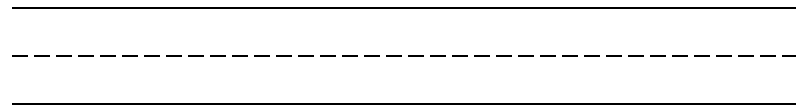
...

The court Chief Justice Roberts leads is not leaving the national spotlight. The next term already includes a major case on affirmative action in higher education, and cases on voting rights and [same-sex marriage](#) are likely to follow. All will test the chief justice's leadership, and the novel alignment in Thursday's case is unlikely to be repeated. In cases concerning the role of race in admissions and voting, he is likely to take his usual place with the court's conservatives. In cases on gay rights, Justice Kennedy is likely to be the swing vote.

From the *New York Times*, June 29, 2012, p. A1

First days of spatial voting theory

- Harold Hotelling's "grocery store problem"



An aside: The origins of social choice

- Marin Mersenne (1611) → Blaise Pascal
- Frans Van Shooten, Jr. (1635)
- Christiaan Huygens (1647, 1655)
- Gotfried Leibnitz (1666)
- Jacob Bernoulli (1684)
- Johann Bernoulli (1694)
- Leonhard Euler (1726)
- Joseph Lagrange (no degree) & Pierre-Simon Laplace
- Simeon Poisson (1814)
- Michel Chasles (1850 [BA])
- H.A. Newton (1850)
- E. H. Moore (1885)
- Oswald Veblen (1903)
- **Harold Hotelling (1924)**
- Kenneth Arrow (1951) → Eric Maskin (1976) → Drew Fudenberg (1981) & Jean Tirole (1981)
 - Anthony Downs (1954)?
 - Roger Myerson (1976)

Downsian model of party competition



L

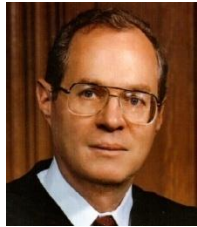


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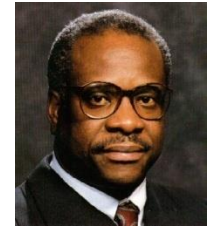
Duncan Black and committees



Abortions
free and easy



Abortions
regulated



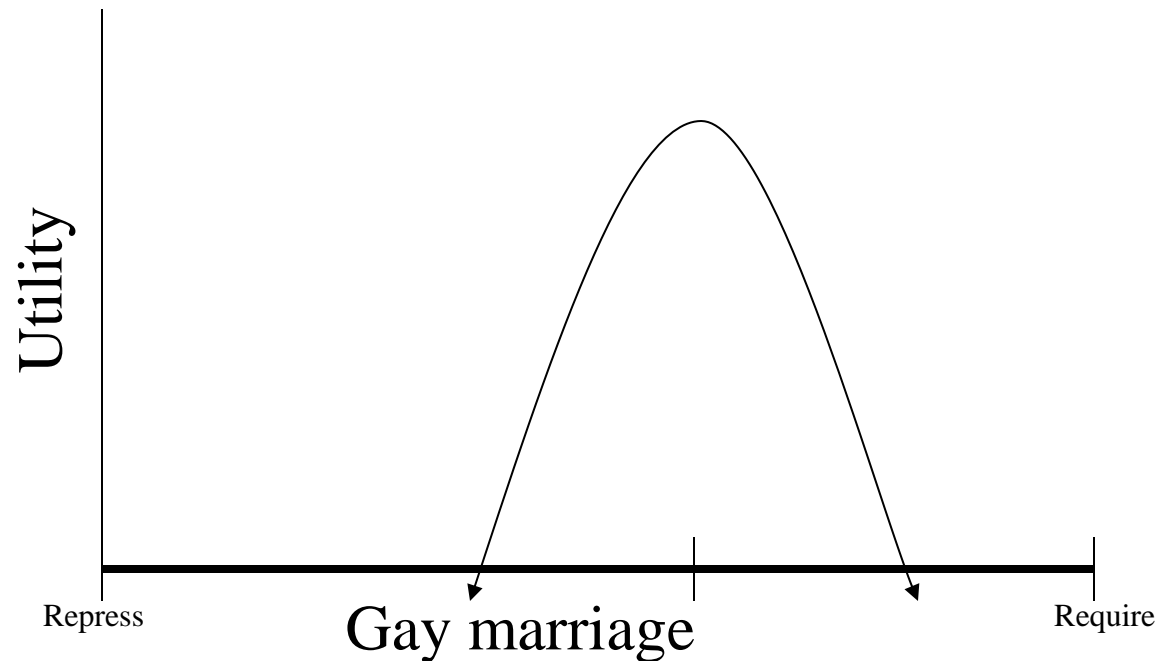
Abortortionists
jailed

More formally

- Preferences
- Alternatives
- Rules

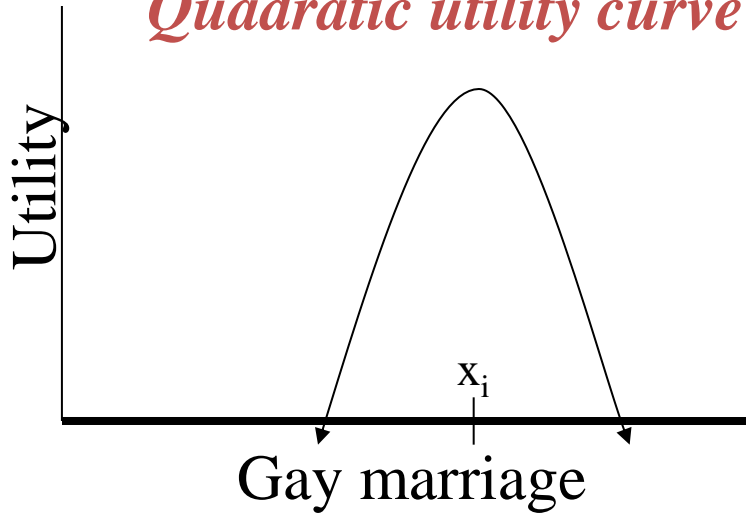
Preferences

- Dimensionality (1,2,many)
- Location and characteristics of preferences
 - Ideal points
 - Utility curves



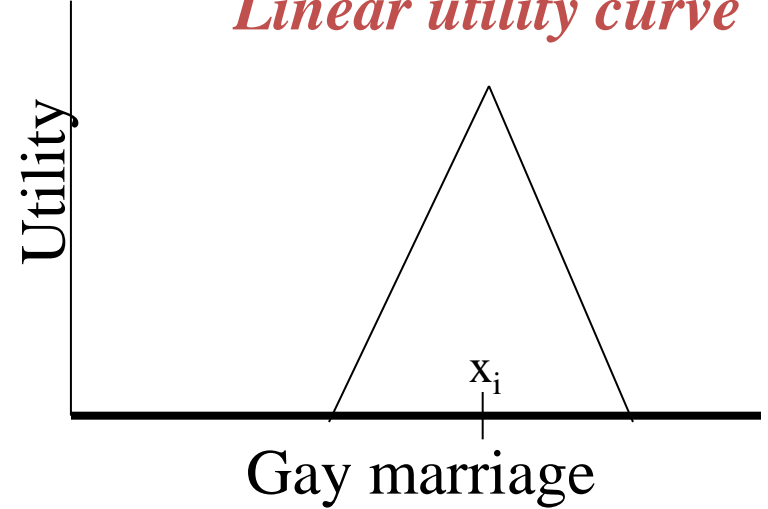
Different utility curves

Quadratic utility curve



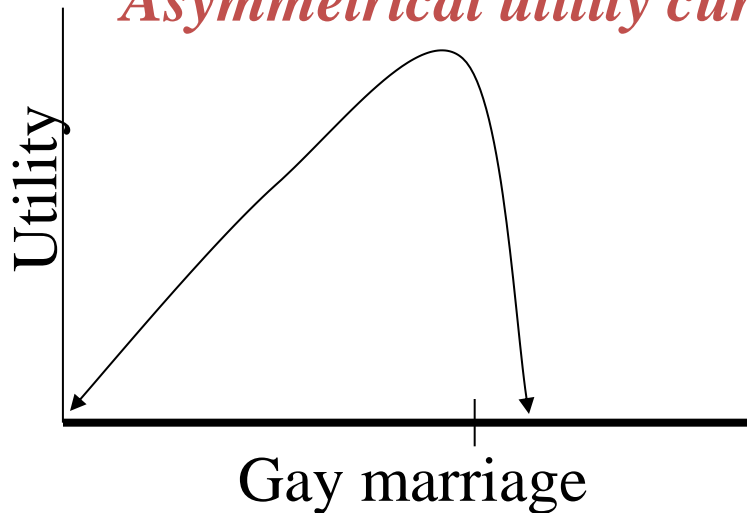
$$U_i = -(\mathbf{x}_i - \mathbf{x})^2$$

Linear utility curve

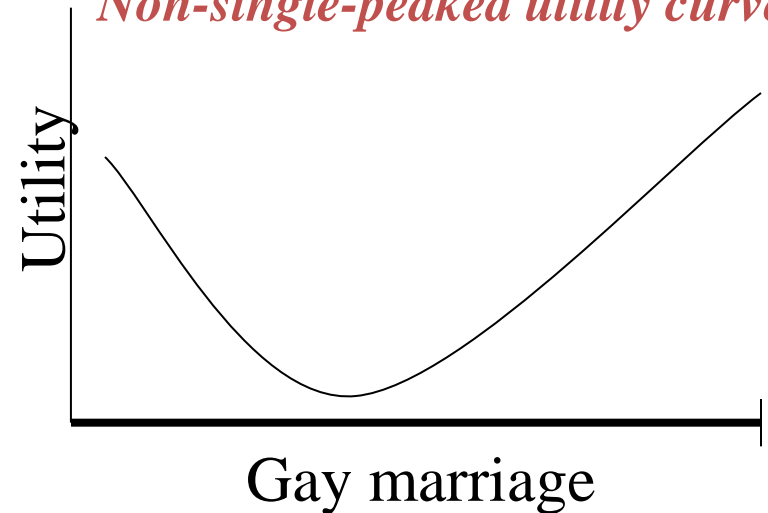


$$U_i = -|\mathbf{x}_i - \mathbf{x}|$$

Asymmetrical utility curve



Non-single-peaked utility curve



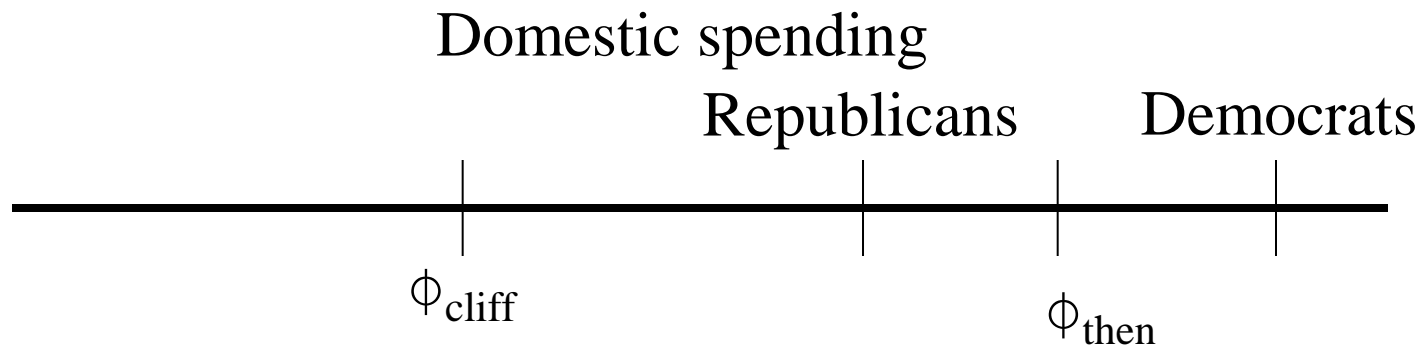
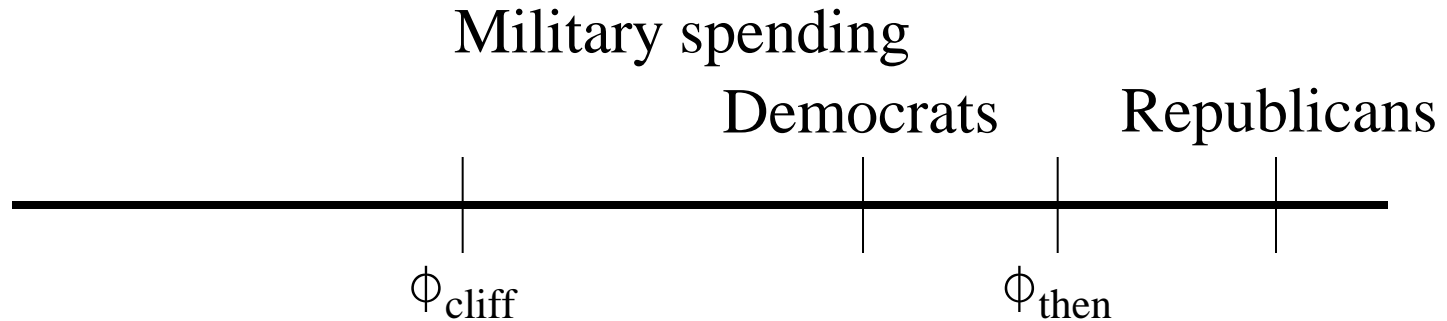
Alternatives

- Plain English: motions, amendments, etc.
- Expressed in same coordinate system as preferences
- **Heresthetics**: The art/science of trying to alter the dimensionality of a policy debate
 - Clinton impeachment (private sex vs. perjury)
 - 9/11-related detainees (civil liberties vs. security)
 - Framing of single-sex marriage (sexual orientation vs. “who you love” vs. “denigrating children”)

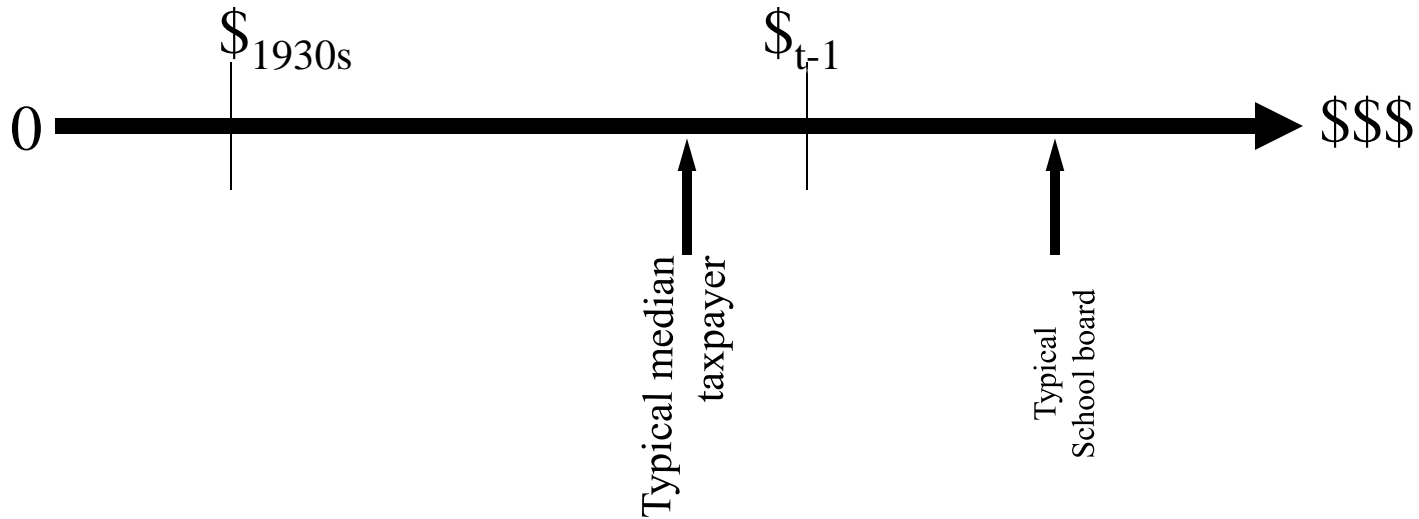
Reversion point or status quo (ϕ)

- Most important alternative
- Taxing vs. spending: different reversion points

Fiscal cliff example (Jan. 2013)

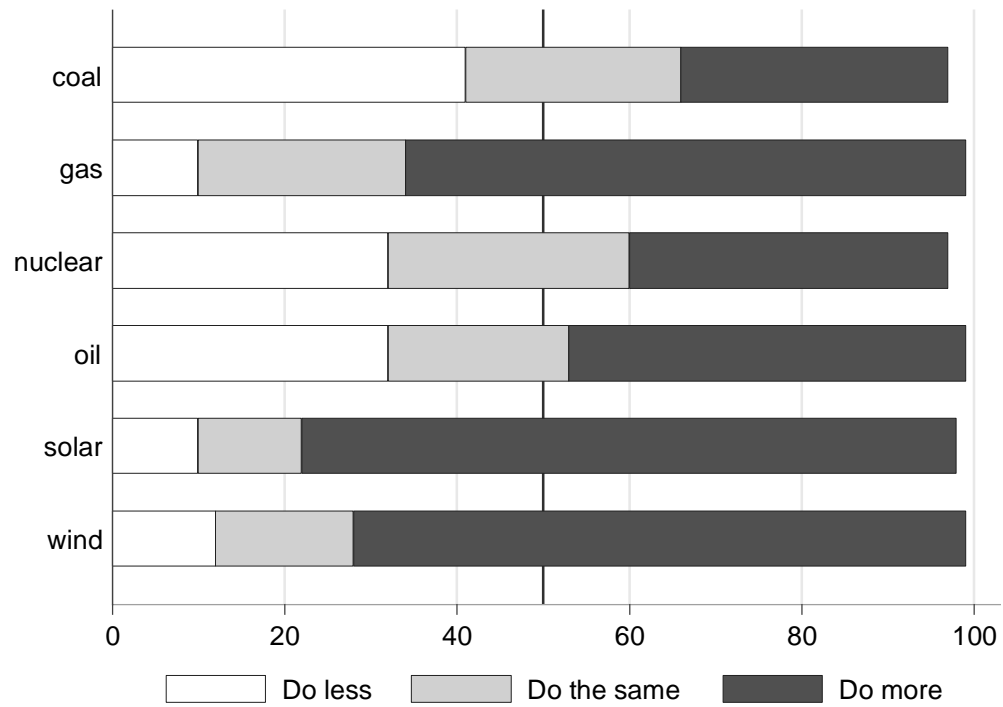


Public schools in Pacific N.W. (Romer-Rosenthal model)



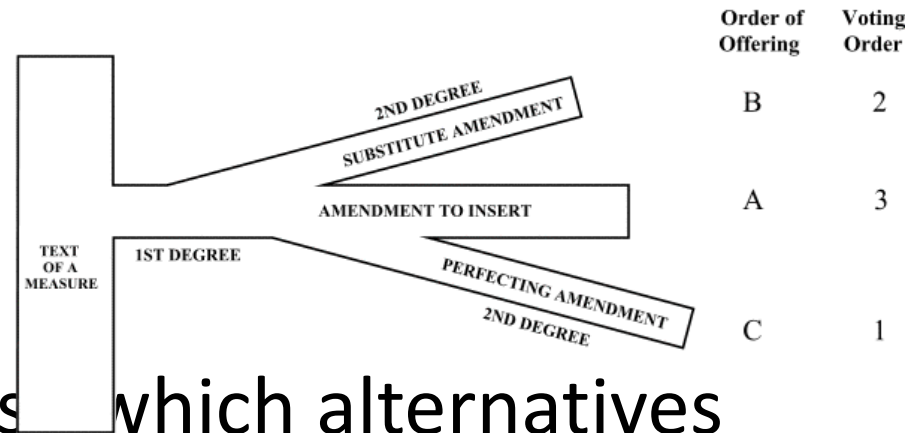
Energy policy alternatives

Energy source	Less emphasis	Same emphasis	More emphasis
Solar power	10	12	76
Wind	12	16	71
Natural gas	10	24	65
Oil	32	21	46
Nuclear power	32	28	37
Coal	41	25	31



Rules

SENATE AMENDMENT TREE
Amendment Tree When an Amendment to Insert is Offered



- Majority requirement
 - Simple
 - Supermajority
- Agenda-setting process which alternatives get considered in which order
- Pure majority rule: the frictionless plane of social choice

Median voter theorem

IF

The issue is unidimensional

Voters decide based on their preferences

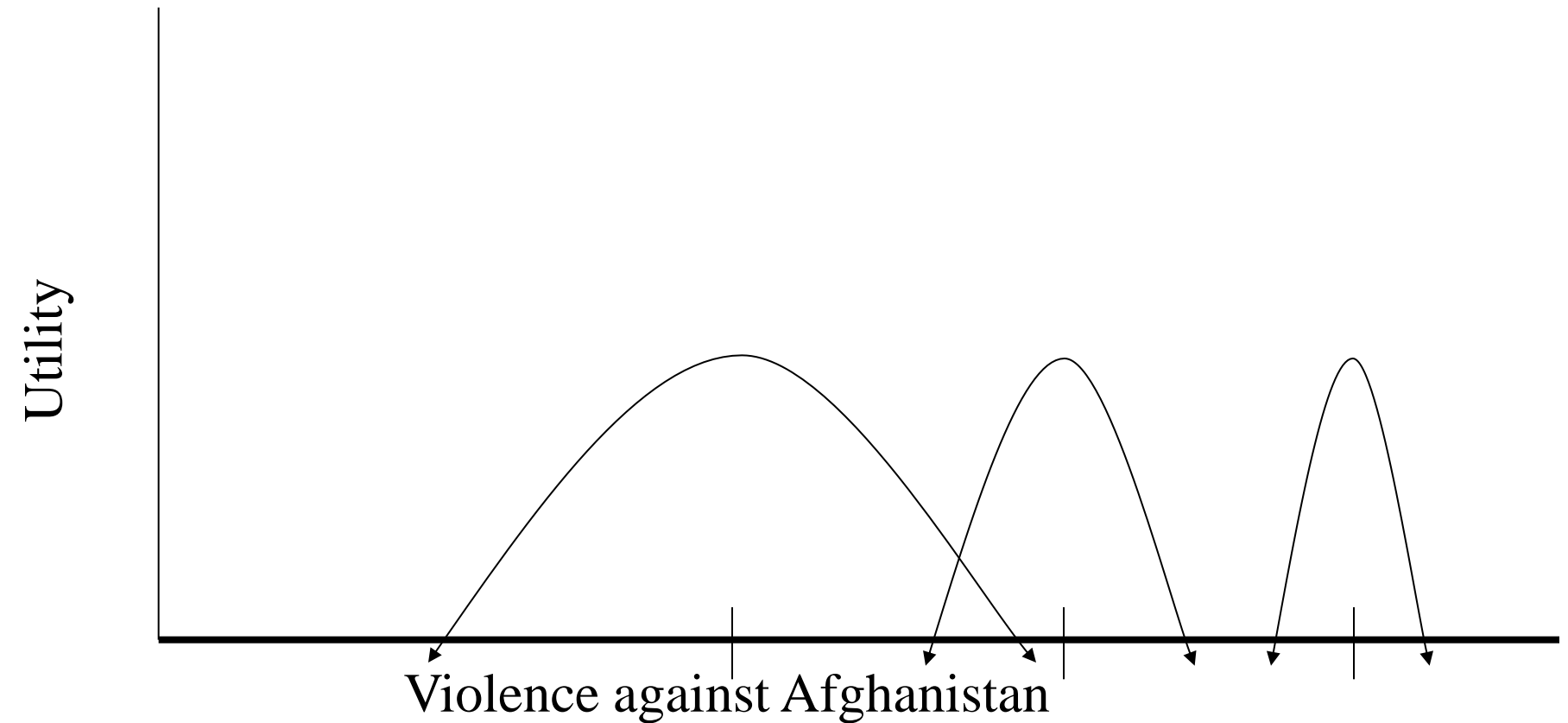
Preferences are single-peaked

Voting proceeds under pure majority rule

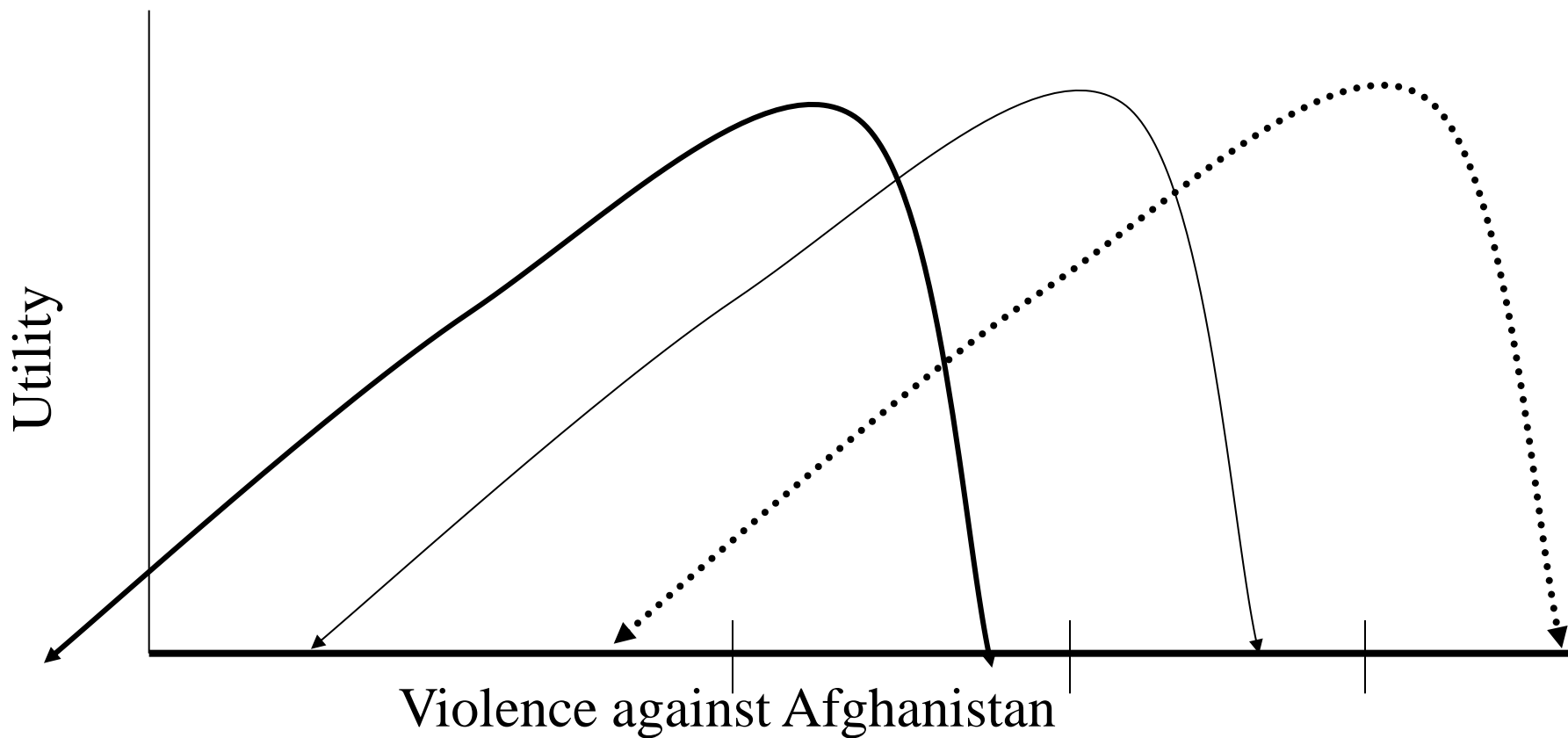
THEN

The median voter's ideal point will prevail

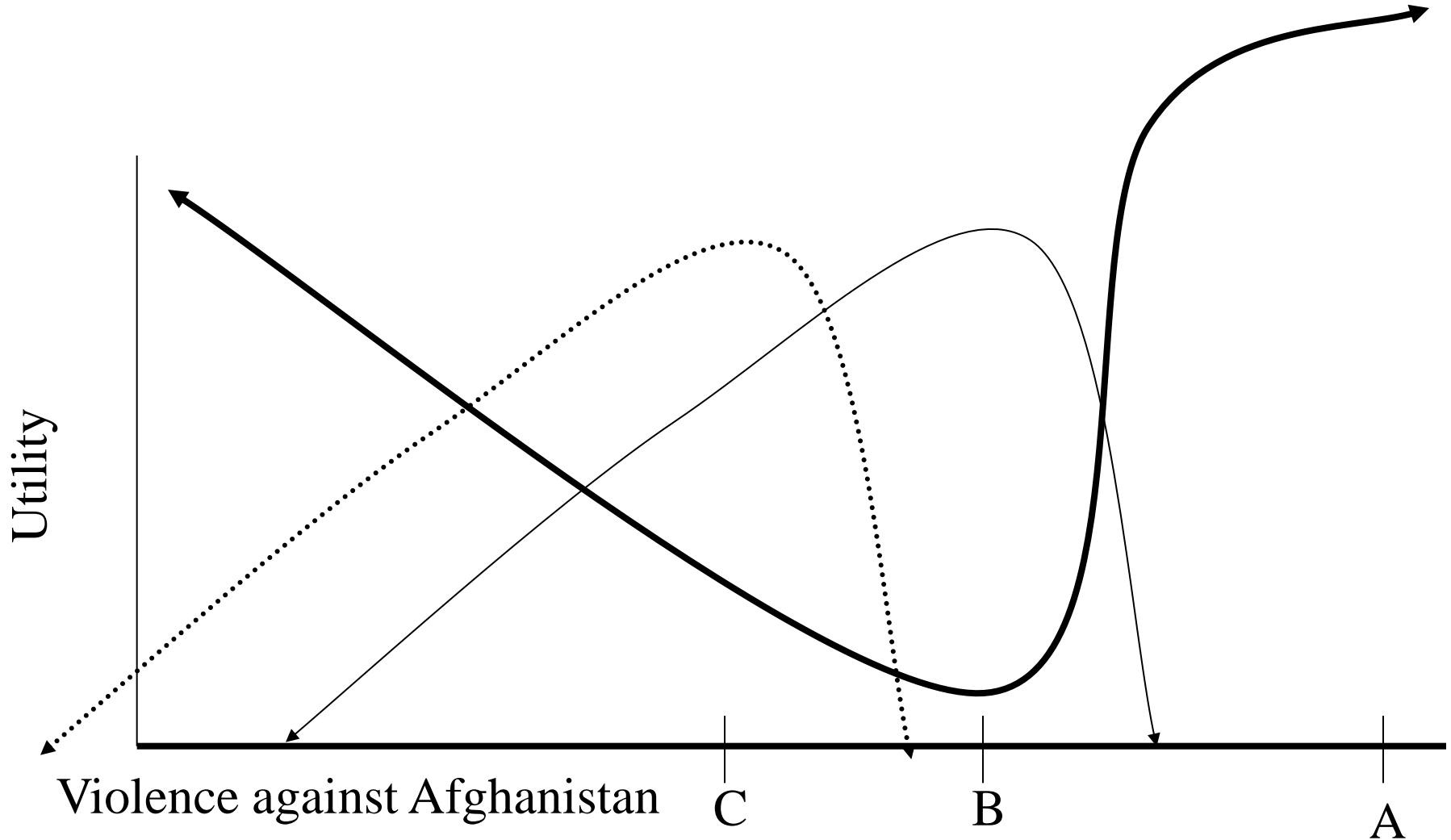
Intensity doesn't matter



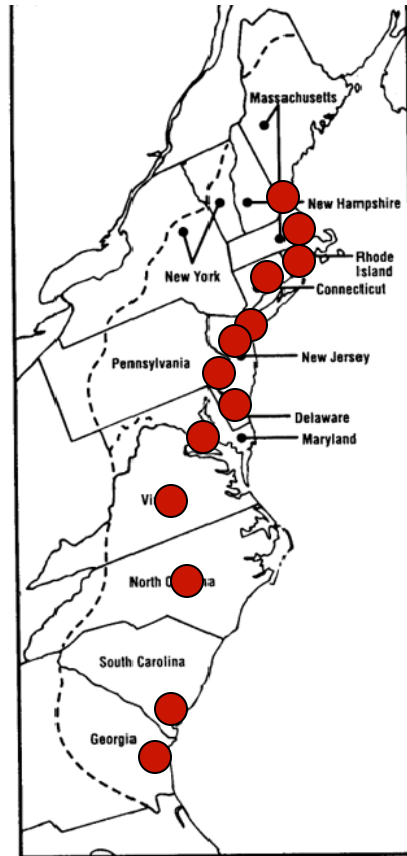
Symmetry doesn't matter



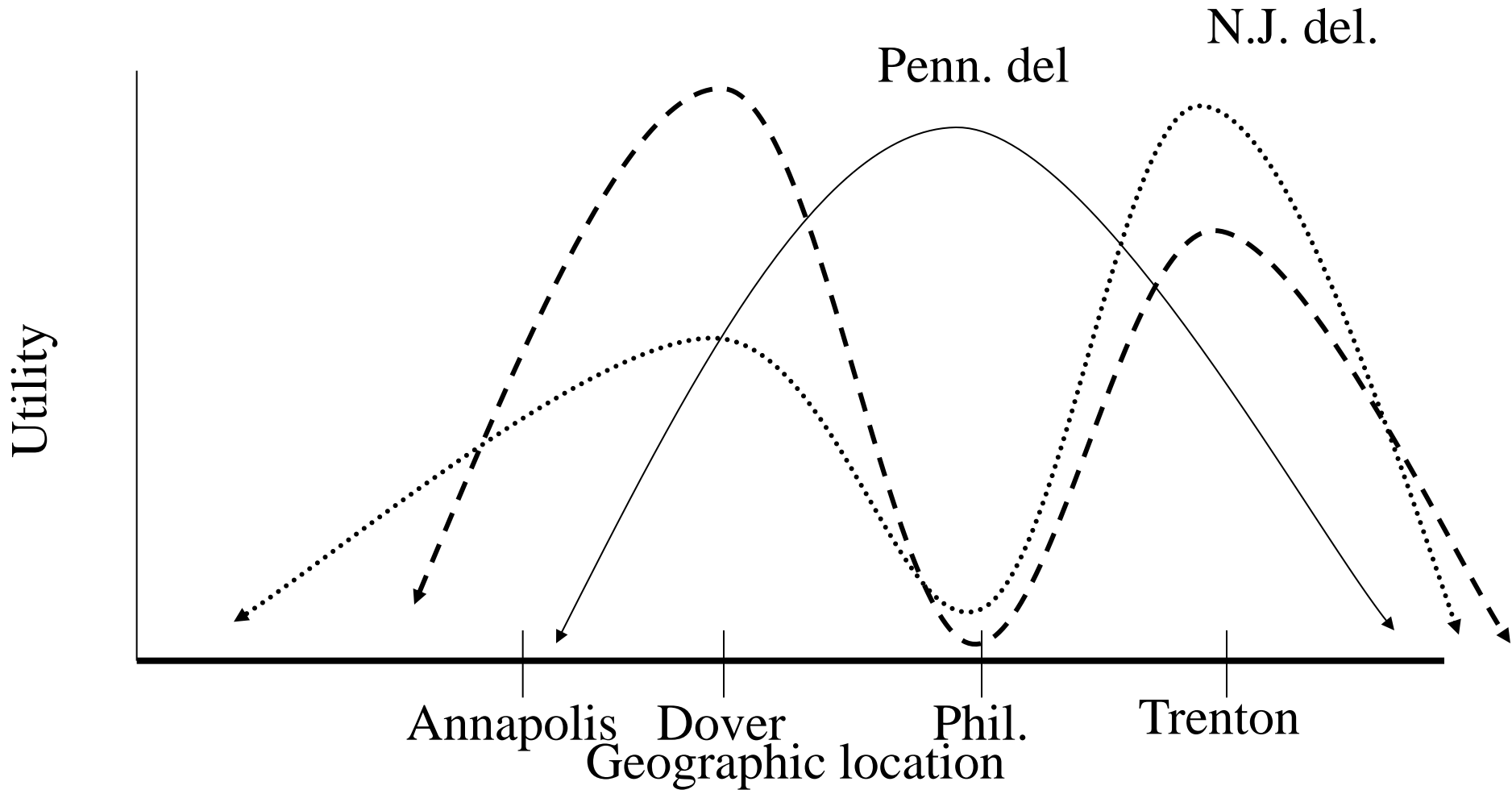
Single-peakedness matters



Lack of single-peakedness in picking capitol



Capital example

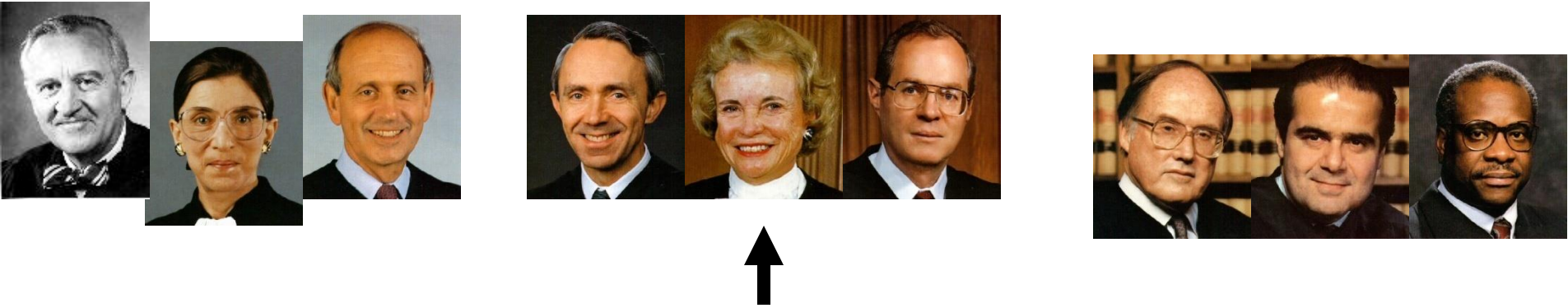


Important corollary to median voter theorem:

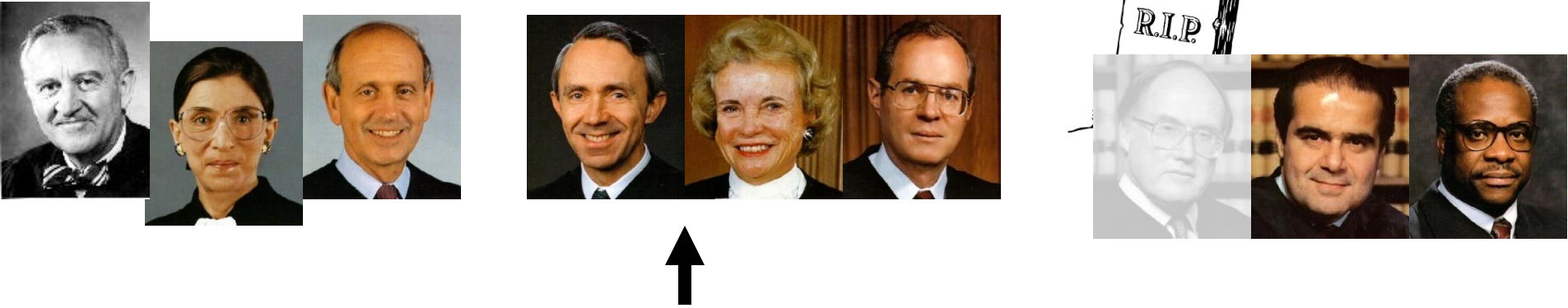
Under the same conditions that produce the median voter result (except that preferences are symmetrical), if a committee or electorate is given the choice between two alternatives, the one closer to the median will prevail.

[The median is a dictator]

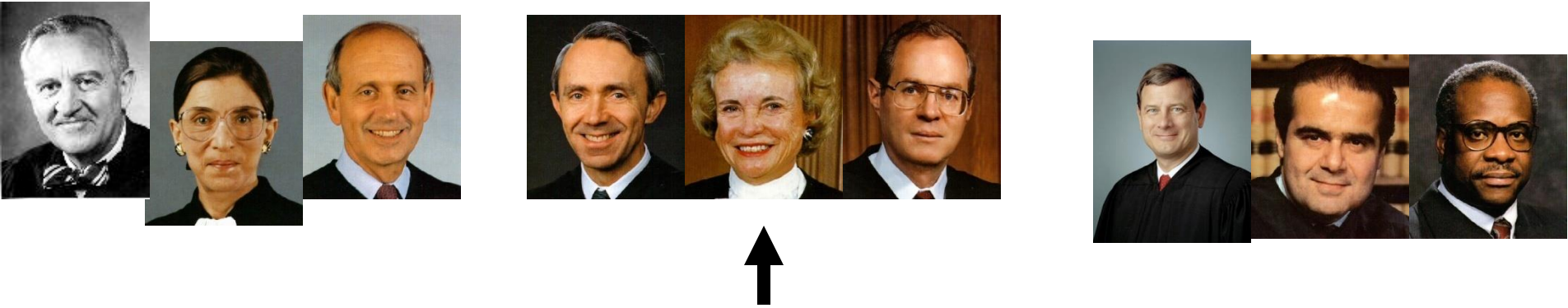
Supreme Court Replacement Example (Start in 2005)



Rhenquist dies (2005)



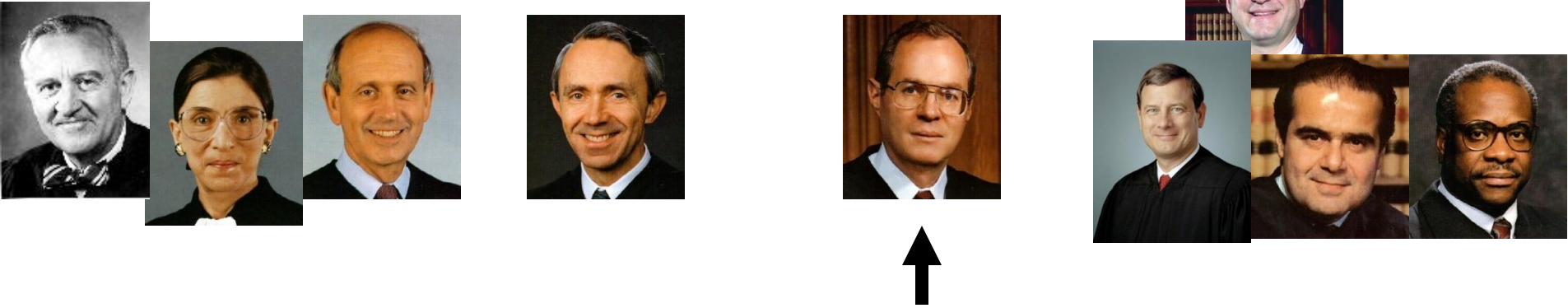
Roberts appointed (2005)



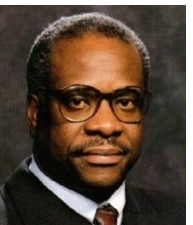
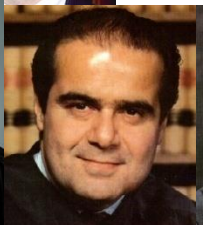
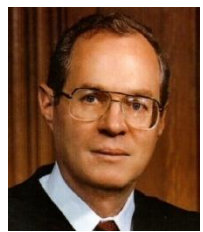
O'Connor retires (2006)



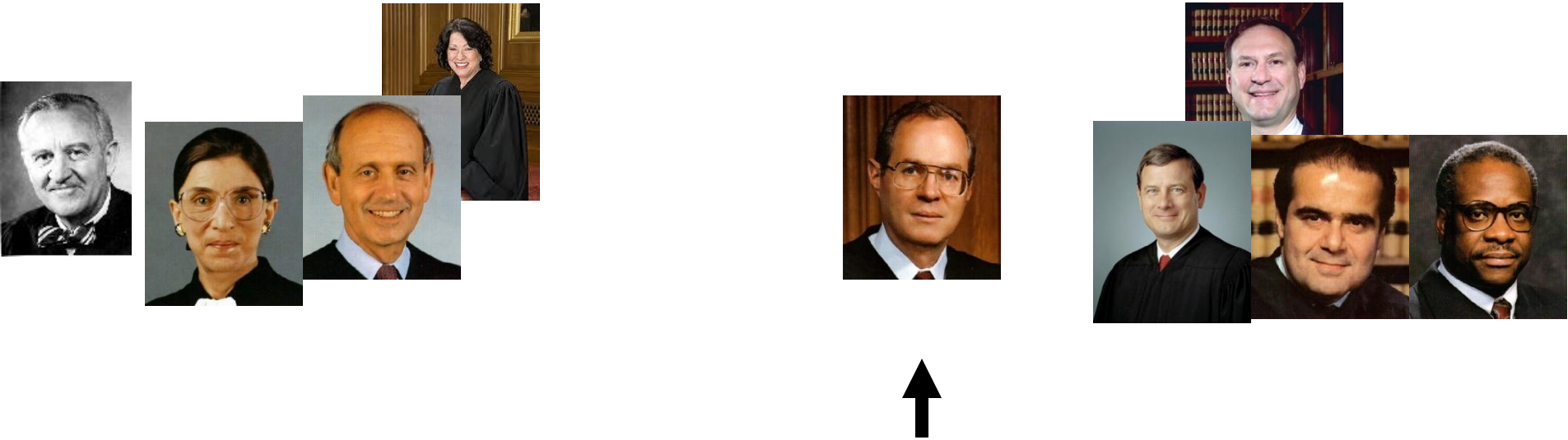
Alito appointed (2006)



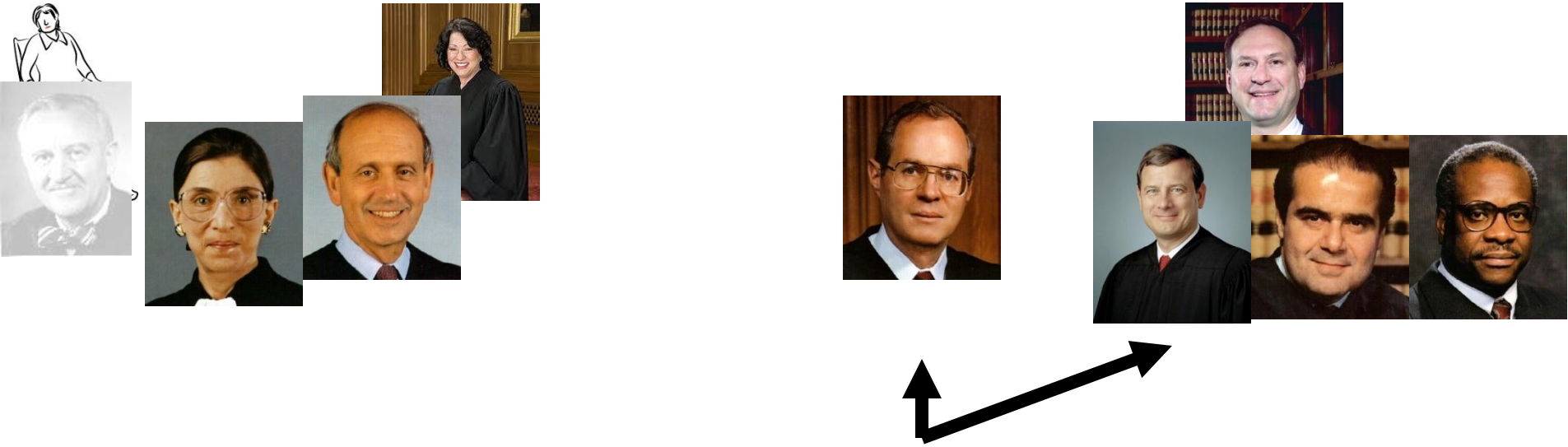
Souter retires (2009)



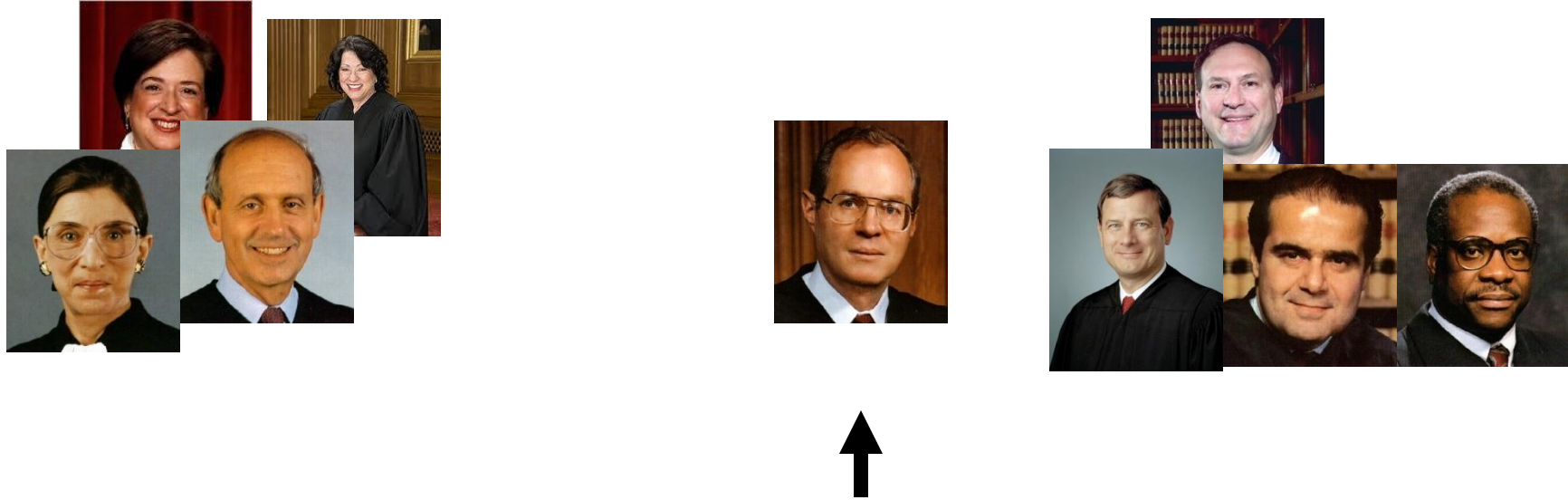
Sotomayor appointed (2009)



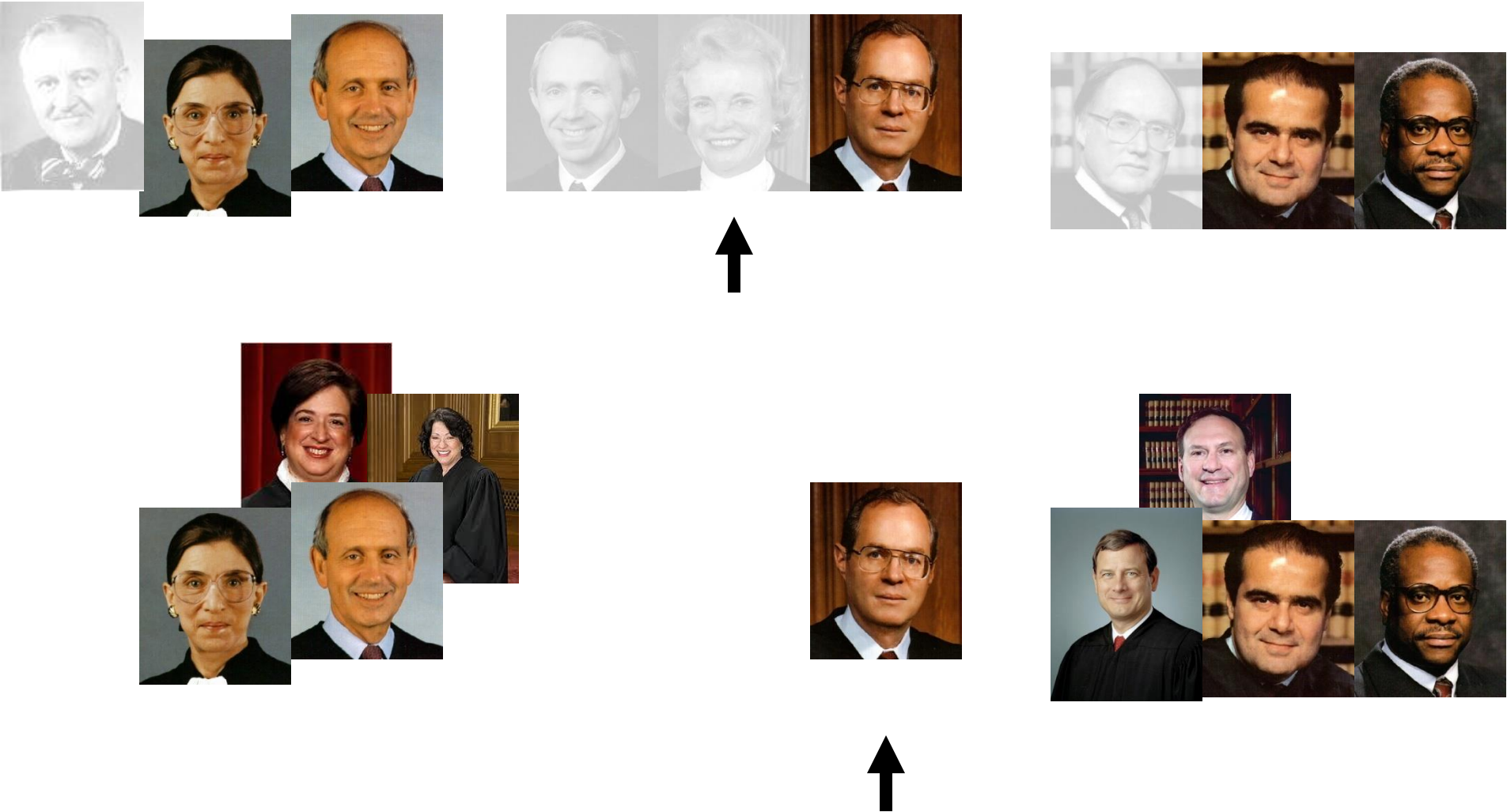
Stevens retires (2010)



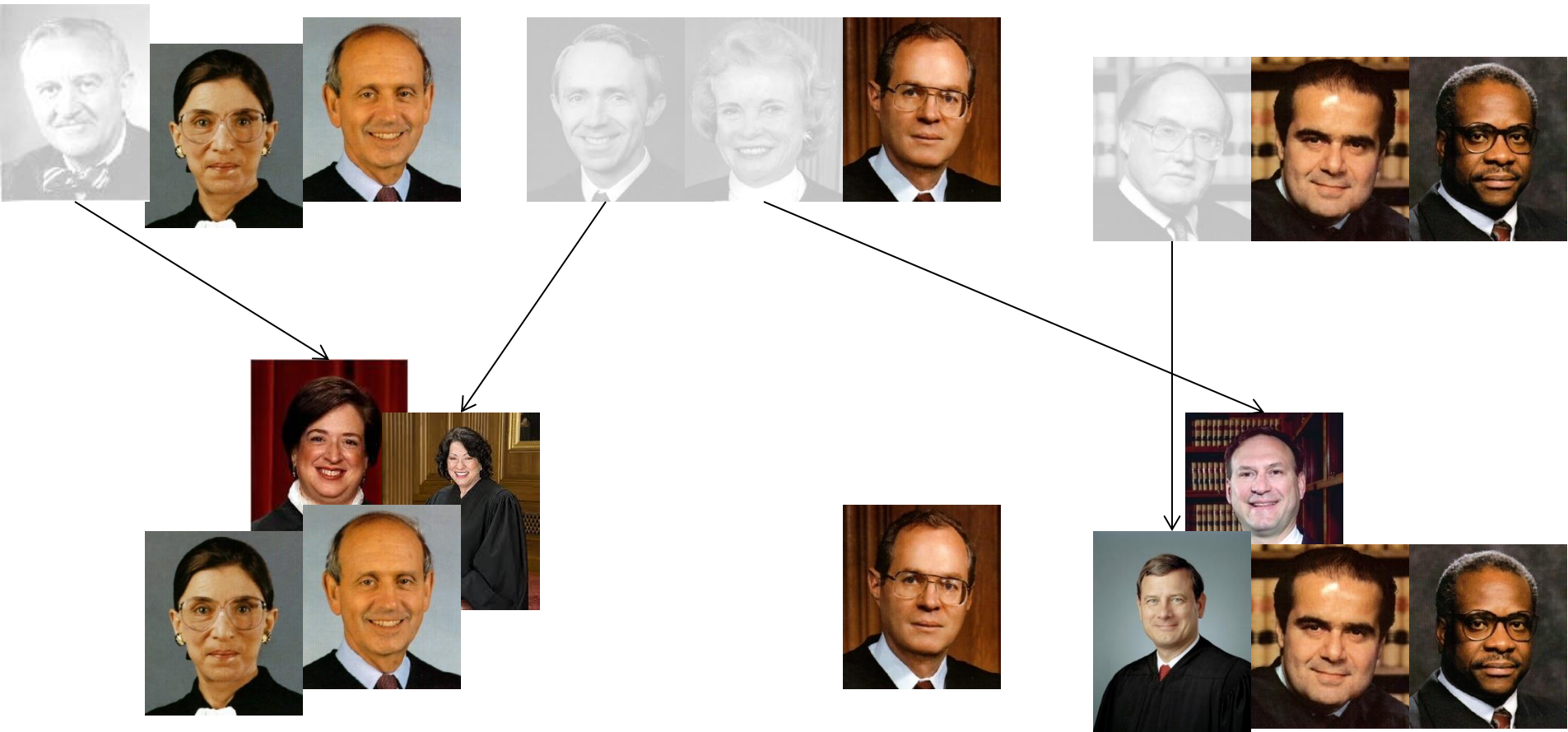
Kagan appointed (2010)



Net change, 2002-2010



Net change, 2002-2010



Supreme Court Appointments under Presidents Walker and Clinton

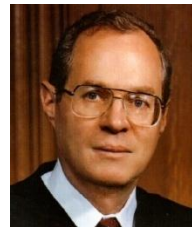
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60 _{7/12}



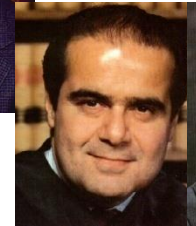
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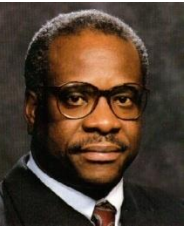
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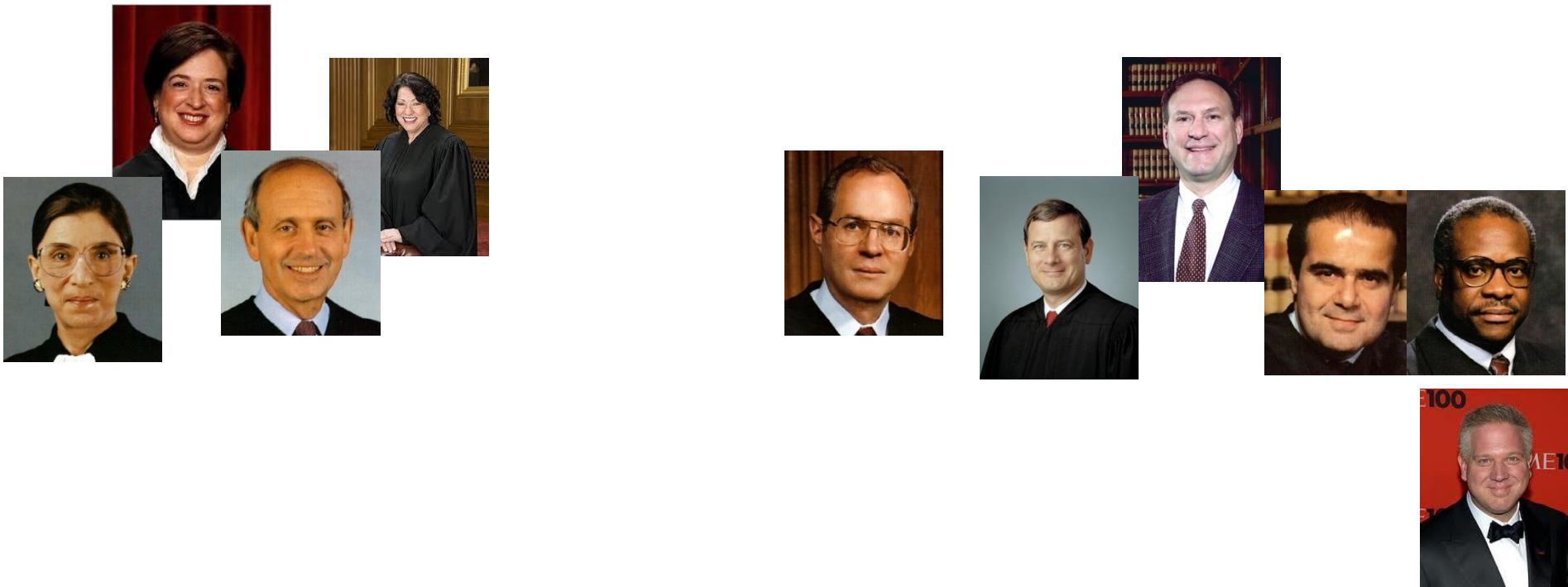
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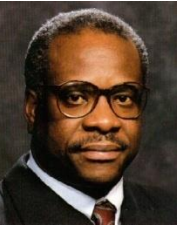
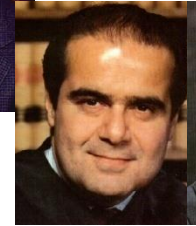
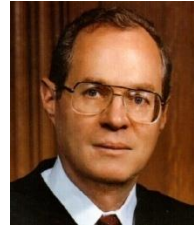
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Supreme Court Appointments under Presidents **Walker** and Clinton



Supreme Court Appointments under Presidents Walker and **Clinton**



Who is the median in Congress? (2013-14 version)

