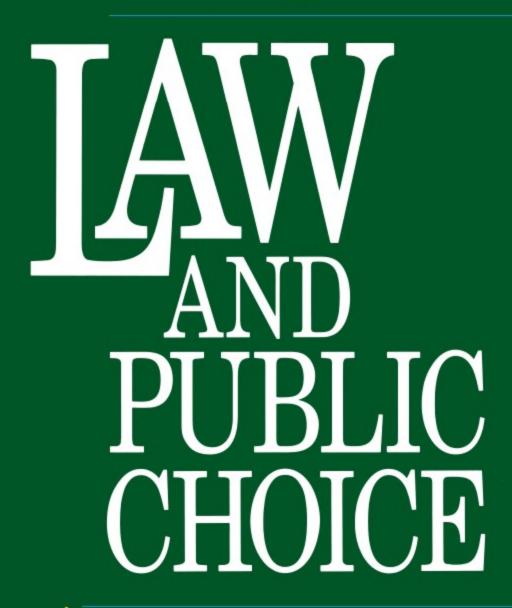Daniel A. Farber
and Philip P. Frickey

LAW AND PUBLIC CHOICE

A Critical Introduction

Arrow's Theorem and the Democratic Process

A s we've seen, public choice suggests that the political process may be corrupted by special interests. If this happens, political outcomes will represent only the self-interest of factions rather than the public interest. Another branch of public choice, growing out of the work of Kenneth Arrow, suggests an even more disturbing possibility: that political outcomes will be entirely incoherent and that the whole concept of the "public interest" is meaningless.

Arrow's Theorem and its various corollaries pose a dramatic threat to the legitimacy of political decisions. If we want the political process to reflect the combined preferences of voters, we seem to be doomed to disappointment. But if the process doesn't reflect the electorate's preferences, what claim does the outcome have to democratic legitimacy?

The first section of this chapter explores Arrow's Theorem and its implications. Next, we consider whether republicanism offers an escape from this prospect of legislative incoherence. We then review recent research on the incoherence issue. Finally, we suggest that these recent findings may open the door to a sort of synthesis of republicanism and public choice theory.

I. Arrow's Theorem and Its Implications

The incoherence issue stems from Arrow's Theorem. Arrow was interested in the problem of measuring social welfare. Given the varying preferences of individuals, when does a change make society as a whole better off? Rather than finding an answer to this question, he ultimately proved that no answer exists. More precisely, he showed that no method of combining individual preferences can satisfy basic requirements like the following:

> (a) *Minimum rationality.* If society prefers outcome A to outcome B and outcome B to outcome C, then society prefers A over C.
>
> (b) *The Pareto standard.* If one person prefers A over B and no one else cares, then society prefers A over B.
>
> (c) *Non-dictatorship.* Society's preferences aren't simply dictated by one person's desires.

(d) *Independence of Irrelevant Alternatives.* If *C* is not on the agenda, whether *A* is preferred to *B* should not depend on how either one compares with *C*.

(e) *Universal applicability.* The method has to work for any possible combination of individual preferences, not just a particular situations.[1]

These are seemingly modest aspirations. And yet, as Arrow showed, even these modest aspirations cannot be satisfied.

Arrow's proof is too complicated to go through here, but the heart of the difficulty can be seen from a simple example involving voting. Suppose that three legislators must vote on where to locate a new federal facility, and that their preferences are as follows:

> *Legislator 1* prefers Texas to Illinois, and Illinois to Florida.
> *Legislator 2* prefers Illinois to Florida, and Florida to Texas.
> *Legislator 3* prefers Florida to Texas, and Texas to Illinois.

Now, suppose they first decide between Texas and Illinois, with the winner to be paired against Florida. Legislators 1 and 3 prefer Texas, so it wins the first round. One the second round, legislators 2 and 3 combine to pick Florida over Texas, so the choice is Florida. Does the choice of Florida represent the "majority will"? No, because two of the three legislators actually prefer Illinois to Florida! In fact, unless procedural rules restrict how many motions can be made, the voting could continue forever. On a majority vote, Illinois loses to Texas, which then loses to Florida—but Florida loses to Illinois, so we're right back where we started! The legislators are trapped in a revolving door with no exit.

Arrow proved that the possibility of "cycling" can only be avoided at the expense of some equally undesirable flaw—for example, by making one legislator the dictator. If we are concerned about defining the "public interest," Arrow's Theorem presents a conceptual barrier to combining individual preferences into some overall measure of social welfare. If our concern instead is with voting methods, Arrow's Theorem shows that no method of voting is immune from breakdowns.

One might hope that, while cycling is a theoretical possibility, it would not occur very often. Later work, however, suggests that under plausible circumstances there will be a complete cycle in majority voting. Take any two outcomes *A* and *Z*, where a majority prefers *A* to *Z*. Although *A* would beat *Z* in a direct vote, a series of motions can always be made replacing *A* with other alternatives, which ultimately results in adoption of *Z*. A majority

1. For a summary of Arrow's work, see D. MUELLER, PUBLIC CHOICE II 384–99 (1989). If we could compare the intensity of preferences on some scale, then we could simply add up the individual scores to determine the social preference. Assumption (d) in the text indirectly precludes this.

would vote to drop *A* in favor of some other option, that option in favor of a third, and so forth, until finally *Z* is adopted. In other words, all of the alternatives cycle. This result is called the "chaos theorem."[2]

The chaos theorem gives enormous power to the agenda setter. The person in charge of the agenda can guarantee the adoption of *A* by pitting *A* and *Z* against each other in a direct vote. On the other hand, the agenda setter can obtain the passage of *Z* by scheduling a clever series of intermediate votes. What looks like majority rule is actually under the complete control of the person setting the agenda, who can exploit the possibility of a cycle to dictate the outcome.

Another problem with voting systems relates to strategic behavior. In our earlier hypothetical, legislator 1 essentially shoots herself in the foot by being too honest. By voting for Texas against Illinois in the first round, she makes a victory for Florida inevitable in the second round, although she would really prefer Illinois to Florida. But if she voted insincerely in the first round, picking Illinois over Texas even though her true preference is the opposite, she would ensure the victory of Illinois in the second round. Thus, by being a bit sneaky, she can obtain a final outcome more to her liking. This kind of strategic voting makes it even more difficult to interpret votes as reflecting majority sentiment in any straightforward way.

Concern about cycling and strategic behavior has made some social scientists skeptical about the meaningfulness of legislative choice. Perhaps the most notable example is Professor William Riker. Riker argues that voting is so susceptible to cycling and strategic behavior that outcomes cannot be understood as expressing the voters' values. Hence, "the meaning of social choices is quite obscure": they may reflect the voters' true values, successful strategic behavior, or the "accidental amalgam of what the manipulators (perhaps unintentionally) happened to produce."[3] Under the chaos theorem, he believes, any tiny change in the situation could lead to a wildly different outcome.[4]

If Riker is right, statutory interpretation becomes a rather desperate enterprise. Suppose a statute sets a deadline of January 1, and a court must decide whether Congress meant midnight of January 1 or the end of the day. If we say that Congress intended the midnight deadline, then presumably Congress would have agreed to a clarifying amendment ("on or before December 31"). Under Riker's view, if a Senator had proposed such an amendment, the result might well have been a July deadline instead, or perhaps an en-

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2. *See* P. ORDESHOOK, GAME THEORY AND POLITICAL THEORY: AN INTRODUCTION 71–82 (1986).

3. W. RIKER, LIBERALISM AGAINST POPULISM: A CONFRONTATION BETWEEN THE THEORY OF DEMOCRACY AND THE THEORY OF SOCIAL CHOICE 167 (1982).

4. *Id.* at 192.

tirely different bill! If so, it may be meaningless to say that Congress had *any* intention at all on the subject. Even if they did, we could never discover it, since in Riker's view the actual results tell us little or nothing about what the legislators wanted.[5] The whole idea that statutes have purposes or embody policies becomes quite problematic, since the content of the statute simply reflects the haphazard effect of strategic behavior and procedural rules.

Professor Riker's view of the meaningless of legislative outcomes has been echoed by Judge Frank Easterbrook:

> Because legislatures comprise many members, they do not have "intents" or "designs," hidden yet discoverable. Each member may or may not have a design. The body as a whole, however, has only outcomes. It is not only impossible to reason from one statute to another but also impossible to reason from one or more sections of a statute to a problem not resolved.
>
> This follows from the discoveries of public choice theory. Although legislators have individual lists of desires, priorities, and preferences, it turns out to be difficult, sometimes impossible, to aggregate these lists into a coherent collective choice. Every system of voting has flaws. The one used by legislatures is particularly dependent on the order in which decisions are made. . . . The existence of agenda control makes it impossible for a court—even one that knows each legislator's complete table of preferences—to say what the whole body would have done with a proposal it did not consider in fact.[6]

While "the order of decisions and logrolling are not total bars to judicial understanding," nevertheless "they are so integral to the legislative process that judicial predictions of how the legislature would have decided issues it did not in fact decide are bound to be little more than wild guesses."[7]

5. For a case study in which agenda control apparently did greatly influence a legislative outcome, see W. ESKRIDGE & P. FRICKEY, CASES AND MATERIALS ON LEGISLATION: STATUTES AND THE CREATION OF PUBLIC POLICY 369–77 (1988).

6. Easterbrook, *Statutes' Domains,* 50 U. CHI. L. REV. 533, 547–48 (1983).

7. *Id.* at 548. Judge Posner, though concerned about the implications of public choice theory, is less inclined than Easterbrook to take these implications to their logical extreme: "Public-choice theory makes the attribution of unified purpose to a collective body increasingly difficult to accept—though I think it is possible to overdo one's skepticism in this regard. Institutions act purposively, therefore they have purposes. A document can manifest a single purpose even though those who drafted and approved it had a variety of private motives and expectations." Posner, *Legal Formalism, Legal Realism, and the Interpretation of Statutes and the Constitution,* 37 CASE W. RES. L. REV. 179, 195–96 (1986–87).

Judge Easterbrook, too, has sometimes drawn back from the full implications of his position. *See* Easterbrook, *Ways of Criticizing the Court,* 95 HARV. L. REV. 802, 828 n.57 (1982) (although "the 'drafters,' as a group, may have no consistent intent," nevertheless the "written product may have a structure that governs questions of interpretation"). Note, however, that this more restrained statement predates the more full-blown skepticism of the *Statutes' Domains*

Professor Jerry Mashaw aptly summarizes the implications of this posi-
tion as "indicating that collective action must be either objectionable or
uninterpretable":

> A stable relationship between the preferences of individuals and
> the outcomes of collective choice processes can be obtained only
> by restrictions on decision processes that most people would find
> objectionable. At its most extreme, Arrovian public choice predicts
> that literally anything can happen when votes are taken. At its most
> cynical, it reveals that, through agenda manipulation and strategic
> voting, majoritarian processes can be transformed into the equiv-
> alent of dictatorship. In a more agnostic mode, it merely suggests
> that the outcomes of collective decisions are probably meaningless
> because it is impossible to be certain that they are not simply an
> artifact of the decision process that has been used.[8]

If legislative outcomes are unrelated to preferences, then the case for major-
ity rule seems pretty shaky. At the more mundane level of legal practice,
those who must interpret statutes are seemingly faced with an impossible
task. Since statutes say nothing about the purposes of the legislators, it is
hard to see how we can resolve ambiguities.

The recent public choice literature suggests that the picture is not quite this
grim. Before turning to that literature, however, we need to consider
whether we could escape the problem entirely by adopting a different philo-
sophical perspective. Instead of looking for loopholes in Arrow's Theorem,
perhaps we can sidestep the problem entirely by rejecting the concept of pol-
itics underlying the theorem. That is the prospect held forth by supporters of
the political philosophy called republicanism.

II. Republicanism

"Republicanism," in the sense used here, is hardly a household word. It is
also a somewhat unfortunate term, since the only meaning it suggests to the
ordinary reader is misleading, inasmuch as the political philosophy called
"republicanism" has no connection with the Republican party. The very ob-
scurity of the term suggests just how much republicanism has been
submerged in American political thought.[9]

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article. On the bench, Judge Easterbrook has continued to find the concept of legislative intent
problematic, but has seemed to acknowledge that courts may sometimes be able to find and
implement something akin to such intent. *See In re* Sinclair, 870 F.2d 1341, 1342–45 (7th Cir.
1989); Premier Electrical Construction Co. v. National Electrical Contractors Ass'n, 814 F.2d
358, 364–65 (7th Cir. 1987).

8. Mashaw, *The Economics of Politics and the Understanding of Public Law*, 65 CHI.-KENT
L. REV. 123, 126–27 (1989).

9. Readers who are not familiar with the republicanism literature would do well to start with

The dominant strand of American political philosophy has been liberalism—another misleading term, since philosophical liberalism is as much embraced by political conservatives as liberals. Because it embraces a broad range of political thought, liberalism is not easy to define. Its distinctive feature, however, is that it begins with the individual rather than the community. Liberals view individuals as having innate human rights regardless of any particular political system. Political conservatives may view these basic rights as involving property while political liberals may stress self-expression or equality. Both agree that these rights are constraints on government rather than creations of government. The familiar language of the Declaration of Independence embodies this view of rights: individuals are endowed by their creator—not by the law—with inalienable rights.

Liberalism also stresses "the pursuit of happiness." Individuals have interests that they seek to advance both in private life and in politics. Subject to its mandate to respect individual rights, government is designed to advance these interests. When individual interests clash, the political process should provide fair procedures for resolving disputes.

Philosophical liberalism is the dominant strain in current American thought, but it has not always enjoyed this status. In the eighteenth century, another political tradition was also highly influential. Historians disagree about the details, but the broad outlines of the story are clear.[10] During the era of the Revolutionary War, Americans were strongly drawn to the teachings of the seventeenth-century Opposition party in England. English thinkers such as James Harrington were appalled by the Crown's use of political patronage to expand executive power. Events that now appear to have been the origins of the modern party system at the time seemed to reflect only the decay of the existing constitutional scheme. The opposition thinkers decried the destruction of the old order, the rise of corruption, and the loss of civic virtue. Ultimately, the health of the republic rested on civic virtue—that is, on the willingness of individuals to sacrifice private interests to the common good. This school of thought, which sought to revive the classical virtues of the Roman republic, has become known as republicanism.

Before the Revolution, Americans were confident in the virtue of the people and satisfied that it provided a sufficient basis for democratic govern-

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the symposium on the subject in the July 1988 issue of the *Yale Law Journal. See Symposium: The Republican Civic Tradition*, 97 YALE L.J. 1493 (1988). The articles by Michelman and Sunstein exemplify the efforts to modernize republicanism, while the commentators offer a number of probing challenges to that effort. Other good critiques of republicanism can be found in Fallon, *What Is Republicanism, and Is It Worth Reviving?*, 102 HARV. L. REV. 1695 (1989); Fitts, *The Vices of Virtue: A Political Party Perspective on Civic Virtue Reforms of the Legislative Process*, 136 U. PA. L. REV. 1567 (1988).

10. For a summary of the historical literature, see D. FARBER & S. SHERRY, A HISTORY OF THE AMERICAN CONSTITUTION ch. 1 (1990).

ment. Legislative abuses between 1776 and 1789 disillusioned many prominent Americans. Having lost faith in virtue as a sufficient basis for government, they turned to alternate theories of government. The republican influence remained, particularly among the anti-Federalists who opposed the new Constitution, but perhaps also among Federalists such as James Madison. One point of controversy is how much republicanism influenced the drafting and ratification of the Constitution.

The republican tradition contained disparate elements, including a belief in traditional social hierarchies and a militarist strand, as well as concerns about civic virtue and corruption. Modern political thinkers find some of these elements quite uncongenial, but have seized on others as a possible alternative to philosophical liberalism. In doing so, they have been primarily interested in creating an alternate normative scheme to liberalism, but they have also found elements of republicanism already in existence in contemporary political life.

Modern reconstructions of republicanism stress civic virtue. For modern republicans, political life is more than the use of government to further the ends of private life, as it is in liberalism. Rather, politics is a distinct and in some respects superior sphere. By participating in public life, citizens rise above their merely private concerns to join in a common enterprise. They put aside their own interests and enter a public-spirited dialogue about the common good. Once found, the public interest disciplines their private pursuits. Indeed, one of the most important tasks of government is to make the citizenry more virtuous by changing individual preferences.[11]

The republican vision of government is strikingly unlike that animating public choice. In public choice, government is merely a mechanism for combining private preferences into a social decision. The preferences themselves remain untouched. In republican thought, private preferences are secondary; they are if anything the products of government action rather than its inputs. As compared with public choice, republicanism views the role of government as far more creative. Rather than mechanically processing preferences, government involves an intellectual search for the morally correct answer. In a nutshell, as Frank Michelman has written:

> [M]ajoritarian politics cannot be only the individualistically self-serving activity "realistically" portrayed by economics-minded

11. In addition to the materials in the Yale symposium (see note 9, *supra*), good summaries of the modern republican position can be found in Sunstein, *Interest Groups in American Public Law*, 38 STAN. L. REV. 29 (1985); Michelman, *Foreword: Traces of Self-Government*, 100 HARV. L. REV. 4 (1986). For an argument for expanding participatory politics in place of liberal politics, see B. BARBER, STRONG DEMOCRACY (1984). On deliberation in Congress, see A. MAASS, CONGRESS AND THE COMMON GOOD (1983). Of course, civic virtue and dialogue are not necessarily linked: one could conceivably have either one without the other. It is easier, however, to have them together.

> political scientists and theorists. Politics must also be a joint and
> mutual search for good or right answers to the question of direc-
> tions for our evolving selves. In other words, . . . we must be able
> to imagine ourselves voting for the Endangered Species Act—that
> is, committing ourselves to the principle of sympathy, or solidarity,
> or immanence, or whatever principle we think is expressed by the
> Act—although we would not as individuals be willing (or bet that
> our constituents would be willing) to pay any measurable sums of
> money for the enactment of that principle; and although no one has
> offered us anything in exchange for our vote, explicitly or im-
> plicitly; and although we know well that we may someday find our
> own private projects inconvenienced or thwarted by the statute and
> the principle to which we are now committing ourselves.[12]

It would be hard to imagine a vision of politics much more distant from the
rent-seeking models we discussed in the previous chapter, or from the chaos
and cycling of Arrow's Theorem.

Much of republicanism's appeal lies in just this contrast with public
choice. Where public choice theorists find voter turnout inexplicable, re-
publicans find it a paradigm case of civic virtue. Where public choice
theorists see self-interest behind every statute, republicans hope to find a
quest for the public good. And where public choice theorists see haphazard
cycling and strategic behavior, republicans discern the possibility of genuine
political dialogue.

Republicans can escape from the dismal implications of Arrow's The-
orem by rejecting the entire perspective on politics behind the theorem.
Public choice sees politics as a machine, with preferences as the input and
decisions as the output. For republicans, however, preferences are shaped by
politics; dialogue and reason are the energizing forces behind political deci-
sions. From a republican perspective, the only surprise about Arrow's
Theorem is that Arrow could prove mathematically what republicans regard
as an obvious truth: government cannot be regarded as simply the hand-
maiden of private preferences.

Some of the lessons of republicanism are attractive: that ideas as well as
pocketbooks matter in politics, that civic-mindedness is more than a myth,
and that government can be a moral teacher as well as a reflection of public
opinion. While it is possible to overemphasize these elements of political
life, it is equally wrong to dismiss them, as some public choice theorists
have been prone to do. In short, republicanism can nicely complement pub-
lic choice theory.

Nevertheless, where public choice theory risks cynicism, republicanism
can verge dangerously on romanticism. Contemporary republicans admit

12. Michelman, *Politics and Values or What's Really Wrong With Rationality Review?*, 13
CREIGHTON L. REV. 487, 509 (1979).

that the political process is subject to rent-seeking and other flaws of the kind identified by public choice theory. They may overestimate, however, the extent to which the public deliberation can break the link between prior preferences and political outcomes. More generally, they overplay the contrast between political and personal life.

It is unrealistic to draw a sharp line between personal preferences and political values, placing the latter in a higher sphere.[13] Most people's personal preferences and political values are connected. Not all supporters of the Endangered Species Act are dedicated backpackers. But their appreciation of animals and plants is usually not limited to the voting booth, whether it takes the form of recreation in city parks, gardening, or watching National Geographic specials. It would be rather odd to meet an environmentalist crusader who had absolutely no personal interest in nature. Normally, we expect individuals' political values to have some relationship to their personal lives.

The very difference between a personal interest and a public value is often in the eye of the beholder. In seeking government price supports, is the owner of a Wisconsin dairy farm seeking a merely personal reward, or upholding the traditional values of the family farm? In supporting affirmative action, is a minority contractor seeking racial justice, or just a spot at the public trough? Where is the line between private preference and public value? These questions are far more difficult than republicans seem to assume.

It may also be a mistake to exalt the public sphere over the private. Republicans sometimes view the private sphere as limited to rather trivial consumption decisions (buying Nintendos, Walkmen, etc.). But private life contains a great deal more, much of it at least as worthy as political life: raising a family, viewing or creating art, healing the sick, or advancing human knowledge. It is not immediately obvious that attending political meetings is any more virtuous than these aspects of private life.

Besides undervaluing individual preferences, republicans may also overestimate the capacity of dialogue to transform those preferences. Where political positions are reinforced by self-interest, discussion rarely causes major changes. Regardless of argument, individuals are likely to cling to their own political views, not because those views are merely camouflage for self-interest, but because it is so tempting to embrace beliefs that are also in one's self-interest. In important political disputes, neither side is likely to have a knockdown argument. Often, the facts will be in dispute or clashing values will resist philosophical resolution. Thus, both sides will be able to maintain their prior positions in good faith. This is not to say that political

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13. For an extended discussion of this issue, see Farber, *Environmentalism, Economics, and the Public Interest,* 41 STAN. L. REV. 1021 (1989).

debate is fruitless but only that it is no panacea. In modern societies, diversity of political preferences will be the rule rather than the exception.

Once the government has decided, the republican expectation is that individual preferences will fall into line.[14] While governments may sometimes give moral leadership, it is probably a mistake to overestimate the pliability of private preferences. Even totalitarian governments have great difficulties overcoming cultural patterns, as evidenced by Soviet failures to persuade farm workers of the glories of collective farming, not to mention the recent collapse of forty years of communist rule in Eastern Europe. Democratic governments are likely to be even less successful in remolding preferences; after all, the powers at their disposal are so much weaker. Public choice theory may err in seeing preferences as entirely exogenous, but it would also be a mistake to see them as subject to government control.

Because of its romanticism, uncritical acceptance of republicanism also carries risks. Being confident that the political process yields more valid results than private preferences, republicans may be overly inclined toward government intervention. From believing that pubic deliberation yields superior answers, it is only a small step to the desire to impose politically correct behavior on the ignorant populace. The dark side of republicanism is its potentially totalitarian tendency to subordinate individuals to the public good, as defined by governmental elites.

While republicanism can be a useful counterweight to public choice, it does not eliminate the Arrovian difficulty. So long as dialogue and public deliberation fall short of producing unanimity, the problem of producing a joint decision remains. The question, then, is whether this can be done without insuperable cycling and strategic behavior.

III. Chaos and Coherence in Legislatures

Despite the hopes of republicans, fundamental differences in preferences will probably persist in the populace, and in the legislature itself, in spite of deliberation. Thus, we must take as given the existence of diverse preferences and then seek to determine the viability of democratic institutions.

As we saw at the beginning of the chapter, public choice theory has led some writers such as Judge Easterbrook and Professor Riker to conclude that legislative incoherence is inevitable given a diversity of preferences. The heart of the Easterbrook-Riker position in Arrow's Theorem, for it is cycling that most often creates the opportunities for strategic behavior and renders legislative outcomes suspect. Arrow's Theorem, despite its importance, may not have as much to say about legislative behavior as Easterbrook and

14. *See* Sunstein, *Legal Interference with Private Preferences,* 53 U. CHI. L. REV. 1148, 1154 (1986) ("the role of government is to shape preferences").

Riker seem to believe. As one scholar recently observed, "the theoretical results achieved by the formal analysis of legislative choice are markedly inconsistent with our empirical knowledge of legislatures such as the U.S. Congress."[15]

> Extant theory implies that stable outcomes typically do not exist, that the outcomes which do occur are inherently unpredictable, and that consistent policy choices by legislatures are not to be expected due to the prevalence of cyclical majorities. Schofield, for example, concludes from his survey of social choice theory that political processes are fundamentally chaotic and unpredictable, that almost anything can happen. But these theoretical expectations are clearly at odds with what we know empirically about most legislatures. Unless the observed stability of legislative processes is simply dismissed as illusory, this inconsistency between theory and observation poses awkward problems for formal theorists. How this inconsistency can be remedied is consequently a principal question on the research agenda now emerging in formal theory.[16]

The reasons for the gap between theory and reality are not entirely clear, but recent scholarship identifies the following major factors.

To begin with, Arrow's Theorem implies the existence of cycles only given certain conditions.[17] These conditions may not always apply. For example, cycling cannot occur if the members of the group have "unipeaked preferences." In a legislature, this can occur if legislators agree in advance on how to rank their choices on the same liberal-to-conservative scale. Each legislator's vote would be determined by how close a bill was to her own ideal location on the scale.[18] The likelihood of having sufficiently "well-behaved" preferences to avoid Arrow's theorem is presumably much greater in a small group like a legislative committee. Nevertheless, according to some recent work, the votes of members of the United States Congress are often determined by the legislator's position on a unidimensional, liberal-conservative spectrum.[19]

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15. Panning, *Formal Models of Legislative Processes,* in HANDBOOK OF LEGISLATIVE RESEARCH 689 (1985).

16. *Id.* at 680–81. *See also* D. MUELLER, *supra* note 1, at 94 (outcomes more stable in practice than in theory); Shepsle, *Prospects for Formal Models of Legislatures,* 10 LEGIS. STUD. Q. 5, 10–11 (1985) ("neither interpretation" of the chaos theorem—that either there must be a dictatorial agenda setter or legislative outcomes must "wander anywhere"—"rings true in any real-world legislative context").

17. For recent summaries of the various methods of evading Arrow's result, see Farber, *From Plastic Trees to Arrow's Theorem,* 1986 U. ILL. L. REV. 337; Sen, *Social Choice and Justice: A Review Article,* 23 J. ECON. LITERATURE 1764, 1770–74 (1985).

18. *See* K. ARROW, COLLECTED PAPERS OF KENNETH J. ARROW: SOCIAL CHOICE AND JUSTICE 78–87 (1983); A. SEN, COLLECTIVE CHOICE AND SOCIAL WELFARE 166–72 (1970).

19. *See* K. Poole & H. Rosenthal, The Unidimensional Congress, 1919–1984 (1986) (un-

Unipeakedness avoids cycling by placing limitations on voter prefer-
ences. Cycling can also be eliminated by what may seem a rather brutal
restriction of preferences: identical preferences for a majority of voters. In
the abstract, this may seem an unlikely coincidence, but a strong two-party
system effectively produces this result, since all members of the majority
party normally vote together. A two-party system may also eliminate cycling
at the electoral stage. Suppose that each party proposes a package of legisla-
tion as its platform. Voters are assumed to be more likely to vote for the
package that is closer to their ideal. To maximize their chances of victory,
both parties will propose the platform that maximizes voter welfare.[20] After
the election, assuming that campaign promises are kept, the legislature en-
acts the program. Thus, the two-party system can help limit cycling by
identifying a unique preferred result.

Cycling can also be prevented by voting procedures. One important focus
of pubic choice concerns agenda setting, decisional structure, and arbitrary
outcomes.[21] Legislatures apparently use a variety of structures, rules, and
norms to ameliorate the problem of cycling majorities.[22] As a result, legisla-

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published paper). Poole and Rosenthal suggest that this strong unidimensionality in roll call
voting is attributable in part to earlier bargaining at the committee level and to optimizing behav-
ior by political actions in models of incomplete information. "Unidimensionality 'solves' the
following problems: (1) it allows horse-trading to occur among spatially adjacent actors in de-
fining the midpoint on a given issue. Conditional on the midpoint, liberals and conservatives
will look like they are voting in a consistent, nonstrategic fashion that maintains their voting
histories . . . , thereby preserving their reputations . . . with their electorates; (2) from the
viewpoint of voters and campaign contributors, a single index greatly simplifies decision prob-
lems in an information poor environment; similarly, the dimension greatly facilitates cue-taking
by members of Congress, who, massive staffs notwithstanding, are clearly information over-
loaded when faced with hundreds of roll calls a year." *Id.* at 28. After criticizing their
methodology, Kenneth Koford concludes that a unidimensional scheme explains 25–50% of
votes, still a significant number. *See* Koford, *Dimensions in Congressional Voting,* 83 AM.
POL. SCI. REV. 949, 954 (1989).

20. This model is discussed in D. MUELLER, *supra* note 1, at 196–216; Wittman, *Why De-
mocracies Produce Efficient Results,* 97 J. POL. ECON. 1395, 1414–15 (1989).

21. For an overview of the literature, see Panning, *supra* note 15, at 676–78, 681–82. Legal
readers may find the thoughtful discussion in Levmore, *Parliamentary Law, Majority Deci-
sionmaking, and the Voting Paradox,* 75 VA. L. REV. 971 (1989), more useful. Agenda control
and legislative decisional structure can also influence outcomes even when cycling majorities
are not present, for example, by keeping popular alternatives entirely off the voting agenda. *See
generally* Levine & Plott, *Agenda Influence and Its Implications,* 63 VA. L. REV. 561, 564
(1977) ("[A]genda or groupings in which alternatives are considered for adoption or elimina-
tion can be a major parameter in determining what a group will ultimately choose"). For some
experimental confirmation of this hypothesis, see Wilson, *Forward and Backward Agenda
Procedures: Committee Experiments on Structurally Induced Equilibrium,* 49 J. POL. 390
(1986).

22. These devices and norms have other consequences as well, such as their tendency to
increase legislative bias in favor of the status quo. For a discussion of how the article I structure

tures possess "structure-induced equilibrium," to use the phrase coined by social scientists researching the impact of Arrow's Theorem in concrete legislative settings.[23] Although Judge Easterbrook acknowledges the importance of agendas in legislatures, he seems to view them as an additional source of arbitrariness and unpredictability.[24] The recent public choice literature suggests, however, that agenda rules make outcomes more predictable and therefore more understandable. Moreover, agenda rules increase the power of the legislative leadership, and having powerful leadership should increase the predictability and intelligibility of results.[25]

Thus, various institutional features of legislatures may promote stability and coherence. Even without these institutional features, instability in voting outcomes may not be as much of a problem in reality as it seems in theory. In carefully controlled voting experiments, political scientists have found that voting outcomes are fairly predictable and clustered even when the voters' preferences contain massive cycles. Theoretically, the results of voting should wander over all possible outcomes, but in reality voting has a strong tendency to favor compromise outcomes.[26]

These empirical results are paralleled by new, more sophisticated formal models.[27] In these new models, even when the preference scheme is saturated with cycles, voting outcomes remain stable and predictable.[28] These

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of decisionmaking prevents cycling and favors the status quo, see Mayton, *The Possibilities of Collective Choice: Arrow's Theorem, Article I, and the Delegation of Legislative Power to Administrative Agencies,* 1986 DUKE L.J. 948, 954–58.

23. *See* Shepsle & Weingast, *Structure-Induced Equilibrium and Legislative Choice,* 37 PUB. CHOICE 503–19 (1981); *see also* Shepsle & Weingast, *Uncovered Sets and Sophisticated Voting Outcomes with Implications for Agenda Institutions,* 28 AM. J. POL. SCI. 49, 69 (1984) (concluding that "only in the simplest of institutions . . . does the cyclicity of the majority-rule preference relation directly characterize outcomes"); Shepsle & Weingast, *When Do Rules of Procedure Matter?,* 46 J. POL. 206, 208 (1984) (considering the effect of institutional practices on majority coalitions).

24. *See* Easterbrook, *supra* note 6, at 547–48.

25. Riker may be correct that democratic procedures place a premium on the creativity and intelligence of leaders, but we doubt that many people share his view that this is somehow objectionable. W. RIKER, *supra* note 3, at 200.

26. *See* Fiorina & Plott, *Committee Decisions under Majority Rule: An Experimental Study,* 72 AM. POL. SCI. REV. 575, 590 (1978); Ferejohn, Fiorina, & Weisberg, *Toward a Theory of Legislative Decision,* in GAME THEORY AND POLITICAL SCIENCE 170–73 (P. Ordeshook ed. 1978). On the other hand, even where there is a single alternative that dominates all others, it is not always picked. *See* Hoffman & Packel, *A Stochastic Model of Committee Voting with Exogenous Costs: Theory and Experiments,* 27 BEHAVIORAL SCIENCE 43, 44–45 (1982) (note, by the way, how some of the participants cleverly evaded the experimental design to gather information and find a "mutually acceptable" solution, *id.* at 52–53).

27. For a brief summary of the literature, noting its relevance to the Riker thesis, see Coleman & Ferejohn, *Democracy and Social Choice,* 97 ETHICS 6, 23–24 (1986).

28. *See* Ferejohn, McKelvey, & Packel, *Limiting Distributions for Continuous State Markov Voting Models,* 1 SOCIAL CHOICE 45 (1984); Grofman, Owen, Noviello, & Glazer, *Stability and Centrality of Legislative Choice in the Spatial Context,* 81 AM. POL. SCI. REV. 539 (1987)

models involve a wide range of assumptions, ranging from strategic voting and open amendment processes[29] to a partially random amendment process involving coalitions of voters.[30] The models also use various mathematical tools to describe the focal area of legislative outcomes, variously defined as the "uncovered set," the "yolk," or the "strong point."

We will not attempt to discuss these highly technical mathematical models in any detail, but the reader is at least entitled to some idea of what these terms mean. Briefly, the uncovered set consists of outcomes that could survive sophisticated voting procedures by "dominating" other outcomes.[31] The yolk is the smallest sphere that intersects all of the median planes, where a median plane is one that divides the voters' ideal points (each voter's most preferred outcome) into groups of equal size. In a rough sense, the center of the yolk is the median of the various voters' ideal outcomes.[32] The strong point or Copeland winner is the one that beats the most alternatives in pairwise voting.[33]

Remarkably, these very different definitions all turn out to describe very similar outcomes.[34] These solutions also become more and more specific, the closer any single outcome comes to beating every other outcome (a Condorcet winner).[35] Small changes in preferences or agendas do not lead to big

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[hereinafter cited as Grofman]; Miller, *A New Solution Set for Tournaments and Majority Voting: Further Graph-Theoretical Approaches to the Theory of Voting*, 24 AM. J. POL. SCI. 68 (1980).

29. *See* McKelvey, *Covering, Dominance, and Institution-Free Properties of Social Choice*, 30 AM. J. POL. SCI. 283, 297 (1986); Shepsle & Weingast, *Uncovered Sets and Sophisticated Voting Outcomes with Implications for Agenda Institutions*, 28 AM. J. POL. SCI. 49, 69–71 (1984) (exploring the effects of different agenda formation rules).

30. *See* Ferejohn, McKelvey, & Packel, *supra* note 28, at 59. *See also* Banks, *Sophisticated Voting Outcomes and Agenda Control*, 1 SOCIAL CHOICE & WELFARE 295 (1985) (similar results with exogenous agenda).

31. *See* McKelvey, *supra* note 29, at 288–89, 296–97. Equivalently, we can define the uncovered set as consisting of those alternatives that can beat all other alternatives in no more than two moves (either they beat any alternative X, or they can beat some alternative Y, which in turn can beat X.) *See id.* at 289. To see what this has to do with sophisticated agenda voting, the reader may find it helpful to work through the following hypothetical. Suppose A beats B and C, B beats C, C beats D, and D beats A and B. B is not part of the uncovered set, because it neither beats A directly nor beats anything else that can beat A. (Note, however, that B does cycle with A, but the cycle goes through both C and D before getting to A.) A little fiddling with pencil and paper will show that B cannot be the winner, regardless of the agenda order, if voters are sophisticated. On the final vote, they will vote for B only if it is paired with C, but since they prefer A to both choices, they will always pick it when it appears earlier on the agenda.

32. Ferejohn, McKelvey, & Packel, *supra* note 28, at 59.

33. *See* Grofman, *supra* note 28, at 541.

34. This point is developed at length in the Grofman article, which also summarizes the prior literature. *See* Grofman, at 547–49; *see also* McKelvey, *supra* note 29, at 304–5 (uncovered set centers around yolk).

35. *See* Cox, *The Uncovered Set and the Core*, 31 AM. J. POL. SCI. 408, 417–20 (1987) (uncovered set shrinks to the core).

outcome swings. These models limit voting outcomes to relatively small subsets of all those possible. Even in the presence of massive cycling possibilities, these models predict stability of a kind missing from earlier models.[36]

Another source of stability consists of behavioral norms such as fairness.[37] Consider a very simple voting situation[38] in which three children—Andy, Betsy, and Carol—must vote over how to divide three dollars among themselves.[39] Assuming they seek to maximize their own gains, any proposal can always be upset by another proposal preferred by two of the players. For example, if Andy and Betsy vote to divide the money equally between themselves, Carol can make a motion to give Andy two-thirds and one-third to herself. This makes Andy and Carol both better off, so the amendment wins, leaving Betsy with nothing. But then Betsy can offer Carol a 50-50 split, making the two girls both better off, with Andy out in the cold. This process has no ending point: in technical terms, this game has no "core."[40] Yet there is a natural solution point: an equal three-way split (technically, the "value solution" of the game[41]). Any of the children *could* offer an amendment that would beat this outcome—but what would be the point of doing so, since this would simply set off a round of endless cycling? In a sense, the existence of massive cycling provides the basis for a new form of equilibrium, adopted precisely in order to avoid the cycles.[42]

Such norms should emerge even more strongly in voting situations that already have a certain stability, because of procedural rules or reasonably small "uncovered sets." The incentive to move away from these "natural"

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36. For a general description of the results, see Panning, *supra* note 15, at 681.

37. Indeed, one common problem in designing voting experiments is the risk that participants will vote for "fair" rather than individually rational outcomes. *See* Wilson, *Results on the Condorcet Winner: A Committee Experiment on Time Constraints*, 17 SIMULATION & GAMES 217, 222–25 (1986); Fiorina & Plott, *supra* note 26, at 582 (describing pilot experiments).

38. As we will see, this simple model captures the essence of the "chaos" results on majority voting: "One common interpretation of those results is that institutions that use majority rule ought not to work: since choices are cyclical, losers should always be able to find some alternative they like better that could defeat the present status quos, and so on ad infinitum. Thus, all legislatures should be in constant turmoil as losers try to reverse decisions they do not like." Grofman, *supra* note 28, at 539. The simple voting game in the text has the same attribute, inasmuch as a loser can always propose a new split that will win a majority over the status quo, whatever the status quo might be.

39. For a general discussion of such "fair division" games, see M. SHUBIK, GAME THEORY IN THE SOCIAL SCIENCES: CONCEPTS AND SOLUTIONS 306–11 (1982).

40. *See* Wiley, *Antitrust and Core Theory*, 54 U. CHI. L. REV. 556, 559–61 (1987).

41. *See* M. SHUBIK, *supra* note 39, at 183–84; *see also id.* at 178—79, 413 (noting relevance of value solution to fair division games).

42. One of the hopes of game theorists is that the "solutions" to games will provide a deeper understanding of social norms and institutions, rather than simply identifying clever strategies for individual players. *See id.* at 2–3, 7.

equilibria is small, because the ensuing cycling is likely to send the outcome back into the equilibrium area anyway. Rational behavior calls for quickly finding and sticking with the equilibrium area. Successful institutions will have such norms, thus reinforcing any tendency toward equilibrium that is already present. The norms need not be explicit, but can be based on implicit understandings and sanctions, which are especially likely to arise in situations like legislatures where participants have long-term, ongoing interactions.[43]

"Natural selection" would eliminate any legislature that failed to develop defenses to cycling and instability. What purpose is served by a legislature whose outcomes are entirely unpredictable and fortuitous? One might as well have legislation chosen by lot from lists of proposals. Obviously, a totally unstable legislature cannot further any version of the public good, or even advance the welfare of any interest group. It cannot even further the self-interest of the legislators themselves; because the outcome of the legislative process is fortuitous, no one has any incentive to reward individual legislators.

In short, we have very strong reasons for believing that actual legislatures do not suffer greatly from instability and incoherence. Apart from this negative conclusion, can we draw any positive implications from this segment of the public choice literature? We believe that at least some tentative conclusions can be drawn from this evolving body of theory. We stress, however, the need for tentativeness: first, because of the inherent difficulties of translating tidy formal models to an untidy legal world; second, because the models are themselves still evolving; and third, because of the risk that outsiders such as law professors will misinterpret technical mathematical models. With these caveats in mind, however, we do think public choice has some useful guidance to offer.

Let us begin with the easy case of unipeaked preferences. Suppose that the legislative history shows that the vote on a crucial provision was ideological, so that all legislators "Left" of a certain point voted one way and those to the "Right" voted another. The outcome represents the majority will in a very straightforward sense.

Unipeakedness also simplifies the task of interpretation if the application of the provision to a given situation is unclear. Public choice theory suggests that the legislation represents the outcome most preferred by the median leg-

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43. For discussions of how such implicit understandings can arise in long-term interactions, even though the parties are entirely self-interested and no external enforcement of agreements is possible, see R. AXELROD, THE EVOLUTION OF COOPERATION 73–108 (1984). For an example of such cooperative behavior in an actual legislative setting, see Krehbiel, *Unanimous Consent Agreements: Going Along in the Senate*, 48 J. POL. 541 (1986). Noncooperative bargains are explored in Baron & Ferejohn, *Bargaining in Legislatures*, 83 AM. POL. SCI. REV. 1181 (1989).

islator.[44] Given two possible interpretations of the provision, one may seem much closer than the other to this median position. A court can then say with some assurance that if the two interpretations had been offered for a vote, the one closer to the median legislator's views would have won.[45]

Actual legislative situations may be messier because of deviations from unipeakedness or because preferences fall on more than one dimension.[46] Nevertheless, an analogue to the "median legislator" may still exist. The "sense of the legislature" or legislative center of gravity corresponds to the solution sets (yolk, strong point, uncovered set or whatever) of recent formal models. These solutions tend to be close together. Some of them explicitly combine the views of all legislators but give less weight to those with extreme preferences, just like the "median" of a one-dimensional distribution.[47] Given the preferences of the legislators, these models identify a centrist position which represents the likely outcome of legislation. We can think of this as either representing the views of a "typical" centrist legislator, or we can think of it as the target the legislature was trying to hit. Either way, we can identify which outcomes are closest to this centrist position. Thus, we can generalize the idea of a "median legislator" to a much wider range of conditions.

Judges are in no position to perform the elaborate calculations involved in these mathematical models. Many judges, however, may have a good intuitive sense of the legislative center of gravity.[48] (When political parties are strong, party members tend to vote as if they had identical preferences, making the center of gravity easier to find.) Knowing the location of the legislative center, a judge may often be able to see that one reading of a provision places it much closer to the legislative center than another. As we suggest in chapter 4, statutory interpretation is a complex process, not necessarily limited to considerations of original intent. When original intent is relevant, however, finding the legislature's center of gravity may be a very useful way of thinking about intent. In any event, there is no reason to give way to the cynicism about legislative stability and coherence advocated by Riker and Easterbrook.

44. *See* W. RIKER, *supra* note 3, at 62.

45. The idea that courts attempt to identify the position of the median legislator is suggested in Fiorina, *Legislator Uncertainty, Legislative Control, and the Delegation of Legislative Power,* 2 J.L. ECON. & ORG. 33, 39 (1986).

46. Also, the precise preferences may be hard to determine, so that as a practical matter we must replace the median voter with a fuzzier concept of legislative consensus.

47. *See* Grofman, *supra* note 28, at 541–43, 548–49.

48. After all, the subjects of voting experiments were ignorant of game theory, but their actions showed they were nevertheless able to identify a centrist solution. There is good reason to believe that legislators too are capable of finding stable centrist outcomes without knowing the mathematics of uncovered sets.

In a sense, the Riker/Easterbrook thesis proves too much. If chaos and incoherence are the inevitable outcomes of majority voting, then appellate courts (which invariably have multiple members and majority voting rules) and even the 1787 Constitutional Convention are equally bankrupt. As a result, the Riker/Easterbrook thesis is bereft of any implications for public law, since it tells us to be equally suspicious of *all* sources of law. If we accept the thesis as to legislatures, we are left with nowhere to turn.

Fortunately, as we have seen, the chaos theorem is not reflected in the actual behavior of legislatures. These findings make the concept of a coherent legislative intent tenable, but they do not dispel the normative anxiety expressed by Mashaw and others. Perhaps legislatures are not chaotic, but they may still be arbitrary. If structural features such as agenda rules rather than majority preferences determine outcomes, what becomes of the normative case for democracy? Knowing that outcomes are predictable and stable is of little comfort if they are also unconnected with anything that can plausibly be called the popular will or the public interest.

IV. Public Choice and Legislative Deliberation

At present, our understanding of the stabilizing features of legislatures is still primitive. Any effort to assess the normative implications of those features must be tentative. It is not too early, however, to attempt at least an initial assessment of the normative issues.

One of the basic rules of legislative procedure is that any proposal must win a majority vote when paired against the status quo. This helps induce stability by limiting the set of possible outcomes. It also makes independent normative sense: clearly, the legislature should not adopt a measure when a majority prefers the status quo. While this rule is so simple that we take it for granted, it is the major distinction between democracy and dictatorship.

Stability can also be increased by restricting votes to a single dimension of dispute. This can be done through a "single subject" rule, by requiring bills to fit within the jurisdiction of specialized committees, or by a germaneness rule for amendments. Essentially, each of these devices seeks to ensure a sort of rationality. A combined vote on two unrelated issues (say abortion funding and arms control) leads to irrational results because preferences about abortion funding have no relevance to arms control.

Single-dimensionality is strongest as a source of coherence when preferences are unipeaked—for example, when a legislator's preferences are determined by her location on a liberal-to-conservative ideological scale. The republican conception of community requires that at some level everyone share a single set of preferences. Unipeakedness is a weaker but more realistic form of community. People may disagree strongly about outcomes, but they share a common cultural perspective which makes their disagreements coherent and understandable to each other. Single-peakedness

enables people to locate their own positions with respect to those of others, to identify the source of disputes, and to reach coherent and consistent decisions.

Another structural stabilizer involves the use of committees as gate-keepers. Again, this device has at least some normative appeal apart from its stabilizing effects. Committees may develop useful specialized knowledge, which may increase the value of legislation, and they also offer an oppor-tunity for group deliberation that may be unmanageable on the floor of the legislature. Either on the floor or in committee, deliberation may also pro-vide an opportunity for changes in preferences; not, presumably, by revamping basic individual values, but by providing additional information about how to implement those values most effectively and about the inten-sity with which preferences are held.

Moreover, committees may also give some degree of veto power to the constituencies most vitally affected by certain legislation, giving them a form of insurance against adverse government actions. Suppose that most individuals have a particular vital interest that could be impaired by legisla-tion. The committee system has two effects on them. If they control the relevant committee, they can veto legislation that affects their own crucial interest. On the other hand, other committees will veto legislation that might benefit that particular group, depriving the group of possible gains. Those lost gains are like the premiums paid for insurance against catastrophic loss. If individuals are "risk averse," they may find this an attractive tradeoff.[49]

The norm of fair division, which also supports stability, has obvious eth-ical underpinnings. It limits the extent to which losses are disproportionately imposed on subgroups. Like the committee system, this has an insurance-like aspect. It may also reflect more fundamental ethical concerns because of its egalitarian tinge. It can also reinforce concepts of community, by func-tioning as an acknowledgment of mutual concern and respect.

As we saw earlier, strong political parties can also help limit cycling. Probabilistic models of two-party systems also suggest that the resulting out-comes may have desirable normative properties. In fact, the "invisible hand" of political competition may lead to party platforms that optimize voters' utilities, a result utilitarians like Bentham and Mill would surely ap-plaud.[50] This is a somewhat idealized picture of party politics, but it does

49. The normative benefits and risks of the committee system are explored in Shepsle, *Rep-resentation and Governance: The Great Legislative Trade-off*, 103 POL. SCI. Q. 461 (1988).

50. *See* D. MUELLER, *supra* note 1, at 201–2. Rather than electing legislators, the parties can be thought of as nominating presidential candidates, who garner votes based on their plat-forms. The presidential platforms will then converge on the utility maximizing outcome. If party discipline is weak in Congress, but presidential voting operates in the postulated fashion, then the President may be a truer representative of the public's preferences than Congress. (Note, however, that if voters differ in their responsiveness to changes in platforms, say because

have its appeal. Other work by more empirically inclined political scientists suggests that strong parties may serve an important role in constraining special interest groups.[51] Thus, the party system can have some normative attraction.

These anti-cycling devices[52] are not, of course, wholly beneficent in effect. Each device has potential side effects. Committees can given special interests the power to manipulate agendas or kill beneficial legislation. Ideology can take the place of thought or turn into fanaticism.[53] Issue-by-issue voting on expenditures can lead to runaway deficits, since those favoring individual programs are not forced to set priorities. Compromise based on norms of fair division can erode principled commitments. Political parties can quash debate and suppress important issues. Nevertheless, despite the possibilities of abuse, these stabilizers have important normative virtues. They are not just arbitrary methods for avoiding cycling and instability. Rather, they have independent normative appeal as fair procedures for making decisions.

Of all the implications of public choice theory, this may be the most profound, and yet it is insufficiently appreciated in the public choice literature. Much of the scholarship inspired by public choice exhibits enormous sophistication in its efforts to describe the political process, but at the same time applies less sophisticated normative standards. This mismatch can lead to an unduly pessimistic view of the political process. Public choice does reveal the inadequacies of simple "majority rule" as a method of government. It is tempting to equate democracy with pure majority rule, with unhappy consequences for the scholar's appraisal of democracy. But another way of reading the lessons of public choice is to make our normative vision more sophisticated. We can still use "democracy" as a normative standard for assessing actual government institutions, but we need to realize that democracy involves more than simply majority rule.

Public choice theory thus has an unexpected connection with republican-

some voters are better informed than others, then the more responsive voters will have a greater impact on the optimum platform, which will then maximize the sum of individual utilities weighted by individual responsiveness.)

51. Recent work by Michael Fitts reviewing this literature has stressed the normative attractiveness of strong political parties as components of the political system. *See* Fitts, *Can Ignorance Be Bliss? Imperfect Information as a Positive Influence in Political Institutions,* 88 MICH. L. REV. 917 (1990). *See also* M. FIORINA, CONGRESS: KEYSTONE OF THE WASHINGTON ESTABLISHMENT 162 n.6 (2d ed. 1989).

52. One other source of stability should also be mentioned. The range of possible outcomes can be sharply limited by strategic voting. *See* P. ORDESHOOK, *supra* note 2, at 266–81. Strategic voting means that voters look ahead on the agenda, frustrating the efforts of agenda setters to manipulate outcomes. This intelligent action by voters can prevent perverse outcomes in which voters would be led to undesired results. This seems to increase the rationality of the process.

53. *See* Rose-Ackerman, Book Review, 6 YALE L. & POL. REV. 505, 512 (1988).

ism. At first sight, the two seem irreconcilable: one seemingly based on a glumly pessimistic appraisal of politics while the other seems nearly utopian in its aspiration for the political process. But republicanism is basically a protest against the view that the political process is a purely passive reflection of preexisting preferences.[54] Public choice theory supports republicanism on this crucial point, because arbitrary preferences by themselves cannot generate coherent social choices.[55] Rather, preferences have to be processed through the legislative machinery, applying norms such as fairness and using committees and other stability-enhancing devices. Choice is considerably expedited if there is sufficient cultural consensus to generate unipeaked preferences along single dimensions of dispute. By undermining pluralism, public choice provides support for at least a weak form of republicanism, in which government is seen as not merely passive but instead as actively processing preferences.

Some of the stabilizing features identified by public choice are particularly evocative of republicanism. Unipeakedness reconciles the social diversity sought by traditional liberals with the cultural unity admired by republicans: a social consensus about the dimension on which policies will be assessed, combined with potentially unlimited diversity along that dimension. Devices such as the use of committees, germaneness rules, and preset agendas increase legislative deliberation, something much desired by republicans. Political parties can provide opportunities for political participation and communal discourse. Perhaps most strikingly, fairness norms involve a considerable degree of civic virtue—they call on individuals to moderate their own claims while respecting those of others.

In the work that originally gave rise to much modern public choice theory,[56] Arrow's concern was less with the political process than with how to measure social welfare.[57] His finding was that, in general, individual preferences cannot be reliably combined into a coherent societal preference. Thus, in some sense, the public interest cannot be an existing entity which is simply "out there" to be found, at least if the public interest is taken as the cumulative product of individual preferences. Such a value-neutral, nonpolitical definition of the public interest quite possibly does not exist. The legislature may also lack the ability to identify transcendent values through deliberation of the kind envisioned by some republicans. Nevertheless, leg-

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54. *See* Sunstein, *Legal Interference with Private Preferences,* 53 U. CHI. L. REV. 1129, 1132–38, 1153–54 (1986).

55. *See* Frohock, *Rationality, Morality, and Impossibility Theorems,* 74 AM. POL. SCI. REV. 373, 382–83 (1980).

56. K. ARROW, SOCIAL CHOICE AND INDIVIDUAL VALUES (2d ed. 1963).

57. For an argument that Arrow's Theorem is only relevant to measurements of social welfare, as opposed to political choice, see Kadish, *Practice and Paradox: A Comment on Social Choice Theory,* 93 ETHICS 680, 691–94 (1983).

islation can still claim to represent the public interest when certain standards of fairness and stability are met.

A legislative decision has a good claim to represent the public interest when individual preferences on particular issues themselves generally fall into coherent ideological patterns; when decisions are made using techniques that embody society's understandings about relevance; when norms of fair division are respected; and when the end result is preferred by a majority to the status quo.[58] In short, perhaps we should not think of the public interest as something that the political process merely identifies. Rather, the public interest in some sense crystallizes as the political process goes to work on processing existing preferences.

The realities of the political process may sometimes realize the vices of these stability features rather than their virtues. On those occasions, the legislative process has a weaker claim to represent the public interest. But where the process operates properly, the resulting outcome has a good claim to represent "society's judgment"—not a mechanical combination of individual preferences of the kind Arrow showed to be a phantom, but rather a judgment created by and through the decisionmaking process. When we say that legislation is in the "public interest," we appear to be describing an inherent quality of the legislation. Perhaps we are better understood as meaning that the legislation has been or should be adopted by a properly functioning legislative process, given existing preferences as a starting point.

This proceduralist conception of the public interest needs to be applied with some degree of caution. First, the proceduralist conception may be ambiguous in the sense of being sometimes unable to decide which of two proposals is more in the public interest. Despite the presence of various stabilizing features, cycles may remain, though they will hopefully be infrequent or include alternatives that differ only in detail. Nevertheless, if there are any cycles, more than one outcome can be properly said to represent the public interest under the proceduralist conception. Moreover, at this point, we have no basis for claiming that there is a unique set of fair procedures that stabilize legislatures. If there is more than one such set, they could lead to different outcomes given the same preferences, so that more than one outcome could claim to represent the public interest.

Second, there are limits to how far one should press a proceduralist conception. At least in theory, there is no reason why a society cannot have absolutely dreadful individual preferences but extremely fair procedures. (We have some doubts that this is likely to happen in practice; the archetypical embodiment of depraved preferences, the Nazis, were not exactly

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58. As Michael Fitts points out, attempts by courts to enforce these standards may be ineffective or even counterproductive. *See* Fitts, *supra* note 9, at 1625–42.

known for their attachment to due process.) Even short of extreme cases, procedures may not be able to improve very much on bad preferences. In sum, our proceduralist definition of the public interest judges outcomes relative to initial individual preferences. If those preferences are flawed, the resulting legislative outcome may correspond to the "public interest," so defined, but still be substantively unjust.

Even apart from flaws in preferences, a well-structured process does not guarantee good legislation. Practical reason must play an important role in the judicial process,[59] but its role is no less crucial in the legislative process. Well-designed institutions, like fair trial procedures, can provide a setting in which intelligent, principled decisions can be made. Legislative structures, like trial procedures, make good decisions possible by narrowing the context of decision. Out of all the possible mixes of social policy, only a few are presented to the legislator for a vote, providing a structure in which political discourse can proceed. But the best conceivable set of legislative procedures could not dictate good results, any more than the best trial procedures can guarantee justice. The ultimate responsibility for the quality of the decisions belongs to the participants—lawyers and judges in adjudication, legislators and citizens in legislation. Because the legislative structure allows but does not guarantee desirable outcomes, there are no substitutes for good judgment and political leadership.

This perspective cannot obviate Arrow's Theorem. Popular preferences may often contain cycles that make majority voting incoherent. Because of these cycles, the results of the political process cannot satisfy all of Arrow's postulates (transitivity, independence of irrelevant alternatives, etc.). No decision method can do so. But if we were to think of politics as an active reworking of the public's preferences, these postulates might seem less compelling. Arrow's postulates concern the relationship between the input and output of social decisions. Since we can never fashion a procedure that will fit his postulates, there may be little point in judging decisionmaking process by this standard: they *all* flunk. Our standards might do better to look within the legislative black box to inquire into the inherent quality of political procedures.[60]

We don't argue, of course, that chaos and arbitrariness are unheard of in

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59. *See* Farber & Frickey, *Practical Reason and the First Amendment,* 34 UCLA L. REV. 1615 (1987).

60. Nozick has proposed that we should judge the fairness of an existing wealth distribution by the fairness of the process by which it evolved, rather than on its intrinsic ethical appeal. R. NOZICK, ANARCHY, STATE AND UTOPIA 153–55 (1974). Perhaps we should at least in part assess the validity of political outcomes on the basis of process rather than substance. We do not mean, however, to endorse a purely procedural model of justice. Some things would remain evil even if adopted under perfectly fair procedures. No amount of "due process of lawmaking" can suffice to make some outcomes morally acceptable.

actual deliberative bodies. No one who has attended faculty meetings can doubt the reality of this possibility. But on the whole, natural selection will lead legislatures to reach coherent outcomes that are related in some reasonable way to legislators' preferences. In areas where the legislature seems to dither or reach random results, there is less incentive to invoke the legislative process. Such issues will be left to other institutions such as the executive branch, the courts, or the market. When agenda setters use their power to reach results that are systematically opposed to the preferences of the legislators, they are more likely to face challenges to their power. Consequently, legislative action will tend to take place in areas where there are coherent preferences and those preferences strongly influence results. In the academic setting, then, the administration is likely to take control on those issues where there is no coherent faculty majority. In those areas where such a majority exists, administrators will have only a limited (but still real) power to use agenda manipulation to thwart that majority.

To the extent that recent advocates of republicanism have rejected total pluralism, public choice supports them. Like Professor Mashaw,[61] we are skeptical of the more utopian strands in neo-republican thought. A careful reading of the public choice literature does support, however, a more modest version of republicanism,[62] in which concern about the public interest and legislative deliberation play a role in politics.

Although civic virtue and legislative deliberation do play some role in the political process, there is no reason to be naively optimistic about the extent of that role. We have criticized republicanism for romanticizing politics, and we have no desire to repeat that error. But if we throw up our hands in disgust at the flaws of the political process, we are unlikely to improve matters.

We began this chapter by noting the uncomfortable implications of Arrow's Theorem regarding legislatures. Arrow's model conceives of social choice as simply a device for combining group preferences. In the political context, this concept means that governments are simply mechanisms for implementing majority preferences. Thus, the fundamental assumption is "democracy = majority rule." If we stick to this concept of democracy, then Arrow's result is indeed disheartening, for it seems to preclude the possibility of meaningful democracy.

The alternative is to deepen our understanding of democracy. Democracy cannot be equated with pure majority rule, because pure majority rule is incoherent. Rather, a viable democracy requires that preferences be shaped by public discourse and processed by political institutions so that meaningful

61. Mashaw, *supra* note 8, at 129–30, 139–41.

62. *See* Sunstein, *Interest Groups in American Public Law*, 38 STAN. L. REV. 29, 38–48 (1985) (sketching a synthesis of pluralism and republicanism, which the author calls "deliberative democracy" and attributes to Madison).

decisions can emerge. Given this richer understanding of democracy, Arrow's Theorem holds fewer terrors.

When our institutions work properly, they have a valid claim to represent the public interest. But they are also prone to breakdowns. Special interests can capture the legislative process, or the process can lose its coherence. What should be the judicial response? Can courts help reinforce civic virtue and legislative deliberation, or limit rent-seeking? The remainder of the book will address these issues.