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Truth and Probability—Ironies in the Evolution of Social Choice Theory

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TRUTH AND PROBABILITY—IRONIES IN THE EVOLUTION OF SOCIAL CHOICE THEORY*

CHERYL D. BLOCK**

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* * *

Si l'on me demande quelle est la première règle de la politique? C'est d'être juste. Quelle est la seconde? C'est d'être juste. Et la troisième? C'est encore d'être juste.

Condorcet, *Journal de Paris*, 22 juin 1777¹

I. INTRODUCTION

Personal, political and legal decisions often require group choices. For example, in the personal setting, a group of individuals may choose between mushrooms, anchovies or green peppers as the favored topping for their pizza. In the political setting, voters choose individual legislators to represent them in choosing the statutory laws that govern society. Juries and judges choose the proper outcomes in particular legal cases. In each case, a procedure is required to convert individual decisions or choices into a collective group decision. In the pizza example, each person states his or her individual preference for toppings, and the group reaches a decision by counting votes for one alternative or the other. Similarly, voters in political contests enter the voting booth with their individual preferences for candidates, and a winner is declared by tallying votes. The votes of individual legislators are tallied to determine the “winner” or policy decision of the legislative body. Panels of judges and juries also tally votes to arrive at legal decisions.

Perhaps no great injustice is done if the “wrong” gustatory choice is made for the pizza. On the other hand, electoral, legislative, judicial and jury panel decisions *should* satisfy some basic notions of fairness and justice. Despite similarities among the different collective choice mechanisms, the model for each category of group decision making may differ. For example, the

1. Letter from Condorcet to Editors, *Journal du Paris*, reprinted in 1 OEUUVRES DE CONDORCET 347-48 (A. Condorcet & M.F. Arago eds., 1847) (“If I’m asked what is the first rule of politics? Justice. The second? Justice. And the third? Again, justice.”) Unless otherwise indicated by citation to an English edition, translations throughout this Article are provided by the author.

procedure involved in making personal choices might be described as one of purely *preference* aggregation. In contrast, decisions of juries and panels of judges involve *judgment* aggregation.² While preference aggregations need only represent the “authentic” group choice, judgment aggregations should be both authentic³ and “accurate.”⁴ In other words, they should correctly reflect objective truths. Despite some differences among the various aggregation models, general theories about group decision making can bring something to bear on all types of collective choices.

Social choice theory explores the ways in which individual preferences or choices translate into group choices.⁵ One of the most devastating discoveries of social choice theory is sometimes known as the “voting paradox,” brought back to modern consciousness by economist, Kenneth Arrow, in his famous

2. An intermediate type of choice aggregation is *representative* aggregation, in which legislators representing various constituencies adopt a collective legislative policy. Depending upon one’s view of the legislator’s role, this type of collective choice may resemble judgment or preference aggregation. For example, if one views legislators as exercising their own best judgments or personal choices regarding the best policy, the choice may resemble judgment aggregation (if one believes that there is a correct choice) or preference aggregation (if one believes that legislators simply vote their personal preferences.) On the other hand, if one views the legislator’s role as reflecting the views of the constituents, then the *representative* aggregation should “fit” the desires of the constituents. *See, e.g., Lewis A. Kornhauser & Lawrence G. Sager, Unpacking the Court*, 96 YALE L.J. 82, 89-90 (1986). Voter choices for representatives might also be viewed as either preference aggregation, if voters simply choose the preferred candidate, or judgment aggregation if they choose the best candidate for the position.

3. In some cases, however, even an authentic group choice may be wrong. For example, imagine that one judge on a judicial panel or one juror on a jury panel sees the “truth” and all the others are wrong. The wrong choice here may, in fact, be the authentic choice. By this standard, even a *unanimous* decision can be wrong. As a general rule, however, no one judge or juror has a monopoly on truth, assuming that they have the same access to the same information. Given a reasonable parity of judgment ability or competence among members of the decision-making group, an authentic group decision has a greater probability of being accurate. *See infra* notes 141-43 and accompanying text.

4. The distinctions between preference aggregation and judgment aggregation and the different standards of authenticity and accuracy that apply to each, respectively, were thoughtfully made in Kornhauser & Sager, *supra* note 2, at 91-92.

5. The term “social choice theory” often is used synonymously with “public choice theory.” Another term frequently used to describe the literature is “rational choice theory.” These terms loosely refer to the use of economic models for studying politics and decision making more generally. Another general term often used to describe these approaches is “positive political theory.” *See, e.g., Daniel A. Farber, Positive Theory as Normative Critique*, 68 S. CAL. L. REV. 1565 (1995). This Article uses rational choice or public choice to refer to the broader “economic study of nonmarket decision making, or simply the application of economics to political science.” DENNIS C. MUELLER, PUBLIC CHOICE II 1 (1989).

Social choice theory refers to the more narrow exploration of the “properties of social welfare or social choice functions,” i.e., the aggregation of individual choices into a group decision. MUELLER, *supra*, at 3. So understood, social choice theory can be viewed as a smaller subset of the larger rational or public choice theory. There is no uniform agreement regarding all features of these economically based political theories. For a useful description of the competing views on rational choice theory, see DONALD P. GREEN & IAN SHAPIRO, PATHOLOGIES OF RATIONAL CHOICE THEORY: A CRITIQUE OF APPLICATIONS IN POLITICAL SCIENCE 13-19 (1994).

work entitled *Social Choice and Individual Values*.⁶ Roughly stated, the paradox is that voting in situations involving more than a simple, binary choice will not always reveal the true decision of a decision-making body. For decisions involving more than two alternative choices, the voting paradox shows that common procedures, including simple majority vote, will not necessarily yield a group decision that legitimately represents the voice of the majority. Moreover, the paradox proves that merely changing the order in which choices are presented for a vote can alter outcomes even though the distribution of voter choices remains constant.⁷ In other words, most democratic voting procedures provide results that are inconsistent, arbitrary or unstable.

One way out of the voting paradox dilemma is to require a unanimous decision. A decision supported by all of the decision makers can claim legitimacy as the collective voice of the group.⁸ When the decision-making group is relatively small, it could efficiently make decisions under a unanimity or "rule by consensus" procedure. Thus, at a minimum, unanimous jury verdict requirements provide both practical feasibility and also avoid the voting paradox issues presented by other voting procedures.⁹ Similarly, panels of judges conceivably could operate under a rule by consensus. However, even these small decision-making bodies often do not operate under a unanimity decision rule. In most civil cases and in some criminal cases, unanimous jury verdicts are not required.¹⁰ Additionally, although some judicial panels may prefer to reach unanimous decisions in some cases,¹¹ they are generally not required to do so. To make most

6. KENNETH J. ARROW, *SOCIAL CHOICE AND INDIVIDUAL VALUES* (2d ed. 1963).

7. For a more detailed discussion of the paradox, see *infra* notes 45-47 and accompanying text.

8. Whether the unanimous decision of the group is also "just" or "correct" in an objective sense is a different, and much more difficult question. For a discussion of probability theory as applied to the correctness of judgments, see *infra* notes 138-46 and accompanying text.

9. On the other hand, a unanimity requirement imposes other costs. For example, jury studies suggest that jurors perceive more pressure to change their positions and find it much more difficult to reach a decision in unanimous verdict situations. See, e.g., REID HASTIE ET AL., *INSIDE THE JURY* 79 (1983). In addition, juries generally take longer to reach a decision under a unanimity rule, and they are more likely to reach *no* decision; that is, a hung jury. See *id.* at 29.

10. See *id.* at 2 (briefly surveying jury trial rules in different jurisdictions).

11. This preference is especially prevalent in exceptional cases of great public importance and interest. Perhaps the most famous instance is the extraordinary effort to announce a unanimous decision in *Brown v. Board of Education*, involving the desegregation of public schools. See RICHARD KLUGER, *SIMPLE JUSTICE* 737-883 (1975). A similarly extraordinary effort went into developing a unanimous decision for the Supreme Court regarding President Nixon's executive privilege claims in connection with subpoenaed Watergate tapes. See BOB WOODWARD & SCOTT ARMSTRONG, *THE BROTHERS: INSIDE THE SUPREME COURT* 339-412 (1979). Even in these cases, the unanimous opinions did not necessarily reflect true consensus since some of the judges may have conceded ground simply to arrive at a unanimous opinion.

electoral and legislative decisions by consensus would be difficult, impractical and, more likely, impossible. In the end, through choice or necessity, most legal and political decision-making bodies use decision rules other than unanimity for making collective choices. Majority or supermajority voting procedures are by far the most common of these rules.

Another way out of the voting paradox dilemma is to reduce the necessary decision to a simple, binary choice. For example, the law could limit judicial panels or juries to simply find for the plaintiff or for the defendant. Unfortunately, however, complex cases often must involve multiple choices. For example, consider a jury trial with three possible outcomes: acquittal, murder or manslaughter. Consider also that voters often choose among more than two candidates and that legislators surely often choose from multiple policy options. In sum, to limit most group decisions to two simple options also will prove difficult, impractical or impossible.

Needless to say, if the voting mechanisms used by juridical and political decision-making bodies frequently result in decisions that are inconsistent, arbitrary or unstable, there is indeed a fundamental problem at the heart of democratic voting practices. Numerous academics offer significant observations with regard to this problem. Frank Easterbrook argues that the voting paradox explains inconsistencies in Supreme Court opinions. He concluded, "Inconsistency is inevitable, . . . no matter how much the Justices may disregard their own preferences, no matter how carefully they may approach their tasks, no matter how skilled they may be."¹² Similarly, political scientist William Riker posed the question: "The possibility that social choice by voting produces *inconsistent results* raises deep questions about democracy. Can the democratic ideal be attained if the method used to attain it produces confusion?"¹³ Based on the voting paradox, Robert Wolff, a philosopher at Columbia University, concludes that "majority rule is fatally flawed by an internal inconsistency which ought to disqualify it from consideration in any political community whatsoever."¹⁴ Economist Allan Feldman observes, "This clearly negative result casts doubts on all assertions that there is a 'general will,' a 'social contract,' a 'social good,' a 'will of the people,' a 'people's government,' a 'people's voice,' a 'social benefit,' and so on and so forth."¹⁵ These observations will not come as a shock to anyone familiar with the literature. The existing legal literature now incorporates

12. Frank H. Easterbrook, *Ways of Criticizing the Court*, 95 HARV. L. REV. 802, 813 (1992).

13. WILLIAM H. RIKER, LIBERALISM AGAINST POPULISM: A CONFRONTATION BETWEEN THE THEORY OF DEMOCRACY AND THE THEORY OF SOCIAL CHOICE 18 (1982).

14. ROBERT PAUL WOLFF, IN DEFENSE OF ANARCHISM 59 (1970).

15. ALLAN M. FELDMAN, WELFARE ECONOMICS AND SOCIAL CHOICE THEORY 191 (1980).

extensive analysis of the voting paradox, its implications in a wide range of juridical contexts, and it suggests some answers to the serious questions raised.¹⁶ Moreover, concern with the voting paradox is not limited to academicians. Citations to Arrow's work on social choice have begun to appear in court opinions.¹⁷

Similar concerns appear in the popular press where, for example, *Washington Post* reporter Malcolm Gladwell asked, "Could it be that the choice of our leaders and the shape of our political history is sometimes simply an accident? . . . And if we have no idea whether an electoral result actually represents the will of the people, how can any democratic government be considered legitimate?"¹⁸ Newspaper coverage of three-way presidential elections is perhaps the best indication that the voting paradox has entered the mainstream. Reporting on the possibility of a three-way race between Bill Clinton, Ross Perot and Colin Powell in the 1996 presidential election, the *Washington Post* cited to the paradox, noting that "[e]conomist Kenneth J. Arrow won a Nobel prize in part for his 1951 proof that there is no 'perfect' democratic voting system for multicandidate elections."¹⁹ In a similar story on a possible three-way 1992 presidential contest between George Bush, Lloyd Bentsen and Jesse Jackson, the *Washington Post* reported that "[i]n any contest where there are more than two alternatives—from choosing a president to picking Miss America—even the most democratic and common-sense voting methods can sometimes produce bizarre results that seem to have little to do with what people actually

16. See, e.g., Lynn A. Baker, *Direct Democracy and Discrimination: A Public Choice Perspective*, 67 CHI-KENT L. REV. 707 (1991); Easterbrook, *supra* note 12, at 823-31; Saul Levmore, *Bicameralism: When Are Two Decisions Better Than One?* 12 INTERNAT'L REV. OF L. & ECON. 145, 156-57 (1992) [hereinafter Levmore, *Bicameralism*]; Saul Levmore, *Parliamentary Law, Majority Decision Making, and the Voting Paradox*, 75 VA. L. REV. 971, 1001 (1989); Richard H. Pildes & Elizabeth S. Anderson, *Slinging Arrows at Democracy: Social Choice Theory, Value Pluralism, and Democratic Politics*, 90 COLUM. L. REV. 2121 (1990); Maxwell L. Stearns, *Standing Back From the Forest: Justiciability and Social Choice*, 83 CAL. L. REV. 1309, 1329-50 (1995); articles cited *infra* notes 23-24.

17. See, e.g., *DLS, Inc. v. City of Chattanooga*, 107 F.3d 403, 409 n.4 (6th Cir. 1997) (citing Arrow to explain that reasoning in plurality Supreme Court decisions may have "no single line of reasoning . . . that is both internally consistent and is subscribed to by a majority with respect to each premise and conclusion"); *Business Roundtable v. Securities and Exchange Comm'n*, 905 F.2d 406, 411 (D.C. Cir. 1990) (citing difficulties inherent to majority voting leading to increased power of the agenda setter); *Winkler v. State of West Virginia Building Authority*, 434 S.E.2d 420, 439 n.2 (W. Va. 1993) (Neely, J., concurring) (citing Arrow for proposition that "the means invariably overwhelm the ends in the world of practical politics").

18. Malcolm Gladwell, *When Votes Are In, Have the People Spoken?* WASH. POST, June 4, 1990, at A3.

19. Kathy Sawyer, *A Paradox of Majority Politics*, WASH. POST, Oct. 9, 1995, at A3.

want.”²⁰

Except by way of background and introduction, the goal of this Article is not to revisit the ground already skillfully covered in the existing legal literature on social choice theory in general and on the voting paradox in particular. Instead, this Article seeks to set the record straight. Although Kenneth Arrow popularized the concept, most authors, including Arrow himself, attribute discovery of the paradox to the Marquis de Condorcet, an eighteenth century French Enlightenment mathematician and political theorist.²¹ Some refer to Condorcet as the father of social choice theory.²² In fact, while most scholars label the voting paradox with “Arrow’s paradox,” or “Arrow’s Impossibility Theorem,” a minority of scholars use the alternate term “Condorcet’s paradox.”²³ Many citations to Arrow in the legal literature include little more than a passing, almost ritual, acknowledgment that the Marquis de Condorcet first discovered the voting paradox in the eighteenth century.²⁴

20. Gladwell, *supra* note 18; cf. Malcolm W. Browne, *Can Voting Become Safer for Democracy?* N.Y. TIMES, June 1, 1980, at E7 (citing to Arrow and the voting paradox in reporting on the New Hampshire presidential primary).

21. See ARROW, *supra* note 6, at 93-94; see also MUELLER, *supra* note 5, at 3. In fact, Arrow and others note that Condorcet was inspired by an even earlier work of Jean-Charles de Borda, *Mémoires sur les élections au scrutin*, MÉMOIRES DE L’ACADÉMIE ROYALE DES SCIENCES (1781). See ARROW, *supra* note 6, at 93-94 n.12; MUELLER, *supra* note 5, at 3. Condorcet discussed the voting paradox in a 1785 essay in which he attempted to apply mathematical principles to social decision making. See Condorcet, *Essai sur l’application de l’analyse à la probabilité des décisions rendues à la pluralité des voix* [Essay on the Application of Mathematics to the Theory of Decision Making], translated in CONDORCET: SELECTED WRITINGS 33 (K. Baker ed. 1976) [hereinafter Condorcet, *Essay*]. Translations of several portions of the 1785 *Essay* also appear in IAIN MCLEAN & FIONA HEWITT, CONDORCET: FOUNDATIONS OF SOCIAL CHOICE AND POLITICAL THEORY 120-138 (1994).

22. See Iain McLean & Arnold B. Urken, *Did Jefferson or Madison Understand Condorcet’s Theory of Social Choice?* 73 PUB. CHOICE 445, 446 (1992); Arnold B. Urken, *The Condorcet-Jefferson Connection and the Origins of Social Choice Theory*, 72 PUB. CHOICE 213, 215 (1991); see also Maxwell L. Stearns, *The Misguided Renaissance of Social Choice*, 103 YALE L.J. 1219, 1221 (1994).

23. For literature using the term Condorcet’s paradox, see BRUCE ACKERMAN, SOCIAL JUSTICE IN THE LIBERAL STATE 289-93 (1980); William V. Gehrlein, *Condorcet’s Paradox*, 15 THEORY & DECISION 161 (1983); Keith N. Hylton, *Efficiency and Labor Law*, 87 NW. U. L. REV. 471, 486 n.57 (1993); William T. 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, 950; Lewis A. Kornhauser & Lawrence G. Sager, *The One and the Many: Adjudication in Collegial Courts*, 81 CALIF. L. REV. 1, 12 n.12 (1993); Thomas S. Ulen, *An Economic Appreciation of the Bill of Rights: The Limits and Potential of Law and Economics in Discussing Constitutional Issues*, 1992 U. ILL. L. REV. 189, 205 n.18.

24. See, e.g., Hylton, *supra* note 23, at 486 n.57 (“The literature begins with Condorcet’s paradox, which was generalized by Arrow’s Impossibility Theorem.”); Bernard Grofman, *Public Choice, Civic Republicanism, and American Politics: Perspectives of a “Reasonable Choice” Modeler*, 71 TEX. L. REV. 1541, 1551-52 (1993) (“The paradox of cyclical majorities, known since at least the time of Condorcet (1787), is a specter that has haunted Social Choice theory since Black and Arrow rediscovered it.”); Samuel Issacharoff, *Polarized Voting and the Political Process: The*

Readers reaching this point understandably should be asking—so what? No one has argued that the voting paradox has been inaccurately described or misconstrued. Regardless of the label used to describe the phenomenon, the political and juridical issues raised by the voting paradox remain the same. If Condorcet first discovered the voting paradox, surely more scholars should give credit where credit is due. Of course, the point to be made is much larger and stems from a more extensive look at Condorcet's overall work. The legal academy sometimes distorts the record when engaged in interdisciplinary research. Most references to Condorcet in the legal literature mention the voting paradox and little else. By reading through the many ritual footnote acknowledgments to Condorcet that appear in most law review articles on the subject, one senses that few, if any, of the authors have actually gone back and *read* Condorcet.²⁵ To the extent that authors *have* looked at Condorcet's work, most of them focus upon a relatively obscure passage on the possibility of the "cycling of voting" buried in one of Condorcet's early essays.²⁶ Even though this vote cycling passage represents but a small part of a much longer discourse on decision-making theory, it has arguably established the defining question for much of modern social choice theory.

One might think that having discovered a problem as colossal as the failure of collective democratic decision-making principles to yield correct, consistent and stable results, Condorcet himself would have been critical of democratic voting procedures. Modern public choice theorists surely have

Transformation of Voting Rights and Jurisprudence, 90 MICH. L. REV. 1833, 1881 n.215 (1992) ("The key insight is derived from an application of the 'voter's paradox,' initially developed by the French political theorist Condorcet in the eighteenth century."); Mayton, *supra* note 23, at 950 ("The fact of cyclical choices . . . is referred to as Condorcet's paradox, after the Marquis de Condorcet, the French mathematician and philosopher who described this fact two hundred years ago."); Kornhauser & Sager, *supra* note 23, at 12 n.22 ("Almost every discussion of voting mentions, alludes to, or focuses on the Condorcet paradox."); Richard J. Pierce, Jr., *The Role of the Judiciary in Implementing An Agency Theory of Government*, 64 N.Y.U. L. REV. 1239, 1246 (1989) ("Two centuries ago, the Marquis de Condorcet demonstrated that majority rule cannot yield stable choice among three alternative decisions . . . In 1951, Kenneth Arrow's generalization expanded on Condorcet's example . . ."); Ulen, *supra* note 23, at 205-06 n.18 ("This possibility of circular group preferences in majority voting was first noted by Condorcet (1743-1794) and is sometimes called the 'Condorcet paradox.' Note that Arrow's theorem is a generalization of this well-known paradox.").

25. This is not to criticize these authors. In the first place, the origin of the voting paradox was not the primary focus of these articles. In addition, much of Condorcet's original work is not readily available and much of it has not been translated into English. Similar observations were made in MCLEAN & HEWITT, *supra* note 21, at viii ("[B]arriers to studying Condorcet in the original have remained high. Most social choice theorists do not read French; most Enlightenment scholars do not know any social choice. Condorcet has therefore not received his due in either camp.").

26. Condorcet's discussion of the voting paradox appears in Condorcet, *Essay*, *supra* note 21, at 52-56.

taken Condorcet's discovery in this direction, using the voting paradox and related social choice findings as a basis for critiquing modern majority vote decision rules.²⁷ Given that unanimity rules impose costs that make such rules impractical, many public choice scholars advocate a rather "libertarian" approach, leaving most decision making to the private market while proposing a significantly reduced role for government.²⁸

Ironically, the so-called father of social choice theory is more aptly described as a civic republican. Civic republicans challenge the notion that group decision making simply involves a tallying of immutable, individual preferences. Instead, the deliberative quality of the decision-making process itself may *change* preferences and make consensus more achievable.²⁹ Although viewed as the father of an analytic tradition now used to question the legitimacy of democratic systems operating under majority vote decision rules, Condorcet in his *own* work went on to *expand* such notions of democratic decision making. A return to this eighteenth century source reveals that, taken out of context, Condorcet's vote cycling passage seriously misrepresents Condorcet's potential contribution to the modern discourse.

The motivation for this Article is to understand how and why, having discovered the voting paradox in 1785, Condorcet actually became a more ardent believer in democratic decision making in later writings until his unfortunate death in 1794. More importantly, this Article examines Condorcet's discovery of the voting paradox in the larger context of his life's work to determine what solutions to the paradox he might have seen that modern social choice theorists and the legal literature have not fully explored.

Part II of this Article briefly describes the history and implications of

27. See, e.g., RIKER, *supra* note 13, at 67 (using Condorcet's findings to challenge as "profoundly dubious" the notion that "majority decision is fair and reasonable in its logical structure"); William H. Riker & Barry R. Weingast, *Constitutional Regulation of Legislative Choice: The Political Consequences of Judicial Deference to Legislatures*, 74 VA. L. REV. 373, 385 (1988).

28. See, e.g., JAMES M. BUCHANAN & GORDON TULLOCK, *THE CALCULUS OF CONSENT: LOGICAL FOUNDATIONS OF CONSTITUTIONAL DEMOCRACY* 202 (1962) (citing unanimity as the "ideally efficient," but high cost, solution and suggesting that "majority voting will tend to cause overinvestment in the public sector relative to the private sector").

29. See, e.g., Frank Michelman, *Law's Republic*, 97 YALE L.J. 1493 (1988); Cass R. Sunstein, *Beyond the Republican Revival*, 97 YALE L.J. 1539 (1988) [hereinafter Sunstein, *Republican Revival*]. Both of these essays appear as part of a useful symposium of work on republicanism. See also Cass Sunstein, *Interest Groups in American Public Law*, 38 STAN. L. REV. 29 (1985) [hereinafter Sunstein, *Interest Groups*]; Richard H. Fallon, Jr., *What is Republicanism, and is it Worth Reviving?*, 102 HARV. L. REV. 1695 (1989); Frank I. Michelman, *The Supreme Court 1985 Term—Foreward: Traces of Self-Government*, 100 HARV. L. REV. 4 (1986) [hereinafter Michelman, *Traces*]. For a more recent treatment, see MICHAEL J. SANDEL, *DEMOCRACY'S DISCONTENT: AMERICA IN SEARCH OF A PUBLIC PHILOSOPHY* (1996). See also, e.g., *infra* notes 79-83, 115-31 and accompanying text.

social choice theory and the famous voting paradox. Part III first offers a general picture of Condorcet's life and work. It then explores the connections between the philosophies of Condorcet, Rousseau and the more modern civic republican traditions. Part IV takes a closer look at Condorcet's original decision-making theory. Part V uncovers many civic republican themes within the context of the larger body of Condorcet's work and uses these themes to explore what his work might contribute to the modern discourse.

A broader look at Condorcet's lifetime work reveals that Condorcet's solution to the paradox would be to focus attention primarily on the *quality* of inputs to the legislative process by improving the quality of education and deliberation. Moreover, he would urge giving up the obsessive search for the perfect vote aggregating mechanism, since such a mechanism does not exist. Instead, Condorcet would have advocated a probabilistic approach in developing procedures most likely to increase the probability of "correct" or "true" outcomes.

II. SOCIAL CHOICE THEORY AND THE FAMOUS VOTING PARADOX

A. *Brief History of Social Choice Theory*

The vintage of social choice theory and its logical connection to democratic theory is rather recent. The theory takes its name from Kenneth Arrow's *Social Choice and Individual Values*, first published in 1951.³⁰ The beginnings of modern social choice theory, however, date back to the "rediscovery" of the voting paradox by Duncan Black in the 1940s.³¹ In turn, Black traces the original discovery of the paradox to Condorcet and de Borda, both members of the French Academy of Sciences in the eighteenth century.³² Black also notes the contributions of Rev. C. L. Dodgson, more

30. The first edition of Arrow's book makes no reference to Condorcet. In notes added to the second edition in 1963, Arrow confessed "to a certain want of diligence in tracking down the historical origins of the theories of social choice." He adds that he has since been made aware that "the paradox was known and developed by the Marquis de Condorcet in the eighteenth century.... This development was part of Condorcet's great interest in methods of election and essentially, therefore, in the theory of social choice." ARROW, *supra* note 6, at 93.

31. See DUNCAN BLACK, *THE THEORY OF COMMITTEES AND ELECTIONS* 46-51 (1958). In his Preface, Duncan Black notes that the 1958 book grew from an earlier series of essays he wrote in the 1940s and himself confessed that "[w]hen I first attempted publication I was unacquainted with the earlier history of the theory, and, indeed, did not even know that it had a history . . ." *Id.* at xi. Part II of the 1958 book is devoted to discussing the early history of the "Mathematical Theory of Committees and Elections." *Id.* at 156-88; see also RIKER, *supra* note 13, at 1-2 (attributing the launching of social choice theory to Black's "rediscovery" of the voting paradox).

32. See BLACK, *supra* note 31, at 156-80. Condorcet and de Borda were apparently members of opposing camps within the Academy. See KEITH MICHAEL BAKER, *CONDORCET: FROM NATURAL*

commonly known by his pseudonym, Lewis Carroll, who “wrote extensively on committees, elections, and proportionate representation.”³³

The simplest voting decisions involve two distinct options—diners choose between mushrooms and anchovies; voters choose between Candidates *X* and *Y*; legislators choose between Policies *1* and *2*; judges choose between Outcomes *A* and *B*. For most of these simple, binary choices, majority voting rules generate clear and consistent results.³⁴ Unfortunately, many legislative and juridical choices cannot neatly be reduced to two options. Condorcet, Arrow and social choice theorists generally address their attention to these more complex collective choices.

In the next simplest case to a binary choice, that of three choices, Condorcet observed some potentially strange results. He first noticed that in three-way choices, a traditional majority voting mechanism could result in “a decision really contrary to the opinion of the majority;”³⁵ in other words, arguably an inauthentic result.³⁶ In the *inauthentic results* case, Condorcet at least had a proposed solution, an alternative voting mechanism that would lead to an authentic result.³⁷ Even more disturbing than the soluble inauthentic results case, Condorcet found that the outcome of majority voting in a second category of cases would differ depending upon the order in which options were presented (pairwise) for a vote;³⁸ in other words, *inconsistent or unstable* results.³⁹ However, unlike the inauthentic results case, Condorcet found no obvious or simple solution to the inconsistent results case. One response to the inconsistent results case is to argue that it may be only a

PHILOSOPHY TO SOCIAL MATHEMATICS (1975).

33. BLACK, *supra* note 31, at 189. Dodgson apparently became interested in these issues as a result of controversial committee elections within the Christ Church. Black’s book includes a reprint of Dodgson’s major essays on the subject of elections, the only known copies of which are held at the Princeton University Library. *See id.* at 214-38.

34. One exception is the case of an even number of voters and an equal number of votes for each of two simple propositions. In such a case, some tiebreaking mechanism will be necessary to reach a decision. Another exception is a voting rule that permits abstentions. If some voters abstain, the collective choice might not reflect the true will of the majority.

35. Condorcet, *Essay*, *supra* note 21, at 53.

36. *See infra* notes 147-54 and accompanying text.

37. This solution is now known as the “Condorcet winner” or the “Condorcet criterion.” Roughly stated, Condorcet’s solution requires taking up all possible pairwise comparisons of the alternative choices and adopting as a group decision the choice that beats all others in pairwise comparisons. *See infra* notes 151-54 and accompanying text.

38. *See* Condorcet, *Essay*, *supra* note 21, at 55.

39. *See infra* notes 155-71 and accompanying text. The labels, *inauthentic* and *inconsistent or unstable*, are the author’s own. Unfortunately, the legal literature often implies that there is only one voting paradox, leading to some confusion. However, a number of different paradoxes of voting exist, the most troubling of which is the *inconsistent results* case. It is this troubling case that stimulates most social choice theory.

theoretical problem if the cyclical preference distribution case does not appear with great frequency.⁴⁰ Unfortunately, several theorists suggest that cyclical preference structures may be prevalent.⁴¹

B. Arrow's Elaboration

In his *Social Choice and Individual Values*, Arrow set out to determine whether "it is formally possible to construct a procedure for passing from a set of known individual tastes to a pattern of social decision making, the procedure in question being required to satisfy certain natural conditions."⁴² In other words, Arrow was asking whether any procedure⁴³ exists to translate individual choices into a group decision that meets certain basic conditions of rationality.⁴⁴ Moreover, Arrow was asking whether such a procedure exists that would work for *any* possible distribution of choices among the decision makers. In short, Arrow's answer was no. Before launching his formal mathematical proof, Arrow illustrated the problem by describing the "well-known 'paradox of voting.'"⁴⁵

The now familiar example can be briefly summarized. Imagine that a decision must be made regarding the location of a nuclear waste disposal facility. The three possibilities presented to the decision-making body are: State *X*, State *Y* or State *Z*. The legislators are divided into three equal groups with the following preferences:

40. For a general discussion of cyclical majorities, see BLACK, *supra* note 31, at 46-51. For a concise and useful description of the basic paradox as applied in the political context, see RIKER, *supra* note 13, at 16-19.

41. See, e.g. RIKER, *supra* note 13, at 188; *infra* note 58 and accompanying text.

42. ARROW, *supra* note 6, at 2.

43. Arrow called the procedure he sought a "social welfare function," defined simply as a process or rule for creating a social ordering from individual sets of preferences. ARROW, *supra* note 6, at 23.

44. Arrow first establishes two background assumptions or axioms: 1) *connectedness*—for any two alternatives (*x* and *y*) *x* will either be preferred or indifferent to *y* or *y* will be preferred or indifferent to *x*; 2) *transitivity*—for all *x*, *y* and *z*, if *x* is preferred to *y* and *y* is preferred to *z*, then *x* is preferred to *z*. See ARROW, *supra* note 6, at 13. To these background axioms, Arrow added four additional conditions: 1) *unrestricted scope*—an acceptable social welfare function should be able to process any coherent set of individual preference ranking or any number of choices; 2) *unanimity*—if all individuals rank *x* over *y*, then the social ordering should rank *x* over *y*; 3) *nondictatorship*—the preference of any one individual should not automatically become the social choice of the group; 4) *independence of irrelevant alternatives*—the group choice from a given environment should depend only on the ordering of individuals among the alternatives in a given environment. A reasonably accessible discussion of these axioms and conditions appears in ALFRED F. MACKAY, ARROW'S THEOREM: THE PARADOX OF SOCIAL CHOICE—A CASE STUDY IN THE PHILOSOPHY OF ECONOMICS 6-9 (1980). See also FELDMAN, *supra* note 15, at 178-195.

45. ARROW, *supra* note 6, at 2. The reference here is to the *inconsistent results* or *no-winner* form of the paradox illustrated by Condorcet. See *infra* notes 155-71 and accompanying text.

- Group 1: prefers State *X* to *Y* to *Z*;
 Group 2: prefers State *Y* to *Z* to *X*;
 Group 3: prefers State *Z* to *X* to *Y*.⁴⁶

In such cases where preferences cycle and all possibilities are placed before the body simultaneously, no one option will obtain the vote of a majority. Moreover, reducing the decision to simple pairwise comparisons will not provide consistent and stable results. For example, if the first vote pairs States *X* and *Y*, State *X* will be chosen and State *Y* will be eliminated because groups 1 and 3 prefer State *X* to *Y*. In a runoff between States *X* and *Z*, State *Z* will be chosen because groups 2 and 3 prefer State *Z* to *X*.

Imagine now that the agenda presents the pairwise votes differently. If the first vote paired States *X* and *Z*, State *Z* would have been chosen, since groups 2 and 3 prefer State *Z* to *X*. Now the runoff between States *Z* and *Y* will result in the choice of State *Y*, since groups 1 and 2 prefer State *Y* to *Z*. Given this different agenda, State *Y* is declared the winner—the State that actually *lost* the first round and was out of the running under the first agenda! In other words, there is no clear majority for any one outcome; this particular distribution of preferences yields inconsistent or “contradictory” results.⁴⁷ The case involving this particular cycled distribution of preferences is the *real* problem case: the famous voting paradox.

C. Implications of Social Choice Theory

Social choice theory acknowledges that outcomes can vary with the particular voting method adopted. If so, those with control over the agenda or procedures are in a position to intentionally manipulate results. Moreover, agenda influence can even be “an artifact of process features adopted with the most outcome-neutral intentions.”⁴⁸ In either case, the results are disturbing. In addition, if voters know the particular preferences of other voters, they can strategically manipulate the outcome by voting insincerely in

46. Some variation of this particular hypothetical with a cycled distribution of preferences among three voters or groups of voters almost always appears in literature on the voting paradox. See, e.g. ARROW, *supra* note 6, at 2-3 (choice between disarmament, cold war and hot war); Easterbrook, *supra* note 12, at 815 (choice between absolutist, neutral and balancing approach to First Amendment cases); DANIEL A. FARBER & PHILIP P. FRICKEY, *LAW AND PUBLIC CHOICE: A CRITICAL INTRODUCTION* 39 (1991) (choice between three locations for a federal facility); RIKER, *supra* note 13, at 16-19 (generic choice between alternatives *x*, *y* and *z*); Stearns, *supra* note 22, at 1238 (choice between chocolate, coffee and vanilla ice cream cake).

47. See Condorcet, *Essay*, *supra* note 21, at 52, 55.

48. Michael E. Levine & Charles R. Plott, *Agenda Influence and its Implications*, 63 VA. L. REV. 561, 589 (1977); see also Riker & Weingast, *supra* note 27, at 385 (“When a [voting] cycle exists, any alternative can, via an appropriate agenda, become the final outcome.”).

the early rounds. Imagine that group *I* in the above hypothetical is made up of State *Z* residents, who cannot bear the thought of a nuclear facility located in their state. Neighboring State *Y* also is not their ideal choice. Instead, they prefer State *X*, the state that is farthest from them. If they know the preference distribution of the other groups, they can predict that State *X* will win in the first contest with State *Y*. In the runoff between States *X* and *Z*, they can see the writing on the wall—State *Z* will be the choice of the group. Even though their *true* preference is for State *X* over *Y*, if they vote for State *Y* in the first round, State *X* (their first choice) will be eliminated. Now in the runoff between States *Y* and *Z*, State *Y* will be the collective choice of the group. By voting strategically in this way, group *I* will only get its second choice but will at least have escaped its least favored result.

Clearly, the potential for such strategic manipulation of outcomes through insincere voting is another disturbing implication of the voting paradox.⁴⁹ Perhaps most disturbing, the above implications are not limited to majority rule procedures. Indeed, “Arrow shows that Condorcet-like paradoxes are not a peculiar property of [simple] majority rule; instead, they afflict a very broad class of initially attractive decision procedures.”⁵⁰

The voting paradox literature from other social science disciplines has had a profound effect on the legal literature. For example, Erwin Chemerinsky notes, “Social choice theorists have demonstrated reasons why multi-member bodies cannot accurately aggregate preferences and reflect majority wishes. The famous Arrow Impossibility Theorem, for example, questions whether ‘any’ process could even hope to ‘reflect’ any such thing as the will of the majority.”⁵¹ Given these social choice findings, Chemerinsky questions the extent to which the Supreme Court has adopted a constitutional interpretation paradigm under which it frequently defers to the majoritarian legislature.⁵² He argues that less deference to majoritarian legislatures would leave judicial panels with a more active role. On the other hand, since judicial

49. For a discussion of issues related to such strategic voting, see, for example, RIKER, *supra* note 13, at 137-168.

50. ACKERMAN, *supra* note 23, at 293.

51. Erwin Chemerinsky, *The Supreme Court, 1988 Term—Foreword: The Vanishing Constitution*, 103 HARV. L. REV. 43, 79-80 (1989); see also David Luban, *Social Choice Theory as Jurisprudence*, 69 S. CAL. L. REV. 521 (1996) (“The theorem poses an immense challenge to democratic theory. It was a sensational result.”); Pildes & Anderson, *supra* note 16, at 2124 (“legal and political theorists have struck at the heart of democratic justification by charging that democracy itself is incapable of producing meaningful or rational results”).

52. See Chemerinsky, *supra* note 51, at 99; see also Riker & Weingast, *supra* note 27, at 398-401 (questioning extreme judicial deference to majority legislative decisions); Lynn A. Stout, *Strict Scrutiny and Social Choice: An Economic Inquiry into Fundamental Rights and Suspect Classifications*, 80 GEO. L.J. 1787, 1794-95, 1822 (1992).

panels generally decide cases by majority vote, cycled distributions of opinion preferences among judges on the panel arguably also can result in arbitrary, unstable or inconsistent decisions. Frank Easterbrook, for example, uses the voting paradox to explain that inconsistency in Supreme Court opinions is inevitable.⁵³ Moreover, he raises vote cycling as an argument against stare decisis in situations involving three or more plausible legal positions. Given that the outcome in particular cases may differ depending upon the order in which issues are presented to the Court, Easterbrook concludes, "To invoke stare decisis to close the debate after the first case is to make the choice of constitutional doctrine essentially arbitrary."⁵⁴

D. Challenges to the Voting Paradox

1. Empirical Challenges

Since Arrow's *Social Choice and Individual Values*, many scholars have sought to minimize the potentially devastating blows to democratic decision-making theory in several different ways. Taking an empirical approach, some have examined the likelihood and frequency of vote cycling,⁵⁵ seeking to establish that the problem is not as great as it first appears. With regard to this approach, it is important to distinguish the theoretical analysis of when cycles *can* occur from the practical analysis of when cycles *do* occur. The latter type of research is difficult because information about the actual distribution of voters' preferences is often not available.⁵⁶ Unfortunately, even the largely

53. See Easterbrook, *supra* note 12, at 813 ("Inconsistency is inevitable, . . . no matter how much the Justices may disregard their own preferences, no matter how carefully they may approach their tasks, no matter how skilled they may be."); see also Stearns, *supra* note 22, at 1257-1285; FARBER & FRICKEY, *supra* note 46, at 55 ("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."). For a critique of Easterbrook's application of the voting paradox to judicial decision-making, see Kornhauser & Sager, *supra* note 2, at 97-102. See also Herbert Hovenkamp, *Arrow's Theorem: Ordinalism and Republican Government*, 75 IOWA L. REV. 949, 957-58 (1990); Kornhauser & Sager, *supra* note 23, at 24-33; David Post & Steven C. Salop, *Rowing Against the Tidewater: A Theory of Voting by Multijudge Panels*, 80 GEO. L.J. 743 (1992).

54. Easterbrook, *supra* note 12, at 818.

55. See, e.g., Gehrlein, *supra* note 23, at 164 ("The current study concerns itself with the simplest of all questions about Condorcet's paradox, specifically, 'How likely is the paradox to occur?'").

56. See *id.* at 165. For theoretical research, see, for example, *id.* at 192 (concluding that "the probability of the no-winner form of Condorcet's paradox increases as the number of dimensions in the attribute space increases"); RIKER, *supra* note 13, at 188 (concluding that majority rule is almost always in disequilibrium). Riker discusses the theoretical frequency of cycles. See *id.* at 119-23; see also Frank DeMeyer & Charles R. Plott, *The Probability of a Cyclical Majority*, 38 ECONOMETRICA 345 (1970).

theoretical literature with regard to the frequency of cycling is inconclusive.⁵⁷ For example, while political scientist William Riker concluded that cycling is pervasive,⁵⁸ economist Gordon Tullock concluded that cycling is rare.⁵⁹

2. *Structure-Induced Equilibria*

Several theorists have noted that despite the pessimistic predictions of inconsistency and chaos suggested by Arrow's Impossibility Theorem, democratic decision making through legislative voting appears to be remarkably stable.⁶⁰ One explanation for this result is that legislative processes impose "structure-induced equilibrium." For example, the two-party system often limits the number of choices so as to avoid complex decisions involving multiple options; many decisions are presented as simple binary choices.⁶¹ Another structure-induced equilibrium is logrolling, in which one legislator agrees to vote the preference of another in exchange for a promise that the other will vote the first legislator's preference on a different matter.

Similar structure-induced equilibrium may also affect jury and judicial panel decisions, which are often reduced to a binary choice between judgment for the plaintiff or for the defendant.⁶² On the other hand, at least with respect to Supreme Court decisions, Easterbrook observes that "many legal problems admit of three or more plausible legal positions, and the method of the Justices' appointment ensures that most plausible legal

57. See GREEN & SHAPIRO, *supra* note at 5, at 6 (noting a "discrepancy between the faith that practitioners place in rational choice theory and its failure to deliver empirically"); *id.* at 11-12 ("persuasive evidence has not been adduced to sustain Riker and Weingast's claim that the possibility of cycles is often realized in actual legislatures"). A balanced discussion of the literature on both sides appears in GREEN & SHAPIRO, *supra* note 5, at 107-20. See also Pildes & Anderson, *supra* note 16, at 2136 n.46 (literature cited).

58. See RIKER, *supra* note 13, at 188 ("[F]or the amalgamation of an extremely wide variety of individual value structures . . . by majority rule under fair procedures, intransitivities almost always exist and cycles include the whole space of political possibilities."); Riker & Weingast, *supra* note 27, at 393-98.

59. See Gordon Tullock, *Why So Much Stability*, 37 PUB. CHOICE 189 (1981) ("If we look at the real world, . . . we observe not only is there no endless cycling, but acts, are passed with reasonable dispatch and then remain unchanged for very long periods of time."); Grofman, *supra* note 24, at 1553 ("Cycles are much harder to find than early Social Choice models suggest they ought to be. Indeed, hunting for the paradox is much like hunting for the Loch Ness monster: appearances are few and far between, and some of the sightings are suspect." (footnotes omitted)).

60. See, e.g., Tullock, *supra* note 59; FARBER & FRICKEY, *supra* note 46, at 48; Daniel A. Farber & Philip P. Frickey, *Legislative Intent and Public Choice*, 74 VA. L. REV. 423, 429-32 (1988).

61. See, e.g., Kenneth A. Shepsle & Barry R. Weingast, *Structure-Induced Equilibrium and Legislative Choice*, 37 PUB. CHOICE 503 (1981).

62. See Kornhauser & Sager, *supra* note 2, at 109 n.37.

positions find some support on the Court.”⁶³

Structure-induced equilibria and related phenomena in legislative and judicial decision making begin to suggest that judgment aggregations may be more stable than pure preference aggregations. For example, Professor Herbert Hovenkamp argues that in the legislative arena, consensus is likely to emerge from what he calls “cardinality-producing processes.” These cardinality-producing mechanisms include: shared ideological perceptions, compelling scientific models, objective welfare judgments, cost-benefit analysis and logrolling.⁶⁴ As an example, he notes that in determining proper speed limits (a judgment aggregation) “legislative committees look at accident statistics, not at the preferences of those on the highways.”⁶⁵ Assuming that all legislators believe the accident statistics are valid, consensus may emerge around such objective information. Given this objective welfare judgment about proper speed limits, a cyclical distribution of voting positions is unlikely. Unlike pure preference aggregations, legislators in such cases come to agree upon an answer they believe to be *correct*.⁶⁶

A related explanation for the perceived stability of voting is that preference distributions often actually fall on a single continuum. In politics, one might think of this as the “left-right” continuum. Duncan Black argued that, despite the voting paradox, when individual preferences can be plotted along a single dimensional scale, majority rule *does* result in consistent and stable group choices. If preference distributions have the characteristic of “single-peakedness” or “uni-peakedness,” each individual can locate his or her first choice on a continuum from left to right. The farther away an alternative is from the voter’s first choice, the less it will be preferred.⁶⁷ Put

63. Easterbrook, *supra* note 12, at 816.

64. See Hovenkamp, *supra* note 53, at 955-60. Hovenkamp notes that Arrow’s independence of irrelevant alternatives condition defines “a social choice mechanism that is completely ordinal in its weightings of preferences.” Hovenkamp, *supra* note 53, at 953. Under this condition, one voter cannot take into account the preferences of others. Moreover, preferences with regard to one set of issues should not be relevant in deciding another set of issues. Hovenkamp argues that Arrow’s theorem is not appropriately applied to legislative decision making. In so doing, he identifies several cardinality-producing processes in the legislative arena that violate Arrow’s independence condition. To the extent that these mechanisms are prevalent, consensus is more likely to emerge, making legislative decisions more stable than Arrow’s theorem would have us believe. Hovenkamp’s cardinality-producing mechanisms are similar to what others would call structure-induced equilibria.

65. Hovenkamp, *supra* note 53, at 959.

66. Condorcet’s use of probability theory to develop mechanisms to increase the *probability* of correct judgments is discussed *infra* notes 90, 126-28, 138-46 and accompanying text.

67. See BLACK, *supra* note 31, at 14-24 (“A Committee Using a Simple Majority: Single-Peaked Preference Curves”) see also RIKER, *supra* note 13, at 124-28. (“If, by reason of discussion, debate, civic education, and political socialization, voters have a common view of the political dimension (as evidenced by single-peakedness), then a transitive outcome is guaranteed.”)

differently, “a group of preference rankings is single-peaked if there is some one of the choice alternatives concerning which all voters agree that it is not the worst.”⁶⁸ Given this type of preference distribution, a majority vote represents the legitimate, albeit compromise, decision of the group.

Although political preferences may often fall on a “left-right” continuum, legal positions taken by different judges on a judicial panel in a complex case may be less likely to fall along such a continuum. As Easterbrook noted with respect to Supreme Court decisions, “legal disputes often require choices in many dimensions. A given constitutional case may require the Court to consider the intersection of several provisions, each embodying several values and each with a distinctive structure. There are at least as many dimensions of choice as there are values (or provisions) in question.”⁶⁹ On the other hand, Hovenkamp argues that, despite the multiple plausible legal positions in many cases, judges are constrained by common legal rules, making movement of the judicial panel in one direction more likely than another. In other words, Easterbrook may be wrong about the extent to which judicial decision making involves cyclical distributions. Consensus is more likely than he imagines.⁷⁰ In the end, the extent to which structure-induced equilibria or other factors lead to stability in legislative and judicial decision making cannot be known. Cyclical distributions of vote preferences surely *may* exist in both worlds. Unfortunately, the implications of Arrow’s theorem for legislative and judicial decision making cannot be avoided simply by arguing that the problem does not come up.

3. *Challenging Arrow’s Axioms*

Other attempts to minimize the social choice blows to democratic decision rules involve a tactical strike challenging one or more of the conditions that Arrow requires for a proper vote aggregating mechanism.⁷¹ Of Arrow’s axioms, two are difficult to challenge: unanimity and nondictatorship. If all individuals prefer a particular choice, most will agree that the group should adopt that choice. In addition, most will agree that the preference of one individual should not automatically become the group’s

68. MACKAY, *supra* note 44, at 28.

69. Easterbrook, *supra* note 12, at 826. (“[M]any disputes are characterized by three choices held [by the Justices] in multi-peaked ways. . . . Multi-peakedness becomes more and more likely as the number of dimensions of choice increases.”); cf. Hovenkamp, *supra* note 53, at 957-58; Kornhauser & Sager, *supra* note 2, at 107-09.

70. See Hovenkamp, *supra* note 53, at 957-58 (arguing that Easterbrook might have a point if the ranking of judges’ preferences was purely random and not constrained by common legal rules).

71. See *supra* note 44.

choice. But some economists and political scientists have played with relaxing or eliminating the remaining conditions necessary to Arrow's proof.⁷² For example, some would eliminate the independence of irrelevant alternatives condition, arguing that, at least in the legislative arena, a voter's preferences with respect to one item on the agenda *may* vary based on preferences with regard to another agenda item.⁷³ Others have suggested relaxing the transitivity requirement. If a group prefers *X* to *Y* and *Y* to *Z*, transitivity requires that the group prefer *X* to *Z*. Any other result is considered illogical and inconsistent.⁷⁴ Arrow proved that a cyclical distribution of individual voter preferences can lead to just such intransitive group results. Some have suggested "replacing Arrow's notion of collective rationality with the requirement that the social decision process be fair."⁷⁵ Despite these efforts to relax or eliminate one or more of Arrow's conditions, many analysts agree that Arrow's requirements are rather modest. Arrow's Theorem remains a stubborn thorn in the side for many advocates of democratic decision-making mechanisms.

E. Civic Republican Response to the Voting Paradox

In light of the social choice challenges to collective democratic decision-making procedures, social and public choice scholars have suggested that general consensus or unanimity is the ideal.⁷⁶ For example, James Buchanan and Gordon Tullock argue, "At best, majority rule should be viewed as one among many practical expedients made necessary by the costs of securing widespread agreement on political issues when individual and group interests diverge."⁷⁷ Because they consider the costs of reaching such agreement as wasteful, Buchanan and Tullock contend that collective activity generally

72. For a summary of various efforts to relax or eliminate Arrow's axioms, see MUELLER, *supra* note 5, at 388-99.

73. See, e.g., Hovenkamp, *supra* note 53. Condorcet himself arguably relaxed the independence of irrelevant alternatives axiom in his proposed solution to the voting paradox. See *id.*; *infra* note 165.

74. Mueller points out that the transitivity requirement "is motivated in part by the desire to avoid the embarrassment of inconsistency and arbitrariness." MUELLER, *supra* note 5, at 391.

75. *Id.*; see also M.C. Kemp, *Arrow's General Impossibility Theorem*, 21 REV. OF ECON. STUD. 240 (1953/1954).

76. For an early version of the "unanimity as ideal" argument, see KNUT WICKSELL, *A NEW PRINCIPLE FOR JUST TAXATION* (1896), reprinted in *CLASSICS IN THE THEORY OF PUBLIC FINANCE* 72-118 (Richard A. Musgrave & Alan T. Peacock eds., 3d ed. 1967). For social and public choice scholars, unanimity is the ideal because it is the only clearly authentic aggregation of individual preferences into a group decision. Republicans may also conclude that unanimity is ideal, but for different reasons. Rousseau, for example, suggests that "the nearer opinion approaches unanimity, the greater is the dominance of the general will." 4 JEAN-JACQUES ROUSSEAU, *THE SOCIAL CONTRACT AND DISCOURSES* 276 (G.D.H. Cole ed., 1913) [hereinafter *THE SOCIAL CONTRACT*].

77. BUCHANAN & TULLOCK, *supra* note 28, at 96.

should be organized in the “smallest units consistent with the extent of the externality that the collectivization is designed to eliminate.”⁷⁸ In other words, they advocate that as many decisions as possible be made by appropriate private groups and at the state and local level.

While public choice theorists generally see government “as nothing more than the set of processes, the machine, which allows such collective action to take place,” the more organic conception of society and government reflected by civic republicanism sees the individual as part of a larger whole for which there is a “common good.”⁷⁹ Comparing the social or public choice vision with the civic republican vision of government, Professors Farber and Frickey observe:

In public choice, government is merely a mechanism for combining 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.⁸⁰

Thus, civic republicans challenge the very notion that political decision making is, or should be, the simple aggregation of individual preferences. Instead, they view the political process not simply as an instrument for the aggregation of preferences, but rather as a process for the “*transformation* of preferences through public and rational discussion.”⁸¹ The literature on civic republicanism attempts to revitalize the deliberative quality or “dialogic tradition”⁸² of public decision making.

Although civic republicanism is hard to define precisely and does not mean the same thing even to those who claim to be civic republicans, one can

78. *Id.* at 112.

79. *Id.* at 13.

80. FARBER & FRICKEY, *supra* note 46, at 44.

81. Jon Elster, *The Market and the Forum: Three Varieties of Political Theory*, in FOUNDATIONS OF SOCIAL CHOICE THEORY 103, 112 (Jon Elster & Aunund Hylland eds., 1986); *see also* Sunstein, *Interest Groups*, *supra* note 29, at 31 (The republican view of politics “was not a scheme in which people impressed their private preferences on the government. It was instead a system in which the selection of preferences was the object of the governmental process. Preferences were not to be taken as exogenous, but to be developed and shaped through politics.”); Sunstein, *Republican Revival*, *supra* note 29, at 1549 (“Republicans are thus unlikely to take existing preferences and entitlements as fixed. Both are permissible objects of political deliberation.”); FARBER & FRICKEY, *supra* note 46, at 61-62 (“a viable democracy requires that preferences be shaped by public discourse and processed by political institutions so that meaningful decisions can emerge”).

82. *See supra* note 29.

identify common themes. For example, Professor Cass Sunstein identifies four central principles of liberal republicanism: 1) “deliberation in politics, made possible by . . . civic virtue;” 2) “equality of political actors;” 3) “universalism, exemplified by the notion of a common good, and made possible by ‘practical reason;’” and 4) “citizenship, manifesting itself in broadly guaranteed rights of participation.”⁸³

Condorcet, the so-called father of social choice, incorporates all four of these principles in his overall work. Ironically, Condorcet himself would be better described as a civic republican.⁸⁴ Condorcet surely would agree with Farber and Frickey that the role of government should be far more creative than the simple aggregation of preferences. This is not to suggest that Condorcet completely abandoned the search for appropriate decision-making mechanisms and procedures.⁸⁵ Nor is it to suggest that government should necessarily be more involved in regulating people’s personal lives. Condorcet was a strong believer in the liberty of the individual.⁸⁶ Nevertheless, Condorcet had an abiding faith in government and the potential for reasoned decisions arrived at through majority voting decision rules.

III. CONDORCET IN CONTEXT

A. *The Early Period—Before the Revolution*⁸⁷

Condorcet was born into nobility in 1743. Rejecting his family’s wish that he follow a career in the military or the clergy, Condorcet instead began his professional career as a mathematician and, at the age of twenty-six, was

83. Sunstein, *Republican Revival*, *supra* note 29, at 1541.

84. For further discussion of the relationship between Condorcet’s thought and that of the civic republicans, see *infra* notes 115-31, 172-231 and accompanying text.

85. In his later work, particularly his proposed constitution, Condorcet focused on detailed voting mechanisms that provided the greatest *probability* of truth. See *infra* notes 231-33 and accompanying text.

86. Condorcet’s thoughts about individual liberty are discussed briefly *infra* notes 111-14 and accompanying text.

87. The most comprehensive biography of Condorcet is available only in French. LÉON CAHEN, *CONDORCET ET LA RÉVOLUTION FRANÇAISE* (1904). The most comprehensive treatment in English is BAKER, *supra* note 32. See also ANNE ELIZABETH BURLINGAME, *CONDORCET: THE TORCHBEARER OF THE FRENCH REVOLUTION* (1930); SALWYN SCHAPIRO, *CONDORCET AND THE RISE OF LIBERALISM* (1934). Interesting chapters on Condorcet’s life and work also appear in FRANK E. MANUEL, *THE PROPHETS OF PARIS* 53-102 (1962); BRUCE MAZLISH, *THE RIDDLE OF HISTORY* 70-100 (1966). One of Condorcet’s roles as Secretary for the Academy of Sciences was to author eulogies of its eminent members, a task he apparently undertook with great elegance and style. Another rather comprehensive source of biographic information is the eulogy of Condorcet himself, presented to the Academy by M. Arago. M. Arago, *Condorcet: A Biography*, in *SMITHSONIAN INST. ANN. REP.* 180-235 (1879) [hereinafter *Biography*]. Much of the biographic information that follows was drawn from an amalgam of these sources.

elected to the prestigious Academy of Science in Paris, eventually serving as its permanent secretary. He was later sponsored by Voltaire and ultimately elected to the *Académie Française* ("French Academy") in 1782.⁸⁸ Condorcet was a faithful disciple of Voltaire and Turgot during the French Enlightenment—the "age of reason." Unfortunately, as noted by one historian of the French Enlightenment, "It was Condorcet's misfortune to be a lesser luminary at a time when the great lights of the philosophe movement dazzled the intellectual skies of France."⁸⁹

As a product of the Enlightenment, Condorcet adopted a highly scientific approach to the social sciences, and "by utilizing the calculus of probabilities in the social sciences he proposed to 'mathematize' social phenomena and finally to introduce predictability and law into the science of man."⁹⁰ During the turmoil of the 1770s that ultimately led to the French Revolution, Condorcet was a member of the French intellectual *philosophes*, a loosely-defined group advocating social, political and economic reforms. Among the major publication projects of the *philosophes* was a seventeen volume encyclopedia published between 1751 and 1765. More than just an encyclopedia, this massive work represented to many a "manifesto of the mind,"⁹¹ a reflection of enlightenment thought. Condorcet made several contributions to *L'Encyclopédie* on science and mathematics.

Although irreverent,⁹² the *philosophes* generally believed in reform through peaceful means. During the period of his early work, Condorcet still believed that the best form of government was the enlightened monarch, who might rule with greater fairness and reason than the masses might rule themselves through popular government. In 1774, the French *philosophes* had high hopes for peaceful reform when Louis XVI appointed Turgot, one

88. See BAKER, *supra* note 32, at 27.

89. SCHAPIRO, *supra* note 87, at 271. See also CONDORCET STUDIES I ix (Lenora Cohen Rosenfield ed., 1984) (Foreword by Richard H. Popkin) ("Condorcet is an extremely interesting thinker whose ideas are most relevant to present day concerns. Unfortunately, his work has not been given the attention it deserves.") [hereinafter CONDORCET STUDIES]. Condorcet was included in a volume of "neglected biography" published in 1800. Thomas Bensley, *The Annual Necrology, for 1797-8, Including Also, Various Articles of Neglected Biography*, vol. 3, 88-105 (1800).

90. MANUEL, *supra* note 87, at 94. Condorcet's particular emphasis on social mathematics and probability theory goes a long way toward explaining the different trajectories of his work as opposed to social choice theory. See *infra* notes 168-71 and accompanying text.

91. MANUEL, *supra* note 87, at 97. Rousseau also made contributions to *L'Encyclopédie*. For a discussion of connections between Condorcet and Rousseau, see *infra* notes 117-28 and accompanying text.

92. See R.J. WHITE, *THE ANTI-PHILOSOPHERS: A STUDY OF THE PHILOSOPHES IN EIGHTEENTH-CENTURY FRANCE* 4 (1970) (The *philosophes* were "distinctive if only because of their community in opposition to the *ancien régime*, their wholly irreverent temper, their contempt or neglect of the faith and intellect of their forefathers, of all that was old and long-established, in short their 'infidelity.'").

of their own, as Minister of Finance (Comptroller-General). Turgot, in turn, appointed his disciple Condorcet as Inspector of the Mint. In 1776, Turgot proposed six edicts aimed at major reform focused upon open markets and free trade. These reforms included elimination of the old corporate guilds, opening of markets to free trade, elimination of the *corvées*, a type of forced labor by which peasants were required to build and maintain provincial roads, and providing a universal, public education system. Unfortunately, Turgot's edicts failed and he was forced to resign. In 1776, when Turgot resigned, a despondent Condorcet resigned as well.⁹³

B. Condorcet and the French Revolution

Condorcet is thought to be a unique transitional figure in the French *philosophe* movement because he was the only *philosophe* to actively participate in the French Revolution.⁹⁴ By 1776, Condorcet had already begun to question the viability of enlightened monarchy. In 1785, when he wrote his famous *Essay* noting the voting paradox, Condorcet still supported the *ancien régime*, albeit with more hesitancy. He later "ceased to be a constitutional monarchist, and became an ardent advocate of a democratic republic, based upon universal, equal suffrage."⁹⁵ Despite his roots in nobility, Condorcet came to be a passionate and well-respected republican.⁹⁶

No doubt, Condorcet was heavily influenced by events taking place in the American colonies.⁹⁷ As noted by one commentator, "Condorcet's interest in

93. After resigning his position, Condorcet went back to focusing on the affairs of the Academy of Science. In a letter to Voltaire, Condorcet referred to his return to purely academic work: "[i]t is sad to be working only for vanity after laboring with pride for the public good." Letter from Condorcet to Voltaire, cited in Renée Waldinger, *Condorcet: The Problematic Nature of Progress, in CONDORCET STUDIES*, *supra* note 89, at 117, 119.

94. See *CONDORCET STUDIES*, *supra* note 89, at 1; *BURLINGAME*, *supra* note 87, at 5 ("of all the *philosophes* his life alone runs straight and well defined from those early, happy days of intellectual discussion and projected reform with a restored and reconstructed France shining clear as the goal, to the stark tragedy of a blood-mad Paris rabble").

95. *SCHAPIRO*, *supra* note 87, at 87. There is some difference of opinion as to how radical these changes of view were. See *CAHEN*, *supra* note 87, at 137-38 (the storming of the Bastille produced in his mind a veritable revolution). *But see BAKER*, *supra* note 32, at 267-69; *MAURICE CRANSTON, PHILOSOPHERS AND PAMPHLETEERS: POLITICAL THEORISTS OF THE ENLIGHTENMENT 140-41* (1986) ("there is really more continuity in Condorcet's political thinking than this romantic story would have us believe"). Virtually all commentators agree, however, that Condorcet's views changed and matured over time.

96. One early biography noted: "The integrity of Condorcet raised him high in the esteem of his countrymen; as springing from the class of nobles, his disinterestedness could not be doubted. . . . He was . . . a determined republican. . . . [H]e wished all to be enlightened as to their duties, and all to tend equally to the improvement of their intellectual and moral nature." *MARY SHELLY ET AL., 2 LIVES OF THE MOST EMINENT FRENCH WRITERS 194* (Philadelphia, Lea & Blanchard 1840) (1839).

97. He was later to write a major essay. See Condorcet, *On the Influence of the American*

the American experiment undoubtedly had much to do with converting him to a republican form of government.”⁹⁸ For example, during the period of the American Revolution, Condorcet regularly corresponded with Thomas Jefferson, James Madison and Benjamin Franklin and entertained them in his home in Paris. He also developed a close friendship with Thomas Paine with whom he founded a short-lived journal, *Le Républicain*.⁹⁹

In 1786, Condorcet and his new wife, Sophie de Grouchy, became actively involved in the French Revolution, contributing daily to revolutionary newspapers. He was among the founders of the Society of 1789, a moderate group calling for nonviolent, peaceful reforms through democratic constitutional processes.¹⁰⁰ Condorcet was elected to the French National Legislative Assembly in 1791 and later served as its President. Most commentators date Condorcet’s final rejection of the potential for an enlightened monarchy to the July 1791 massacre of innocent citizens who had signed a petition and gathered on the Champs de Mars in Paris demanding abdication of King Louis XVI.¹⁰¹ As President of the National Assembly, Condorcet drafted and submitted numerous demands for reform to the King.

In 1792, Condorcet was elected to the first French Republic’s National Convention, at which he chaired the Committee on the Constitution and was the primary draftsman of the proposed, but ill-fated, Girondin Constitution.¹⁰² He became increasingly convinced of the need to depose the King. At the same time, however, he firmly believed in procedural rights for the accused. Responding to the increasing passions of the day, Condorcet urged citizens to carefully consider the fairness of procedures for Louis XVI’s trial.¹⁰³ Moreover, he passionately advocated abolishing the death penalty, and while he was in favor of convicting and deposing the King, he voted against the

Revolution on Europe (1786), translated in CONDORCET: SELECTED WRITINGS, *supra* note 21, at 71.

98. SCHAPIRO, *supra* note 87, at 88.

99. *See id.* at 89. Schapiro also notes that “the home of the Condorcets became known as *le foyer de la République*, where republican opinions were freely expressed by radical thinkers.” *Id.*

100. Condorcet’s description of the Society’s goals appears in Condorcet, *On the Society of 1789* (1790), translated in CONDORCET: SELECTED WRITINGS, *supra* note 21, at 91. For a discussion of the Society, see BAKER, *supra* note 32, at 272-85.

101. *See, e.g.*, BAKER, *supra* note 32, at 304-05. Some sources even report that Condorcet’s wife and daughter were in the crowd and barely escaped the massacre themselves. *See, e.g.*, MCLEAN & HEWITT, *supra* note 21, at 20-21.

102. For a discussion of some of the particulars of the proposed constitution, see *infra* notes 172-99, 219-25 and accompanying text.

103. *See* Condorcet, *Opinion sur le Jugement de Louis XVI* [*Opinion on the Judgment of Louis XVI*], in 12 OEUVRES DE CONDORCET, *supra* note 1, at 269. In fact, “Condorcet acted as one of the judges of Louis XVI.” *Biography*, *supra* note 87, at 217.

King's execution.¹⁰⁴ Unfortunately, Condorcet found himself caught in a tempest—a bitter dispute between the Girondin and the Jacobin political parties. Although not a committed member of the Girondin camp,¹⁰⁵ Condorcet was considered suspect in the minds of Robespierre and other Jacobins since he opposed the King's execution and since he chaired the National Convention's constitutional drafting committee, a committee largely populated with Girondin members. He was later to become a victim of the Reign of Terror.

C. Condorcet in Hiding

When the Jacobins took control, Condorcet wrote a bitter, anonymous pamphlet entitled *Aux citoyens français, sur la nouvelle constitution* [*Advice to the French on the New Constitution*],¹⁰⁶ in which he urged the French people to reject the hastily prepared Jacobin Constitution in favor of the more thoughtfully deliberated proposal from his drafting committee.¹⁰⁷ When Condorcet was revealed as the author of this pamphlet, the Convention called for his arrest, and Condorcet went into hiding. During his period in hiding, Condorcet wrote his famous *Esquisse d'un tableau historique des progrès de l'esprit humain* [*Sketch for the Intellectual Progress of Mankind*].¹⁰⁸ At least outside of the legal academy, it is this posthumously published work for which Condorcet is most well-known.

Condorcet died in prison in March, 1794 after fleeing his hiding place in Paris for fear that his presence there was endangering his protectors. One important biographer notes:

The news of Condorcet's pathetic end caused considerable feeling in the Convention, which was now stirred to compassion for the *philosophe infortuné*. Perhaps to atone for its act in proscribing him the Convention ordered the publication and the distribution of Condorcet's last work, *Sketch of the Intellectual Progress of Mankind*. The book seemed like a legacy which the last of the philosophes had

104. Condorcet's elegant plea for abolishing the death penalty appears in part in 12 OEUVRES DE CONDORCET, *supra* note 1, at 307.

105. See SCHAPIRO, *supra* note 87, at 95 ("As a member of the Convention, Condorcet was affiliated neither with the Girondins nor with the Jacobins."); *id.* at 96 ("In the fierce party strife between the Girondins and Jacobins Condorcet found that . . . he was in a position of dangerous isolation."); *Biography*, *supra* note 87, at 221 ("Condorcet . . . [was] generally, 'but erroneously,' considered a Girondist . . .").

106. 12 OEUVRES DE CONDORCET, *supra* note 1, at 653.

107. See BAKER, *supra* note 32, at 328-29.

108. An English translation of portions of this work appears in SELECTED WORKS, *supra* note 21, at 209-82.

left to his fellow countrymen.¹⁰⁹

Condorcet was a true intellectual, committed to the cause of human progress and development. He was not especially interested in partisan politics. The posthumous publication and distribution of his final work at public expense was the belated recognition he ultimately received in his own country for his contributions. Perhaps a more lasting tribute is that the French educational system still bears his mark as it includes many features included in Condorcet's earlier education proposal to the National Assembly in 1792.¹¹⁰

D. Condorcet the Economist

Condorcet began his government service as an economist, appointed by Turgot. He was a passionate advocate for free markets and free trade and a firm believer in personal liberty.¹¹¹ At first blush, these observations may suggest a greater connection between Condorcet and modern social and public choice theory, both of which are heavily grounded in free-market economic principles. Such a suggestion is misplaced for several reasons. First, although he may have thought of himself as an economist at earlier points in his life, Condorcet changed his thinking substantially over time. In his earlier days, Condorcet worked as a government economist, but his focus later shifted towards social mathematics and political philosophy. Second, although Condorcet advocated leaving *economic* decisions to the free market, he did not necessarily believe in leaving most *social and political* decisions to free markets as well. Finally, and most importantly, Condorcet's views simply reflect the age-old tension between personal liberty (liberalism) and legitimate, democratically-adopted restrictions on such liberty for the common good.¹¹² Condorcet's simultaneous belief in both personal liberty and republicanism are not inevitably inconsistent. Indeed, modern civic republicans argue that liberalism need not be considered the antonym of

109. SCHAPIRO, *supra* note 87, at 107.

110. See *infra* notes 200-10 and accompanying text.

111. His most passionate argument for free-trade actually appears in his biography of Turgot. See CONDORCET, LIFE OF M. TURGOT (1787); *supra* notes 92-93 and accompanying text.

112. See, e.g., Morton J. Horwitz, *Republicanism and Liberalism in American Constitutional Thought*, 29 WM. & MARY L. REV. 57, 68-69 (1987) ("The republican tradition promotes the concept of an autonomous public interest, whereas the liberal ideal holds that the public interest is simply procedural or the sum of private interests. This issue runs throughout the nineteenth-century debates on legal and political theory"); THOMAS NAGEL, EQUALITY AND PARTIALITY 3 (1991) ("We do not yet possess an acceptable political ideal, for reasons which belong to moral and political philosophy. The unsolved problem is the familiar one of reconciling the standpoint of the collectivity with the standpoint of the individual . . .").

republicanism.¹¹³ They suggest that a republican liberalism valuing both individual freedom in most cases and the necessity for collective action in some cases is viable and achievable.¹¹⁴

E. Condorcet the Republican

Perhaps the most fundamental feature distinguishing social and public choice theory from republican theory is that the former tends to assume that individuals seek maximization of personal self-interest and that collective decision-making bodies serve simply as a venue for aggregating individual choices. Social or public choice adherents see the very notion of a “public good” as incoherent. In fact, the voting paradox discovered by Condorcet is often taken as confirmation that anything less than unanimous collective decision making is arbitrary and incoherent.¹¹⁵ Quite to the contrary, republicans believe that individuals can sometimes rise above self-interest to arrive at collective decisions in the public interest.

Condorcet truly believed that the proper role of decision-making bodies was to arrive at the *best* answer, not simply to tally preferences. He saw majority vote decision rules as necessary to provide sufficient *probability* that the group decision accord with reason. For example, in his 1785 *Essay*, Condorcet argued:

One can believe that since a law is useful only when it is in conformity with reason, it is necessary to require a majority such as to give a very great probability of the correctness of the decision¹¹⁶

Civic republicans often attribute much of their thinking to the classical republicanism of Montesquieu and Rousseau.¹¹⁷ Indeed, one finds in Condorcet’s work many similarities to Rousseau. This should not be surprising as Condorcet was a young contemporary of Rousseau¹¹⁸ and was heavily influenced by the elder Rousseau’s work.¹¹⁹ Like Rousseau,

113. See Sunstein, *Republican Revival*, *supra* note 29, at 1566-1571.

114. See, e.g., *id.*; RICHARD DAGGER, *CIVIC VIRTUES: RIGHTS, CITIZENSHIP, AND REPUBLICAN LIBERALISM* 11-24 (1997).

115. See *supra* notes 76-78 and accompanying text.

116. Condorcet, *Essay*, *supra* note 21, at 44.

117. See, e.g., Michelman, *Traces*, *supra* note 29, at 18; JUDITH N. SHKLAR, *MEN AND CITIZENS: A STUDY OF ROUSSEAU’S SOCIAL THEORY* (1969) (analyzing the connection between Rousseau and republicanism).

118. Rousseau was born in 1712 and died in 1750 while Condorcet was born in 1743 and died in 1794.

119. For a general discussion of Rousseau’s influence on Condorcet, see, for example, BAKER, *supra* note 32, at 230; Bernard Grofman & Scott L. Feld, *Rousseau’s General Will: A Condorcetian Perspective*, 82 AM. POL. SCI. REV. 567 (1988); H.P. Young, *Condorcet’s Theory of Voting*, 82 AM.

Condorcet described society in terms of a “social contract.”¹²⁰ For example, in his *Plan for a Declaration of the Natural, Civil, and Political Rights of Man*, Condorcet begins, “The aim of every group of men who form a society is to maintain their natural, civil, and political rights; these rights form the basis of the social pact”¹²¹

Both Rousseau and Condorcet addressed the qualities of the social pact that make laws passed by the majority binding on the minority who voted against them. In one of the most famous passages from Rousseau’s *The Social Contract*, he says:

When in the popular assembly a law is proposed, what the people is asked is not exactly whether it approves or rejects the proposal, but whether it is in conformity with the general will, which is their will. Each man, in giving his vote, states his opinion on that point; and the general will is found by counting votes. When therefore the opinion that is contrary to my own prevails, this proves neither more nor less than that I was mistaken, and that what I thought to be the general will was not so.¹²²

This passage, and others like it, has generated significant controversy, some calling Rousseau a totalitarian or “inventor of the political philosophy of pseudo-democratic dictatorships.”¹²³ Others argue that he was most certainly not a totalitarian, but was simply anxious to preserve personal liberties and “desired no more regulation of the citizen’s personal life than the common interest imperatively demands. The most he did was insist on the paramountcy of the general interest over all particular interests.”¹²⁴

Although Rousseau’s work has been interpreted in different ways, there is undeniably a strong communitarian component underlying *The Social Contract*. Condorcet and other republicans picked up on these communitarian aspects of Rousseau’s thought. Referring to the passage quoted above, one scholar noted: “This ambiguous and slightly disquieting idea was given a more satisfactory expression some twenty years later by the

POL. SCI. REV. 1231 (1988); see also David M. Estlund et al., *Democratic Theory and the Public Interest: Condorcet and Rousseau Revisited*, 83 AM. POL. SCI. REV. 1317 (1989).

120. The idea of a social contract was not new to either Rousseau or Condorcet, of course. Earlier thinkers from Grotius to Hobbes to Locke had used the concept in varying ways. See BERTRAND RUSSELL, *HISTORY OF WESTERN PHILOSOPHY* 629-33 (1945).

121. Condorcet, *Plan for a Declaration of the Natural, Civil, and Political Rights of Man* (1792), translated in MCLEAN & HEWITT, *supra* note 21, at 280.

122. THE SOCIAL CONTRACT, *supra* note 76, at 278.

123. RUSSELL, *supra* note 120, at 684.

124. G.D.H. Cole, *Introduction to THE SOCIAL CONTRACT*, *supra* note 76, at xl. I choose to leave this debate to the philosophers.

mathematician and social philosopher Marie Jean Antoine Nicolas Caritat, Marquis de Condorcet.”¹²⁵ Putting Rousseau’s communitarian ideas in more probabalistic terms, Condorcet argued:

In general, a law which has not been voted unanimously involves subjecting men to an opinion which is not their own, or to a decision they believe contrary to their interest. It follows that *a very great probability of truth of this decision is the only reasonable and just grounds according to which one demand such submission.*¹²⁶

Condorcet combined the romanticism of Rousseau with the scientific principles prevalent in Enlightenment thinking. Unlike social and public choice theorists, Condorcet believed in the possibility of “truth.” His goal was to use the calculus of probabilities in designing a democratic political structure that would assure the highest probability of “true judgments.” For example, in the introduction to his famous 1785 *Essay*, Condorcet argued that “it is in the interest of those who dispose of the public power to employ that power only to sustain decisions that conform to the truth, and to give, to the representatives they have charged to decide on their behalf, rules which guarantee the goodness of their decisions.”¹²⁷ Most important for present purposes, however, Condorcet sought to apply probability theory quite broadly, arguing that social mathematics “is relevant to all our individual and public interests,” and that “almost all the opinions and judgments which govern our conduct are based on some varying degree of probability.”¹²⁸ Although Condorcet’s primary focus in his early work was on jury trial decisions, he later focused more specifically on political assemblies.

Looking at Condorcet’s lifetime work, it becomes increasingly clear that his was not the thinking of a social or public choice theorist. The connections with republicanism are far greater. Condorcet was deeply committed to all four of the civic republican principles identified by Sunstein as central to liberal republicanism: deliberation, equality, universalism and citizenship.¹²⁹ Admittedly, there may be differences in emphasis between Condorcet and modern civic republicans. For example, Condorcet was intensely focused on the search for truth, whereas civic republicans seem more intensely focused on deliberation. This difference in emphasis may not be as significant as it

125. Young, *supra* note 119, at 1231.

126. Condorcet, *Essay*, *supra* note 21, at 44 (emphasis added).

127. *Id.* at 36.

128. Condorcet, *A General Survey of Science Concerning the Application of Calculus to the Political and Moral Sciences* (1793), translated in MCLEAN & HEWITT, *supra* note 21, at 93, 94.

129. See *supra* note 83 and accompanying text. A detailed discussion of Condorcet’s work as reflecting the four liberal republican principles appears *infra* notes 172-231 and accompanying text.

first appears; both Condorcet and the more modern civic republicans see a strong connection between truth and deliberation.¹³⁰ Condorcet's emphasis on truth may strike modern ears as overly romantic or naive.¹³¹ Nevertheless, a careful look at his work offers insights in connection with the ongoing debate over the legitimacy of decision making by majority vote.

IV. CONDORCET'S THEORY OF ELECTIONS—A STUDY IN PROBABILITIES AND THE SEARCH FOR TRUTH

Condorcet's "deepest and most sustained thought"¹³² on decision-making theory arguably is found in his famous 1785 *Essai sur l'application de l'analyse à la probabilité des décisions rendues à la pluralité des voix* [*Essay on the Application of Mathematics to the Theory of Decision-Making*].¹³³ Unfortunately, the *Essay* is not a model of clarity. It has been described as having "obscurity and self-contradiction . . . without any parallel,"¹³⁴ or as incorporating "somewhat clumsy, complicated, even obscure mathematical apparatus."¹³⁵ Even Condorcet himself suggested in a letter to Frederick the Great that any attention paid to the *Essay* should focus on its preliminary discourse rather than on its mathematical argument.¹³⁶ In keeping with this suggestion, the following discussion of Condorcet's theory of elections examines, but does not place undue emphasis on, the mathematics of the *Essay*.¹³⁷

130. See *infra* notes 183-88 and accompanying text.

131. In this, Condorcet is not alone. Civic republicans also have been criticized as overly romantic, naive, optimistic or utopian. See RICHARD A. POSNER, *THE PROBLEMS OF JURISPRUDENCE* 417-18 (1990) (describing communitarians, including civic republicans, as "too utopian"); Jane B. Baron & Jeffrey L. Dunoff, *Against Market Rationality: Moral Critiques of Economic Analysis in Legal Theory*, 17 *CARDOZO L. REV.* 431, 484 (1996) (civic republicanism "seems romantic, idealized, even downright utopian"); Steven P. Croley, *Theories of Regulation: Incorporating the Administrative Process*, 98 *COLUM. L. REV.* 1, 81 (1998) ("[T]he civic republican theory risks dismissal as naive or panglossian."); Steven G. Gey, *The Unfortunate Revival of Civic Republicanism*, 141 *U. PA. L. REV.* 801, 817 n.48 (noting parallels between "the nineteenth century utopian socialists and the modern civic republicans").

132. BLACK, *supra* note 31, at 160.

133. Condorcet, *Essay*, *supra* note 21, at 33. This theory of elections, which later proved so troubling to so many democratic theorists, actually "forms only one-tenth of the whole work." BLACK, *supra* note 31, at 160.

134. ISAAC TODHUNTER, *A HISTORY OF THE MATHEMATICAL THEORY OF PROBABILITY FROM THE TIME OF PASCAL TO THAT OF LAPLACE* 352 (1865).

135. WHITE, *supra* note 92, at 148.

136. Baker discusses the obscurity of the *Essay's* mathematical work and Condorcet's comments in his May 2, 1785 letter to Frederick the Great. See BAKER, *supra* note 32, at 227-28.

137. In contrast to the earlier sections of this Article including historical and biographic material, this section involves some detailed analysis of Condorcet's somewhat obscure mathematics. While I attempt here not to be overly technical, a look at the brief portions of Condorcet's 1785 *Essay* addressing voting procedures is important in understanding the development of Condorcet's response

Condorcet's theory of elections should be understood in the larger context of his search for certainty, truth and well-reasoned decisions.¹³⁸ In fact, Condorcet initially focused on jury decisions, concerned with increasing the mathematical probability that an innocent person not be condemned.¹³⁹ As later described by Duncan Black,

the intention of the *Essai* as a whole is to develop what may conveniently be referred to as the jury problem, as a branch of the theory of probability, and to do it in such a way as to obtain a Science of Politics. A theory that would sufficiently cover the jury problem would also be adequate, Condorcet thinks, to deal with assemblies of any sort, e.g. parliamentary or local-government bodies.¹⁴⁰

Condorcet's goal was to uncover the voting or decision-making mechanism that had the greatest probability of reaching correct outcomes. For example, Condorcet observed that "if the probable truth of the vote of each voter is greater than one-half, that is to say if it is more probable than not that he will decide in conformity with the truth, the more the number of voters increases, the greater the probability of the truth of the decision."¹⁴¹ Unpacking this observation, one can see that Condorcet was concerned with two distinct elements: 1) the *quality* of each individual's input—defined as the probable truth of each individual's vote; and 2) the *quantity* of votes or *size* of the decision-making body. As long as the probability of correctness for each vote was sufficiently high, the probability of correctness of the collective decision would increase as the number of decision makers increased. This would suggest a large assembly. Conversely, if the probability of correctness for each vote is *low*, the probability of a correct outcome diminishes as the size of the body increases. Nevertheless, Condorcet believed that large assemblies were appropriate either in societies in the very early stages of development where all were equally ignorant, or in societies "in which, as a result of the progress of enlightenment, there was a great equality between minds, as to the soundness of their judgments and the truth of the principles according to which they governed their conduct."¹⁴²

to the voting paradox. Part V returns to the civic republican themes in Condorcet's work and considers the lessons modern theorists might learn from Condorcet.

138. Condorcet dedicated the *Essay* to Monsieur Turgot "who was convinced that the truths of the moral and political sciences are susceptible of the same certainty as those forming the system of the physical sciences, even those branches like astronomy which seem to approach mathematical certainty." Condorcet, *Essay*, *supra* note 21, at 33.

139. *See id.* at 36-37.

140. BLACK, *supra* note 31, at 163.

141. Condorcet, *Essay*, *supra* note 21, at 48-49.

142. *Id.* at 50.

For the vast bulk of societies in which levels of education and enlightenment were unequal, Condorcet in the 1785 *Essay* supported a less numerous assembly. At the same time, he believed that

the same voters whose opinions have such a small probability of being true can be enlightened enough—certainly not to pronounce with some probability of truth as to which man among a great number has the most merit—but to choose, as the most enlightened, one of those whose opinions will have a large enough probability of being true. *Thus a numerous assembly composed of voters who are not very enlightened could be usefully employed only to choose the members of a less numerous assembly to which the decision on other matters would then be entrusted.*¹⁴³

From these observations about representative democracy, Condorcet concluded that “the form most appropriate to fulfill all the conditions required is at the same time the simplest one: that in which a single assembly, composed of enlightened men, alone pronounces a judgment by a majority large enough to give adequate assurance of the truth of the judgment, even when the majority is the minimum required.”¹⁴⁴ Here, Condorcet adds a third, and final element to his theory of decision making—*method* or *mechanism*; in this case, the method is majority vote.

The simple majority vote mechanism worked well, according to Condorcet, when there could be “only two opinions in a decision, i.e. that one was deliberating on the truth of a simple proposition or its opposite.”¹⁴⁵ Unfortunately, many decisions cannot be reduced to two contradictory opinions. In such complicated cases, Condorcet was again concerned with having “a sufficient probability of obtaining a true decision, and of the decision obtained being true.”¹⁴⁶

A. *The Inauthentic Results Case*

At this point, Condorcet began to look at different possible distributions of individual voter preferences among three candidates for election: *A*, *B* and *C*. This analysis revealed two troublesome cases in his theory of elections.

143. *Id.* at 61 (emphasis added). In this aspect, Condorcet differs significantly from Rousseau, who was firmly opposed to representative democracy.

144. *Id.* at 50. Condorcet later increased his faith in greater political participation by the voting public at large. See *infra* notes 194-95 and accompanying text. For further discussion of Condorcet's support of a unicameral legislature, see *infra* notes 221-31 and accompanying text.

145. Condorcet, *Essay*, *supra* note 21, at 50.

146. *Id.* at 52.

First, he identified a three-way contest with a simple majority vote resulting in a “decision really contrary to the opinion of the majority.”¹⁴⁷ Although Condorcet never gave this particular problem a precise name, this Article refers to the first problem case as the inauthentic results case—a case where simple majority voting among three candidates generates a definitive result, but one that does not reflect the majority view.¹⁴⁸ Condorcet’s inauthentic results example involved a group of sixty voters whose individual votes for the candidates were as follows:

Candidate *A*: 23 votes
 Candidate *B*: 19 votes
 Candidate *C*: 18 votes
 Total votes: 60 votes

Given a simple majority vote between the three candidates, *A* is declared the winner. According to Condorcet, this approach falters because it only provides information about the voters’ *first* choices and gives no indication as to how the voters ranked the remaining two candidates.

To make his point, Condorcet supposes that the particular distribution of preferences among the voters would rank the candidates as follows:

Rank Order of Preferences for Candidates¹⁴⁹

<u>VOTERS</u>	<u>First Choice</u>	<u>Second Choice</u>	<u>Third Choice</u>
All 23 voters for <i>A</i> :	<i>A</i>	<i>C</i>	<i>B</i>
All 19 voters for <i>B</i> :	<i>B</i>	<i>C</i>	<i>A</i>
16 of the 18 voters for <i>C</i> :	<i>C</i>	<i>B</i>	<i>A</i>
2 of the 18 voters for <i>C</i> :	<i>C</i>	<i>A</i>	<i>B</i>

In such a case, Condorcet concluded that *C* is the clear winner, so that “the candidate really enjoying the vote of the majority would be precisely the one who would have had the least votes according to the ordinary method of election.”¹⁵⁰ He makes this point more clearly by supposing that instead of a simple majority vote among the three candidates, the voting mechanism had taken three pairwise votes: *A* v. *B*, *B* v. *C* and *A* v. *C*. Candidate *C* would be the winner in this example regardless of the order in which the three pairwise

147. *Id.* at 53.

148. Black refers to this as the case of three candidates “when the voting yields a set of consistent propositions.” BLACK, *supra* note 31, at 168.

149. Condorcet did not use precisely the format used in the text. The tabulation in the text above was extrapolated to make the hypothetical more accessible.

150. Condorcet, *Essay*, *supra* note 21, at 53.

contests are put to a vote.¹⁵¹

By way of this example, Condorcet showed that the simple majority voting method usually employed in three-way elections would result in a choice of the wrong candidate. This particular problem is soluble, however. By using a method which presents all possible combinations of pairwise votes, a proper winner emerges. Specifically, Condorcet concluded:

1. that to have a majority decision that merits confidence, it is absolutely necessary to reduce all opinions in such a way that they represent in a distinct manner the different combinations that can arise from a system of simple propositions and their opposites;
2. that then counting separately all the votes given in favor of each of these propositions or its opposite, it is necessary to take that proposition from each pair which has the majority, and to form from all these propositions the opinion that must prevail.¹⁵²

This pairwise comparison approach has come to be known as the *Condorcet winner* or *Condorcet criterion*—requiring a group choice of the alternative that beats all others in pairwise elections using majority rule.¹⁵³ Most theorists agree that the Condorcet winner should be the group choice where such a winner exists.¹⁵⁴

B. *The Inconsistent or Arbitrary Results Case*

A more serious problem arises in a three-way election in which *no* alternative beats all others in pairwise contests. This is the second, and more difficult case—the *inconsistent* or *arbitrary results* case, more commonly known as the familiar vote cycling case.¹⁵⁵ For this example, Condorcet returns to the three-way election between candidates *A*, *B* and *C* in which a simple majority vote resulted in twenty-three votes for *A*, nineteen votes for *B* and eighteen votes for *C*. Instead of the particular distribution of preferences described in the inauthentic results example, Condorcet now

151. In the *A* v. *B* contest, *B* would win by a vote of 35 to 25. In the *B* v. *C*. contest, *C* would win by a vote of 41 to 19. In the *A* v. *C* contest, *C* would win by a vote of 37 to 23.

152. Condorcet, *Essay*, *supra* note 21, at 51.

153. See MUELLER, *supra* note 5, at 112. Using terminology from game theoretic approaches, this case would be referred to as a game with a “core” solution. This Article will use the Condorcet winner or Condorcet criterion terminology drawn from the social choice literature.

154. See, e.g., *id.* at 114; Levmore, *Bicameralism*, *supra* note 16, at 156-57.

155. Condorcet’s discussion of the “contradictory” case appears in Condorcet, *Essay*, *supra* note 21, at 55. Black refers to this as the case of three candidates which “yields a set of inconsistent propositions.” BLACK, *supra* note 31, at 171-73. For a description of the voting cycle case, see *supra* text accompanying notes 38-47.

imagines that the ranked distribution of preferences is as follows:

Rank Order of Preferences for Candidates¹⁵⁶

<u>VOTERS</u>	<u>First Choice</u>	<u>Second Choice</u>	<u>Third Choice</u>
All 23 voters for <i>A</i> :	<i>A</i>	<i>B</i>	<i>C</i>
17 of the 19 voters for <i>B</i> :	<i>B</i>	<i>C</i>	<i>A</i>
2 of the 19 voters for <i>B</i> :	<i>B</i>	<i>A</i>	<i>C</i>
10 of the 18 voters for <i>C</i> :	<i>C</i>	<i>A</i>	<i>B</i>
8 of the 18 voters for <i>C</i> :	<i>C</i>	<i>B</i>	<i>A</i>

Given this particular preference distribution, no one candidate would beat all others in pairwise comparisons; there is no Condorcet winner.¹⁵⁷ *A* would win in the *A* v. *B* contest by thirty-three to twenty-seven, *B* would win in the *B* v. *C* contest by forty-two to eighteen, and *C* would win in the *C* v. *A* contest by thirty-five to twenty-five. The resulting collective distribution of preferences is that *A* is preferred to *B*, *B* is preferred to *C*, but *C* is preferred to *A*. Condorcet described this type of distribution as “contradictory.”¹⁵⁸ The modern term of logic used to describe this particular preference distribution is *intransitive*. Under general principles of transitivity, if *A* is preferred to *B* and *B* is preferred to *C*, then *A* should be preferred to *C*. An intransitive distribution of preferences is thought to be irrational or illogical.¹⁵⁹

More than simply illogical, the outcome in this example is inconsistent and arbitrary; the outcome differs depending upon the order in which candidates are put to a series of pairwise votes. Imagine, for example, that the first vote pits *A* against *B*. *A* wins by a vote of thirty-three to twenty-seven and *B* is eliminated. In the runoff between *A* and *C*, *C* wins by a vote of thirty-five to twenty-five. *C* is declared the winner. If instead, the first vote pitted *B* against *C*, *B* would win by a vote of forty-two to eighteen and *C* (the winner under the first agenda) is eliminated. In the runoff between *A* and *B*, *A* wins by a vote of thirty-three to twenty-seven. This is the classic vote cycling dilemma.¹⁶⁰

Condorcet responds to the dilemma by noting, “If there is no necessity to elect, the decision will be regarded as null and void.”¹⁶¹ In other words, in

156. Again, the tabulated preferences are extrapolated from Condorcet’s *Essay*. See *supra* note 149.

157. In game theory terminology, this would be referred to as the solution with no core or an empty core. See, e.g., ANATOL RAPOPORT, *N-PERSON GAME THEORY: CONCEPTS AND APPLICATIONS* 89 (1970).

158. Condorcet, *Essay*, *supra* note 21, at 51.

159. See *supra* text accompanying notes 44, 73-75

160. See *supra* notes 38-54 and accompanying text.

161. Condorcet, *Essay*, *supra* note 21, at 55.

such inconsistent results cases, “both majority rule and the Condorcet criterion may declare no candidate a winner.” When it is essential to declare a winner, Condorcet suggests that “it is necessary to take successively all the propositions that have a majority, beginning with those possessing the largest.”¹⁶² As paraphrased by Black, Condorcet’s proposed solution is that “of the three propositions with majorities in their favour, delete the one with the lowest majority and take the straightforward interpretation of the other two.”¹⁶³ Condorcet returned to the voting paradox and related issues after the Revolution when France was establishing its Constitution. Referring again to the inconsistent results problem, he noted, “In an election between three candidates, the three judgments which obtain majority support when the candidates are compared two by two may sometimes be inconsistent, even when the individual judgements of each voter involve no contradiction.”¹⁶⁴ Repeating the same solution presented in his 1785 *Essay*, Condorcet said, “We must therefore reject the proposition with the smallest majority and retain the other two.”¹⁶⁵

Condorcet surely understood that there was no definitive solution to the vote cycling case. Conceding that he had only presented “an imperfect sketch,” Condorcet noted the following requirements for decision making, which bear quoting in full:

1. In the case of decisions on complicated questions, it is necessary for the system of simple propositions involved in such questions to be rigorously worked out, for each possible opinion to be clearly stated, for each voter to express his judgment on each of the propositions forming this opinion and not simply on the general result. *The manner*

162. *Id.* at 56.

163. BLACK, *supra* note 31, at 113 (paraphrasing from Condorcet’s essay). Black criticizes this approach, agreeing with the later observations of Arrow that there is no correct solution to the *inconsistent results* case. An alternative mechanism that some find attractive is the “Borda Count,” developed by one of Condorcet’s colleagues at the *Académie Française*. Under this method, each voter lists his or her individual preferences in rank order. The lowest preferred outcome on each list gets a score of zero; the next-to-last preferred outcome gets a score of one; the preference above that gets a score of two, and so on. The preference with the overall highest score is declared the winner. For a description of the Borda Count and its desirable and undesirable qualities, see MUELLER, *supra* note 5, at 113, 117-20; Young, *supra* note 119, at 1236-43.

164. Condorcet, *On Elections* (1793), translated in MCLEAN & HEWITT, *supra* note 21, at 235, 236 [hereinafter Condorcet, *On Elections*].

165. *Id.* It has been suggested that Condorcet himself here is violating the independence of irrelevant alternatives condition, since the preference with respect to one pairwise comparison is used to infer preferences with respect to a different pairwise comparison. *See, e.g.*, Dennis R. McGrath, James Madison and Social Choice Theory: The Possibility of Republicanism, 102 (1983) (unpublished Ph.D. dissertation, University of Maryland, College Park) (on file with McKeldin Library, University of Maryland, College Park).

in which the question is put to the vote is therefore very important; and the business of establishing this form is one of the most delicate and difficult responsibilities that the body charged to decide, or those who have established it, can confer. Yet among the ancients, and even among the moderns, it has been almost everywhere left to chance, or given as a power or right attached to a particular office, rather than imposed as a duty that demands wisdom and precision.

2. *It is necessary, furthermore, that voters be enlightened; and that they be the more enlightened, the more complicated the question upon which they decide. Otherwise, while one will indeed find a form of decision-making to prevent a false decision, this will at the same time render any decision almost impossible. It will therefore be a means only of perpetuating abuses and bad laws.*¹⁶⁶

This long quote makes it clear that Condorcet understood the implications of his paradox. He knew that in certain vote cycling cases, no clear and consistent result would emerge, and he recognized that the problem might well be insoluble. Long before the social choice theorists, Condorcet recognized the power of the agenda setter and stressed the importance of allocating such power with “wisdom and precision.”

In the same year that Condorcet wrote the essay containing his theory of elections, he also supported a controversial essay contest proposed to the Academy of Science in 1785, addressing the application of mathematical reasoning to political decision making. Apparently, some in the Academy thought that the essay contest would be wasteful of resources since many of the political decision-making problems could not be solved scientifically.¹⁶⁷ In a letter to the *Journal de Paris* supporting the essay contest, Condorcet at first rejected the notion that the problem had no solution. In any event, Condorcet tellingly observed that “to prove that a question is insoluble is, in a sense, to solve it; and in the case of questions as important as this, one has done something useful if one is able to caution other men against concerning themselves with it.”¹⁶⁸ Here again, Condorcet recognizes the paradox but chooses not to obsess about it. Condorcet was content to accept a less than perfect or “good approximate method”¹⁶⁹ as long as it presented a “fairly large probability”¹⁷⁰ of reaching a correct result. Condorcet probably would

166. Condorcet, *Essay*, *supra* note 21, at 56-57 (emphasis added).

167. The contest is described in BAKER, *supra* note 32, at 226.

168. Letter from Condorcet to the *Journal de Paris* (Oct. 9, 1785), in BAKER, *supra* note 32, at 227.

169. Condorcet, *On Elections*, *supra* note 164, at 239.

170. *Id.* at 236.

agree with Professors Farber and Frickey's suggestion: "Since we can never fashion a procedure that will fit [Arrow's] postulates, there may be little point in judging the decision-making 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."¹⁷¹ As described in the sections that follow, much of Condorcet's later work examined the quality of procedures as well as the quality of inputs to the "legislative black box."

V. CIVIC REPUBLICAN THEMES IN CONDORCET'S WORK

Condorcet's draft constitutional plan, presented to the National Convention on February 15 and 16, 1793,¹⁷² contrasts sharply with his original support of the enlightened monarch who might rule with greater reason than the masses might rule themselves. In his remarkable essay *La Nation Française a Tous Les Peuples* [*From the French to People Everywhere*],¹⁷³ also written in February 1793, Condorcet urged the world to learn from France's calamities at the hands of tyrants. Even if the current form of government by king or hereditary magistrates seems sufficient to protect liberties, Condorcet asked, "are you sure that you will not discover tomorrow in [the constitutional monarchy] vices that may be destructive of your liberty? Are you sure that those in power will not someday find a way to oppress you?"¹⁷⁴ Condorcet's sensitivity to issues of personal liberty suggest that he is more accurately classified as a liberal republican than as a proponent of social choice theory.¹⁷⁵

171. FARBER & FRICKEY, *supra* note 46, at 60.

172. Although the plan came from the constitutional drafting committee, it is generally recognized as Condorcet's work. The draft constitution is included in the twelve-volume collection of Condorcet's work. See 12 OEUVRES DE CONDORCET, *supra* note 1, at 423. Portions of Condorcet's speech to the National Convention describing the plan have been translated into English. See Condorcet, *On the Principles of the Constitutional Plan Presented to the National Convention*, translated in CONDORCET: SELECTED WRITINGS, *supra* note 21, at 143 [hereinafter Condorcet, *Constitutional Plan*]. The actual proposal to the Convention includes two parts. The first part is a detailed declaration of the rights of man. See Condorcet, *Projet de Déclaration Des Droits Naturels, Civils et Politiques Des Hommes* [*On the Declaration of the Natural, Civil and Political Rights of Man*], in 12 OEUVRES DE CONDORCET, *supra* note 1, at 417, partially translated in MCLEAN & HEWITT, *supra* note 21, at 280. The second part is the proposed constitution itself, *Projet de Constitution Française* [*French Constitution*], in 12 OEUVRES DE CONDORCET, *supra* note 1, at 423 [hereinafter Condorcet, *French Constitution*]. The proposed constitution itself is not available in English translation.

173. 12 OEUVRES DE CONDORCET, *supra* note 1, at 505.

174. *Id.* at 507 ("êtes-vous sûr que demain vous ne découvrirez pas, dans cette constitution, des vices destructeurs de votre liberté? Êtes-vous sûrs que les dépositaires de vos pouvoirs n'y trouveront pas un jour des moyens de vous opprimer?").

175. For a discussion of the possibility of liberal republicanism, see *supra* notes 112-14 and accompanying text.

Despite the potential voting paradox, Condorcet was not only comfortable but also passionate about leaving decisions to the people through their elected representatives. Moreover, he clearly had not forgotten about his earlier discovery. In an essay written in June 1793, entitled *Sur les Élections* [*On Elections*],¹⁷⁶ Condorcet returned to the vote cycling problem, restating the problem and the imperfect solution without significant change in position from his 1785 *Essay*. Indeed, the proposed 1793 constitution depended heavily on direct public voting participation through regional legislative assemblies, known as the *assemblées primaires*, where the French were “to exercise their rights as citizens.”¹⁷⁷ These assemblies were to be quite large, composing no less than 450 and no more than 900 citizens.¹⁷⁸ The assemblies would then elect boards of at least fifty citizens. These boards were responsible for maintaining the registry of voters and convoking the full assembly in situations required by the proposed constitution.¹⁷⁹ The regional assemblies would meet annually to elect a National Legislature, composed of a single chamber.¹⁸⁰

Condorcet’s 1793 constitutional proposal bears all the hallmarks of liberal republican thought. Each of the four central republican principles is represented in that proposed constitution and in many of Condorcet’s other works.¹⁸¹ Each of these principles is considered in turn in the sections that follow.

A. *Deliberation*¹⁸²

Deliberation surely lies at the heart of the civic republican view that individuals can be persuaded to look beyond self-interest toward a common good. In sharp contrast to the notion that individual preferences are purely endogenous and immutable, the idea that preferences can be changed or transformed exogenously through exposure to other viewpoints is critical to the civic republican vision. The 1793 constitution, authored primarily by Condorcet and proposed to the first French Republic’s National Convention,

176. 12 OEUVRES DE CONDORCET, *supra* note 1, at 637.

177. See Condorcet, *French Constitution*, *supra* note 172, at 427 (Titre III, Sec. I, Art. I).

178. See *id.*

179. See *id.* at 430 (Titre III, Sec. II, Art. II).

180. See *id.* at 460 (Titre VII, Sec. I, Art. I, II).

181. These four principles as identified earlier are: 1) deliberation; 2) equality; 3) universalism; and 4) citizenship. See *supra* notes 82-83 and accompanying text.

182. For civic republicans, deliberation requires more than simply working out a deal with each participant focused on his or her self-interest. Instead, deliberation requires participants to “achieve a measure of critical distance from prevailing desires and practices, subjecting these desires and practices to scrutiny and review.” Sunstein, *Republican Revival*, *supra* note 29, at 1548-49.

included numerous features designed to stimulate and enhance this exposure through deliberative political dialogue.

The design of Condorcet's proposed regional assemblies was to encourage debate, dialogue and deliberation. Voters were not to enter an isolated voting booth and simply register their preferences. Condorcet's proposed constitution required the president of the assembly to present the question, "reduced to a question answerable by a simple yes or no vote" and subject to a mandatory delay of one week imposed for deliberation before a vote could be taken.¹⁸³ The assembly chamber was to be open every Sunday of the year, with at least one member of the elected Board present to allow citizens to join together to educate themselves to discuss and deliberate proposals.¹⁸⁴ No law or decree was to be promulgated without two deliberations and two votes. The first vote would determine whether to take up the matter. If the vote on the first question was positive, a second deliberation and vote was taken to adopt or reject a proposal. Finally, the proposed constitution imposed a mandatory delay of a fortnight between the first and second vote¹⁸⁵ which could be abridged only by majority vote.¹⁸⁶

Perhaps the best evidence of Condorcet's commitment to improving the quality of deliberation is his focus on education.¹⁸⁷ As Condorcet noted in his biography of Turgot, "It is easy to establish assemblies; but their utility depends entirely upon the education of their members and the intelligence that inspires them . . ."¹⁸⁸ Through a system of public education that would foster and improve the most talented members of society, Condorcet hoped to create enlightened leaders of opinion. Together, the people and their representatives would create the most enlightened laws—those with the

183. See Condorcet, *French Constitution*, *supra* note 172, at 438 (Titre III, Sec. V, Art. I: "le président fera connaître l'objet de la délibération, réduit à une question simple à laquelle on puisse répondre par oui ou par non").

184. See *id.* (Titre III, Sec. V, Art. III: "La salle sera aussi ouverte tous les dimanches de l'année aux citoyens qui voudront s'y réunir; et le bureau commettra l'un de ses membres").

185. See *id.* at 466 (Titre VII, Sec. III, Art. IX).

186. See *id.* at 467 (Art. XIII). Condorcet's proposed Constitution was also remarkably specific regarding procedures for the passage of legislation within the National Legislature. All deliberations were to be public, and a record of the proceedings was to be printed. See *id.* at 465 (Titre VII, Sec. III, Art. I). Laws and decrees were to be determined by absolute majority vote. See *id.* (Art. II).

187. Condorcet was careful to distinguish between "education" and "instruction." The former included "the teaching of truths of fact and calculation. It embraces all political, moral, or religious opinions." Condorcet, *The Nature and Purpose of Instruction* (1791), translated in CONDORCET: SELECTED WRITINGS, *supra* note 21, at 105, 125 [Condorcet, *Instruction*]. His argument for limiting public education to instruction was based on his fear of tyranny and loss of liberty: "The individual who enters society with opinions inculcated by his education is no longer a free man; he is a slave of his teachers." *Id.*

188. 5 OEUVRES DE CONDORCET, *supra* note 1, at 122, translated in BAKER, *supra* note 32, at 292.

highest probability of being “true” or “good.”

Condorcet designed many of the proposed provisions, such as the mandatory delays for deliberation and keeping assembly chambers open on Sundays for discussion, to improve the *quality* of input, and thus, increase the probability of a good result. Moreover, Condorcet hoped that such thoughtful deliberation would frequently reduce the issue to simple questions with only two choices, thus avoiding the vote cycling paradox. Condorcet here sounds much more like the civic republican than the social choice theorist.

B. Political Equality

In Part Five of his Declaration of Rights dealing with Equality, Condorcet opened, “Men have joined together in society in order to preserve their natural rights, and these rights are the same for all. Society must therefore ensure that everyone has an equal enjoyment of all these rights.”¹⁸⁹ Condorcet’s views surely reflect a commitment to political equality, defined as “a desire to eliminate sharp disparities in political participation or influence among individuals or social groups.”¹⁹⁰ He advocated universal suffrage, including voting rights for women, a proposal virtually unthinkable in his day. He chastised men for “violating the principle of equal rights by debarring women from citizenship rights, and thereby calmly depriving half of the human race of the right to participate in the formation of laws.”¹⁹¹ Furthermore, as a founder of the *Society of Friends of Negroes*, almost a century before the United States Civil War, Condorcet declared: “an entire race; part of the world, crushed beneath the weight of its chains, cries out to us for the restoration of its sacred human rights”¹⁹² and that “slavery could not be reconciled with the principles of equality, gentleness, and humanity.”¹⁹³

Although he initially believed in limiting the vote to property holders,

189. Condorcet, *Declaration of Rights* (1789), translated in MCLEAN & HEWITT, *supra* note 21, at 255, 267 [hereinafter Condorcet, *Declaration of Rights*].

190. Sunnstein, *Republican Revival*, *supra* note 29, at 1541. Condorcet was an ardent advocate of liberty, equality, women’s rights, universal public education and the abolition of slavery. Perhaps the best discussion of his contributions to liberalism appears in SCHAPIRO, *supra* note 87. In fact, Schapiro argues that “Condorcet succeeded in creating a complete pattern of liberalism. A criticism of Condorcet’s ideas and methods, therefore, constitutes a criticism of modern liberalism.” *Id.* at 273. Ironically, the social choice theory he is thought to have fathered has been described as a “threat to liberalism.” See Luban, *supra* note 51, at 523.

191. Condorcet, *On Giving Women the Right of Citizenship* (1790), translated in MCLEAN & HEWITT, *supra* note 21, at 335.

192. Condorcet, *Rules for the Society of the Friends of Negroes* (1788), translated in MCLEAN & HEWITT, *supra* note 21, at 341.

193. *Id.* at 343.

Condorcet later realized that denial of access to the political process was inconsistent with democratic principles. He later argued that rights to political participation should not depend upon the extent of a citizen's property or wealth. His 1789 *Declaration of Rights* provided, "The legislature may not make a man's entitlement to fulfill certain functions dependent on the size of that man's land or on other aspects of his fortune. This would give the rich an advantage which does not necessarily result from their wealth."¹⁹⁴

Condorcet was also concerned with economic disparities that made it more difficult for some to participate in the process. For example, he suggested subsidy payments to poor families that lost the agricultural assistance of children attending his proposed free, public schools.¹⁹⁵ A commitment to such subsidies and to redistribution generally is inimical to the public choice perspective.

C. Universalism

Condorcet's lifetime work surely appears consistent with a republican commitment to universalism, defined as "a belief in the possibility of mediating different approaches to politics, or different conceptions of the public good, through discussion and dialogue . . . to produce *substantively correct outcomes*."¹⁹⁶ As is clearly shown by his emphasis on the probability of achieving correct outcomes,¹⁹⁷ Condorcet did not view the political process as simply an aggregation of personal preferences. As an Enlightenment *philosophe*, Condorcet believed in the possibility of group decisions made in accordance with "practical reason." Despite the insoluble voting paradox, Condorcet's constitutional proposals included remarkably detailed requirements designed to assure the highest possible probability of substantively correct results, both in choosing the best representatives and in selecting the best legislative policies. For example, Title III of Condorcet's proposed constitution contains remarkably detailed requirements regarding the method of elections.¹⁹⁸ There were to be at least two ballots—one simply

194. *Id.* at 267 (translation of "Declaration of Rights" (1789)). This was a change from Condorcet's earlier position, which would have denied voting rights to those without property.

195. For a more detailed discussion of Condorcet's education policy, see *infra* notes 200-09 and accompanying text.

196. Sunstein, *Republican Revival*, *supra* note 29, at 1554 (emphasis added).

197. See discussion at *supra* notes 132-46 and accompanying text.

198. The proposed constitution even goes so far as to require that the census of voters be verified at 4:00 p.m. on the second day of the assembly by reading the name of each voter in a loud voice. See Condorcet, *French Constitution*, *supra* note 172, at 431 (Titre III, Sec. III, Art. IV). In a rather defensive sounding footnote to the proposed constitutional plan, Condorcet conceded, "Il est peut-être

to create a list of candidates and a second to elect candidates to the National Legislature. At the second ballot, voters in the assemblies were to complete a ballot in two columns. The necessary number of candidates from each assembly was elected from a tally of the first column votes from those receiving an absolute majority. If there was no absolute majority, the votes of *both* columns were then tallied, and the number of necessary candidates was elected in order of the plurality vote.¹⁹⁹

Most important, to enhance the possibility of mediating different approaches, Condorcet's vision focused heavily on universal education. As an elected member of the National Assembly in 1792, Condorcet chaired the Committee on Public Instruction. In this capacity Condorcet prepared a monumental *Report and Project for a Decree on the General Organization of Public Instruction*, which was presented to the Assembly in 1792.²⁰⁰ In this report and his earlier 1791 essays on education, Condorcet made clear his view of education as a right, without which all other rights remain unknown.²⁰¹ His extraordinary 1792 report to the Legislative Assembly

dans ce projet quelques articles qui, au premier aperçu, paraîtront réglementaires; mais ces articles tiennent si essentiellement au plan général, que la réflexion et la discussion pourront les faire regarder comme vraiment constitutionnels." *Id.* at 423 n.1 ("Certain articles in this project may, at first blush, appear regulatory; but these articles are so essential to the general plan, that reflection and discussion will make clear that they are truly constitutional.")

199. *See id.* at 434-35 (Titre III, Sec. III, Art. XIII-XX).

200. Unfortunately, as a consequence of the declaration of war against Austria in 1792, this Legislative Assembly was dissolved and no action was taken on Condorcet's education proposal. *See* Rénée Waldinger, *Condorcet: The Problematic Nature of Progress*, reprinted in CONDORCET STUDIES, *supra* note 89, at 125.

201. In the opening sentence of his first essay on public education, Condorcet emphatically proclaimed that "public instruction is an obligation owed by society to all citizens." Condorcet, *Sur l'instruction publique* [*On Public Instruction*], in 7 OEUUVRES DE CONDORCET, *supra* note 1, at 169 [hereinafter Condorcet, *On Public Instruction*] ("L'instruction publique est un devoir de la société à l'égard des citoyens."). Condorcet is careful here to use the term "instruction" rather than "education." *See supra* note 187.

The American Founders also recognized the tremendous importance of education to democracy. Jefferson, in particular, was aware that universal public education was essential "if the virtue that makes men choose public over private interest is to be sustained . . ." Martin D. Carciari, *Democracy and Education in the Thought of Jefferson and Madison*, 26 J.L. & EDUC. 1, 7 (1997). Jefferson's views on the importance of education to democracy are reflected in Thomas Jefferson, *A Bill for the More General Diffusion of Knowledge*, in THOMAS JEFFERSON: WRITINGS 365 (Merrill D. Peterson ed., 1984). Although they recognized the importance of education, the Founders did not include a right to education in the United States Constitution.

Many countries throughout the world have recognized a right to equal education and some have argued that the United States should recognize this right as a part of customary international law. *See* Connie de la Vega, *The Right to Equal Education: Merely a Guiding Principle or Customary International Legal Right?*, 11 HARV. BLACKLETTER J. 37 (1994). Virtually all states within the United States have included a right to education as part of their state constitutions. Although dicta from the United States Supreme Court suggests the possibility of a federal constitutional right to some "identifiable quantum" of education, *San Antonio Indep. Sch. Dist. v. Rodriguez*, 411 U.S. 1, 36

called for free, universal public education for both men and women,²⁰² with stipends to assist families facing difficulty upon loss of their childrens' agricultural services. To Condorcet, "the aim of education can no longer be to consecrate established opinions but, on the contrary, to subject them to free examination by succeeding generations that will be progressively more enlightened."²⁰³ Academic freedom was essential to teaching students how to think and to avoid the teaching of dogmatic truths.

Condorcet's views on education should be considered in their revolutionary context. France was converting from monarchy to republic and its people had to prepare for a change in status from subject to citizen. Although he passionately believed in equal rights for all citizens, Condorcet understood that intelligence and abilities differ among individuals.²⁰⁴ Thus, he envisioned a "hierarchical educational system appropriate to different talents and abilities"²⁰⁵ that would foster, develop and encourage those with superior talent. At the same time, Condorcet believed that all citizens should receive a sufficient education to prepare for everyday life and to permit them to understand and freely to exercise their rights as individuals. He believed that providing more education to those with greater ability ultimately would inure to the benefit of all.²⁰⁶ To achieve this end, he viewed the primary goal

(1973), the Supreme Court has refused to recognize a general right to education as a fundamental right implied by the equal protection clause of the United States Constitution. *See id.* at 35. Many commentators have been quite critical of the *Rodriguez* decision. *See, e.g.*, CASS R. SUNSTEIN, *THE PARTIAL CONSTITUTION* 140 (1993); Peter B. Edelman, *The Next Century of Our Constitution: Rethinking Our Duty to the Poor*, 39 *HAST. L.J.* 1 (1987); David A. J. Richards, *Equal Opportunity and School Financing: Towards a Moral Theory of Constitutional Adjudication*, 41 *U. CHI. L. REV.* 32 (1973). For a comprehensive argument that the United States Constitution includes an implied right to education, see Susan H. Bitensky, *Theoretical Foundations for a Right to Education Under the U.S. Constitution: A Beginning to the End of the National Education Crisis*, 86 *NW. U. L. REV.* 550 (1992).

202. Condorcet was again ahead of his time as an ardent advocate for women's rights, including education, full citizenship and voting. In 1790, he published an essay on women's citizenship rights. *See* Condorcet, *Sur l'admission des femmes au droit de cité* [*On the Admission of Women to the Rights of Citizenship*], translated in CONDORCET: SELECTED WRITINGS, *supra* note 21, at 97. In a series of articles on public education he wrote in 1791, Condorcet was adamant that instruction should be the same for women as for men. *See, e.g.*, Condorcet, *Instruction*, *supra* note 187, at 134-40.

203. Condorcet, *Instruction*, *supra* note 187, at 126.

204. Condorcet conceded that "even an equal education cannot help but to increase the superiority of those whom nature has favored with higher intellect." Condorcet, *On Public Instruction*, *supra* note 201, at 170 ("Il est impossible qu'une instruction même égale n'augmente pas la supériorité de ceux que la nature a favorisés d'une organisation plus heureuse.").

205. BAKER, *supra* note 32, at 294. Condorcet's views on education were quite similar to Jefferson's on this point. Both believed in providing additional education to the best students so as to prepare them for public service. *See* DAVID N. MAYER, *THE CONSTITUTIONAL THOUGHT OF THOMAS JEFFERSON* 315 (1994).

206. "Even though the superiority of some seems an evil to those who do not have the same advantages, it will contribute to the common good, and the talents of the enlightened will become society's common inheritance." Condorcet, *On Public Instruction*, *supra* note 201, at 170 ("[B]ien loin

of public education as “enabl[ing] the majority of citizens to recognize when it was necessary to entrust their interests to more enlightened men.”²⁰⁷ In addition, the “function of more advanced education was to produce the enlightened individuals to whom these interests could safely be entrusted.”²⁰⁸ Finally, he supported regular continuing education for those no longer in school.²⁰⁹

At least one commentator has noted the strong connection between the educational philosophy of John Dewey and Condorcet: “Dewey brings late nineteenth century educational thinking into line with Condorcet’s late eighteenth century hope for progress of the human mind—socially, individually, and morally.”²¹⁰ The similarities between John Dewey and Condorcet extend far beyond their views on education. Indeed, it is quite surprising that the alleged father of social choice theory would have so much in common with Dewey, whose views are closer to those of civic republicans and who was often described as a political and social activist.²¹¹ Even though Dewey lived almost a century after Condorcet, his writing expresses much of the optimistic spirit of Condorcet’s Enlightenment. In words that Condorcet himself might have chosen, Dewey argued:

The foundation of democracy is faith in the capacities of human nature; faith in human intelligence and in the power of pooled and

que la supériorité de quelques hommes soit un mal pour ceux qui n’ont pas reçu les mêmes avantages, elle contribuera au bien de tous, et les talents comme les lumières deviendront le patrimoine commun de la société.”).

207. BAKER, *supra* note 32, at 297. This particular elitist tone to Condorcet’s thoughts on education are a bit troubling. The broad participation envisioned in his later 1793 proposed constitution itself suggests that Condorcet’s views on the competence of the general electorate had broadened.

208. *Id.* Condorcet observed, “it is difficult to hope for a nation that can enjoy peaceful liberty and the perfection of its institutions and laws, if it does not seek to multiply that class of men whose impartiality, disinterestedness, and enlightenment must end up directing opinion.” Condorcet, *On Public Instruction*, *supra* note 201, at 193 (“il est difficile d’espérer qu’une nation puisse jouir d’une liberté paisible, et perfectionner ses institutions et ses lois, si l’on ne voit s’y multiplier cette classe d’hommes, dont l’impartialité, le désintéressement et les lumières doivent finir par diriger l’opinion”).

209. In fact, the anticlerical Condorcet saw this continuing education as an alternative to Sunday religious observance. Under Condorcet’s plan,

Sunday was to be the day of adult education for those whose schooling did not go beyond the primary grade. . . . Sunday, being given over to education, he argued, would be truly a day of rest. . . . In these Sunday schools for adults, lectures and reading courses were to be given. There was to be civic instruction, based upon the *Declaration of the Rights of Man*.

SCHAPIRO, *supra* note 87, at 209.

210. J.J. Chambliss, *Comments in ENLIGHTENMENT AND SOCIAL PROGRESS: EDUCATION IN THE NINETEENTH CENTURY 174* (J.J. Chambliss ed., 1971) (preceding reprint of essay by John Dewey, entitled *Education as the Remaking of Experience*).

211. See ROBERT B. WESTBROOK, *JOHN DEWEY AND AMERICAN DEMOCRACY* at x, xvi (1991). Later in his life, Dewey might even be described as a socialist. See *id.* at 429.

coöperative experience. It is not belief that these things are complete but that if given a show they will grow and be able to generate progressively the knowledge and wisdom needed to guide collective action.²¹²

Like Condorcet and the modern civic republicans, Dewey believed deeply in the power of deliberation and its possibilities for growth and transformation of “preferences.” For Dewey, “democracy encompasses far more than ‘process.’” Instead, he claimed that democracy is “organized intelligence.”²¹³ Writing about language and communication, Dewey observed, “The heart of language is . . . the establishment of cooperation in an activity in which there are partners, and in which the activity of each is modified and regulated by partnership.”²¹⁴ Like Condorcet and the civic republicans, Dewey’s faith in the power of deliberation or “pooled intelligence” has been criticized as naive.²¹⁵

Condorcet’s highly scientific approach to the social sciences²¹⁶ can also be found in Dewey, who believed that “the key to solving social problems lies in the application of the methods of natural science to those problems.”²¹⁷ Both believed that some political outcomes were more “true” or “correct” than others. Although it was quite central to Condorcet’s thinking, he never really defined what he meant by the notion of “truth.” Dewey, on the other hand, spent much of his life’s work focusing on the meaning of truth or true outcomes. As applied to Condorcet’s probabalistic approach to collective decision making, Dewey’s notion of truth provides additional support for the civic republican viewpoint.²¹⁸

D. Citizenship

Condorcet’s 1793 proposed constitution depended heavily on public participation of citizens.²¹⁹ Most significantly, Condorcet advocated extremely broad guaranteed rights of participation. In his 1789 *Declaration of Rights*, Condorcet claimed that “[a]ll citizens without distinction have an

212. W.T. JONES, A HISTORY OF WESTERN PHILOSOPHY: THE TWENTIETH CENTURY TO WITTGENSTEIN AND SARTRE 42 (2d ed. rev. 1975) (citing JOHN DEWEY, SCHOOL AND SOCIETY (1937)).

213. Debra Morris & Ian Shapiro, *Introduction* to JOHN DEWEY, THE POLITICAL WRITINGS at xiii (Debra Morris & Ian Shapiro eds., Hackett Publ’g Co. 1993) [hereinafter POLITICAL WRITINGS].

214. JONES, *supra* note 212, at 50 (citing JOHN DEWEY, EXPERIENCE AND NATURE (1925)).

215. *Id.* at 63; *see also supra* note 131.

216. *See supra* notes 89-92, 126-28 and accompanying text.

217. JONES, *supra* note 212, at 40.

218. *See infra* notes 233-41 and accompanying text.

219. *See supra* notes 172-80, 189-94 and accompanying text.

equal share of citizenship rights. . . . There must be no inequality other than that which necessarily results from the need to divide them into many sections and subsections.”²²⁰

Condorcet’s commitment to democratic decision making by majority vote of the citizens was so firm that he rejected many of the checks and balances included in the United States Constitution.²²¹ For example, Condorcet’s proposed unicameral National Legislature was given the sole legislative power, with the exception of constitutional laws, which were to be adopted through the assemblies.²²² Any law or decree promulgated by the proposed National Legislature in accordance with the formalities provided in proposed Title VII was to have the force of law.²²³ The proposed executive branch had very limited authority as compared to the strong executive under the United States Constitution.²²⁴ Unlike the United States Constitution, there was no provision for signature or veto by an executive branch. On the other hand, Condorcet’s proposed constitution provided significant “censure” rights to the people through their regional assemblies. Title VIII provided a detailed procedure whereby citizens could petition for reconsideration of legislative or administrative decisions or for the reform of existing laws.²²⁵

Condorcet’s passionate advocacy for a unicameral legislature is also quite inconsistent with social choice thinking. Modern social choice theory suggests that an unicameral legislature is more likely to experience cycled preference distribution and, therefore, to present a more troublesome case than the bicameral legislature. In one study comparing the bicameral United

220. Condorcet, *Declaration of Rights*, *supra* note 189, at 267-68.

221. For a comparison of Condorcet’s proposals to United States constitutional provisions, see Victor G. Rosenblum, *Condorcet as Constitutional Draftsman: Dimensions of Substantive Commitment and Procedural Implementation*, reprinted in CONDORCET STUDIES, *supra* note 89, at 188-206 (comparing proposed constitution, Title 3, Articles 1,4,5).

222. See Condorcet, *French Constitution*, *supra* note 172, at 463 (Titre VII, Sec. II, Art. I, II).

223. See *id.* at 468 (Titre VII, Sec. III, Art. XVI).

224. The proposed constitution called for an Executive Council made up of seven ministers to be elected by the citizens in their primary assemblies. See *id.* at 446, 452 (Titre V, Sec. I, Art. I; Sec. II, Art. I). The presiding minister was to rotate every 15 days. See *id.* at 447 (Titre V, Sec. I, Art. III). The Council was charged with directing military and foreign affairs, *id.* at 448 (Titre V, Sec. I, Art. XIII), and establishing a national treasury. *Id.* at 449 (Titre V, Sec. I, Art. XVIII.) Most important, the Executive Council’s role generally was limited to executing the law. See *id.* at 447 (Titre V, Sec. I, Art. IV). The Council was permitted to propose that the legislature consider certain matters, but was not otherwise authorized to offer advice on legislative matters unless formally invited to do so by the legislature. See *id.* at 456 (Titre V, Sec. III, Art. II).

225. See *id.* at 469-76 (Titre VIII, entitled, *De la Censure du Peuple Sur Les Actes de la Représentation Nationale, et du Droit de Pétition* [On Censure by the People of Acts of the National Legislature and the Right of Petition]). The proposed Constitution also provided rights to the people, through their regional assemblies, to bring grievance actions against public officials for abuses of power or violations of law. See *id.* at 475 (Titre VIII, Art. XXXIII).

States legislature with the unicameral Parliament in Great Britain, political scientist and social choice adherent William Riker argues that unicameral legislatures are more subject to cycling.²²⁶ Based on the implications of social choice theory, those in control of the agenda have tremendous power to manipulate outcomes because cycled preference distributions can lead to the inconsistent results case.²²⁷ By requiring that legislative decisions be made by two chambers, rather than one, the bicameral legislature places obstacles in the path of such a manipulative agenda setter. Professor Saul Levmore notes this connection between bicameralism and the voting paradox, concluding, "Bicameralism can be understood as an antidote to the manipulative power of the convener, or agenda setter, when faced with cycling preferences."²²⁸

In light of these observations, Condorcet's opposition to the bicameral form of legislature adds to the "Condorcet Irony." He was a particularly strong admirer of the unicameral form of the first Pennsylvania State Constitution, drafted in 1776 under the leadership of Benjamin Franklin,²²⁹ and used it as a model for his proposed draft of the first Constitution for the French Republic. He passionately advocated a unicameral, rather than a bicameral, legislature because he believed that the bicameral legislature would result in anti-majoritarian outcomes.²³⁰ In his speech to the 1793 National Convention in support of his proposed constitution, Condorcet argued:

[I]t is clear that if, for example, two separate assemblies were required to act in concert, the will of a very feeble minority would be enough, because of this division, to reject a motion that a great majority had really accepted. It is clear that such an institution would have the same effect as one in which a relative plurality, more or less strong, was required to adopt a proposition; but it would lead to this same end only in an uncertain and bizarre manner. This combination is not, therefore,

226. See William Riker, *The Justification of Bicameralism*, 13 *INTERN'L POL. SCI. REV.* 101 (1992). For a brief discussion of Riker's study, see also RIKER, *supra* note 13, at 112-13.

227. See discussion at *supra* notes 48-50, 155-71 and accompanying text.

228. Levmore, *Bicameralism*, *supra* note 16, at 147-48.

229. In his extraordinarily laudatory eulogy of Franklin, Condorcet noted that "elle [la constitution de Pennsylvanie] se distingue de la plupart des autres par une égalité plus grande, et de toutes, en ce que le pouvoir législatif y est confié à une seule chambre de représentants." Condorcet, *Éloge de M. Franklin*, 3 *OEUVRES DE CONDORCET*, *supra* note 1, at 372, 401 (the Pennsylvania State constitution "distinguished itself from most of the others by a greater equality, and above all, in that it confined the legislative powers to a single chamber of representatives").

230. See Condorcet, *Examen sur cette question: Est-il utile de diviser une assemblée nationale en plusieurs chambres?* [*Examination of the Question: Is It Useful to Divide a National Assembly Into Multiple Chambers?*], in 9 *OEUVRES DE CONDORCET*, *supra* note 1, at 333.

the work of a *political theory born in an enlightened age*.²³¹

This last remark provides a key to unraveling the Condorcet Irony. Condorcet never abandoned the search for truth and reasoned outcomes. Ultimately, he believed in the power of education and deliberation. Like the civic republicans, he believed that participants could develop policies in the “public interest” through democratic majority vote decision rules, as long as the participants were sufficiently enlightened and deliberative. Although the process might not identify the perfectly correct result, education and deliberation provided the key to an increased *probability* of decisions for the common good.

E. Condorcet's Potential Contribution to the Modern Discourse

Social choice and republicanism offer two very different conceptions of democracy. One might be called a *preference conception* and the other an *epistemic conception*.²³² Oddly, Condorcet's major contribution to the modern debate within the preference conception seems to be a pessimistic one: no voting method works. Condorcet has a much more optimistic contribution to make to the epistemic conception of democracy. Viewing collective decision making in probabilistic terms should raise very different questions about voters and voting mechanisms.

Condorcet's focus is the probability of truth in collective decision-making results. He sought to increase the probability of true outcomes largely through increasing the competence of individual participants and through modest adjustments in vote tallying mechanisms. While civic republicans seem to focus more on the process of deliberation than on finding truth, they too believe in the possibility of “substantively correct outcomes.”²³³

Virtually since the beginning of time, philosophers have been attempting to define truth.²³⁴ Any contribution to this grand philosophic debate is well beyond the scope of this Article.²³⁵ Nevertheless, a brief pause to consider

231. Condorcet, *Constitutional Plan*, *supra* note 172, at 156 (emphasis added).

232. I have borrowed these terms from David M. Estlund. See Estlund et al., *supra* note 119 (in his contribution to article written with three other authors).

233. See *supra* notes 196-97 and accompanying text; see also text accompanying notes 66, 80.

234. Indeed, A.J. Ayer identified this as chief among philosophy's perennial problems. See A.J. AYER, *PHILOSOPHY IN THE TWENTIETH CENTURY* 3 (1982) (identifying chief philosophic problem as “the problem of objectivity, appearing . . . sometimes as the issue between absolute and relativistic theories of truth”).

235. Moreover, such a contribution would be well beyond the competence of its author, who was unable to answer a related question from her six-year old daughter. After her daughter made an assertion, Mom challenged her, asking, “Is that really true?” The daughter responded, “Mommy, what's truth?”

what Condorcet might have meant by truth seems appropriate at this point in the discussion.

If Condorcet understood truth in collective decision making to mean that there is *one, and only one*, objectively correct answer to any particular social or political issue, his views would be very difficult to defend. To the contrary, it appears that Condorcet, consciously or unconsciously, rejected an absolute theory in favor of a relativistic theory of truth. Although Condorcet lived before pragmatism was established as a philosophical school, he would undoubtedly have accepted many of John Dewey's "pragmatist" or "instrumentalist" views.²³⁶ Dewey took a process-oriented approach, sometimes preferring to substitute the term "inquiry" for "truth."²³⁷ He held that "[m]eaning is conceived in terms of social procedure and social consequences," and the "[r]ight or correct meaning is that which social custom prescribes and sanctions."²³⁸ In other words, truth is the relative consensus or understanding arrived at through the intelligent inquiry of the community. Dewey described the process:

The function of reflective thought is to transform a situation in which there is experienced obscurity, doubt, conflict, disturbance of some sort, into a situation that is clear, coherent, settled, harmonious. . . .

. . . .

. . . [S]uggestions arise of possible courses of action . . . [leading] to new observations and recollections and to a reconsideration of observations already made in order to test the worth of the suggested way out. . . . This continuous interaction of the facts disclosed by observation and of the suggested proposals of solution and the suggested methods of dealing with conditions goes on till some

236. The earliest versions of pragmatism apparently were developed by C.S. Pierce in 1878, and later popularized by William James at the turn of the century. See JONES, *supra* note 212, at 34-35. Dewey's particular version of pragmatism is often referred to as "instrumentalism." *Id.* at 35. A comprehensive discussion of the different nuances of thought within the pragmatist movement are well beyond the scope of this Article. In fact, William James himself began with the following observation in one of his lectures on truth, "It is a very ticklish subject, sending subtle rootlets into all kinds of crannies, and hard to treat in the sketchy way that alone befits a public lecture." William James, *Pragmatism's Conception of Truth*, reprinted in PRAGMATISM IN FOCUS 99 (Doris Olin ed. 1992). Similarly, this Article can provide only a sketch of the connection between Condorcet and John Dewey's notions of "truth."

237. Although pragmatism was a very popular philosophical school, Dewey's process-oriented approach to truth has also been the subject of much critical skepticism. See, e.g., RUSSELL, *supra* note 120, at 774-82.

238. John Dewey, *The Problem of Truth*, reprinted in POLITICAL WRITINGS, *supra* note 213, at 17.

suggested solution meets all the conditions of the case and does not run counter to any discoverable feature of it.²³⁹

Dewey acknowledged that there was no absolute, eternal truth. At the same time, he believed that an intelligent, educated community could deal with social and political problems and that “there are . . . more and more adequate instrumentalities for dealing with always changing and growing human situations.”²⁴⁰ Although the community may not arrive at perfect solutions through collective decision making, some solutions can be identified as more reasonable or true than others.

Condorcet’s probabalistic theory of elections and his search for true outcomes closely resembles Dewey’s process-oriented notions of truth. This process incorporates three critical components: 1) quality of deliberation or inputs of a well-educated community; 2) quantity of inputs; and 3) vote mechanism. With respect to each of these components, he looked for mechanisms that would ultimately improve the probability of a good result. Condorcet’s potential contributions to the modern discourse should be considered in light of each of these components.

1. *Quality of Inputs*

There are two possibilities for improving the quality of inputs to a collective choice mechanism: 1) improve the competence or ability of the individual participants; and 2) improve the quality of the deliberative process itself. Turning first to the issue of competence, Condorcet’s probabilistic view of voting clearly assumes a minimal level of voter competence. Assuming that the average competence of group members is greater than one-half, Condorcet argued that a decision by majority had a high probability of being correct.²⁴¹

From the epistemic or probabilistic view of collective decision making, one should be more concerned about how well the voters understand the issues on which they are voting than with whether or not the voting mechanism precisely reflects individual preferences. In this context, Condorcet’s emphasis on universal, free, public education is quite understandable. He argued that public instruction is an obligation owed by society to all citizens.²⁴²

239. JONES, *supra* note 212, at 38-39 (emphasis omitted) (citing JOHN DEWEY, *HOW WE THINK* 100-07 (Heath 1933) (1910)).

240. JONES, *supra* note 212, at 41.

241. *See supra* notes 138-42 and accompanying text.

242. *See supra* note 187.

a) *Education as a Right*

If the probability of more substantively correct or more reasonable outcomes increases as the competence of participants rises, the most important contribution Condorcet can make to the current dialogue is to reinvigorate the discussion of education policy, not just in itself, but also in connection to citizen participation in the social and political community. Although many have contributed strong arguments in favor of recognizing a right to education as implied under our present Constitution, the Supreme Court has yet to recognize such a right. As a consequence, issues regarding the funding and adequacy of public education are left to state legislatures and state courts. Ultimately, education policy in the United States is determined largely at the state level, leading to disparity in the quality of education from one state to the next. Many state courts have found violations of state constitutional rights to education in particular school districts within the state and have ordered these school districts to conform their educational programs or funding to meet constitutional requirements. The major obstacle to correcting these problems has been the absence of effective enforcement of these state court orders.²⁴³ Given that the states have not been very effective in eliminating disparities in education quality and funding, and given that the Supreme Court appears unlikely to recognize an implied right to education in the foreseeable future, Congress should seriously consider a federal constitutional amendment establishing such a right.

Moreover, even where disparities in public education are being addressed by the states, the focus has been on providing a minimally adequate elementary and secondary public education. This simply is not enough. As costs of a college education escalate, those of modest means increasingly find that continuation of their education is impossible. Condorcet's prodding should cause more serious consideration of the possibility of providing free, public college education.²⁴⁴

243. For a discussion of many of these state cases and the subsequent failures of enforcement, see, for example, Greg D. Andres, Comment, *Private School Voucher Remedies in Education Cases*, 62 U. CHI. L. REV. 795 (1995).

244. This is not necessarily to suggest that free access to post-secondary education be available to each and every citizen. One might, for example, limit such education to those who pass appropriate qualifying exams. This is the model in most European countries, which provide different types of free, publicly funded, higher education to students passing varying qualifying exams. See generally HIGHER EDUCATION IN EUROPE (Claudius Gellert ed., 1993). This collection of essays includes discussion of the higher educational system in several European countries. See, e.g., *id.* at 59-60, 64-65 (qualifications for different types of publicly funded post-baccalaureate education in France); *id.* at 168-69 (publicly financed higher education based upon qualifying exams in Denmark); *id.* at 207-08 (tuition-free higher education based upon qualifying exams in Austria).

b) *The Debate over School Vouchers*

A combination of free-market principles and deep concern over the quality of education and the safety of students in the public schools has led to many proposals for school voucher or certificate programs.²⁴⁵ The modern notion of vouchers dates back at least to the 1950s and often is attributed to Milton Friedman.²⁴⁶ Although there are many variations, “a typical system generally includes a state certificate given to parents who then submit it to an educational institution of their choice. The certificate or voucher is then redeemed for cash payment.”²⁴⁷ Some voucher programs are limited to poor families and to participating schools,²⁴⁸ while others provide vouchers for all students that can be applied to tuition at private schools of the parents’ choice.²⁴⁹ Before simply accepting currently popular proposals such as school voucher programs, one must understand that the issue is more than simply freedom of choice. Freedom for parents to choose schools for their children must be balanced with the need to develop proper curricula and skills for participation in a democratic society. According to one educational economist,

Education lies at the intersection of two sets of competing rights. The first is the right of parents to choose the experiences, influences and values to which they expose their children, the right to rear their children in the manner that they see fit. The second is the right of a

245. Although there have been many proposals, few have been adopted. The first general publicly funded school choice program was enacted by the Wisconsin legislature in 1989. *See* Milwaukee Parental Choice Program, WIS. STAT. ANN. § 119.23 (West 1995). The only other operating program is the Ohio Pilot Scholarship Program in Cleveland. *See* OHIO REV. CODE ANN. §§ 3313.974-979 (West 1997).

246. Elchanan Cohn, *Public and Private School Choices: Theoretical Considerations and Empirical Evidence*, in MARKET APPROACHES TO EDUCATION 3 (Elchanan Cohn ed., 1997).

247. Frank R. Kemerer et al., *Vouchers and Private School Autonomy*, 21 J.L. & EDUC. 601, 602 (1992). A useful discussion of different approaches to vouchers appears in Henry M. Levin, *The Economics of Educational Choice*, in MARKET APPROACHES TO EDUCATION, *supra* note 246, at 23, 31-35.

248. For example, the Milwaukee program, *see supra* note 245, is limited to students from families whose incomes do not exceed 1.75 times the federal poverty level. *See* WIS. STAT. ANN. § 119.23(2)(a)1.

249. The use of public funds to support tuition costs for children attending private religious schools raises serious constitutional issues. The Milwaukee program, *see supra* note 245, recently survived establishment clause challenges under the United States and Wisconsin Constitutions. *See* Jackson v. Benson, 578 N.W.2d 602 (Wis. 1998), *cert. denied*, No. 98-376, 1998 WL 596682 (U.S. Nov. 9, 1998). On the other hand, the Cleveland program was declared unconstitutional, but continues to operate pending appeal to the Ohio Supreme Court. *See* Simmons-Harris v. Goff, No. 96APE08-982, 1997 WL 217583 (Ohio Ct. App. May 1, 1997). A discussion of the constitutionality of voucher programs is beyond the scope of this Article. For a general discussion of these issues, *see* Frank R. Kemerer, *The Constitutionality of School Vouchers*, 4 EDUC. L.Q. 646 (1995).

democratic society to use the educational system as a means to reproduce its most essential political, economic, and social institutions through a common schooling experience.²⁵⁰

Moreover, concerns for equality suggest that careful analysis be undertaken to consider how school vouchers are likely to be used and what impact such use will have on the quality of education and distribution of education resources.²⁵¹ The American Federation of Teachers, for example, fears that selective admissions standards will cause administrators of private schools, rather than parents, to make most of the “choices” about which school students will be permitted to attend. Moreover, many proposed voucher programs would cover only a portion of private tuition costs, leaving parents without a realistic opportunity to send their children to a private school of their choice.²⁵² If so, school voucher programs simply may be a tax cut for those who already do, or otherwise would, send their children to private schools. Under a school voucher program, children might well find themselves further segregated along social class, race and religious lines. Given the cost of private education, private schools generally tend not to be particularly diverse either. School voucher programs may support some families’ decisions to send a child to private schools but are unlikely to make high cost private education more widely available to those who otherwise could not afford the high tuition. As a result, another important consideration in assessing proposed school voucher programs is the extent to which they may *decrease* diversity in the schools.²⁵³

Another question is the extent to which school voucher programs will affect the quality of education.²⁵⁴ Although Condorcet generally believed in

250. Levin, *supra* note 247, at 23, 27-28.

251. According to one economist, “the ‘coefficient of ignorance’ appears to remain much larger than the ‘coefficient of knowledge.’” Cohn, *supra* note 246, at 3, 17.

252. See American Federation of Teachers, *Fact Sheet on Vouchers: Argument and Evidence*, 19 AM. EDUCATOR 28 (1995).

253. At least one simulation model concludes that “[e]ven in the most favorable case, a systemic choice system would not come close to equalizing educational opportunity across income groups.” Charles F. Manski, *Educational Choice (Vouchers) and Social Mobility*, in MARKET APPROACHES TO EDUCATION, *supra* note 246, at 97, 124. Based on actual experience with choice programs in Britain, France and The Netherlands, another researcher concludes that “[t]he European experience . . . suggests that the primary negative effect of school choice is its natural tendency to increase the educational gap between the privileged and the underprivileged. With some exceptions, most studies of the social effects of school choice within the public sector in the United States have reached the same conclusion.” John S. Ambler, *Who Benefits from Educational Choice? Some Evidence from Europe*, in MARKET APPROACHES TO EDUCATION, *supra* note 246, at 353, 372.

254. One of the arguments for school voucher programs is that such programs will increase the efficiency and quality of education. Studies regarding the effectiveness of public as opposed to private education, including studies of private and public schools participating in the Milwaukee school choice

free-market principles, one suspects that he would have weighed in heavily against the type of school choice offered through voucher programs. Despite his belief in free markets with respect to economic matters, Condorcet undoubtedly would say that education is simply too fundamental to be left to the marketplace. At the same time, Condorcet feared the totalitarianism he had seen during the monarchical *ancien régime*.²⁵⁵ Thus, he advocated strict limitations on public authority: "After having determined the object and the extent of each subject of instruction, the public authority must make certain that the choice of teachers, books, or methods is in accord with the reason of enlightened men of the time, and leave all else to their influence."²⁵⁶ He envisioned the public using its collective intelligence to establish appropriate public school curricula.

c) *The Debate over Curricula*

Given the period in which he was writing, Condorcet focused primarily on making public education universally available without regard to gender or wealth. The primacy of this goal left him without the luxury of considering many details about proper public school curricula. Now that education is more broadly available without regard to gender, and arguably at least, without regard to wealth, Condorcet's vision might be extended by looking to Dewey's insights about education. In that regard, he would recommend that there be more systematic thought about the reasons for low competence of voters. When the probability of truth of the voter's opinion falls below

program, have reached conflicting results. For a discussion of some of these conflicting results, see, for example, Andrew S. Latham, *School Vouchers: Much Debate, Little Research*, EDUC. LEADERSHIP 82, Oct. 1998, at 82, 85 ("Two separate teams of researchers have examined the results of the [Milwaukee] program, with widely differing conclusions about its impact on student achievement."). See also, e.g., Cecilia Elena Rouse, *Private School Vouchers and Student Achievement: An Evaluation of the Milwaukee Parental Choice Program*, 113 Q.J. ECON. 553 (1998).

255. One biographer observed that "although invoking independence of education, Condorcet did not think that the state should abstain from supplying the bases of scholastic organization. Education left to itself, he states, would become a prerogative of the wealthier part of the population, would spread unevenly through the nation, and would turn into a privilege of the most affluent areas." Renée Waldinger, *Condorcet: The Problematic Nature of Progress*, in CONDORCET STUDIES, *supra* note 89, at 117, 135.

256. Condorcet, *Instruction*, *supra* note 187, at 131. Condorcet's concerns here reflect an age-old tension. A recent article with a more modern discussion of this tension closes with a statement that resonates in Condorcet's times and our own: "Public education is an ideological enigma. Schools are asked simultaneously to respect and nurture both the communal and individual aspects of the human spirit. . . . The school system . . . epitomizes the tension between the focus of liberal political theory on individual autonomy and the community's need to sustain and perpetuate itself." Stanley Ingber, *Socialization, Indoctrination, or the "Pall of Orthodoxy": Value Training in the Public Schools*, 1987 ILL. L. REV. 15, 94-95; see also *supra* note 250 and accompanying text.

one-half, Condorcet suggested that only voter prejudice can explain this result.²⁵⁷ Prejudice often begins very early in life and results from lack of exposure to, and understanding of, others from different backgrounds. Curricular programs designed to expose young children to many different types of people and cultures should be encouraged.

If collective decision making is to involve a community of participants whose suggestions or preferences can be transformed through dialogue and deliberation, then our educational system must foster a sympathetic understanding and respect for diverse cultures. This observation caused at least one commentator to comment critically that “[w]ithin the multiculturalism of today, many want not to assimilate but to isolate in terms of their heritage and customs.”²⁵⁸ The insights of Dewey’s pragmatism, she continued, call for a different approach. “The uniqueness of diverse cultures, as representative of the individual perspective, must be maintained not through separation from, but through a dynamic interplay with, the common perspective, bringing about a resultant enrichment of each. For this to occur, however, students from diverse cultures cannot sit in different classrooms”²⁵⁹ While many schools and school systems theoretically support the concept of diversity in the classroom, the reality is that neighborhoods continue to be naturally segregated, resulting in schools that are also segregated. For Condorcet, one suspects that multicultural education would not consist of merely “exposure” and “openness” to different cultures and values devoid of any judgments. In a provocative book, Professor Allan Bloom more recently challenged the new culture of openness or “live and let live” that he sees as the basic tenet of modern educational programs: “It is open to all kinds of men, all kinds of life-styles, all ideologies. There is no enemy other than the man who is not open to everything.”²⁶⁰ Bloom argues that some values *are* more important than others, and that moral education should be included in the curriculum. He asks, “when there are no shared goals or vision of the public good, is the social contract any longer possible?”²⁶¹ If every approach is entitled to equal respect, moral education becomes virtually impossible.²⁶²

In part, Bloom charges John Dewey with responsibility for this movement

257. See Estlund et al., *supra* note 119, at 1323 (remarks of Jeremy Waldron).

258. Sandra Rosenthal, *Democracy and Education: A Deweyan Approach*, 43 *EDUC. THEORY* 377, 387 (1993).

259. *Id.*

260. ALLAN BLOOM, *THE CLOSING OF THE AMERICAN MIND* 27 (1987).

261. *Id.*

262. For further discussion of the role of moral education, see *infra* notes 270-72 and accompanying text.

to openness. He asserts:

Liberalism without natural rights, the kind that we knew from John Stuart Mill and John Dewey, taught us that the only danger confronting us is being closed to the emergent, the new, manifestations of progress. No attention had to be paid to the fundamental principles or the moral virtues that inclined men to live according to them.²⁶³

This critique of Dewey seems overstated. In any event, even if Dewey's vision *is* focused entirely on developing the characteristic of openness, Condorcet would likely part company with Dewey at this point. Although he advocated strict limits on public authority in order to avoid the teaching of dogmatic truths, Condorcet surely did not accept the "live and let live" attitude of openness described by Bloom. Ethics was an important part of Condorcet's proposed instructional program, as long as the teaching of ethics was strictly independent of religious opinions.²⁶⁴ Condorcet surely did pay attention to fundamental principles and moral virtues. For Condorcet, there *were* certain fixed natural rights, which could be taught. He argued that "[t]ruth and justice are the same in all countries for all men."²⁶⁵ Perhaps the best evidence for this last point is Condorcet's passionate objection to slavery, long before opposition to slavery became more common.²⁶⁶

Dewey's insights applied to the Condorcet/civic republican vision also provide support for a much more hands-on, experiential education designed to develop inquisitiveness and creative intelligence.²⁶⁷ The goal of such an education should be "development of the ability both to create and to respond constructively to the creation of novel perspectives, as well as to incorporate the perspective of the other—not as something totally alien, but as something sympathetically understood—is at once growth of community and growth of self."²⁶⁸ One modern response of some school programs to deteriorating student test scores has been to avoid decisions about which values and skills to teach and to a return to the "empty vessel" view of education in which the primary function of education is to transmit information, rather than to foster

263. BLOOM, *supra* note 260, at 29; *see also* Schapiro, *supra* note 87, at 202 ("He [Condorcet] proposed to substitute moral and civic for religious instruction, a policy later followed by the Third French Republic.").

264. *See* Condorcet, *Instruction*, *supra* note 187, at 127.

265. Condorcet, *Essay on the Constitution and Functions of the Provincial Assemblies* (1788), translated in CONDORCET: SELECTED WRITINGS, *supra* note 21, at 84, 86.

266. *See supra* notes 190-93 and accompanying text.

267. *See, e.g.*, John A. Saltmarsh, *John Dewey and the Future of Cooperative Education*, 28 J. COOP. EDUC. 6 (1992).

268. Rosenthal, *supra* note 258, at 384.

interpersonal communication and creative problem solving skills.²⁶⁹ Surely, some basic, shared knowledge is essential if one is to participate in the modern discourse. An education that over-emphasizes facts, however, is not likely to create citizens capable of engaging in deliberative dialogue.

d) The Role of Moral Education

A final concern represented in the modern discourse is the extent to which moral education should be incorporated into the curriculum and defining the scope and content of such education. In a provocative article, Professor Miriam Galston challenged liberals with a civic republican belief in the importance of deliberative dialogue for their assumption that citizens are naturally capable of deliberation or motivated or predisposed to engage in a deliberative dialogue that considers the needs of the entire community.²⁷⁰ She argues that the ability to reason thoughtfully as well as the motivation or willingness to engage in deliberative dialogue requires certain moral foundations.²⁷¹ Many have resisted including moral education in the schools for fear that such education would be overly coercive or totalitarian or otherwise lead to an overly homogeneous community. We tend to think of moral education as a religious or family matter. Professor Galston argues that moral education is necessary if the vision of deliberative democracy is to succeed and she urges liberals to consider these issues more systematically. To be sure, proper precautions must be designed to minimize the risk of such coerciveness or totalitarianism.²⁷² Condorcet may contribute to the modern discourse by providing further support for Professor Galston's argument that moral education is a prerequisite to developing the necessary skills and motivation to engage in truly deliberative dialogue.

e) Access to Information

In addition to improving the competence of individual participants, an increased quality of inputs requires improvements in the deliberative process

269. Perhaps the best exemplar of this movement is a best selling book including a list of 5000 essential names, phrases, dates and concepts that every literate American should know. See E.D. HIRSCH, JR., *CULTURAL LITERACY: WHAT EVERY AMERICAN NEEDS TO KNOW* 152-215 (1988) (including such things as: "Aladdin's lamp," "an apple a day keeps the doctor away" and "teeny-bopper").

270. See Miriam Galston, *Taking Aristotle Seriously: Republican-Oriented Legal Theory and the Moral Foundation of Deliberative Democracy*, 82 CAL. L. REV. 329 (1994). For a civic republican definition of deliberation, see *supra* note 182.

271. See *id.* at 368.

272. See *supra* notes 255-56 and accompanying text.

itself. However generally competent the participants may be, they cannot fully participate without adequate information. All participants should have equal access and exposure to information necessary to making an informed choice. To be sure that such information is provided, it will be important to reassess the methods and procedures through which information is distributed. As we rely more on computers and the Internet, we must understand that many in our society do not have access to computers. We should consider the extent to which the government has a responsibility to provide that access.²⁷³

2. *Quantity of Input*

Condorcet's work also may have something to offer in determining the appropriate size of decision-making bodies. This issue is directly connected to the competence levels of voters. In Condorcet's view, the probability of reaching a correct result increases as the size of the group increases, as long as the probable truth of each voter's vote is greater than one-half. Under this analysis, a small group of highly competent voters may reach a better result than a large group of less enlightened voters. For example, a small group of legislative representatives may be better informed than the general voting public about complex policy issues under consideration. As such, perhaps such complex policy decisions should be left to the legislature rather than the general voting public through public referenda.

Another interesting observation about *effective* size of the decision-making body relates to the extent to which some members of the group defer to others. If voters do not exercise their own individual judgments, but instead defer to other voters, Condorcet suggests that this deference decreases the effective size of the group, thus decreasing the probability of a correct decision.²⁷⁴ This way of thinking should cause more systematic thought about deference in group decision making. The phenomenon surely appears within juries, but also within legislatures when legislators vote in blocks or follow the party line. This analysis again may bring something to bear on school curricular choices. School curricula emphasizing student self-esteem and assertiveness may be useful in developing adults more likely to be confident about their judgments and less likely to defer to others.

273. This would not necessarily require a computer in every home at government expense. It might be sufficient, for example, to ensure that community public libraries offer adequate access to the Internet.

274. See Estlund et al., *supra* note 119, at 1320-22 (remarks of David Estlund).

3. *The Vote Mechanism*

In cases involving merely an inauthentic result, Condorcet found a solution generally accepted as correct in the academic world. Procedures should be developed for application of the Condorcet winner rule in real world decision making. Thus, even when simple majority vote provides a definitive answer, it should also be clear that the winner beat all others in all possible two-way comparisons.²⁷⁵ This approach would require reform of procedures for selecting candidates in multicandidate primaries and elections. It might also suggest reform in instructions to juries as they consider complex cases with more than two possible outcomes.

With respect to the inconsistent results case, Condorcet conceded that no voting mechanism could completely avoid or eliminate the vote cycling problem. On the other hand, he believed that some methods had a higher probability of reaching correct outcomes than others. Specifically he proposed to put all choices to pairwise votes and to eliminate the pairwise comparisons receiving the lowest pluralities until a clear decision was reached.²⁷⁶ Many have been critical of this approach, some suggesting that the method suggested by de Borda, Condorcet's colleague at the *Academie Française*, is better.²⁷⁷ That debate is beyond the scope of this Article and is rightly left to those more sophisticated in mathematics. For the moment, the point is that some responses to the vote cycle problem are better than others. The alternatives should be carefully considered and possible reforms to simple majority voting procedures in complex cases should be debated.

On a more detailed level, Condorcet raised additional reforms worth thinking about today. For example, he suggested problems with "incomplete" votes in which some voters abstain on some issues. On this point, he observes, "Any election method in which the votes given are incomplete will produce results which contradict the will which the majority would have had if complete votes had been collected."²⁷⁸ As a result, he suggests that each voter should express his complete will, even if the voter is indifferent. Condorcet thus additionally suggests that procedures regarding the treatment of abstentions in group decision making should be carefully developed. Condorcet's thinking and writing regarding group decision making is so extensive and thorough that one is bound to uncover additional ideas through an exploration of his life's work.

275. See *supra* notes 151-54 and accompanying text.

276. See *supra* notes 162-65 and accompanying text.

277. See *supra* note 163.

278. Condorcet, *On Elections*, *supra* note 164, at 237.

VI. CONCLUSION

One of the difficulties in understanding Condorcet's theory of elections is reconciling two very different strands of his argument. As a believer in the infinite perfectibility of man and in the possibility of truth, Condorcet saw most collective decisions, other than the most obviously personal, as judgment aggregations, for which he sought the greatest probability of reaching a correct or true decision. At the same time, the examples in his 1785 *Essay* reveal his interest in the techniques of aggregating individual preferences—preference aggregation.²⁷⁹ Black concluded that Condorcet was forced to abandon the search for truth and probabilities. Black noted, "The course which [Condorcet] takes at this point [in response to the inauthentic results case] leads him out of the difficulty—and out of the calculus of probabilities."²⁸⁰ In the end, Black asserted that the Condorcet winner solution to the inauthentic results difficulty is based on straightforward reasoning (*simple raisonnement*) rather than strict probability theory. Again, in the context of the inconsistent results case, Black notes that probability theory fails to provide an answer and "again Condorcet falls back on 'straightforward reasoning.'"²⁸¹ If Black is correct that Condorcet abandoned an epistemic conception of group decision making based upon probability theory in favor of a preference conception of vote aggregation mechanisms, perhaps it *is* appropriate to think of Condorcet as the father of social choice theory.²⁸²

Based on the larger view of Condorcet's lifetime work, however, Black appears to be wrong.²⁸³ Although Condorcet had to address the practical issues of preference aggregation, to the end, he remained focused on the more fundamental issues of perfecting the social arts—arriving at reasoned solutions to collective issues for the community. The contrast between Condorcet's deliberative, republican vision and Arrow's economic vision is quite remarkable. In his *Social Choice and Individual Values*, Arrow

279. Describing these two aspects, H.P. Young observed, "Condorcet's initial objective was to design a method for estimating the 'true' ranking of the candidates. But he also recognized that the problem is often one of determining which single candidate is most likely to be best." Young, *supra* note 119, at 1237.

280. See BLACK, *supra* note 31, at 70.

281. *Id.* at 172.

282. "Stripped of its probabilistic formulations, [Condorcet's] analysis can be far more readily understood as a logic of preferential choice." BAKER, *supra* note 32, at 383-84.

283. Keith Baker, history professor at the University of Chicago, also challenges Black's conclusion, responding that "Condorcet's probabilistic formulations were fundamental to his conception of decision-making as the collective search for truth; they were essential to the problem of consent as he came to define it in the *Essai*." *Id.* at 384.

assumes “that individual values are taken as data and are not capable of being altered by the nature of the decision process itself.”²⁸⁴ Arrow concludes, “If individual values can themselves be affected by the method of social choice, it becomes much more difficult to learn what is meant by one method’s being preferable to another.”²⁸⁵ Condorcet would probably have responded that the method of social choice *should* affect (and improve) individual values. At the same time, he would probably have conceded that this recognition makes assessment of vote aggregating mechanisms more difficult. Condorcet probably would have urged taking up the challenge and rejecting a view of political decision making as simple preference aggregation. He probably would have agreed that a pure preference aggregation model is appropriate as applied to purely personal decisions, such as the proper topping for pizza. On the other hand, the quote with which this Article begins suggests that Condorcet would demand much more of the judgment aggregation involved in most juridical and political decisions: a high probability of correct or just results.

Strikingly, Condorcet did not let his own discovery of the voting paradox in 1785 get in the way of his later advocacy of democratic decision-making principles with the greatest probability of true results. Even in his early 1785 *Essay*, Condorcet concluded that “the form of the assemblies which decide men’s lot is much less important for their happiness than the enlightenment of those who sit in these assemblies; and the progress of reason will contribute more to the happiness of peoples than the form of political constitutions.”²⁸⁶ Were he alive today, Condorcet would probably respond to the current social choice theory focus on *mechanism* by suggesting that social choice theorists are barking up the wrong tree. The solution Condorcet offers to his voting paradox is not to obsess about it, but to move on. People may not all agree on which methods offer the highest probability of substantively correct outcomes. Nevertheless, a probabalistic approach will cause those people to think very differently about solutions to the collective choice problem.

Surely, the work of social choice theorists should not be abandoned or ignored. For example, Condorcet surely would applaud the work of those seeking an equitable way to improve processes that increase structure-induced equilibrium. Although it is important to think carefully about alternative procedures for aggregating votes, Condorcet would prefer greater emphasis on reforms to increase the knowledge of participants to the political

284. ARROW, *supra* note 6, at 7.

285. *Id.* at 8.

286. Condorcet, *Essay*, *supra* note 21, at 57.

debate and, thereby, improve the quality of deliberation. The result would be an increased probability of a reasoned outcome and a better chance of achieving the most important goal for all juridical and political decisions: justice.

