Among the contributions of social choice theory to political science is the finding that the aggregation of transitive individual preference orderings can produce an intransitive social preference ordering. This intransitive outcome is commonly called a cyclical majority. In this paper, I examine the normative consequences of cyclical majorities in theory and practice. Some critics have dismissed the significance of intransitive social orderings for democratic decision-making. I contend that intransitive social orderings are normatively problematic for the concept of majority rule and common understandings of democracy. Other critics have argued that cyclical majorities are a trivial issue because they rarely occur in practice. I argue that the mere absence of cyclical majorities does not necessarily preclude normative concerns. Transitive outcomes may be induced by normatively undesirable factors. To better appreciate the normative consequences of transitive outcomes, I look at how different types of political decisions vary in their susceptibility to cyclical majorities. I also consider the normative implications of socio-cultural norms, decision-making institutions, and psychological motivations. This perspective establishes a framework for a more refined understanding of the normative tradeoffs democracies make to secure stable outcomes.

The Normative Problem of Cyclical Majorities

Social choice theory focuses on the formal properties of group decision-making procedures and their consequences. One of its more important findings is that the aggregation of transitive individual preference orderings can produce an intransitive social ranking of alternatives. This type of outcome is also referred to as a cyclical majority because the preference relationship between alternatives is periodic; for any given alternative, there is always another alternative that is more preferred. Cyclical majorities may arise any time three or more persons choose between three or more alternatives. The problem is illustrated by the simple example of three choosers (1, 2, and 3) and three alternatives (A, B, and C). Suppose that Chooser 1 prefers A to B to C, Chooser 2 prefers B to C to A, and Chooser 3 prefers C to A to B. In this case, a decisive collective ordinal ranking cannot be derived from the pairwise aggregation of individual ordinal rankings because cyclical collective preferences exist: A is preferred to B, B is preferred to C, and C is preferred to A.

The existence of cyclical majorities presents, at least, two types of normative problems, incoherence and arbitrariness. The presence of a cyclical majority precludes the possibility of selecting an alternative that is preferred to all other alternatives in pairwise comparisons. Every alternative can be defeated by at least one of the competing

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3 For a more thorough discussion of the normative problems presented by cyclical majorities, see Riker (1982).
alternatives in a head-to-head vote. Consider a less formal description of intransitive social orderings using the individual preference rankings from the example above. Assume that the status quo is $A$. Because a majority prefers $C$ to $A$, simple majority rule dictates that $C$ should replace $A$ as the status quo. There appears to be nothing at all controversial about this action. In fact, from the perspective of majority rule, it would seem to be warranted. Having established $C$ as the status quo, a majority now claims that it would instead prefer $B$. Once again, it seems reasonable to allow the majority to rule. The majority would rather have $B$ as opposed to $C$; therefore, $B$ should supersede $C$. With $B$ as the status quo, it just so happens that a majority prefers $A$. If majority rule is respected (and why should it not be?), then $A$ is installed as the status quo and we are back where we began. It turns out that a majority opposes every alternative! This cycle will, of course, go on indefinitely unless individual preferences change or some institution imposes a decision.

This example clearly illustrates the problems of incoherence and arbitrariness, which result from intransitive social orderings. First, no outcome is stable under simple majority rule; there is always another more preferred alternative to the one selected. Therefore, from the perspective of majority rule, the results are incoherent. Second, from the perspective of majority rule, the ultimate selection of an alternative (in this case $A$, $B$, or $C$) appears to be arbitrary. Some non-majoritarian standard must be used to choose a winner. Some may argue that this arbitrariness is comparable to a tie vote. An intransitive outcome, however, is conceptually different from a tie. When a tie exists, it indicates that the balance of voters is equal for all the relevant alternatives. A tie reflects equal desirability. If the alternatives are equally desirable, then some non-majoritarian method of breaking the tie does not empower a minority. When cyclical majorities exist, it indicates that the outcome is chaotic. Any method of declaring a winner empowers a minority, but more importantly, it frustrates a majority that favors the same alternative.

The problem of arbitrariness can also manifest itself in any voting system that eliminates alternatives through a sequence of head-to-head votes. Take, for example, the amendment procedure. This procedure requires that alternatives be voted upon in a series of pairwise elections, with the winner moving on to the next round to face a new competing alternative. When cyclical majorities exist, this type of pairwise election method produces arbitrary results in the sense that the outcome is a function of the order in which the head-to-head votes are taken. Consider, an amendment procedure involving the three alternatives and the set of individual preference orderings specified above. If the initial pairing is $A$ and $B$, then $C$ is the eventual winner ($A$ defeats $B$ in the first round and $C$ defeats $A$ in the second round). If, however, the initial pairing is $A$ versus $C$, then $B$ wins. Finally, if the voting order begins with $B$ against $C$, then $A$ wins. The order in which the pairwise voting occurs determines the outcome. As a consequence, a cyclical majority opens up the amendment procedure to manipulation. An agenda setter may be able to manipulate the order of voting in such a way as to guarantee the selection of her preferred alternative. In the preceding example, if an agenda setter favors $A$, then she can ensure its selection by requiring that $B$ be paired with $C$ in the first round of pairwise voting. From a procedural perspective, cycling makes the outcomes of some voting procedures appear arbitrary.

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4 The amendment procedure is frequently used by representative legislatures to make decisions.

The Significance of the Condorcet Winner

Cyclical majorities are not inevitable; it is possible for social orderings to achieve varying degrees of stability. For example, an aggregation of transitive individual preference orderings can yield an outcome in which one alternative is able to defeat all the other alternatives in pairwise comparisons; a clear-cut majority winner can be identified. This dominant alternative is commonly called a Condorcet winner. Once again, consider three choosers (1, 2, and 3) and three alternatives (A, B, and C). Suppose that Chooser 1 prefers A to B to C, Chooser 2 prefers B to A to C, and Chooser 3 prefers C to A to B. Alternative A is a Condorcet winner because it is preferred both to B and to C in pairwise comparisons.

If persons take the notion of majority rule seriously, then they must also take the Condorcet winner seriously. Majority rule is associated with several different standards. They include unanimity, super-majorities (e.g., two-thirds majority), simple majority (i.e., fifty percent plus one), and the Condorcet winner. The Condorcet winner is the most fundamental of these criteria. By most fundamental, I mean that the set of all unanimity, super-majority, or simple majority winners are necessarily subsets of the set of Condorcet winners. In other words, any alternative that is a unanimous, super-majority, or simple majority winner is also a Condorcet winner and not necessarily vice versa. As such, it is the least demanding standard for majority rule. If a decision-making body cannot, at the very least, produce a Condorcet winner, then it will not be able to reach any of the other more demanding majoritarian standards. The advantage of a unanimous choice is obvious. Because all persons agree on the alternative, there is no dissent. Super-majorities and even simple majorities are considered desirable because they, at least, represent the unqualified preferences of a majority of persons. However, a Condorcet winner differs because it does not have to receive a majority of first place votes (or any first place votes at all for that matter); it only has to beat every other alternative in a head-to-head vote.

Assume there are three choosers (1, 2, and 3) and four alternatives (A, B, C, D). Suppose that Chooser 1 prefers B to A to C to D, Chooser 2 prefers C to A to B to D, and Chooser 3 prefers D to A to B to C. Even though alternative A is not the first choice in any individual preference ordering, it is still a Condorcet winner because A is preferred to B, C, and D in pairwise comparisons. As the least demanding understanding of majority rule, the Condorcet criterion allows persons to identify an alternative that can withstand the majoritarian challenge of any other particular option.

Majority Rule as a Standard for Democratic Decision-Making

The problems of cyclical majorities are relevant for democratic decision-making only if the notion of majority rule is considered important. It can be argued that majority rule is a well-established concept in liberal and democratic political theories. John Locke, whose political ideas helped shape the American political tradition, contends “for that which acts of any Community, being only the consent of the individuals of it, and it being necessary to that which is one body to move one way; it is necessary the Body should move that way whither the greater force carries it, which is the consent of the majority…and so every one is bound by that consent to be concluded by the majority” (1988, 332). According to Robert Dahl, “Contemporary writers—both advocates and

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6 The Condorcet winner is named after the Marquis de Condorcet who was the first persons to formally discuss this concept.
critics of democracy—often hold that democracy ‘means’ or requires majority rule” (1989, 135). He goes on to note, “virtually everyone assumes that democracy requires majority rule in the weak sense that support by a majority ought to be necessary [although not necessarily sufficient] to pass a law” (135). Jürgen Habermas claims “the majority rule used for deciding substantive questions in courts, parliaments, or self-governing agencies exemplifies an important feature of the legal procedures that regulate institutionalized deliberations” (1996, 179). In addition, John Rawls assumes “some form of majority rule is justified as the best available way of insuring just and effective legislation” (1971, 356).

Still, majoritarian procedures are not the only ways to make democratic decisions. Non-majoritarian decision-making procedures are available; moreover, they are able to select a winner without having to worry about the problem of cyclical majorities. Plurality voting, for example, chooses whichever alternative has the most first place votes even if it receives less than fifty percent of the total votes. The Borda count selects a winner based on the positions of alternatives in each individual’s ordering of the alternatives in the choice set. Approval voting allows persons to cast multiple votes, spreading them out among several candidates or giving them all to just one. All of these non-majoritarian procedures can select a winner even if no Condorcet winner exists. Consequently, the practical problems of cyclical majorities are avoided.

Even though non-majoritarian voting procedures have certain advantages with regard to stable outcomes, they may not necessarily satisfy those who consider majority rule a fundamental standard for democracy. If a cyclical majority exists, then the specter of majority rule may still persist, regardless of how the winning alternative is selected. An outcome that is not a Condorcet winner is always faced with the concrete problem that a majority of persons necessarily prefer that another particular alternative be selected instead of the one chosen. If a non-positional voting procedure chooses a winner despite the presence of a cyclical majority, the concept of majority rule may still serves as an implicit standard for judging the result. One response might be to claim that the standard of majority rule is too strict or impractical. As such, some other standard should be used for democratic decisions. However, before dismissing the desirability of using majority rule as a democratic standard in favor of some other competing criterion, there is an important point to keep in mind. All voting procedures have undesirable qualities. Kenneth Arrow’s General Possibility Theorem (1963) proves that, whenever there are at least three choosers and three alternatives, no voting procedure can simultaneously satisfy a set of ostensibly reasonable postulates. The original proof consists of two rationality axioms (i.e., connectedness and transitivity) and five moral conditions (i.e., universal admissibility, monotonicity, independence of irrelevant alternatives, non-imposition, and non-dictatorship). There is no question about the logical validity of Arrow’s theorem.

7 One possible way of ameliorating this problem is to use some form of procedural justice to legitimize the outcome. Pure procedural justice involves justifying a voting procedure such that the procedure itself is considered fair. This fairness is transferred to the outcomes produced by fair voting procedures. “The intuitive idea is to design the social system so that the outcome is just whatever it happens to be, at least so long as it is within a certain range” (Rawls 1971, 85). Viewing the outcomes as fair because the procedure is fair does not eliminate the fact that a cyclical majority means a majority of persons is having its preference stifled. Still, when a voting procedure has been normatively justified prior to a decision, it can lend some legitimacy to the outcome.

8 In a subsequent proof, Arrow replaces some of the conditions with the Pareto principle.
All voting procedures must sacrifice at least one of its axioms or conditions. Consequently, the choice between voting systems inevitably involves tradeoffs.

There is a strong tradition of viewing majority rule as a standard for democratic decision-making. Moreover, competing procedures that avoid the problem of cyclical majorities also have normative problems. If persons support or are drawn towards this tradition of majority rule, then they need to confront the findings of social choice theory and the problem of cyclical majorities.

**The Challenge of Participatory Democrats**

Another challenge to the concept of majority rule is implicit in the critiques raised by participatory democrats against certain understandings of democracy. Participatory democrats consider the outcomes of democratic decisions to be secondary matters; participation should be the defining quality of democracy. Given this fundamental emphasis on participation, these democrats are inclined to be skeptical of the relevance of intransitive voting outcomes. Active involvement in the community and taking part in the political process are considered the essential features of democracy, while voting and voting procedures tend to be marginalized concerns. The aggregation of votes is generally viewed as simply the last activity or temporary end-point in a complex socio-political practice. Democratic decision-making is really more about deliberation, bargaining, compromise, psychological transformation, and collective purposes. From this perspective, voting is important only as a participatory act. The outcomes of voting are relatively minor concerns. Intransitive social orderings, consequently, are not of much significance.

Are participatory democrats right? Is the aggregation of votes simply an anticlimax in the democratic decision-making process? Theories of participatory democracy serve a valuable function by highlighting the importance of democracy as an activity. However, to view the results of voting as something relatively inconsequential seems a bit extreme. Even if democracy is understood to be about active involvement in politics and civil society, it remains a fact that political decisions routinely have profound impacts on individuals and the community. How we determine what constitutes a winning alternative, therefore, is important for practical reasons. It is also important for normative reasons. The voting systems used to make political decisions reflect particular understandings of democratic principles and values. If cyclical majorities undermine these principles and values, then participatory democrats need to take voting procedures and the concept of a Condorcet winner seriously. Moreover, given that participatory democrats share typical democratic commitments to equal political worth, the equal consideration of interests, and personal autonomy, decision-making procedures that end in cyclical majorities are bound to be troubling.

It is important to note that the mere susceptibility to cyclical majorities does not necessarily render majority rule impractical. Majority rule can still be viewed as a flawed but workable democratic standard. Dahl, for example, claims, “from the unassailable proposition that majority rule is imperfect—perhaps indeed highly imperfect—we cannot move directly to the conclusion that it should be replaced by an alternative rule for making collective decisions” (1989, 152). This decision about the viability of majority rule will involve a consideration of the likelihood that collective decisions will end in cyclical majorities.

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9 See, for example, Pateman (1986) and Spitz (1978).
Cyclical Majorities in Practice

Assume majority rule is considered an essential feature of democratic decision-making. If so, then cyclical majorities present a serious theoretical problem for democracy. Theory is, of course, important, but what about practice? Are cyclical majorities a serious problem for actual democratic decision-making procedures? There are several ways to estimate the likelihood that decisions will lead to cyclical majorities. Many studies, for example, calculate the statistical probabilities of intransitive outcomes using a variety of assumptions about the preference orderings involved. Some researchers simply assume that all preference rankings are equally possible. More sophisticated studies have considered measures of social homogeneity that reflect the degree to which voters have similar preferences. Others have used weighted preference profile patterns, sometimes referred to as anonymous preference profiles. In all of these cases, probabilities rise or fall as expected in relation to the size of the choice set, the number of issue dimensions, and the number of voters. Researchers have also performed laboratory experiments to gauge the likelihood of producing cyclical collective preferences in committees and legislatures. The results of these experiments vary. “It is apparent that no general conclusion can be reached about the success of the core [i.e., securing stable outcomes], because its success rate fluctuates widely across different preference configurations and legislative tasks” (Green and Shapiro 1994, 128).

There have also been attempts to find evidence of intransitive outcomes in actual elections and votes. These efforts include both quantitatively oriented research, which relies either on voting data or survey results, and qualitative case studies. A number of studies have examined actual committee votes of various organizations. Others have looked at votes in the United States Congress. Reported votes, intended votes, and feeling thermometers from National Election Study surveys have also been used to analyze presidential elections. Finally, there have been some attempts to infer cyclical preferences from qualitative data, relying both on first-hand accounts of the participants in the elections and historical reconstructions. Although the findings vary, these case studies of actual collective decisions typically find that cyclical majorities are the exception not the rule. These results, however, need to be interpreted with caution before coming to any conclusions about the risks of cyclical majorities.

Overall, the existing evidence does not demonstrate that cyclical majorities are endemic in actual collective decisions. At the same time, it does not definitely show that cyclical majorities are insignificant mathematical curiosities. Moreover, the examination of actual decisions and the corresponding social preferences orderings is limited. In

See, for example, DeMeyer and Plott 1970; Garman and Kamien 1968; Niemi and Weisberg 1968.
12 See, for example, Berg and Bjurulf 1983; Gehrlein and Fishburn 1976.
13 See, for example, Fiorina and Plott (1978) and Jamison (1975). For a brief review and critique of the experimental literature, see Green and Shapiro (1994, pp. 123-128).
14 See, for example, Chamberlin, Cohen, and Coombs 1984; Dobra 1983; Dobra and Tullock 1981; Dyer and Miles 1976; Feld and Grofman 1992; Fishburn 1986; Niemi 1970).
15 See, for example, Bowen 1972; Neufeld, Hausman, and Rapoport 1994; Riker 1965; Stratmann 1996; Weisberg and Niemi 1972.
17 See, for example, Lagerspetz 1993, 1997; Browne and Hamm 1996; Riker 1965; 1982, 1986.
many instances, social preference orderings cannot be determined from available election results because of the nature of the ballot. Consequently, existing case studies do not represent a random sample of political decisions. At this point, it does not seem that the problem of cyclical majorities has necessarily rendered majority rule an impractical standard for democracy. Collective decisions often result in a Condorcet winner. There are, nonetheless, situations in which cyclical majorities emerge. Consequently, it is important to understand the factors that tend to facilitate or deter the presence of cyclical majorities. In other words, it is important to understand what conditions tend to promote a Condorcet winner.

**Conditions that Facilitate a Condorcet Winner**

In order to secure a Condorcet winner, one of several conditions on individual preference profiles must hold. These conditions can be divided into three basic categories: balance, popularity, and exclusion (Miller 1983, 739-40). Balance conditions refer to symmetries of disagreement in two or more dimensions that cancel each other out, allowing for outcomes to be determined by a subset of the voters. This condition, however, offers an unrealistic solution because the chance of its occurrence is remote. Plott's (1967) pioneering work in this area yields a balance condition that is both unlikely to be fulfilled and extremely fragile. Moreover, if Plott's balance condition is not perfectly met, then cycling encompasses the entire issue space (McKelvey 1976, 1979; Schofield 1978). Because balancing conditions are so frail and tenuous, they do not offer a practical means of facilitating a Condorcet winner.

Popularity conditions are able to secure a Condorcet winner through sufficient agreement among the voters. Popularity conditions, in contrast with exclusion conditions, do not rely on the elimination of particular combinations of orderings; they rely on a level of agreement. To produce a completely transitive social ordering, the popularity condition requires that a majority of the voters support the same exact ranking of preferences. However, to simply preclude the presence of a top-cycle, the condition is much less demanding. All that is required is that the majority of voters select one particular alternative as most preferred. The generation of a Condorcet winner through popularity conditions may, for example, be due to the fortuitous alignment of voter interests, a homogeneous background culture, or the coalescence of support around a particular alternative.

Finally, a Condorcet winner may also be a consequence of exclusion conditions. This type of condition prohibits problematic combinations of rankings from being considered. If the exclusion condition results in institutional restrictions on the choices voters can make, then it can have substantial anti-democratic implications depending on how these restrictions are derived and how they are enforced. Establishing the exclusion condition, however, does not necessarily have to be done institutionally. Black's (1958) single-peakedness condition is a well-known example of a type of exclusion condition that can occur when persons have the same understanding of the relationships between alternatives. Single-peakedness exists when voters share the same understanding of the positions of the alternatives along a single dimension issue space. Take, for example, an election involving three candidates: A, B, and C. If voter preferences are based on ideology and if the voters recognize that A is liberal, B is moderate, and C is

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18 For other versions of this result, see Davis, DeGroot and Hinich (1972) and McKelvey and Wendall (1976).
conservative, then the outcome will necessarily yield a Condorcet winner. Given that individuals have single-peaked preference orderings, Black demonstrates that the outcome must be a Condorcet winner.

**Four Basic Ways to Induce a Condorcet Winner**

Popularity or exclusion conditions are realized under four circumstances: when a majority of voters rank one alternative first, the choice set contains no more than two alternatives, voters rank alternatives on the basis of the same issue dimension, or the set of voters contains no more than two persons. As these limits are approached, the probability of inducing a Condorcet winner increases. In other words, the closer an alternative is to receiving fifty percent of the first place votes, the fewer the number of alternatives in the choice set, the fewer the number of issue dimensions, and the fewer the number of voters, then the more likely a decision will result in a Condorcet winner.

The coalescence of support for one particular alternative is a straightforward application of the popularity condition. It simply involves the garnering of support for one particular alternative. If an alternative can gain a sufficient amount of support, then it will emerge as a Condorcet winner. Reducing the number of alternatives in the choice set and reducing the number of issue dimensions under consideration are variations of the exclusion condition. Both approaches increase the abstract probability of securing a Condorcet winner by excluding problematic preference rankings. Finally, reducing the number of persons who are allowed to vote increases the probability of securing a Condorcet winner. It does so by facilitating the establishment of both popularity and exclusion conditions.

Let’s begin by looking at the coalescence of voter support for a particular alternative. Given that an alternative is ranked high enough across the different individual preference orderings relative to the other alternatives, it will be a Condorcet winner. Take, for example, an alternative that is able to gain more than fifty percent of the first place votes. This alternative is a Condorcet winner by definition because a majority of the voters prefer it to all other alternatives in pairwise comparisons. The emergence of a Condorcet winner, however, is not dependent on a particular percentage of first place votes. Even if an alternative is not ranked first by any of the voters, it can still be a Condorcet winner. The key factor is how it ranks compared to other alternatives. Consider a case in which three voters (1, 2, and 3) are choosing between four alternatives (A, B, C, and D). If voter 1’s preference ordering is \( B > A > C > D \), voter 2’s preference ordering is \( C > A > B > D \), and voter 3’s preferences are ranked as \( D > A > B > C \), then \( A \) is a Condorcet winner even though it receives no first place votes.

Reducing the number of options in the choice set can also induce a Condorcet winner. If the number of alternatives in the choice set is decreased and the number of voters remains constant, then the random probability of selecting a Condorcet winner will increase exponentially. As a simple example, let’s compare a choice set containing three alternatives with a choice set containing twenty alternatives. In the former case, if an alternative is preferred to only two other alternatives, then it is a Condorcet winner. In the latter case, an alternative is a Condorcet winner only if it is preferred to each of nineteen other alternatives. It is interesting to note that the removal of an alternative from the choice set takes on a much greater significance as the size of the choice set gets smaller. These findings generally hold in other more sophisticated studies of the

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probability of generating a Condorcet winner. As mentioned previously, some studies have used measures of social homogeneity,\textsuperscript{20} while others have used weighted preference profile patterns.\textsuperscript{21}

In addition, reducing the number of issue dimensions can facilitate a Condorcet winner. The term issue dimensions refers to an ordinal understanding of the relationships between alternatives based on some given standard. Persons use this standard to position alternatives on a one-dimensional issue space. Persons vote according to the issue dimension if they base their preference rankings on the distance between their preferred position and the positions of the alternatives. If persons share the same ordinal understanding of the alternatives, that is, if persons order the alternatives in the same manner, then that is sufficient for them to share the same issue dimension. They do not have to place the alternatives at the same positions on the issue space; all they have to do is have the alternatives in the same order. They do not have to share the same preference rankings; all they have to do is consistently rank the alternatives according to distance from their most preferred position. Black (1958) has demonstrated that if voters use the same issue dimension to rank their preferences, then the social ranking of alternatives will have the quality of single-peakedness, which means the ranking will necessarily be transitive.

Finally, reducing the number of voters can generate a Condorcet winner. Given that the number of alternatives in the choice set is held constant, the random probability of securing a Condorcet winner increases exponentially as the number of voters decreases.\textsuperscript{22} The change in the number of voters has its greatest impact on probability calculations when the original total is already quite small. Moreover, the probability of generating a Condorcet winner rapidly approaches its limit as more voters are added. As a consequence, a modest reduction in voter participation is an effective way to facilitate transitive social outcomes only when there happens to be a few person involved in making the decision.

In trying to understand when a decision is likely to result in a Condorcet winner, these four factors need to be taken into consideration. However, they do not simply emerge arbitrarily. These factors are functions of other concerns, including the nature of the decision, the socio-cultural context, the decision-making institutions, and the motivations of the participants. By looking at these four aspects of decision-making, we can more readily understand which types of decisions are susceptible to cyclical majorities and which tend to produce a Condorcet winner.

\textbf{The Nature of the Decision}

In general, political decisions can be divided into three general categories: normative, empirical, and practical. These three types of deliberations can be understood in terms of degrees of abstraction or concreteness. Normative decisions are the most abstract. They involve decisions about basic normative principles, which represent the central moral, ethical, and political commitments of a community. Numerous examples are found in the amendments to the United States Constitution including the freedom of


\textsuperscript{21} See, for example, Berg and Bjurulf 1983; Gehrlein and Fishburn 1976).

\textsuperscript{22} A brief survey of the literature on probability calculations for generating a Condorcet winner can be found above in the sub-section titled “Four Basic Ways to Induce a Condorcet Winner.”
religion, speech, press, and assembly, the abolition of slavery, and expanded voting rights. Normative decisions focus primarily on fundamental ethical-political doctrines and aims. They are ends-oriented in the sense that basic normative principles set goals and establish limits or parameters that guide practical and empirical political decisions. At the practical level, political decisions are concerned with the rules of conduct and procedure. They include the reflective consideration both of the proper aims of legislation and of the relationship between these ends and the means used to achieve them. In general, practical decisions involve the enactment of laws and courses of action that have a more direct or specific regulatory effect. Finally, the most concrete level of political decisions is empirical, which focuses on the choice of means for realizing ends that have been previously set. Empirical decisions strictly deal with instrumental issues of implementation; all relevant normative concerns have already been decided. The purpose of empirical decisions is to make the best choice based on the given criteria.

It should be noted that these three categories of decisions represent ideal types. In practice, the demarcations between the categories can be somewhat ambiguous. Consequently, a couple of observations may be helpful. First, normative and empirical decisions are presented as ideal limit cases. During the course of actual political decisions, what is best described as a normative decision may include empirical considerations and empirical decisions may sometimes take into account normative concerns. Nonetheless, I do not think that these deviations undermine the fundamental intuitions that underlie each of these categories. Normative decisions are primarily concerned with normative issues and empirical decisions primarily involve instrumental issues. Second, at the margins, the distinctions between these three types of decisions may not necessarily be clear. There may not always be clear-cut distinctions between normative and practical decisions or practical and empirical decisions. Nevertheless, I still think that the three categories are reasonable and valuable ways to partition political decisions.

Normative decisions are concerned with the establishment of fundamental ethical beliefs and commitments. These decisions are about what is basically right and wrong. Abstract normative decisions, by their very nature, tend to have smaller choice sets, often with only three alternatives. Consider the issue of racial or ethnic profiling: is profiling morally acceptable? In the abstract, this question has three possible answers: yes, no, and I don’t know. Moreover, normative decisions usually have only one issue dimension because the ethical issue itself is the issue dimension. For example, in the abstract, the issue of racial profiling is only about whether racial profiling is right or wrong. Given that normative decisions generally have small choice sets and uni-dimensional issue spaces, cycling is often precluded by the very nature of the decision.

Empirical decisions are simply concerned with identifying and evaluating facts. Normative issues are not taken into account. Empirical decisions are guided by predetermined criteria such as accuracy, cost, effectiveness, efficiency, etc. Alternatives are assessed and ranked according to these criteria. If only one criterion or end is used to order the set of acceptable alternatives, then some uni-dimensional criterion will dominate. Collective preference orderings, in this instance, are necessarily single-peaked, thus ensuring the selection of a Condorcet winner. If there are multiple criteria that conflict, then there may be multiple issue dimensions, thus opening the decision up to the possibility of cyclical majorities. However, because the competing criteria are
usually reconciled subjectively, normative concerns enter into the decision. Consequently, persons are no longer making what are strictly defined as empirical decisions; they are essentially making practical decisions.

Practical decisions take into account normative concerns and empirical realities to come up with laws and policies that set standards for regulating behavior and specify what actions can be taken by the state. Some tend to be more abstract, while others tend to be more concrete. The abstractness or concreteness of the decision will vary depending on the normative and empirical issues that are taken into account. For example, rezoning property to allow large chain stores like Walmart to enter a community may accord with free-market principles. However, large retailers often put smaller local merchants out of business. Normative issues emerge when it is necessary to balance or choose between these types of competing concerns. These normative issues are integrated with empirical considerations, which have a straightforward instrumental focus. Empirical issues often involve the practical consequences of competing proposals. In the previous example, decision-makers might want to know how traffic will be affected by building a Walmart in a certain location. Practical decisions generally involve specific normative, collective, or personal interests and empirical considerations. Consequently, practical decisions are inclined to be more complicated, with larger choice sets and more issue dimensions. It follows that practical political decisions are often susceptible to cyclical outcomes.

**Norms, Institutions, and Motivations**

Certain types of decisions—normative and empirical—usually preclude cyclical majorities by their very natures. Practical decisions, in contrast, are more likely to involve large choice sets and multiple issue dimensions. Consequently, with all things considered equally, we should expect to see practical decisions end in cyclically majorities. Empirical research, however, has not confirmed this expectation. Cyclical majorities are rarely found when actual political decisions are examined. Moreover, these negative findings are used to undermine the practical relevance of cyclical majorities. The claim is that intransitivity may be problematic for majority rule in theory, but not in practice. It follows that the legitimacy of actual political decisions is not undermined from the perspective of majority rule.

I suggest that this defense of majority rule is incomplete because it focuses only on the outcomes of the decision-making process. It does not take into account the various factors that shape the decision. In practice, practical decisions rarely lead to cyclical majorities even though they are expected at least in theory. My contention is that the normative implications of this discrepancy need to be examined before coming to the conclusion that the principle of majority rule is not violated by political decision-making processes. Three of these factors include the socio-cultural context, the decision-making institutions, and the motivations of the participants. All three of these factors can induce Condorcet winners by affecting support for specific alternatives, the size of the choice set, the number of issue dimensions, and the number of voters.

The socio-cultural context can influence decision outcomes by coalescing support around a particular alternative, reducing the size of the choice set, and limiting the number of issue dimensions. It does so through laws that set parameters on the decisions a society can make and cultural norms that persons internalize. The influence, therefore, can be legal coercion or moral compulsion. Legal consequences preclude alternatives by
the force of law. Some options are simply not legally legitimate. Moral compulsion works differently but for all practical purposes can be nearly as effective. Social indoctrination or stigma can often exert so much psychological pressure that persons may not be willing to introduce disapproved alternatives into the choice set. As such, the number of alternative may be limited. The presence of psychological pressure can also call into question whether or not persons are making free or sincere choices. Socio-cultural norms are certainly necessary for the well being of society. However, the influence of norms on the decision-making context may not always be normatively desirable. If the influence is not normatively desirable and it is responsible for advancing a Condorcet winner, then this issue needs to be addressed.

Decision-making institutions can also affect the size of the choice set and the number of voters. These institutions include the rules that govern the way alternatives are introduced, selected, and chosen. Some researchers, for example, have also argued that institutional structures are responsible for inducing the stability usually observed in committees and legislatures. The concept of structure-induced equilibrium was first advanced by Shepsle and Weingast (1981) and taken up by others.23 There are many ways decision rules can affect outcomes. In amendment procedures, alternatives are required to be voted upon in a pairwise manner. If there is a plurality vote, the number of alternatives may be limited. A committee or individual may decide in advance what options will be on the ballot. For most decisions, there are restrictions on persons who can vote. These and other decision-making rules can facilitate the generation of transitive outcomes. It is not self-evident, however, that these rules are practically necessarily or normatively desirable. Consequently, institutions that limit the set of alternatives and voters need to be looked at very closely.

Finally, the motivations of participants can influence support for a specific alternative, the size of the choice set, and the number of issue dimensions. Persons, for example, may decide to vote strategically, which can limit the size of the choice set and concentrate support. Duverger’s Law,24 which suggests that the plurality-voting rule induces two alternative elections, is fundamentally a consequence of strategic voting. The fear of wasting a vote can cause people to strategically support more viable options, thus effectively reducing the size of the choice set. It has also been proposed that the stability of decisions at the elite level is the result of logrolling. Persons agree to trade support for alternatives across different decisions. The logrolling explanation for the stability of voting outcomes was originally articulated by Tullock (1981). Certainly, strategic voting and logrolling are common practices in contemporary American politics. However, it is not necessarily clear that they are normatively desirable practices. The basic issue at stake is whether political decisions should be decided by sincere or feigned preferences. Should majority rule be viewed as a straightforward aggregation of true desires or a strategic game? If it is the latter, then the strategic inducement of a Condorcet winner seems morally legitimate. If it is the former, then the moral legitimacy of the decision is undermined.

The socio-cultural norms, decision-making institutions, and psychological motivations that facilitate the generation of Condorcet winners are not normatively neutral. They have moral implications. Consequently, they should be subject to

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23 See, for example, Levimore 1989; Niemi, 1983; Steams 1994.
24 Duverger’s Law states, “the plurality rule tends to produce a two-party system” (Duverger 1954).
evaluation both from normative and pragmatic perspectives. If any prove to be normatively undesirable in the abstract, then it is necessary to weigh the benefits of securing a transitive social ordering against the moral consequences of the means for achieving this end.

**Conclusion**

The possibility of cyclical majorities has been used to challenge the notion of majority rule. In response, some theorists have argued that majority rule is not a fundamental democratic principle. Researchers have also claimed that the paucity of intransitive outcomes means that cyclical majorities do not pose a practical problem for the concept of majority rule. In this paper, I argue that majority rule is a commonly accepted democratic principle and the process of decision-making is a central aspect of the idea of democracy. I also claim that the paucity of cyclical majorities in practice does not mean the principle of majority rule has been vindicated. There is every reason to suspect that a significant percentage of practical political decisions should result in cyclical majorities. I suggest that socio-cultural norms, decision-making institutions, and psychological motivations act independently or in combination to facilitate transitive social preference orderings. If majority rule can consistently be applied as a democratic standard, then it is done so through factors that may be normatively undesirable. Consequently, the normative desirability of these factors needs to be examined. That task is beyond the scope of this particular paper. However, I do hope this paper serves to revive the social choice critique of democracy. I would like to revive this critique not necessarily for the sake of undermining majority rule, but for the sake of focusing attention on decision-making factors that are often taken for granted by political scientists and ignored by political theorists.
References


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