PART I

THE UBIQUITY OF AGGREGATION

> The simple point which I am concerned to make is that where ultimate values are irreconcilable, clear-cut solutions cannot, in principle, be found. . . . The need to choose, to sacrifice some ultimate values to others, turns out to be a permanent characteristic of the human predicament.
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> Isaiah Berlin, *Four Essays on Liberty* p. 1–li (1969)

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Goals and Trade-Offs

In 1986 the Supreme Court addressed the question of whether political gerrymanders – redistricting plans intended to electorally disadvantage one particular political party – were capable of being, and should be, resolved by the courts. The case in question, *Davis v. Bandemer*,[1] centered on an allegation by Indiana Democrats that Indiana's 1981 reapportionment plan was drawn by Republicans in order to dilute the Democratic vote and thus violated their right to equal protection under the Fourteenth Amendment. The Court ruled that while an equal protection violation could not be conclusively shown by the appellants in the particular redistricting plan under consideration, such political gerrymandering cases were properly justiciable (or capable of being resolved by the courts) under the Equal Protection Clause. A majority of the Court could not, however, agree on any specific standard for assessing future political gerrymandering claims.

In 2004 the Court revisited the question of political gerrymanders in the case *Vieth v. Jubelirer*[2] in which Pennsylvania Democrats argued that a political gerrymander had occurred in redrawing Pennsylvania's legislative districts after the 2000 census. However, in this case, a plurality of the Court reversed itself on the *Bandemer* decision and argued that claims of political gerrymanders were *not* capable of being decided by a court. Interestingly, the court unanimously agreed that severe political gerrymanders are incompatible with democratic principles.[3] However, Justice Scalia, writing for the plurality, argued that no constitutionally discernible standards for evaluating a political gerrymandering claim can exist. Thus, the issue under consideration was "not whether severe partisan gerrymanders violate the Constitution, but whether it is for the courts

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[1] 478 U.S. 109 (1986).
[2] 541 U.S. 267 (2004).
[3] 541 U.S. 267, 292 (2004) (plurality opinion).

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to say when a violation has occurred, and to design a remedy."[4] Absent a prin-
ciple of "fair districting" that could be applied to all such cases, the Court held
that the Pennsylvania redistricting plan could not be declared unconstitutional.

Underlying both the *Vieth* and *Bandemer* decisions were a multitude of
opinions held by the various justices and appellants concerning the principles
that should underlie a fair districting plan. In four dissenting opinions filed in
Vieth, three different standards of fairness were proposed; each was different
from the two conflicting standards proposed in *Bandemer*, and all differed from
the standard proposed by the appellants in *Vieth*. The nine Supreme Court
justices who signed the five various opinions in *Bandemer* and *Vieth* setting
forth these standards all believed that the Fourteenth Amendment granted
judges both the power and the duty to control the practice of gerrymandering.
At the same time, in neither case could a majority of the justices reach agreement
on how exactly to ascertain whether a partisan gerrymander violates the law.
The following six standards provide a sense of the complexity of the problem
faced by the two courts. Each was proposed as a yardstick by which the
constitutionality of a districting plan could be measured.

1. The existence of a political boundary without a neutral justification[5]
2. A proven intent to discriminate against an identifiable political group
   and a proven discriminatory effect on that group[6]
3. A disregard for contiguity, compactness, respect for political subdivi-
   sions, and conformity with geographic features[7]
4. The inability of a majority of votes to be translatable into a majority of
   seats[8]
5. The inability of a majority of votes to be translatable into a majority of
   seats in two successive elections, with the failure not being attributable
   to the existence of multiple parties or other neutral principles[9]
6. Numerous factors, although none being dispositive on its own, includ-
   ing district shape, established political boundaries, and the nature of
   legislative procedure and history in the drawing of lines[10].

In expressing frustration with the task of choosing among these multiple
standards for adjudicating political gerrymandering claims, the plurality in
Vieth argued that every reasonable principle of fairness under consideration
could easily be incompatible with another and that no proposed standard for
drawing legislative districts could be deemed best. Lacking such a standard,
the plurality effectively declared that there is no judicial solution to claims

[4] 541 U.S. 267, 292 (2004) (plurality opinion).
[5] 541 U.S. 267, 326 (2004) (Stevens, J., dissenting).
[6] *Davis v. Bandemer*, 478 U.S. 109, 127 (1986) (plurality opinion).
[7] 541 U.S. 267, 347–48 (2004) (Souter & Ginsburg, JJ., dissenting).
[8] Page 20 of appellant's brief, *Vieth v. Jubelirer*, cited at 541 U.S. 267, 297 (2004).
[9] 541 U.S. 267, 366 (2004) (Breyer, J., dissenting).
[10] *Davis v. Bandemer*, 478 U.S. 109, 173 (1986) (Powell & Stevens, JJ., concurring).

of political gerrymandering. Responding directly to Justice Powell's opinion in *Bandemer* that gerrymandering claims should be assessed on the basis of multiple factors relevant to the fairness of a redistricting plan, Scalia wrote:

> "Fairness" does not seem to us a judicially manageable standard. Fairness is compatible with noncontiguous districts, it is compatible with districts that straddle political subdivisions, and it is compatible with a party's not winning the number of seats that mirrors the proportion of its vote. Some criterion more solid and more demonstrably met than that seems to us necessary to enable the state legislatures to discern the limits of their districting discretion, to meaningfully constrain the discretion of the courts, and to win public acceptance for the courts' intervention into a process that is the very foundation of democratic decision making.[11]

1.1 MANY GOALS, ONE CHOICE

The existence of multiple conflicting goals characterizes many, if not most, meaningful political decisions. Indeed, we conceive of "politics" as shorthand for the processes by which groups reconcile these goals with each other. A redistricting plan that most strongly respects existing political subdivisions may also be the plan that produces the least compactly shaped collection of districts. A plan that produces a compact collection of districts may simultaneously be the least politically neutral. In short, political problems are generally complex, and numerous factors play into the resolution of these problems. If several goals conflict with each other then there may exist no unambiguously "best" way of resolving a political problem short of declaring one criterion unequivocally more important than another. It may, for example, be impossible to design a district that is simultaneously compact and politically neutral.

This book is about decision making when goals come into conflict with one another. More specifically, we describe and characterize a notion of legitimacy for political decisions when the defining features of those decisions – the societal goals that the decisions are meant to further – are inconsistent with one another. We begin with the premise that collective decisions involve trade-offs in the sense of comparing and combining multiple goals so as to produce a policy choice. A different, prominent conception of the combining of multiple goals to form a final choice is provided by the notion of government as a system of *preference aggregation*. In classical social choice theory, a preference aggregation rule represents a method of translating the (individual) preferences of a group's members into a collective, or group, ranking of all the possible choices. Much of the mathematical study of voting systems adopts this approach and is motivated by the fact that any group seeking to make a collective decision must choose some method of translating the diverse preferences of the group members into a societal outcome.

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[11] 541 U.S. 267, 292 (2004) (plurality opinion).

While preference aggregation is merely one example of a setting in which the arguments we make in this book will have purchase, the study of preference aggregation within the field of social choice has yielded insights that are directly applicable to the issues and debates with which we are concerned. Accordingly, we discuss the results from this literature and their connections with our own theory at the outset of this book. In Part I we describe and detail several well-known results that are termed *impossibility theorems*. These results mathematically prove that in many situations, it is impossible to design a system of aggregation – be it aggregation of preferences or goals – that satisfies certain properties of sensibility and fairness. In these instances, any reasonable method of aggregating conflicting goals may be ill-behaved in that it may be incapable of deeming one alternative (or one collection of alternatives) "best." An immediate corollary of this is that there may be no optimal way of resolving a political issue. How, then, can we judge the success of a political decision when there may be no unambiguously good solution to a particular problem?

We address this question by developing a theory of collective decision making that focuses on the decision-making process – the sequence of arguments leading up to any final decision. Given that it is often impossible to make a political decision that can be declared better than any other decision that could have been made,[12] one of the biggest tasks facing a democratically elected government is convincing its citizens that the decision made in such circumstances is nonetheless legitimate. That is, why should the citizens respect and obey a potentially suboptimal decision involving a nontrivial trade-off between competing goals?[13] The government needs to provide a rationale for why it made the trade-offs and choices as it did. The legitimacy of a political decision in such cases rests on a *justification*.

The theory of decision making that we offer encompasses two fundamental features of governance. First, we posit that many political decisions are based on principles that have combined multiple and possibly contradictory goals. By describing a political decision as being "based on" such principles, we mean that more than one factor is relevant to the decision. These "factors" could be the preferences of various individuals, communities, or groups. Or they could be a collection of objective characteristics that a society may wish to consider when crafting a policy (e.g., the variation in populations, the contiguities, compactnesses, and political neutrality of a set of legislative districts). Our point is simply that democratic institutions must come to terms with the fact that there may exist multiple reasonable ways of considering the collection

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[12] Or, in terms of representation, it is often impossible to make a decision that does not disenfranchise some person or group of people.

[13] We deliberately use the word "should" here, as opposed to a more empirical term such as "will." As we discuss in more detail in Chapter 4, there are important differences between notions of legitimacy based on theoretical obligation and those based on observed obedience. These differences are of secondary importance to our goals in this book. Thus, where relevant, we generally speak of legitimacy as a theoretical concept of obligation.

of choices available to a group, and they must be responsive to these various considerations.

Second, a political decision should be rationalizable, or defensible, in terms of the principle on which it is based. Put another way, the knowledge that a decision was indeed motivated by the appropriate goal or goals is not sufficient for legitimacy. Rather, the final choice should be consistent with the underlying goal or goals. This second feature of governance is most relevant when there is some conflict between the underlying goals.[14] Thus, our theory is most interesting in the wide variety of situations in which there are multiple decisions that are reasonable in the sense that, for each of these decisions, there is some goal or combination of goals justifying it. Ultimately, our theory argues that democratic institutions govern not only the types of policies chosen, but also, perhaps more important, the ways in which necessarily imperfect political decisions can be rationalized and defended.

1.2 STRUCTURE OF THE BOOK

Chapter 2 focuses on the debates surrounding the field of social choice theory and its application to the study of politics. In that chapter we present several social choice–theoretic results – the impossibility theorems – both technically and descriptively. We then detail William Riker's interpretation of these impossibility theorems and the various criticisms that have been leveled at Riker and his followers. Our position is that both Riker, who famously argued that the results of social choice represent a fundamental and ultimately fatal challenge to the legitimacy of populist democracy, and his critics, who variously argued that Riker misapplied the results or that the results themselves were inappropriate, misinterpret both the foundations and conclusions of social choice theory. Specifically, social choice theory informs us about the possibilities and impossibilities of aggregation. Furthermore, and tellingly, aggregation is simply that: putting various things together to produce an output. Thus, social choice theory is as applicable to judicial review and administrative policymaking – each of which uses various criteria in rendering rankings of, and choices from, sets of feasible policies – as it is to its traditional domain, electoral systems. When viewed in this way, it is clear that Riker's criticisms of social choice place an undue burden on the product of aggregation: his view denies that there is anything special (i.e. "legitimate") about the choices produced through democratic procedures. Similarly, many of the critics of Riker's argument miss the mark when they attempt to refute his conclusions by inaccurately denying the relevance of social choice theory. Somewhat ironically, as we illustrate, Riker's conclusions are most effectively set aside by the very results he cites in support of his argument.

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[14] In other words, when the decision is motivated by a unitary and well-defined goal, then consistency between the choice and the goal is (at least in theory) easily verifiable.

In Chapter 3 we then turn to an extended presentation and discussion of the relevant foundations of social choice theory. In addition to clarifying the structure and logic of the impossibility theorems, a principal goal is to clarify a proper (and more general) interpretation of the impossibility theorems. Rather than taking the theorems as negatives, to be either ignored or worked around, we argue that these results motivate the entire study of politics. The potential irreconcilability of multiple societal and individual goals is exactly the raison d'être of government. In making our argument in favor of the real-world relevance of the theorems, we address both Riker and his critics in detail, arguing that both sides have been misguided in their interpretation of these results.

In Part II of the book we present our own theory of how collective choices can be legitimized in the face of irreconcilable goals. Chapter 4 presents a general discussion of various notions of legitimacy and how we interpret the term in this book. Choices have to be made with such a large and inevitably contested concept as "legitimacy," and our goals are specific insofar as our arguments are grounded in the traditions of social choice theory. While any useful theoretical framework is admittedly restrictive in certain ways, we argue that the constraints imposed by our use of social choice theory have important benefits. Specifically, social choice theory provides a unique combination of both analytical clarity and abstract generality that affords a clear view of our arguments while simultaneously sidestepping and acknowledging the importance of contextual factors. Many, if not most, of the restrictions apparently induced by the use of [a] social choice–theoretic framework are illusory: what one might term the "thinness," or "context-freeness," of social choice theory is exactly what allows the framework to capture any variety of contexts.

Chapters 5 and 6 then present our theory of legitimacy. In Chapter 5 we first present an informal and extended description of the theory's foundations and central conclusions. Our theory is axiomatic: we define a specific notion of legitimacy and then characterize the policies and procedures that satisfy these axioms. The principal goals of this chapter are first to explain how our theory captures procedural details, such as deliberation, reason giving, and sequence, and then to justify our axiomatic definition of legitimacy. This is an inherently verbal exercise precisely because it focuses on the questions of both how we represent real-world collective choice situations and why we choose to represent them in the ways that we do.

Chapter 6 then formally presents our theory. This is the most technical chapter of the book and includes both formal proofs and expository discussion of the theory's conclusions. One could arguably write a version of this book that omits Chapter 6 (or, perhaps, relegates the chapter's central arguments to an appendix). However, we believe that taking such an approach would be a mistake for a variety of reasons, including the fact that some of the results

have not been published elsewhere. Most important among the various reasons is the constructive and illustrative nature of the formal proofs of many of the results. In other words, reading the proofs themselves will demonstrate not only why each of the various results is true but also illustrate and clarify the requisite analogies between the "moving parts" of the theoretical framework and real-world instantiations of collective choice, a question that we turn to in the final chapters of the book, contained in Part III. Chapter 7 concludes Part II with a discussion of several relevant gaps between our theoretical framework and real-world instances of collective decision making, with attention paid to clarifying the context of the empirical chapters that follow.

The three chapters in Part III discuss, in turn, examples of collective choice procedures in the judicial, legislative, and executive branches of the U.S. federal government. The primary goal in each of these chapters is to illustrate the similarity of each institution with the theoretical framework presented and discussed in Part II. In Chapter 8 we illustrate the analogy between our notion of legitimacy and the structure of judicial review in the U.S. federal judiciary. Specifically, Chapter 8 considers judicial review in the context of cases involving equal protection claims. The doctrine of equal protection is a classic example of aggregation, potentially requiring the comparison of individual and collective rights. We discuss several standards of review used by the U.S. Supreme Court when considering whether a statute violates the Fourteenth Amendment's basic guarantee to the citizens of the "equal protection of the laws." We argue that the analogy between the standards of review and our notion of legitimacy is strongest for the most demanding standard, known as *strict scrutiny*.

Chapter 9 discusses the consideration of legislation within the U.S. Congress. We discuss the use of scope limitations during legislative deliberations (specifically, germaneness requirements and single-subject provisions) and link the utilization of these such constraints with our theoretical framework and the axiomatic foundations of our notion of legitimacy.

Chapter 10 then turns to the executive branch and discusses the most commonly used institutional form of executive policymaking, "informal" (or "notice and comment") rulemaking by executive agencies. The structure of this policymaking institution has evolved over the past sixty-five years. We present and discuss this structure, as well as the origins of the institution itself and how its use has been interpreted and shaped by the federal judiciary. We illustrate the analogy between the various requirements of the process and the axiomatic foundations of our notion of legitimacy. We argue that this analogy is an important consideration for those who question how one can consider legitimate the very real policy decisions made on a daily basis by unelected officials throughout the federal government. Finally, Chapter 11 concludes with a summary of the book's argument and a sketch of its broader and deeper implications for both the rarefied air of democratic theory and the frequently fetid fumes of democratic governance.

1.3 THEORY AND METHOD

Before proceeding further, we think it helpful to briefly frame what our theory is intended to "do." To put it simply, our theory is not intended to be predictive. Much of modern social science research centers on an idealized version of the scientific method in which a model is built on first principles, predictions are derived from this model, and these predictions are then subjected to empirical verification. The driving force in this approach is falsification: while a theory can rarely if ever be shown to be true, sufficient empirical data can conclusively reveal if the theory is false.

Our approach in this book is arguably orthogonal to the classical one. In particular, our theory offers a characterization of legitimate choice that most assuredly need not be satisfied by actual political choices. Our theory of legitimacy is descriptive, and we do not believe that all (or even most) decisions are legitimate. A useful referent in this regard is the concept of Nash equilibrium from game theory.[15] In a nutshell, a Nash equilibrium describes a situation in which each individual in a strategic situation (i.e., "game") is acting in such a way as to maximize his or her well-being, given the behaviors of every other individual. Nash famously proved that such a situation always exists in a wide array of strategic situations. This result is purely abstract and accordingly valid regardless of whether individuals actually behave in a manner consistent with it. Nash's Theorem and the impossibility theorems we detail in the following chapters represent flip sides of the same theoretical coin: the impossibility theorems establish that certain aggregation methods simply do not exist, and Nash's Theorem establishes that certain configurations of individual behaviors *do*.

While the impossibility theorems serve as the principal theoretical motivation for our theory, our main results have more in common with Nash's theorem than these results. We establish that a notion of legitimate choice is theoretically nonvacuous and characterize the types of decisions that satisfy it. Furthermore, just as the Nash equilibria of a game are entirely determined by the individuals' preferences, the choices that satisfy our notion of legitimacy are completely dependent on the principle by which choice is supposed to be structured. Neither Nash equilibrium nor our theory of legitimacy provides any guidance about either what the primitives (preferences or principles, respectively) tend to be from an empirical perspective or even about how these primitives "should" be configured.

Nash's existence theorem is important regardless of whether it is descriptive of real-world behavior precisely because it establishes that one *could* achieve a stable configuration of individual behaviors in a wide variety of games. Our results are of the same flavor in the sense that our notion of legitimacy is theoretically relevant regardless of whether any observed behavior is "consistent"

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[15] Nash, Jr. (1950).