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**Josiah Ober: Democracy and Knowledge**

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## Chapter 1

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### INTRODUCTION: DISPERSED KNOWLEDGE AND PUBLIC ACTION

HOW SHOULD a democratic community make public policy? The citizens of classical Athens used a simple rule: both policy and the practice of policy making must be good for the community and good for democracy. A time-traveling Athenian democrat would condemn contemporary American practice, on the grounds that it willfully ignores popular sources of useful knowledge.<sup>1</sup>

Willful ignorance is practiced by the parties of the right and left alike. The recipe followed by the conservative George W. Bush administration when planning for war in Iraq in 2002 was quite similar to the liberal William J. Clinton administration's formula for devising a national health care policy a decade earlier: *Gather the experts. Close the door. Design a policy. Roll it out. Reject criticism.* Well-known policy failures like these do not prove that the cloistered-expert formula inevitably falls short. But the formula can succeed only if the chosen experts really do know enough. Our Athenian observer would point out that the cloistered-experts approach to policy making—insofar as it ignores vital information held by those not recognized as experts—is both worse for democracy and less likely to benefit the community. Contemporary political practice often treats free citizens as passive subjects by discounting the value of what they know. Democratic Athenian practice was very different.

The world of the ancient Greek city-states is a natural experimental laboratory for studying the relationship between democracy and knowledge: By the standards of pre-modernity, the Greek world experienced remarkable growth (Morris 2004). Growth is stimulated by innovation,

<sup>1</sup> I refer to American policy making *exempli gratia*. The Athenian visitor would likewise disapprove of policy-making practices in other contemporary democratic systems, whether parliamentary or presidential. The Athenian conviction that policy (especially when codified in law: *nomos*) and public practice (the process of lawmaking; *nomothesia*) must benefit the community of citizens (*dēmos*) and democracy (*dēmokratia*) is neatly summed up by Eukrates' anti-tyranny law of 337/6 B.C. with its formulaic preamble describing the institutional practice by which the law came into being and its oft-reproduced relief sculpture depicting personified Demos being crowned by personified Demokratia; see discussion in Ober 1998, chapter 10; Blanshard 2004; Teegarden 2007.

and key innovations in the area of public knowledge management emerged, I will argue, from democratic institutions developed in classical Athens—the most successful and influential of all the thousand-plus Greek city-states. The distinctive Athenian approach to the aggregation, alignment, and codification of useful knowledge allowed Athenians to employ resources deftly by exploiting opportunities and learning from mistakes. The Athenians' capacity to make effective use of knowledge dispersed across a large and diverse population enabled democratic Athens to compete well against non-democratic rivals. Athens did not always employ its knowledge-based democratic advantage wisely or justly. Its misuse of state power caused great harm, at home and abroad. Yet, over time, the Greek city-state culture benefited from the diffusion of innovative Athenian political institutions.

Athens offers alternatives to the cloistered-experts approach to policy making, alternatives that are consistent with some of the best modern thinking on democracy and knowledge. This book suggests that John Adams (2000 [1765]) and Friedrich Hayek (1945) were right: liberty *does* demand “a general knowledge among the people,” and the use of knowledge “dispersed among many people” *is* “the central theoretical problem of all social science.” The second president of the United States and the 1974 Nobel laureate in economics each called attention to useful knowledge that is—and ought to be—distributed across all levels of society. Making good policy for a democratic community dedicated to liberty and social justice, whether in antiquity or today, requires a system for organizing what is known by many disparate people. By demonstrating the truth of Adams' startling claim that “the preservation of the means of knowledge among the lowest ranks is of more importance to the public than all the property of all the rich men in the country,” this book argues that democracy once was, and might again become, such a system.

A willingness, with Adams, to “let every sluice of knowledge be opened and set a-flowing,” matched with an ability to organize useful knowledge for learning and innovation, builds democracy's core capacity. When policy makers rely too heavily on like-minded experts, they blunt democracy's competitive edge. Hayek realized, as had Pericles before him, that access to social and technical knowledge, widely distributed among a diverse population, gives free societies a unique advantage against authoritarian rivals. The history of Athenian popular government shows that making good use of dispersed knowledge is the original source of democracy's strength. It remains our best hope for sustained democratic flourishing in a world in which adherents of fundamentalist systems of belief express violent hostility to diversity of thought and behavior and in which

new political hybrids, “managed democracy” and “authoritarian capitalism,” pose economic and military challenges.

Democratic societies, faced with rising authoritarian powers and non-state networks of true believers, may be tempted to imitate their challengers. Elected officials seek to counter emerging threats by centralizing executive power, establishing stricter lines of command, increasing government secrecy, and controlling public information. They mimic their enemies’ fervor by deploying the rhetoric of fear and fundamentalism. Citizens who allow their leaders to give in to these temptations risk losing their liberties along with the wellspring of their material flourishing. A liberal democracy can never match the command-and-control apparatus of authoritarians, nor can it equal the zeal of fanatics. The bad news offered here is that it is only by mobilizing knowledge that is widely dispersed across a genuinely diverse community that a free society can hope to outperform its rivals while remaining true to its values. The good news is that by putting knowledge to work, democracy can fulfill that hope.<sup>2</sup>

#### THEORY AND PRACTICE

Since the time of Aristotle, democracy, as a field of study, has invited the integration of value-centered political theory with the scientific analysis of political practices. Yet the project of uniting democratic theory and practice remains incomplete, and Adams’ urgent plea that we attend to the vital public role of knowledge has too often been ignored. Much academic work on democracy still tacitly accepts some version of Tocqueville’s early nineteenth century claim that “the absolute sovereignty of the will of the majority is the essence of democratic government.” While impressed by the vibrancy of American civil society, Tocqueville argued

<sup>2</sup> Elizabeth Anderson (2003 and 2006) offers a philosophical account of “epistemic democracy,” drawing upon Amartya Sen, Friedrich Hayek, and John Dewey, that is compatible with the portrait of Athenian deliberative/participatory democracy I develop here. Anderson emphasizes the positive value of dispersed knowledge and experimentalism. Anderson’s empirical cases are drawn from modernity, and she focuses in the first instance on the value of gender diversity. The lack of gender diversity in the Athenian citizenship is among the moral and practical flaws of the Athenian democracy; see further, below. The term “epistemic democracy” was coined by Joshua Cohen (1986) according to List and Goodin (2001). Page 2007 develops a formal model to show how epistemic diversity can improve problem solving. The approach I develop here seeks to extend work on epistemic diversity and democracy by showing how a democracy can use diverse knowledge to improve its organizational performance. This includes, but is not limited to, doing better at discovering truths about the world. Focusing on epistemic processes does not require slighting institutional and cultural factors; see Mokyr 2002: 285–87, and below.

that the “tyranny of the majority” promotes mediocrity (especially in military endeavors), legislative and administrative instability, and a general atmosphere of unpredictability.<sup>3</sup>

Working within the framework of democracy as majoritarianism, mid-twentieth-century social choice theorists updated Tocqueville’s concerns about democratic instability by identifying what appeared to be fatal flaws in the structure of democratic voting. Kenneth Arrow (1963, [1951]) demonstrated that the potential for voting cycles among factions rendered the stable aggregation of diverse preferences mathematically impossible. Anthony Downs (1957) showed that ignorance about political issues was a rational response among voters. The scientific rigor with which these findings were established seemed a devastating rebuttal to anyone offering more than “two cheers for democracy” (Forster 1951). In the last half-century, much of the best work on democratic politics has taken knowledge as a burdensome cost of participation, and has emphasized strategic bargaining among elites within the framework of an imperfect voting rule. While acknowledging that there is no better alternative, political scientists offered little reason to regard democracy as anything better than a least-bad, in Churchill’s famous dictum, “the worst form of government except all those other forms that have been tried from time to time.”<sup>4</sup>

Meanwhile, contemporary political philosophers often regard democracy as a normative ideal. Democracy, they suggest, ought to be valued insofar as it furthers values of freedom, equality, and dignity along with practices of liberty as non-interference and non-domination, procedural fairness, and fair distribution of power and resources. Participatory forms of democracy ought to expand the scope for human flourishing through the exercise of individuals’ political capacity to associate with others in public decision making. Democratic commitment to deliberation requires decisions to be made by persuasive discourse and reciprocal reasoning, while democratic tolerance for political dissent allows critics to expose inconsistencies between core values and current practices. Democratic culture encourages civic virtue in the form of consistent and voluntary social cooperation, yet democratic government does not demand that its citizens or leaders be moral saints. Churchill was right to say that democracies are inherently imperfect, but a participatory and deliberative democracy is in principle self-correcting, and ought to become better over

<sup>3</sup> Tocqueville 2000 [1835]: I.227–31; quote 227. Tocqueville also had much to say in favor of local democratic associationalism; see further, chapter 4.

<sup>4</sup> Costs of gaining knowledge: Sowell 1980; R. Hardin 2002. Page 2007: 239–96 reviews and summarizes the literature on preference diversity and aggregation. Churchill quote: Hansard, November 11, 1947.

time. These desirable attributes should emerge from the logic of collective decision making, follow-through, and rule setting in a socially diverse community if its members treat one another as moral equals.<sup>5</sup>

Looking at democracy through a classical Athenian lens suggests how the normative “ought” can be more closely conjoined with the descriptive “is.” Participatory and deliberative government, dedicated to and constrained by moral values, can be grounded in choices made by interdependent and rational individuals—people who are concerned (although not uniquely) with their own welfare and aware that it depends (although not entirely) on others’ behavior. Bringing normative political theory together with the philosophy of joint action and the political science of rational choice creates space for conceptual advances in democratic theory and social epistemology: it leads to defining democracy as the capacity of a public to do things (rather than simply as majority rule), to focusing on the relationship between innovation and learning (not just bargaining and voting), and to designing institutions to aggregate useful knowledge (not merely preferences or interests).

The potential payoff is great. Insofar as it promotes better values and better outcomes, a participatory and deliberative democracy is rightly favored over all other forms of political organization. Yet before embracing participation and deliberation, we must answer a practical question: Do good values cost too much in fiercely competitive environments? Given that participation and deliberation are inherently costly processes, can government *by* the people (as well as of and for them) compete militarily and economically with managed democracy, authoritarian capitalism, statelike networks, and other modern hybrids? Is democracy equal to the challenges of the future—climate change, natural resource depletion, demographic shifts, and epidemic disease?

Few democratic citizens, ancient or modern, would willingly tolerate the elimination of democracy as such. But by the same token, they expect their states to compete effectively with rivals and to address urgent issues of the day.<sup>6</sup> Do the imperatives to seek competitive advantage and to solve global-scale problems mean that democratic states will best preserve their values by turning over government to a managerial elite of experts? That question was engaged in the mid-twentieth century, when democracy’s

<sup>5</sup> The foundations for the sketch of democratic theory offered above can be found in Dewey 1954; Rawls 1971, 1996; Pettit 1997; J. Cohen 1996; Gutmann and Thompson 2004; Ober 2007b.

<sup>6</sup> Competition among communities (at various levels) may be for (1) military advantage, economic stature, and international prestige; (2) the services of talented and mobile people; (3) the dissemination of cultural forms—including values, ideas, practices, and modes of expression. My thanks to Rob Fleck for help in clarifying these three types of competition.

rivals were fascist and communist regimes: Joseph Schumpeter (1947) and Walter Lippmann (1956), among others, advocated a managed system of “democratic elitism,” while John Dewey (1954), whose commitment to knowledge mirrored Adams’, argued that an experimental and fallible democratic public could overcome its own problems.<sup>7</sup> The collapse of the Soviet bloc in 1989 reanimated scholarly interest in the deeper roots of the “democratic advantage”; in the early twenty-first century the relationship of democracy to outcomes remains an issue for policy makers and a problem in democratic theory.<sup>8</sup> The question of the relationship between democracy and performance becomes even more trenchant when we look beyond the nation-state, to local governments and to non-governmental organizations. While democracy may have become a universal value (Sen 1999), it remains a rarity, even as an aspiration, within the organizations in which most of us spend most of our working lives (Manville and Ober 2003).

By assessing the relationship between economic and military performance, public institutions, knowledge, and choice, this book argues that democracy can best compete with authoritarian rivals and meet the challenges of the future by strengthening government by the people. If, in practice as in theory, democracy best aligns rational political choices with moral choices, and if that alignment promotes outstanding performance, then democracy could fairly claim to be the best possible form of government. In that case, choosing democracy would mean much more than settling for a least-bad—it would express an informed and justifiable preference for a political system that promotes valued ends, including (but not only) liberty, justice, and sustainable material prosperity, and is rightly desired as a valuable end-in-itself.<sup>9</sup>

#### RATIONAL CHOICE AND JOINT ACTION

My thesis, that democracy can align political choices with moral choices to produce outstanding results, rests on a set of arguments about knowledge, institutions, and state performance. The following chapters offer a

<sup>7</sup> On Dewey and his intellectual rivals on the topic of democracy, see further Westbrook 1991; Ryan 1995.

<sup>8</sup> “Democratic advantage”: Schultz and Weingast 2003; cf. Stasavage 2003. See below, note 18.

<sup>9</sup> Although it does not employ formal economic models, this book’s ambition of explaining complex historical developments by reference to social-scientific theories of choice and collective action is similar to that of Bates et al. 1998 (see especially Introduction); Rodrik 2003; and Greif 2006. By the same token, it is intended only as a partial explanation. For a fuller explanation of how Athenian democracy worked, this book may be read in

historical case study of democratic practice, grounded in an extensive body of empirical evidence and informed by both normative (value-centered) and positive (causal explanation-centered) political theory. It describes how, in ancient Athens, government by the people enabled a large and socially diverse citizenship to find surprisingly good solutions to seemingly intractable social problems involving joint action and requiring shared value commitments. These problems arise whenever groups of self-interested and interdependent individuals seek to develop and carry out cooperative plans. Joint action problems confront all states—and indeed all other purposeful organizations, ancient and modern.<sup>10</sup>

Cooperation would be politically unproblematic if a group actually possessed a unitary general will of the sort Rousseau postulates in his *Social Contract* (2002 [1762]). But as Michael Bratman (1999: 93–161) argues, intentions are held by individuals: saying that “we intend” to do something means that our intentions are shared, but shared intention, unlike a general will, allows for substantial disagreement and competition. Bratman argues that joint action can be explained philosophically as a shared cooperative activity among individuals. In order to act jointly, individuals must not only share certain intentions, they must mesh certain of their subplans, manifest at least minimal cooperative stability, and possess relevant common knowledge. Philip Pettit and Christian List (in progress), drawing on Bratman’s reductively individualistic argument, suggest that joint action requires four basic steps:

1. The members of a group each intend that they together promote a certain goal.
2. They each intend to do their assigned part in a salient plan for achieving that goal.
3. They each form these intentions at least partly on the basis of believing that the others have formed similar intentions.
4. This is all a matter of common knowledge, with each believing that the first three conditions are met, each believing that others believe this, and so on.

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conjunction with the analysis of rhetoric and power in Ober 1989 and the intellectual history of dissent in Ober 1998. See below, this chapter.

<sup>10</sup> The general problem of joint action, which underlies all economic and political behavior, engages the philosophy of action, philosophy of mind, and moral psychology. Here I adopt the frame developed by Philip Pettit and Christian List (in progress), who draw upon (inter alia) Bratman 1999 and 2004, Pettit 2002, and Pettit and Schweikard 2006. The primary difference between my work and that of Pettit and List is one of emphasis: they are concerned in the first instance with voting procedures for aggregating group judgments in situations in which there is a presumptive right answer (e.g., jury trials), whereas I focus on procedures for aggregating social and technical knowledge for setting public agendas and making public policy.

In a democracy lacking both command-and-control governmental apparatus and an “all the way down” political ideology, it is initially difficult to see how free and equal individuals would be able to form such compatible intentions, would come to share beliefs about others’ intentions, or could gain common knowledge. Yet the Athenians must have done so. As we will see, democratic Athens featured highly participatory and deliberative institutions, formulated and carried out complex plans, and was, by various measures, a leading Greek city-state for most of its 180-year history as an independent democracy. Explaining democratic joint action in classical Athens will require conjoining cultural, historical, and social-scientific approaches to explaining why and how people come to act in certain ways under certain conditions.<sup>11</sup>

Institutions, understood as *action-guiding rules*, are an important part of the story. Institutional rules might, under some imaginable circumstances, become so strongly action-guiding as to determine people’s choices. At this point, social structure overwhelms individual agency; autonomy (understood as free choice) disappears along with the possibility of endogenous change. Yet even in the most rule-bound situations of the real world, agency persists; in a democracy, autonomy is positively valued and individual choices remain fundamental. Choices are always affected, but never fully determined, by the rules governing formal institutions (notably, for our purposes, legislative, judicial, and executive bodies), as well as by ideology, and by cultural norms. Meanwhile, institutions are recursively brought into being, sustained, revised, or discarded by the choices made by individuals.<sup>12</sup>

Joint action in the real world is easier to understand when it is predicated on hierarchy, in which the rules are strong and unambiguous. When an authoritative command is issued by an empowered individual, each of

<sup>11</sup> Morris and Manning 2005 lay out the methodological issues involved with the kind of study that is attempted here.

<sup>12</sup> Recursive relationship between choice-making agents and social structure: Giddens 1979, 1990: esp. 28–32, 184–86 (autonomy in democracy), 1992. The relationship between structure and agency is central to several fields and the subject of much debate. See, for example, Leifer 1988 (sociology: social roles and local action); Baumol 1993: esp. 30–32, 40–41; North 2005 (economics: rules of the game change over time, in response to changed intentions arising from social learning); Orlikowsky 2002 (organizational theory: knowledge is both capability and expressed in practice); Wolin 1994 (political theory: solidification of structure corrupts agent-centered democracy); Sewell 1996 (historical anthropology: events affect social structure); Pettit 2002 (philosophy of action: rule following is response dependent). Avner Greif (2006) emphasizes the necessity of focusing on individual agency in order to understand institutions (pp. 3–14) and offers an expansive definition of institutions, which includes ideology and culture. Here I focus more narrowly on formal institutions, because I have treated ideological and cultural questions in detail elsewhere. On the relationship between the study of institutions, ideology, and critique, see further, below, this chapter.

the multiple recipients of that command has certain ends set for him or her. If all have, and believe that others have, a prior intention to obey commands issued by the empowered individual, and if the order is publicly communicated and so a matter of common knowledge, each of Pettit and List's conditions may be adequately met. Yet the problem of joint action does not disappear because individual agency is never reduced to zero. Those who are under orders ought not be regarded simply as passive instruments of another's will, as they are, for example, in Taylorist management theory.<sup>13</sup>

To move from an order to a shared intention among its multiple recipients, and to shared belief about others' intentions, the command must be taken by each of those commanded as having effective force. In the terms of J. L. Austin's (1975 [1962]) theory of speech acts, it must be performed felicitously: it must be "taken up" such that a new social fact (people under orders) is brought into being. If that felicity condition is met, at least some of the group-agency difficulties regarding intention, belief, and commonality that come to the fore when thinking about *democratic* joint action drop away. Some version of this line of thought undergirds the claim by twentieth-century social theorists (e.g., Michels 1962 [1911]; Williamson 1975, 1985: see below) that large-scale participatory democratic organizations must inevitably be defeated by more hierarchical rivals. Yet even the most authoritative speech acts are liable to subversive misperformance; like other sorts of rules, the social rules governing felicity in speech are liable to interpretation and emendation.<sup>14</sup>

Three problems involving public goods and joint action will recur in our investigation of Athenian democratic institutions: collective action, coordination, and common pool resources.<sup>15</sup> Although, as we will see, these three problems overlap in actual social practice, each has somewhat different formal properties and different implications for politics. Each concerns certain difficulties that social groups experience in fully reaping

<sup>13</sup> Taylorism (on which see Rothschild 1973, and chapter 3) ignores the problem that order givers ("principals") and order takers ("agents") are differently motivated—the "principal/agent problem" lies at the heart of discussions of organizational management; see Roberts 2004, and chapter 3.

<sup>14</sup> I discussed the application of Austin's speech-act theory to political action (and especially Athenian democracy) in Ober 1998, chapter 1. See, further, Petrey 1988, 1990; Ma 2000. Misperformance: Butler 1997; Ober 2004. On the distinction between social facts that may be brought about by speech acts and "brute" facts of nature that cannot, see Searle 1995.

<sup>15</sup> The terminology for what I will be calling "public-action problems," deriving from game theory, is employed variously by different scholars. "Collective action" may be (as here) restricted to free-rider problems; it is sometimes used to describe a wider range of social choices modeled by non-cooperative games, or in reference to both non-cooperative and cooperative games. For a review of the field, see Mueller 2003.

the benefits of cooperation. Difficulties arise for two reasons: First, individuals rationally interested in their own welfare do not necessarily answer “yes” when they ask themselves, “Is it reasonable for me to cooperate with others?” Second, even when the answer would be “yes, so long as they cooperate with me,” people may lack the relevant knowledge of others’ intentions (i.e., the answer to the question, “Is it reasonable for them to cooperate with me?”), and so the chance for productive cooperation is lost. Contemporary theories of rational choice making assume that we ordinarily answer self-queries about cooperation by reference to incentives (“Given our goals, has each of us been given an adequate reason to cooperate?”) rather than from motives of altruism (“Do we have reason to believe that our cooperation would enable others to achieve their goals?”).<sup>16</sup>

The self-interest-centered rational choice model discounts other-regarding benevolence as an independent motivation. Yet it is essential to keep in mind that the perfectly rational actor is a convenient methodological fiction: an over-simplification of human psychology that gains analytic power by reduction—by stripping away, as analytically irrelevant, many complexities of real-world human motivation. Moreover, to the extent that she empathetically experiences others’ pleasures and pains as her own, the good of others may be a positive incentive even for a perfectly rational individual. Here, I adopt a fairly parsimonious (non-altruistic) approach to rationality in order to sharpen the analytic problem presented by democratic joint action. I do not, however, assume

<sup>16</sup> On collective action problems as a product of rational choice, see Olson 1965 and R. Hardin 1982. On common pool resources, see G. Hardin 1968 and the essays collected in Ostrom et al. 2002. On coordination, see Chwe 2001; democracy as a coordination problem among citizens: Weingast 1997. Rational choice theory assumes that a rational actor is motivated by “expected utility” rather than altruism and is centrally concerned with the problem of defection (or free-riding) from cooperative agreements. Utility is the sum of an agent’s preferences, which may include a preference for public policies that are not in his or her narrow self-interest. The question of how rationality is *bounded* by cultural or ethical norms, or by cognitive constraints (H. Simon 1955), is a key problem for choice theorists. Ferejohn 1991 underlines the necessity of conjoining rational choice with cultural interpretation, both because values and utility are influenced by culture and in order to limit the range of equilibria possible in repeated games. In brief, while I suppose that each Athenian’s rationality was bounded by cultural and ethical norms, I also suppose that we must seek to understand the behavior of collectivities like classical Athens in terms of choices made by individuals who willingly cooperate with one another only if they believe that doing so has a reasonable chance of fulfilling their own aspirations. Rational choice can aid in historical explanation when it focuses attention on how complex systems emerge from and are sustained by individual choices. But historians must not confuse automata or “model actors” with actual human agents, whose motivations and cognitive capacities are much more complex; cf. the critiques of choice theory by Green and Shapiro 1994; Gaddis 2002; Mackie 2003; Mueller 2003: 657–70 (literature review).

that robust egoism is or ought to be an adequate basis for anyone's moral psychology.<sup>17</sup>

The first of our three problems involving joint action concerns *collective action*. The problem arises because, although a substantially better collective outcome would emerge from mutual cooperation, it is rational for each individual to defect (i.e., act in narrow self-interest) rather than to cooperate. Collective action is modeled in game theory by the "Prisoners' Dilemma," in which two prisoners end up serving long sentences as a result of their rational unwillingness to cooperate with each other in a course of action (refusing to reveal information to the authorities) that would gain short sentences for each. Neither prisoner is willing to risk the "sucker's payoff"—that is, the cooperator receives a very long sentence while the defector goes free—that he would receive by cooperating while his partner defected.

The second problem is one of *coordination*. It differs from the first type in that there is no sucker's payoff: people have good reason to want to cooperate, but they may have difficulty in doing so. In the coordination problem, there is no payoff to anyone without general cooperation in a course of action. The choice is between two (or more) different cooperative equilibria. If either equilibrium is equally good (for example, if we all drive on either the left or the right side of the road), no deep political problem emerges. The problem arises when many prefer a cooperative equilibrium different from the current one but remain ignorant of others' preferences and intentions. This can be exemplified by the "despised but stable dictatorship." Most of the dictator's subjects would be willing to assume some personal risk to get rid of the dictator, but the action threshold for each remains too high until and unless each potential actor has good reason to believe that others will act in concert with her. Because each lacks that good reason, due to an absence of common knowledge regarding preferences and intentions, all stay quiet and the dictator remains in power.

The third problem, which returns to reasons people have for not cooperating, concerns *common pool resources*. Here the problem arises because it is rational for each individual in a group to cheat on agreements regulating use of shared resources by taking more than his or her share. The eventual result, a general degradation of the resource, is often referred

<sup>17</sup> The moral psychology of reason, empathy, and altruism is a field that engages political theory, psychology, and economics as well as moral philosophy; see, recently, Frank 1988; Mansbridge 1990; Sen 1993; Elster 1999; Nussbaum 2001, 2006; Gintis et al. 2004; Pettit 2002:167–69, 222–44; Haidt 2006. Defense of robust egoism, on Aristotelian grounds: T. Smith 2006. Bad social consequences attendant upon reducing all value to economically measurable forms: D. Smith 2004.

to as the “tragedy of the commons.” It is modeled by a pasture commonly owned by a group of shepherds. They know how many sheep can be sustainably grazed on the pasture, so by mutual agreement each is permitted to graze only a certain number of sheep. Yet each shepherd has a high incentive to cheat by grazing an extra sheep. It is rational for him to do so because, in the short run, he receives a much higher return for his extra sheep than he loses from the marginal bad effects of introducing one sheep more than the grazing ground can sustainably support. But since all have the same incentive, the pasture is soon badly overgrazed and therefore the commonly owned resource is ruined. Readers unfamiliar with these sorts of “rational choosing and acting” problems will find further discussion of them in chapters 3–6.

In the following pages I refer to the joint action problems of collective action, coordination, and common pool resources as *public action problems*, because my concern is with democracy. In its original Greek form (*dēmokratia*), democracy meant that “the capacity to act in order to effect change” (*kratos*) lay with a public (*dēmos*) composed of many choice-making individuals (Ober 2006a). While problems involving joint action are endemic to organized human communities, political solutions to those problems, that is, ways of generating and sustaining cooperation, are various. Solutions may be better or worse when judged in moral terms and economically more or less efficient. I seek to show how distinctively democratic solutions to public action problems can be economically efficient while remaining morally preferable to despotic or oligarchic alternatives. Here, the emphasis is on efficiency—on the argument that robust forms of participatory democracy need not be traded off for competitiveness. The ultimate reason for preferring democracy is, however, because it is morally preferable: more liberal in the sense of better promoting individual liberty, dignity, and social justice, and, by offering people a richer opportunity to associate in public decisions, more supportive of the expression of constitutive human capacities (Ober 2007b).

#### PREMISES AND PROBLEM

The following paragraphs set out the book’s major premises regarding human nature, competition, culture, and power, along with the hypothesis that my argument seeks to test.

Humans are highly sociable (group-forming and interdependent), fairly rational (expected utility optimizing and strategic), and extremely communicative (language-using and symbol-interpreting) animals. As such, we live in communities in which we create meaning for ourselves and

others through social interaction; in which we pursue interests based in part on our expectations of others' actions; and in which we exchange goods of various kinds, including ideas and information.<sup>18</sup> The sum of the choices made by individuals living in (and otherwise involved with) a viable community defines a self-reinforcing social-economic equilibrium. A given equilibrium may be relatively more or less cooperative, relatively adaptive or relatively inflexible. Because social cooperation produces economic value (as well as being valuable in non-material ways), more cooperative and (in changing environments) more dynamically adaptive equilibria perform relatively well in economic terms. Less cooperative and inflexible equilibria perform poorly. An equilibrium may be judged *robust* if it is capable of maintaining coherence in the face of substantial environmental changes.<sup>19</sup>

Communities (including states) exist in multicommodity ecologies in which they compete with one another for scarce resources, even as they cooperate by exchanging goods and services and in other ways. In more competitive environments, a given community must gain greater economic benefits from social cooperation or suffer the consequences of its failure. Because of persistent intercommunity competition there is constant, more or less intense, pressure for each community to achieve a higher-performing equilibrium. Competitive pressure rewards strong forms of state organization and drives out weaker ones (Waltz 1979). We might, therefore, expect states that gain and hold leading positions in highly competitive ecologies like the ancient Greek world (chapter 3), to

<sup>18</sup> Meaning-seeking is a necessary part of any full-featured account of human social life; this has been the focus of much of my earlier work on Athens and democracy (see especially Ober 2005b), but meaning-seeking, as such, is not my main concern here.

<sup>19</sup> In game theory a "Nash perfect equilibrium" is reached when no actor with full knowledge of costs and payoffs has any better (higher individual payoff) move to make. But it is important to keep in mind that when applied to actual societies, the self-reinforcing equilibrium is another convenient fiction: an ideal type of perfect stability unattainable in the real world. Moreover, in a perfect equilibrium there is no endogenous impulse to change (cf. critical comments of D. Cohen 1995, esp. 12), and the sort of democracy I seek to explain is dynamic—that is, it contains within itself the tendency to innovation and melioration. Finally, the so-called Folk Theorem in game theory demonstrates that in multiplayer repeated games (the relevant category for historical case studies of political communities), there is an infinite number of possible equilibria, which vary widely in their capacity to capture the potential gains arising from cooperation (i.e., to "Pareto optimize"). Real-world social equilibria remain imperfect, but some imperfect equilibria are better (offer higher aggregate payoffs) than others. On the theory of multiple-party repeated games, and the multiplicity of possible better (higher aggregate payoff) and worse equilibria, see Binmore 1994, 1998: esp. 293–398. The question of *social justice* concerns how the goods that result from cooperation ought to be distributed (notably, Rawls 1971). On this moral question, game theory is silent.

be better than their less successful rivals at coordination, at avoiding deadly commons tragedies, and at addressing collective-action problems in effective ways—for example by increasing the credibility of commitments, lowering transaction costs, and reducing the incidence of free-riding. Historically, more successful Greek *poleis* ought, in short, to have been better organized.

Competition under changing environmental conditions rewards innovation and punishes rigid path dependency, that is, collectively sticking to a given way of doing things over time, despite its declining efficiency. On the other hand, competition among states can lead to imitation of valuable innovations and enhanced potential for interstate cooperation. Because stronger states may dominate weaker states, coerced cooperation and cultural convergence can be produced by power inequalities. Interstate cooperation and emulation may also, however, be voluntary and based on a recognition of compatible interests and advantages. In either case, shared cultural norms and interstate institutions can extend across an ecology of states, potentially enabling a culture as a whole to better compete against—and in turn to cooperate with, to emulate, and to be emulated by—other cultures. The era of the Greco-Persian Wars of the fifth century and the pre- and postwar history of Aegean/western Asian interaction exemplifies this interactive process.<sup>20</sup>

If carried to its logical end, imitation and convergence might eliminate cultural diversity altogether. Yet no state or culture has yet achieved a performance advantage great enough to drive all rivals into extinction or slavish emulation. Public action problems have been addressed in quite different ways in different communities over the course of human history; the historical record offers a rich and still largely unexplored repository of more and less successful experiments in public action.<sup>21</sup>

Within a given community, culture and ideology serve (inter alia) as instruments by which individuals are persuaded to make more cooperative choices than they would make in a game-theoretic “state of nature.”<sup>22</sup>

<sup>20</sup> For cooperation among poleis, see Mackil 2004; Mackil and van Alfen 2006. On states as “societal cultures” embracing a variety of subcultures and existing within an “umbrella culture” that extends across an ecology of states, see Ober 2005b, chapter 4. On emulation after the Persian Wars, see M. Miller 1997.

<sup>21</sup> Greif 2006 is an example of how much can be learned by looking in detail at a historical case study of public action.

<sup>22</sup> The problem of how to move rational actors from an uncooperative and undesirable state of nature to a collectively advantageous cooperative situation *without* invoking ideology or culture is the central problem of contractarian political theory, as exemplified by Hobbes’ *Leviathan* of 1660, Rousseau’s *Social Contract* of 1762, and Rawls’ *Theory of Justice* of 1971; the tradition is critically surveyed in Nussbaum 2006, chapter 1.

Cultural persuasion may take a hard form by making a given set of choices appear inevitable, or a soft form by making certain choices appear more desirable or morally preferable than known alternatives. Because of the ideological work done by culture, neither utility nor the social information on which expectations about utility are developed can simply be taken for granted. One important effect of culture is to help to shape individuals' conceptions of utility and to filter social information regarding how utility is best achieved.<sup>23</sup>

Power, in this intracommunity context, should be understood as including (although not as limited to) direct or indirect control over how the additional outputs of goods and services that are generated through social cooperation are managed (e.g., through democratic choice or authoritarian command), how those outputs are distributed, and how they are deployed in ongoing competitions with rival communities and to address other problems. States, like firms and other purposeful organizations, are integrated systems in which control of cooperation-derived surplus is organized, held (or lost), and wielded by certain individual and institutional actors.<sup>24</sup>

Democracy, then, is a sociopolitical system featuring relatively soft forms of cultural persuasion, thereby offering individuals a broad range of choices and relatively full social information. Power in a democracy is not monopolized by an individual or a small elite nor is it exercised uniquely within formal institutions. The question of how the benefits of social cooperation are to be managed, distributed, and deployed must be negotiated (e.g., through deliberative decision making or voting) among relatively large and diverse groups of citizens, rather than being mandated by a small and exclusive leadership elite. In a competitive ecology, a state organized as a democracy must find ways to compete with more hierarchical and hard-ideology rivals. Hierarchical rivals appear to enjoy substantial advantages in respect to the employment of culture for addressing incentive problems. Democracies seem, on the face of it, particularly vul-

<sup>23</sup> For further discussion on democracy and culture, see Ober 2005b. It is important to keep in mind that a person's culture (in the sense I am using it here) is never unitary or homogeneous, in that no given individual is the product of a single culture. In addition to what we might think of as a primary (e.g., national) culture, all individuals are members of multiple subcultures, and primary cultures are in turn related to overarching "umbrella cultures."

<sup>24</sup> I concluded Ober 1989 by suggesting that in Athens, democracy meant that the power to assign meanings to symbols was retained by the people. This is an example of an indirect, but extremely important, form of power that had very substantial effects on distribution and employment of resources. See further, Ober 1996, chapter 7. Power and political institutions in the framework of rational choice: Moe 2005.

nerable to free riders, hard-put to make their commitments credible, confused about the relationship between decision-making principals and the agents assigned to carrying out orders, and insufficiently attentive to expert judgment.<sup>25</sup>

Based on the premises sketched out in the preceding paragraphs, one might suppose that, all other things being equal, democracies would perform relatively poorly in competitive environments. And yet, while some contemporary democratic states do underperform, others do very well indeed. As we shall see, there is good reason to believe that some ancient Greek democracies fared less well than some of their more hierarchical rivals. Yet in antiquity, as in modernity, certain democracies performed extremely well; classical Athens is a case in point—it was the preeminent Greek city-state on a variety of measures (chapter 2). The problem this book seeks to answer is why and how democratic Athens came to perform so comparatively well.

Because democracy is morally preferable to its alternatives, specifying the conditions under which democracies do well is a matter of great importance. The problem of democratic flourishing has attracted substantial attention from economists and political scientists, but there is as yet no clear consensus about *why* high-performing democracies do extraordinarily well. Comparative historical cases of high-performing democracies are valuable in that they enable us to test theories about the relationship between social choice, culture, and power by analyzing specific institutions under different conditions. The competitive world of the ancient Greek city-states is a particularly good laboratory in that it allows us to hold constant a variety of exogenous environmental and cultural factors that complicate attempts to gauge democracy's role in the flourishing of modern nations.<sup>26</sup>

This book contributes to the literature on democracy and performance in two ways. First, it analyzes the working of the institutions of an ancient state that has received sustained attention from historians since the mid-nineteenth century, but remains understudied by contemporary social scientists.<sup>27</sup> Next, it seeks to show how certain institutions that promoted

<sup>25</sup> Military discipline problems: Wallace 2005; inattentive to experts: Cary 1927/28. Democratic disadvantages arising from the costs of participation (the other side of the “democratic advantage” discussed by Schultz and Weingast 2003): below, this chapter.

<sup>26</sup> Comparative democratic performance on various success measures (especially economic and military): Putnam 1993; Sen 1999; Barro 1996; Rodrik 1999, 2000a, 2000b, 2003; Przeworski 2000; Tavares and Wacziarg 2001; Reiter and Stam 2002; Schultz and Weingast 2003; Rodrik and Wacziarg 2005; Friedman 2005: 327–45; Acemoglu and Robinson 2006.

<sup>27</sup> Recent and notable exceptions to the relative neglect of Greek antiquity by social scientists include North 1981: 102–7; Lyttkens 1992, 1994, 1997, 2006; Schwartzberg 2004;

the state's economic success also fostered a vibrant civic culture and (in certain spheres) admirable social arrangements. There are, of course, limits to our admiration for any society that exploited the labor of slaves, excluded women from political participation, and used violence and the threat of violence to extract resources from unwilling subjects—as did classical Athens. But those fundamental moral failings, which were common to other Greek city-states, should not foreclose attempts to understand aspects of Athenian social life that promoted procedural and distributive justice and expanded the scope of individual liberty and human flourishing.

My hypothesis (which is stated more formally at the end of this chapter) is that in classical Athens, superior economic and military performance was, at least in part, a product of democratic institutions and civic culture. Democracy, ancient and modern, is associated with an array of economically beneficial institutions, notably those committing governments to protecting rights in respect to property, citizenship, and legal processes. These commitment features have been the primary focus of recent social-scientific studies attempting to explain the “democratic advantage.” Commitment features of various kinds were common to a number of Greek republics, oligarchies and democracies alike, and can certainly help to explain both Athenian flourishing and the overall flourishing of the Greek city-state ecology. But our special concern here is with Athenian exceptionalism within the city-state ecology. I therefore focus primarily on the *epistemic function* of democratic institutions, positing that exceptional Athenian performance is best explained by what Friedrich A. Hayek (1945) called “the use of knowledge in society.”

In arguing against centralized economic planning by a small body of experts, Hayek pointed out that “the practical problem [of promoting economic rationality] arises precisely because [the relevant] facts are never so given to a single mind, and because, in consequence, it is necessary that in the solution of the problem knowledge should be used that is dispersed among many people” (1945: 530). Hayek emphasized that the knowledge with which he is concerned is not reducible to scientific knowledge (in which expertise is the key issue); he pointedly included unique information about particular circumstances in his definition. Useful knowledge in Hayek's sense is possessed not only by experts, but by “practically every individual” (1945: 521). Hayek focused on microeconomics, and thus on price, as immediately communicated social information about changes in supply and demand. He argued, however, that “the problem [of dispersed

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Fleck and Hanssen 2006; Kaiser 2007; Karayiannis and Hatzis 2007. Contemporary neglect of classical antiquity is ironic in light of the interests of the founders of social science, including Marx and Engels, Weber, and Durkheim.

knowledge] which we meet here is by no means peculiar to economics but arises in connection with nearly all truly social phenomena . . . and constitutes really the central theoretical problem of all social science” (1945: 528).<sup>28</sup>

Politics differs from economics in that there is no neat analog to the price mechanism for seamlessly converting a mass of dispersed information into a single instantly communicable solution.<sup>29</sup> But Hayek’s insistence that widely dispersed social knowledge inevitably escapes and defeats the best attempts at central planning by small groups of experts is germane to the question of why a democracy might compete well against hierarchical governments. I will argue that participatory democracy has the potential to behave more like a market and less like a central planning board in respect to useful knowledge. Democracies in the Athenian style can gain competitive advantage by devising institutions that respond to change through knowledge in action.

By *knowledge in action* I mean making information available for socially productive purposes through individual choices made in the context of institutional processes, and involving both innovation and learning.<sup>30</sup> The key to successful democratic decision making is the integration of dispersed and latent technical knowledge with social knowledge and shared values. Athens achieved higher than otherwise-expected performance through better-than-usual information processing—by transforming raw data and unprocessed information into politically valuable knowledge.<sup>31</sup> That transformation was carried out through processes that aggregated, aligned, and codified knowledge while balancing the poten-

<sup>28</sup> Cf. Hayek 1937. On the value of Hayek’s insight about dispersed knowledge for understanding the social epistemology of democracy, see, further, Anderson 2006; Sunstein 2006: 118–45, 2007. On social epistemology, see Goldman 1999 and the articles published in the first three volumes (1–3: 2004–2006) of the journal *Episteme*.

<sup>29</sup> The outcome of occasional elections in a modern representative system of democracy is a poor analogy for the price mechanism; see below, chapter 3.

<sup>30</sup> While this definition borrows from philosophical pragmatism, it need not contradict the ordinary analytic definition of knowledge as “justified true belief.” It acknowledges the basic insight of social epistemology, that the quest for truth is strongly and inevitably influenced by institutional arrangements that affect what belief-holding human agents hear from and say to each other. See further discussion in Goldman 1999 (analytic social epistemology) and Rorty 1979 (pragmatic social epistemology).

<sup>31</sup> The terms “data,” “information,” and “knowledge” are variously defined by organizational theorists. Davenport and Prusak (1998: 1–6) suggest that data are facts about events, information is data that have been given relevance and purpose, and knowledge is a matrix of experience, values, insight, and contextual information that allows for the incorporation of new experiences and information. See also Dixon 2000: 13; Brown and Duguid 2000: 119–202; Page 2007, on problem solving and prediction through diverse perspectives, interpretations, heuristics, and predictive models; and below, chapter 3, on social, technical, latent, and tacit knowledge.

tially contradictory drives for *innovation* as generation of new solutions and *learning* as socialization in routines of proven value.

The organizational theorist James March and his collaborators have shown (through studies of how business firms are organized) that innovation and learning are potentially contradictory drives: social learning is valuable in that learning allows routinization and routinization increases returns to effort. But the capacity for innovation, which is essential for success in changing competitive environments, depends on people's socialization in established routines remaining incomplete. In volatile environments, too much learning can compromise competitive advantage, as can too little learning when conditions are more predictable.<sup>32</sup>

When the innovation/learning balance, whether in a firm or a state, is right, its productive capacity will be high, and robustly so. We may describe such a system as exhibiting *good organizational design*. It is important to note that “design,” as I use the term, need not imply a designer. A political system may be the product of unguided processes of experimental adaptation over time (on the analogy of the British “constitution”), or the product of formal planning (like the postwar West German or Japanese constitutions). Or it may be some combination of experimentation and formality (like the U.S. Constitution). In later chapters I will touch on, but not try to solve, the question of how much of the organizational design evidenced by the Athenian political system arose from a series of adaptive experiments, and how much can be attributed to an intelligently chosen top-down blueprint.<sup>33</sup>

Figure 1.1 presents a schematic and intentionally static model of the factors of knowledge at play in an ideal-type democracy. The burden of the following chapters will be to put these various factors into a dynamic relationship with one another—to bring the system to life by explaining its endogenous capacity for change. This will entail showing, first, why rational individuals would choose to share and exchange useful knowledge within particular institutional contexts. Next I must show how

<sup>32</sup> Levitt and March 1988, March 1991, pointing to the dangers of “competency traps” in which people learn an inferior process too well and thus fail to experiment with superior processes, “superstitious learning” arising from too much success or too much failure, the difficulty of accurately recording and routinizing what is known, and differing interpretations of history. See, further, Brown and Duguid 2000, 95–96; Chang and Harrington 2005; and chapter 3, below.

<sup>33</sup> Davies 2004 argues that ancient democracy was not the product of a formal theory, but a set of responses to particular situations and crises. Pettit 2002: 170–72, 245–56, discusses the issue of explaining how effective social equilibria can emerge without a designer and in the absence of a quasi-biological selection mechanism. Non-political systems that emerge and flourish by a combination of formality and experimentation include the Internet and many of its products (especially “wiki’s”: Sunstein 2006). See, further, chapters 3 and 7.

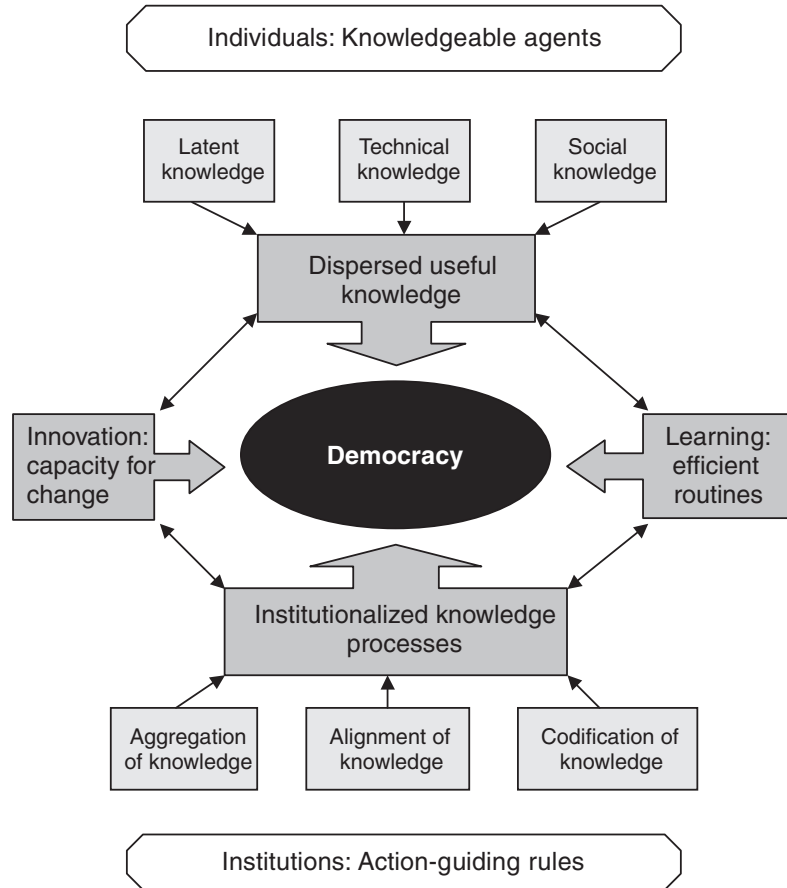


Figure 1.1. Democracy and knowledge. An ideal-type epistemic democracy incorporates individual agency and institutional structure. The knowledge possessed by individuals is organized by institutionalized processes. Social learning and on-going innovation are outcomes of agency and process, and inputs to democracy.

action-guiding institutions both promoted the development of social learning and stimulated innovation. Finally, I will need to explain how Athenian institutions avoided ossification while remaining predictable enough that ordinary people—concerned with the everyday business of devising, refining, and pursuing their individual and collective life-plans—would choose to invest substantial time in learning how those institutions worked and in “working the machine” of Athenian self-governance.

In Athens, with its effective democratic institutions and vibrant civic culture, superior organization of knowledge became a key differentiator that allowed the community to compete effectively against its rivals.

There is no reason to believe that Athens' democratic productivity was a unique result of an irreproducible set of historically contingent circumstances. Although scale differences between Athens and any modern nation-state render direct comparisons inappropriate, some Athenian democratic institutions are structurally similar enough, in relevant ways, to those found in modern organizations to allow certain conclusions about the Athenian case to be extrapolated to contemporary circumstances. Among this book's ambitions is to demonstrate the value for democratic theory of a focus on public action. I also hope to show the value of ancient history for social science and vice versa. Finally, I hope to help persuade political scientists and historians alike that there is much to be gained from closer attention to dispersed knowledge, innovation, and learning.

Classical Athens offers a particularly good case for studying democracy and economic performance. It is historically complete, featuring long and reasonably well documented predemocratic, democratic, and postdemocratic periods (chapter 2). The relatively well-integrated, Mediterranean-centered world of the ancient Greek poleis (Horden and Purcell 2000; Morris 2003) allows us to hold cultural and environmental variables constant, strengthening the argument for the endogeneity of democratic productivity—which is to say that increased state capacity is produced by democracy rather than by some external cause. The world of the poleis was characterized by intense interstate competition (as well as cooperation) and was not a “small pond.” Greece manifested remarkably strong overall demographic and economic growth over the course of the period in question (ca. 600–300 B.C.). Classical Greek standards of living and population densities are unusually high for premodern societies, and, in at least some geographic regions of the Greek world, appear to have approached modern levels (see, further, chapters 2, 3, and 7).

The need for effective public solutions to the problems of public action was acute in democratic Athens because of its relatively great size, the social diversity of its citizenry, and its culture of personal freedom and individual choice. As a society, Athens was sufficiently complex to make it interesting to students of the contemporary world—indeed, it is possible to speak without whimsy or paradox of ancient Athens as, in certain ways, “modern.”<sup>34</sup> Of course, one need not be a political theorist, ancient historian, or social scientist to regard the success of democratic Athens as an interesting puzzle. How could a system of policy making by open

<sup>34</sup> Harris 2002 rightly points to the wide range of technical specializations among Athenians involved in market exchanges and offers a preliminary catalog of some 170 Athenian occupation titles. *Modernity of Athens*: Ober 2006, using Anthony Giddens' (1990) definition of modernity.

discussions in public assemblies attended by hundreds, or thousands, of non-expert decision makers have contributed so much to “the glory that was Greece”?<sup>35</sup>

#### CAVEATS AND METHOD

No case study is perfect, and there are limits to what the Athenian case can tell us. I will attempt to demonstrate that innovative solutions to public-action problems helped the Greek city-state culture to flourish and enabled democratic Athens to become richer and more powerful (on the whole and over time) than its city-state rivals. Ian Morris, Geoffrey Kron, and others have collected evidence showing that in comparison with other premodern cultures, classical (ca. 500–320 B.C.) Greeks in general and classical Athenians in particular were remarkably well off on a per capita basis (notably in terms of nutrition and house size), and much better off than they had been in the preceding “dark age” (ca. 1150–750) and the archaic era (ca. 750–500).<sup>36</sup> It is not possible, however, given the state of our evidence, to track short-term changes in well-being or wealth or to measure differences in per capita wealth or income between poleis. I focus here on the comparative overall performance of communities, as an admittedly imperfect proxy for their general economic welfare. The terms “flourishing” and “capacity” will be employed as shorthand for a given polis’ actual and potential *economic and military performance when compared to rival poleis* and its *ability to accumulate resources, ensure security, and influence other states* in a competitive environment.<sup>37</sup>

<sup>35</sup> Of course the high culture that is typically associated with “the glory that was Greece” was not uniquely a product of democratic Athens (Boedeker and Raaflaub 1998; Robinson 2007), but to a remarkable extent classical Greek high culture was in fact produced by Athenians (both citizens and by foreign residents). Morris 2005b documents Athenian cultural dominance in the fifth century B.C. A growing body of work on musical performance (Wilson 2000; J. Shear 2003) suggests continued Athenian dominance, in at least some cultural areas, in the fourth century.

<sup>36</sup> Morris 2004, 2005a; cf. Kron 2005; Reden 2007a, table 15.1 (average heights of skeletons with breakout of data for late classical Athens). The post-classical period, in which Greek-speakers conquered and colonized parts of Asia and Egypt, appears to have continued high economic standards for some Aegean Greeks (notably the island-polis of Rhodes), although many parts of the Greek mainland saw steep declines in local rural economies after the fourth century. See Alcock 1993; Reger 1994; Gabrielsen 1997, 1999; Eich 2006. Prosperity continued in the imperial Roman era, but both economy and demography crashed in late antiquity; the sharp decline began in the third century. After a partial recovery, decline was precipitous after the sixth century: Scheidel 2004; Hitchner 2005; Jongman 2006.

<sup>37</sup> There is no way to measure gross domestic product for any Greek polis. A set of proxies for standard modern economic measures is described in chapter 2 and in the appendix.

Material well-being matters a lot, but it is far from the whole story. Prevailing in competition with rivals through superior economic and military performance was only one of the Athenians' goals in the era of democracy. Honoring the gods through appropriate rituals and preserving the freedom, equality, and dignity of citizens were regarded as vitally important ends. Economic and military performance may be regarded as a "satisficing condition," in that the necessity of achieving at least a minimum level of deployable wealth and power was a constraint on the resources and social energy that the Athenians—or the citizens of any other state in a competitive ecology—could afford to devote to achieving their other ends. There were some trade-offs, but pursuing the goals of higher performance and promoting other valued ends should not be regarded as zero-sum. The economic success of the state enabled temple building, numerous and splendid festivals, and other communal expressions of civic identity and religious feeling. Moreover, as I suggested above, social choices that promoted state performance were compatible with moral choices that preserved the goods of individual freedom, equality, and dignity for many (although certainly not all) Athenians.<sup>38</sup>

I will attempt to demonstrate, in the chapters that follow, that Athenian flourishing, especially in the post-imperial fourth century, rested less on rent seeking (that is, using power to extract remuneration beyond what a competitive market would provide) than on the development of Athens as a desirable and accessible center for exchange. Athens differed in important ways from premodern "natural states," which achieve a stable social, political, and economic equilibrium through strategic agreement by a small group of power holders to share rents with an exclusive body of specialists in violence. Natural states focus their economic activity on extracting rents and narrowly curtail access to legal rights and redress. By contrast, Athens flourished and thereby gained state capacity in part by creating conditions favorable to entry into institutions of exchange

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While the proxies I have employed are rough, they are adequate to make the basic point that Athens did better in a material sense, overall and over the course of the classical period, than any of its polis rivals.

<sup>38</sup> Treating material success as a satisficing condition is to regard Athens in the terms used by behavioral economists, who work in the tradition established by Herbert Simon to explain profit seeking in the business firm: see Simon 1976 [1947], 1955; Cyert and March 1963. Participation in religious ceremony and ritual was a significant aspect of the lives of most Athenians (as it was to other Greeks) and properly honoring the gods was an important function of the Athenian state (as it was of other poleis); see Garland 1992, Parker 1996, 2006; Munn 2006. While Athens had an exceptionally dense ritual calendar (see chapter 5), it requires excessive special pleading to claim either that discovering the will of the gods and acting accordingly was the *primary* purpose of the Athenian democracy (as does Bowden 2005) or, alternatively, that democratic Athens was unusually *lacking* in religious expression (Samons 2004).

and law by diverse categories of persons—to lower-class citizens and ultimately to some non-citizens. The development of Athens as a trade center was thus promoted by the same institutionalized practices that sustained its democratic values of procedural fairness and free access to political institutions. Focusing on knowledge in action clarifies the relationship between democracy, fairness, and access across political, legal, and economic domains.<sup>39</sup>

There were limits to Athenian fairness and openness in regard to entry. Athenians remained attached to practices that were morally indefensible and economically unproductive. Classical Athens never approached its threshold of optimal performance in part because the Athenians failed to promote political equality beyond the ranks of native males. Much dispersed and potentially useful social and technical knowledge remained publicly inaccessible because the Athenian male citizens refused to accept women as full participants in the participatory political order, were too slow to naturalize long-term residents as citizens, and remained committed to slaveholding. While the rules governing Athenian slaveholding suggest that Athenians recognized the fundamental injustice of slavery, they were unwilling to abandon slavery as a culturally acceptable form of rent seeking.<sup>40</sup> These failings must be weighed heavily when judging Athens as a moral community, and they arguably contributed to Athens' eclipse in the late fourth century by the national empire of Macedon. But, insofar as these failings were common to the Greek city-states, they did not degrade Athens' performance *relative to its polis rivals*.

The question remains: Did the costs of Athens' commitment to political participation have a deleterious effect on Athenian economic and military performance? While difficult to quantify, there were certainly substantial financial costs associated with bringing many people with a wide range of specific and general competence into positions of relatively great public

<sup>39</sup> Definition of rent seeking: Krueger 1973; literature review: Mueller 2003: 333–58. On pre-modern states and rent seeking, see North 1981. While retaining features of a “natural state,” Athens may be taken as an early and incomplete example of what North, Wallis, and Weingast (in progress) describe as the “open-access order”; see below, chapter 6.

<sup>40</sup> The question of the conditions under which slavery was economically efficient is vexed; J. Cohen 1997 reviews the evidence for the economics of slavery with reference to the social recognition of slavery's injustice and slavery as rent seeking. White 2006 argues that slavery should be regarded as rent seeking only if we assume universal self-ownership as the initial starting point. Greek practices of slavery do seem to assume this (Aristotle's peculiar doctrine of natural slavery is the exception; runaways were a persistent problem, and the motivation of the runaway was obvious to the Greeks). Greek slavery was therefore a form of rent seeking under the basic definition I am employing here, even though some specific examples of Athenian slavery (e.g., slaves engaged in banking), in which innovation and productivity were emphasized, do not fit the definition. Cf. the different approaches to the economics of ancient slavery and conclusions of Osborne 1995; Garlan 1995; Garnsey 1996; E. Cohen 2000; Scheidel 2005b; S. Morris and Papadopoulos 2005.

responsibility. The majority of Athenians who worked for a living could not afford to engage in public service without pay.<sup>41</sup> The cost of individual incompetence was sometimes high. I argue in detail, below, that these participatory costs were controlled by good institutional design, and that, over time, they were overbalanced by the knowledge gains that the Athenians reaped from participatory practices. Yet it is important to keep in mind that participation was in some ways costly, and that those costs did sometimes compromise short-term competitive advantage.<sup>42</sup> Along with financial costs and costly mistakes, there were certainly substantial losses of opportunity that resulted from Athens' open and participatory system of government. The high costs of doing democratic political business could have led to the general failure of the polis had Athens' social equilibrium not proved robust enough for Athens to be able to survive crises. The fact that there were crises that had to be survived points to the obvious fact that Athens was not consistently successful.

Moreover, although the Athenians liked to think of themselves as uniquely innovative and quick to take advantage of new opportunities, Athens was not in every sense unique in its own historical context. Overestimating their own capacities on the basis of overstating Athenian exceptionalism contributed to arrogance in the fifth century—and thus to bad public decisions. Although the Athenians sometimes spoke and acted as if their system were inimitable, Athens had no monopoly on good institutional design; some of this book's conclusions should help to explain the relative success of other classical and Hellenistic Greek poleis and non-polis collectivities—including the Macedonian kingdom that ultimately came to dominate the Greek poleis.

Successful institutional imitation by other states reduced Athens' performance advantage during the classical age, notably in the later stages of the Peloponnesian War and in the mid-fourth century, the era of the so-called Social War. In the Hellenistic period, public institutions and cultural practices first pioneered by democratic Athens were widely adopted by other poleis, especially in western Asia.<sup>43</sup> Imitation contrib-

<sup>41</sup> Burke 2005 surveys the history of democratic Athenian subsidization of the poor, through pay for public service and other means. M. H. Hansen 1999: 315–16, estimates the costs to the state of pay for public service. See below, chapter 6.

<sup>42</sup> Costs of participation: Dahl and Tufte 1973: 66–68. Williamson 1975: 46–54, includes decision-making inefficiency and failure to achieve economies of communication among the problems of participatory “peer group” governance, noting that “full group discussion . . . is time consuming and may yield little gain.” Furthermore, he suggests, the lack of effective command and control mechanisms leads to opportunistic exploitation of shared information and malingering. See also below, chapter 3.

<sup>43</sup> Obvious examples include drama, theater architecture, the “epigraphic habit,” and public decree formulas; see, for example, Hedrick 1999 and below, chapter 7. A full-scale historical treatment of the Hellenistic afterlife of Athenian-style institutions and political

uted to Athens' failure to retain its preeminence indefinitely. Yet by the same token, imitation of Athens almost certainly had an overall long-term positive effect on the Greek world. Although it is a difficult hypothesis to test, it seems likely that the vitality of the Greek polis as an organizational form, well into the periods of Macedonian and Roman rule, can be attributed in some part to the widespread and successful imitation of institutional solutions for public-action problems that were originally devised in Athens.

The Athenians' shortcomings—their moral failings, tendency to arrogance, mistakes of judgment, vulnerability to incompetence, and unwillingness to acknowledge their own limitations and imitability—are unlikely to be forgotten anytime soon. These issues have been repeatedly rehearsed since antiquity; the history of Athens must be reconstructed in large part from the literature written by its sternest ancient critics. The history of the Greek city-states has long been a matter of interest to political innovators, as a potential repository of valuable institutional forms. Yet many practice-oriented students of Greek history, including the American Founders, have been fearful of adopting Athenian-style participative and deliberative institutions. Their unease arose in part because Athens' historical record seemingly featured too many mistakes, which were attributed by critics to the ignorance of popular assemblies.<sup>44</sup>

Popular ignorance is a poor explanation for Athens' failings; Hayek's attention to dispersed knowledge suggests that elite ignorance is a more serious problem, because it is less often recognized. I will argue that the positive effect of democratic knowledge in action is what allowed Athens to survive its mistakes. By analyzing the function of democratic knowledge-based processes, this study aims to lower the perceived and actual risk of incorporating practices of participation and deliberation into contemporary systems of organizational governance.<sup>45</sup>

In arguing that the unusually robust and productive Athenian solution to the problems of public action depended on discovering effective means to organize what was known by a large community's diverse membership, I focus on three epistemic processes, each involving innovation and learning. First is *aggregation*, by which I mean the process of collecting the

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culture would add a good deal to our understanding of the post-classical polis. See, meanwhile, Rhodes and Lewis 1997, a collection of decrees of Greek states.

<sup>44</sup> Athens as a negative example: J. T. Roberts 1994. Athens was, however, a source of positive inspiration for J. S. Mill: Urbinati 2002.

<sup>45</sup> It is in this spirit that Manville and Ober 2003 was written, albeit for an audience of business practitioners. My debt to Brook Manville for all that follows in this book is profound; without his urging, advice, and example, I would not have become engaged in the set of problems addressed here.

right kinds of dispersed knowledge in a timely manner for purposes of decision making. The second process is *alignment*, enabling people who prefer similar outcomes to coordinate their actions by reference to shared values and a shared body of common knowledge. Third is *codification*, the process by which implemented decisions become action-guiding rules capable of influencing future social behavior and interpersonal exchanges.

Each of these epistemic processes has been studied in depth by social scientists, but most often in isolation from the other two. Thus, for example, the literature on knowledge aggregation (often focusing on deliberative practices) typically treats common knowledge and information cascades as decision-making pathologies. Yet, once a decision has been reached, common knowledge and cascading must come into play in order to enable non-hierarchical groups to move from decision to implementation. Likewise, the extensive literature on the role of rules in lowering transaction costs tends to slight the question of how rules come to be made and revised in democratic contexts. Because we are seeking to explain the role of knowledge in the performance of a democratic organization, we must keep in mind the overall epistemic situation and attempt to grasp the dynamic interaction among epistemic processes. The three processes are schematically illustrated in figure 1.2 and explained in greater detail in chapter 3.

Exploring why an ancient democracy can be said to have an active and in some ways even *modern* approach to the aggregation, alignment, and codification of knowledge helps to explain the historical puzzle of Athenian exceptionalism. The approach taken in the following chapters varies between the synchronic approach of treating “democratic Athens” as a single entity, and a diachronic approach that breaks the long history of Athens from the seventh through the second centuries B.C. into twelve distinct periods (see chapter 2). The question of “why did Athens stand out from its rivals?” is more pointed because democratic Athens did not succeed “once and for all” by mastering a single economic domain: Athens rebounded from a series of shocks by adapting to changed circumstances and succeeding in new domains of collective endeavor. A key part of the answer to the question of how classical Athens flourished over time will be that democratic institutions, originally established to address particular problems at a specific historical moment in the late sixth century B.C., proved highly adaptive over the next six human generations. Institutional innovations served to ensure that Athens’ capacity for solving public-action problems was preserved in the face of a changing environment. The net result was a sustained level of state wealth, power, and cultural influence—an outcome that could not have been fully anticipated by the democratic institutions’ original framers.

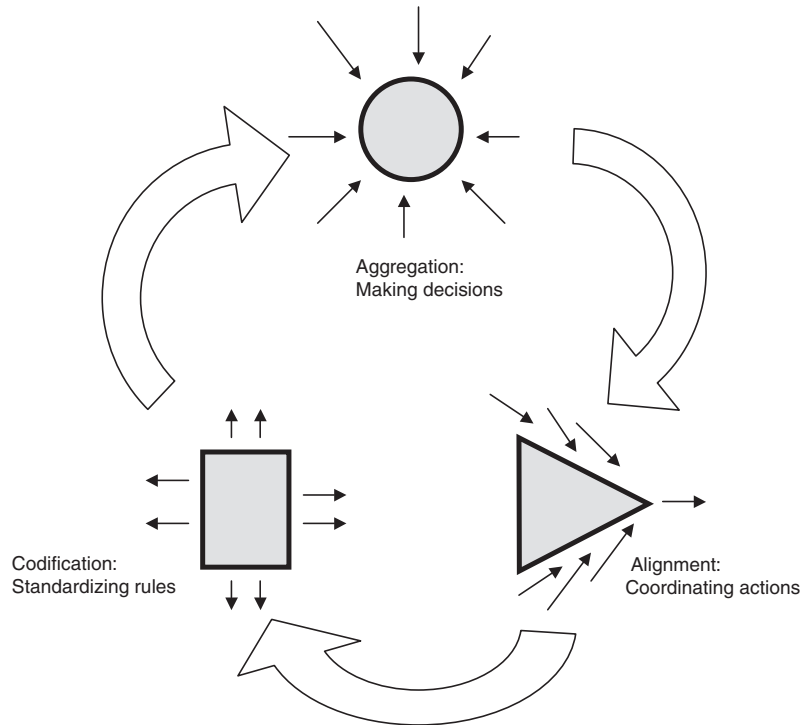


Figure 1.2. Schematic representation of epistemic processes (shapes) and knowledge flows (small arrows) in Athenian governmental institutions. The large arrows illustrate the dynamically recursive relationship among processes.

#### THE ARGUMENT AND ITS CONTEXTS

The following chapters employ a variety of methods for interpreting social behavior and public action. The deployment of well-tested theories for explaining the operation of social networks, the function of common knowledge, and the role of state institutions in lowering transaction costs can, I believe, help to reveal the wellsprings of Athens' record of accomplishment. The residents of ancient Greece had no comparable body of social theory to draw upon in explaining how and why democracy worked. Yet prominent ancient writers with direct experience of Athenian democratic practices have something to tell us about the relationship between democracy, knowledge, and action. Ancient Greek authors recognized incentive problems, and shrewdly perceived that democratic flourishing over time and in multiple domains was a product of institutionalized processes promoting cooperation, learning, and innova-

tion. Moreover, because ancient writers tend to view public action and knowledge within a moral framework, they point the way to an integration of history, positive theory, and normative theory.<sup>46</sup>

This introductory chapter sets out the book's central hypothesis about democracy, public action, and knowledge organization, and then situates that hypothesis in the broader interpretive framework in which this book came to be written. Chapter 2 treats the history of Athens as a twelve-era "multiperiod case study" and empirically demonstrates two propositions. First is that Athens was highly successful (in terms of its material flourishing over time) when compared with peer polities and rivals—that is to say, with other major Greek poleis. The second proposition is that democracy played a causal role in Athens' success. Chapter 3 introduces competition, scale, and the organization of knowledge. I argue that knowledge organization, in its relationship to public action, at scale and in a competitive environment, is a critical factor in explaining why Athenian democratic institutions proved to be productive in the ancient Greek context. The chapter defines the relevant kinds and processes of knowledge with which we will be concerned, and confronts the doubts raised by organizational theorists about the very possibility of democratic productivity.

Chapters 4–6 examine in detail the three knowledge processes (aggregation, alignment, and codification) identified in chapter 3 as especially relevant to productivity. Each of these three central chapters describes particular democratic institutions and practices in Athens. We will look closely at the problems that institutions were meant to solve when they were first established, and how they functioned and evolved in the context of the democratic community and its changing competitive environment. Attention to how the Athenians developed and revised institutions in response to environmental challenges will in turn help to explain how the democratic order fostered innovation and learning within and across domains of endeavor, rewarded cooperative behavior, sanctioned misbehavior, and addressed incentive problems. In methodological terms, the theory of knowledge in action laid out in chapter 3 should (and does) predict the kinds of institutions that we find to be prevalent in Athens in chapters 4–6.

The concluding chapter 7 conjoins this book's findings about institutions and practices with some of my earlier work on the roles played by Athenian democratic ideology and political dissent in building and sustaining a large, diverse, and participatory democratic community. The result is a more fully rounded explanation of "how and why Athens performed as well as it did."

<sup>46</sup> Ober 2006, 2007, and in progress.

This book stands on its own, but it also completes a trilogy on the theory and practice of politics in democratic Athens. In the two previous installments (Ober 1989, 1998: outlined below), I deliberately slighted formal institutions of government and exchange in favor of an emphasis on power, rhetoric, ideology, and dissent. This book fills an institutional gap in my account of Athens, but it takes for granted that formal institutions are only one part of the story. I sketch the main arguments of the two previous parts of the trilogy below, but because the focus here is on the role of formal institutions and public practices, this book has relatively little to say about topics that I treated in detail in earlier work. Ideology and critique, and the discursive forms in which they were expressed, were fundamental aspects of Athenian political life and tightly interwoven with the formal institutions of democratic government.<sup>47</sup> If we are to comprehend the choices made by Athenians, as individuals and as collectivities, we must keep in mind that formal institutions are both affected by and are platforms for the expression of ideological commitment and critical challenge. If our goal is to sculpt an “in the round” portrait of Athenian political life in order to grasp the potential of participatory and deliberative democracy, we must integrate analysis of ideology and critique with rational calculation and ethical responsibility.<sup>48</sup>

Athenian state performance is of more than antiquarian interest because Athens was a diverse society governed by a genuine and robust democracy for some six generations (from 508 to 322 B.C.) and periodically thereafter. Athens would be uninteresting as a case study of democratic success if, counterfactually, popular participation were ephemeral, or a façade masking elite rule. Athens would be equally uninteresting if it were predicated on such a high level of homogeneity of thought and

<sup>47</sup> William Baumol’s warning about causal explanation in economic history is relevant here: “Many economic historians set a booby trap for themselves when they attempt to explain particular historical developments in their entirety. . . [natural] scientists focus their search on what are, in effect, partial derivatives rather than seeking to account for complex phenomena of reality in their entirety” (Baumol 1990: 1715, quoted with approval in King, Keohane, and Verba 1994: 218, n. 7). My two earlier monographs and this one might be thought of as “partial derivatives”—each seeks to explain discrete but related aspects of the complex historical phenomenon of democratic performance.

<sup>48</sup> Williamson 1985: 268–71 gestures at this conjunction; Handy 1998, Brennan and Pettit 2004, Friedman 2005, and Greif 2006 address it in detail, from different but complementary perspectives. In each volume of this trilogy, in order to drive forward the double project of coming to a better *theoretical* understanding of participatory democracy and its *historical* role in Athenian political life, I have acted as a landscape photographer, deliberately holding the primary focus steady on a single plane in order to reveal some important but necessarily incomplete aspect of my subject. This allows me to produce relatively fine-grained “two-dimensional” studies, but it risks temporary blindness to essential dimensions of democracy and Athenian politics.

culture that diversity and free choice—hallmarks of modern democracy—were irrelevant. Since Athens offers a sustained example of a state that was indeed governed by the people and was characterized by high levels of epistemic diversity and individual agency, it is invalid to preempt the question “how does participatory democracy work?” by treating it as analytically equivalent to asking “how does a Pegasus fly?”—that is, as applicable only to imaginary entities.<sup>49</sup>

The most important preemptive claim about democracy is famously set out in Robert Michels’ “iron law of oligarchy” (Michels 1962 [1915]). In his influential study of the historical development of European labor parties of the nineteenth and early twentieth centuries, Michels dispensed with the question “how does participatory democracy work?” by analytic fiat: democracy, as a sustainable form of participatory self-government by a mass of ordinary people in a large association, could never exist for long (and certainly not for anything like six human generations) because it predictably and rapidly devolves into the rule of a managerial elite. That devolution is driven by the requirement of large collectivities for organization in order to achieve (or indeed even seek to achieve) their ends. The intensity of that requirement and the apparent impossibility of organization arising from direct forms of mass decision making led Michels to state his sociological hypothesis about elite domination as an “iron law.” Of course, if ever effective organization did arise and was sustained over time in a participatory democracy, such that a mass of people could consistently achieve their collectively chosen ends, the “iron law of oligarchy” would be refuted as such—even if Michels’ general claim about the need for elite leadership remains valid under most conditions.<sup>50</sup>

In *Mass and Elite in Democratic Athens* (Ober 1989) I argued that there is no historical evidence for devolution to elite rule in Athens. In the fifth and fourth centuries alike, the *dēmos* as a body (the citizenry as a

<sup>49</sup> The depiction of Athens as both genuinely democratic and as intellectually and socially diverse is defended in Ober 1989, 1996, 1998, 2005b. Athens thus poses a challenge for both liberal (Miller 2000) and conservative (Schmitt 1985 [1926]) political theorists who suppose that participatory democracy demands full homogeneity.

<sup>50</sup> Michels’ “Iron Law” builds on Max Weber’s arguments about bureaucracy and rationality and anticipated mid-twentieth century theories of democratic elitism developed by Joseph Schumpeter (1947), Walter Lippman (1956), and Seymour Lipset (1981 [1960]): see Scaff 1981; T. Shaw 2006. A version of Michels’ thesis became an article of faith among some Anglophone ancient historians (see, for example, Fornara and Samons 1991), especially in the wake of the seminal work of Ronald Syme (1939). Syme conjoined a commitment to the principle of inevitable oligarchy with the prosopographical study of aristocratic elite networks, associated in English history with Louis Namier (1957), in order to explain the process whereby the choices made by elite Romans in the late Roman republic allowed for the transformation of Rome into a monarchy. For discussion of the application of Michels’ theory in the context of Athenian democracy, see Finley 1985.

whole, exemplified by the citizens at a given assembly) and the ordinary citizens, as individuals and working in small groups, actually ruled via direct participation in the primary institutions of governance. This does not mean that there were no leaders, or that there were no elite leaders with special expertise in domains relevant to organized governance.<sup>51</sup> It means that democratic leadership was built on a model of the volunteer expert adviser constantly seeking public attention and approval through direct communication with the citizenship, rather than on a model of the authoritative expert class of rulers who occasionally seek legitimation through elections. Socially elite Athenians retained their private wealth; the demos' political power was not used to impose equality of outcome by systematic violations of established claims to private property. Wealthy citizens could and did achieve political prominence, and thus positions of leadership, by demonstrating, through speech and action, both their expert credentials and their commitment to democratic cultural norms and aspirations. They did not, however, become a Michels-style ruling elite. In the present book I return to the issue of the roles played by elites and masses in democratic organization by specifying in more detail the institutional conditions under which public actions were carried out by a participatory citizenry over time.

I concluded *Mass and Elite* by stressing the importance of the ideological hegemony of the ordinary citizens—the control of the discursive contexts in which public behavior of individuals was judged and in which abstractions (such as freedom and equality) were evaluated and associated with political practices. That conclusion left open the possibility of another easy answer for Athenian democratic success: that the citizen-centered (and thus adult, native, male-dominated) Athenian political culture was so massively hegemonic as to eliminate diversity of thought or behavior, and with it many of the public action problems we associate with diverse communities of individuals capable of identifying and seeking their own good.

On this potential line of argument (which can be stated positively in Rousseauian terms, or negatively in Orwellian terms), it was not really democracy as it is normally understood that produced the result of success, but rather it was a sort of communal “one-mindedness” that did away with individual agency and obscured intracommunity diversity. Athens might thus be explained in terms of a homogeneity that could be regarded as worthy of praise by strong communitarians or blame by liberals. Yet, as a corollary, it is generally supposed that such homogeneity is

<sup>51</sup> Kallet-Marx 1994 erroneously states that in Ober 1989 I described Athens as a community in which expert leadership was entirely lacking; her error is based on ascribing to me a claim made in a speech of Demosthenes that stakes out one pole of a continuum of Athenian opinion on the proper role of public speakers; see Ober 1989: 163–65, 314–27.

(for better or worse) only sustainable under conditions of premodernity. A homogeneous Athens would be of little interest in thinking about democracy as a modern system of organizational governance because all modern democratic systems must accommodate epistemic and social diversity, and must be predicated on the choices of individuals freely seeking to fulfill their own aspirations.<sup>52</sup>

In *Political Dissent in Democratic Athens* (Ober 1998) I argued that Athenian democracy cannot be explained in terms of cultural normalization and epistemic homogeneity. I focused on the development of an influential dissident “critical community” among Athenian intellectuals and on the form and content of their written work. The dissidents recognized Athens as a socially diverse political association, made up of individuals willfully pursuing individual aspirations through individual actions. Far from supposing that Athenian cultural norms rendered public action simple, the dissidents worried about how good public decision making was possible in the face of individual self-interest and that ethical norms had too little purchase on members of a community that celebrated individual freedom. They sought to explain how a “bad” (or at least misguided) popular regime could be so apparently successful, and what sort of alternatives to it might be devised, in theory or in practice. Their efforts resulted in much of the literature (including Thucydidean history, Platonic and Aristotelian political philosophy) that we now tend to regard as typical of classical Greece.

I concluded *Political Dissent in Democratic Athens* by arguing that an important component of Athens’ democratic capacity to change over time in response to new challenges was realized within the space democracy left open for the development and voicing of openly dissident opinion. Here I return, briefly and in passing, to Thucydides, Plato, and Aristotle as theorists of democracy, focusing on their explanations for how solving public action problems and organizing useful knowledge allowed participatory democracy to exceed expectations, despite what they regarded as its very serious failings as a system of government.<sup>53</sup>

In sum, we ought not seek preemptively to answer the question of how Athens’ participatory democracy worked by reference either to a cryptic ruling elite of experts, or to a homogeneous premodern mass culture that eliminated potential public action problems by normative fiat. Yet two other obvious answers for explaining democratic flourishing will occur to readers familiar with modern discussions of democracy. First is the

<sup>52</sup> Positive version of this communitarian argument: Barber 1984; negative version: Philipps 1993. Victoria Wohl (1998, 2002) develops a strong version of this ideological hegemony line of argument for Athens.

<sup>53</sup> I offer a much fuller account of classical Greek writers as theorists of information exchange and collective action in Ober, in progress.

free-market economist's belief that democracy succeeds because it allows for the development of open markets and robust economic growth.<sup>54</sup> Next is the classical republican's claim that democracy benefits from high morale and civic virtue, as well as a sense of patriotism, shared identity, and communal solidarity among the citizenry.

Markets and morale do indeed help to illuminate the Athenian democratic case and help to explain the overall positive correlation between generically republican (non-despotic) constitutional form and success among Greek poleis (see chapter 2). Each will receive a good deal more discussion in the chapters that follow. It is now widely (although not universally) acknowledged that, especially in the fourth century, the Athenian economy was market oriented in some important ways.<sup>55</sup> And it is certainly the case that democracy promoted a relatively strong sense of citizen identity, based in part on shared values of liberty, political equality, and security.<sup>56</sup> But market economy and citizen-centered morale effects are themselves only two aspects of the organization of knowledge. Athens' market economy and the morale of its citizens seem to me inadequate, *in themselves*, to explain Athenian exceptionalism within the city-state ecology. The growth of Athens' market was stimulated by institutionalized public knowledge processes (see chapter 6). Meanwhile, rival republican Greek states (such as Sparta) featured non-democratic systems of governance specifically designed to maximize morale effects. If morale adequately explains polis flourishing, then democratic Athens should not have competed against its non-democratic republican rivals as well as it demonstrably did.<sup>57</sup>

#### EXPERTS AND INTERESTS

The focus on social epistemology, on *knowledge* as a key to a democratic state's success, may, on the face of it, seem peculiar, given that success

<sup>54</sup> Friedman 2005 makes the case in detail.

<sup>55</sup> Athens' economy as market oriented: W. Thompson 1978; Burke 1985, 1992; E. Cohen 1992, 2000; Christesen 2003. Doubts: Millet 1991; Reed 2003. For critical assessments of the "ancient economy debate," see Morris 1994; Bresson 2000; Andreau 2002; Cartledge 2002; Reden 2002a, 2002b; Engen 2004; Saller 2005; Amemiya 2007.

<sup>56</sup> There is a large and valuable literature on Athenian civic identity stimulated, in large part, by the seminal work of W. R. Connor; see, for example, Connor 1987; Manville 1990; Boegehold and Scafuro 1994; Wolpert 2002; Low 2002; Lape 2004; Christ 2006.

<sup>57</sup> Spartan education and morale: Cartledge 2001, chapter 7; Ducat 2006. The morale argument is one reason that classical republicans, such as Rousseau, have long turned to Sparta rather than to Athens as a model. There are a variety of other "easy answers" for the success of Athenian democracy, notably that exploitation of slave labor and/or building male solidarity through the oppression of women was of decisive importance. I address these arguments in Ober 1989; 22–35. See further, below, chapter 6.

demands expertise and participatory democracy places much responsibility for public affairs in the hands of non-experts. Commentators have rightly pointed out that democratic institutions and culture contribute to citizen morale and to the credibility of a government's commitment to repay its debts. These democratic features translate into advantages in the vital areas of military mobilization and raising capital. Yet, in light of the expertise issue, it is often assumed that successes enjoyed by a participatory democracy like Athens must be in spite of, rather than because of, its approach to the organization of useful knowledge. Plato's *Republic* provides the paradigm case.<sup>58</sup>

Plato famously argued in the *Republic* that democracy was systematically flawed as a form of governance because (inter alia) it was based on a bad relationship between knowledge (understood as justified true belief) and political authority. He reasoned that the practice of democracy requires a capacity for good judgment about the basic question "what choices are most conducive to the human good?" on the part of non-expert ordinary citizens, operating both in groups and individually. Plato denied that ordinary men had the capacity to make judgments about the human good, or could ever gain it. He held that in any given domain (be it shoemaking or ruling), judgment ought to be left to experts with the specialized knowledge that would render their judgments valid. Plato argued that in an ideal state only philosophers would rule. His argument was based on his assumption that the domain of ruling required expert philosophical knowledge of the Form of the Good. Because only a very few people had the capacity ever to develop philosophical expertise, and even then only by dint of long training, rulership must always be left in the hands of a tiny elite of the wise.<sup>59</sup>

Few subsequent commentators on the theory and practice of government have followed Plato in making philosophical knowledge of the Form of the Good a prerequisite for ruling, and Plato himself offered alterna-

<sup>58</sup> Morale and mobilization: Machiavelli, *Discorsi*, and literature cited by Ferejohn and Rosenbluth 2005. Reiter and Stam 2002 demonstrate that modern democracies tend to win wars. Their explanation for this phenomenon combines the standard morale argument (soldiers with a stake in the regime fight better) with an argument that the discipline of needing to win and retain a popular mandate prompts democratic leaders to fight wars that they are pretty sure they can win. Mobilization and Greek republics: Morris 2005c; Scheidel 2005a. For democracy and Athenian military performance, with special reference to the early stages of the Peloponnesian War, see Ober 2007a. Schultz and Weingast (2003) focus on the credibility of the commitment of democratic states to repay their loans and their subsequent advantage in securing reliable funding during extended periods of interstate conflict. On the question of democracy and military success, see, further, chapter 2.

<sup>59</sup> Plato on knowledge and democracy: Sharples 1994; Hitz 2004, chapter 2; Schofield 2006. On Plato as a commentator on democracy: Anton 1998; Ober 1998, chapter 4; Monoson 2000; Wallach 2001; Euben 2003; Saxonhouse 2006.

tives in his later political dialogues, *Statesman* and *Laws*.<sup>60</sup> But Plato's general argument in the *Republic*, that ruling is primarily a matter of specialized expertise, and that the capacity to develop the relevant expertise is limited to relatively few people and requires special training, is widespread. Plato drew a sharp divide between opinion and knowledge, holding that those who are not expert in a given domain can have only opinions about it, not actual knowledge of it. His theory of governance is predicated on a strict separation between the spheres of opinion and knowledge. Modern political and social theorists tend to agree with Plato on the knowledge/opinion distinction. Most break with Plato by asserting that in order to be legitimate, a political system must find a way to give non-expert opinions a certain weight. Approached from this direction, democratic government can be understood as a system for accommodating non-expert public opinion within a domain of expert knowledge. Modern democracies achieve that accommodation primarily through the majoritarian voting rule and structures of representation. This leaves considerable room for arguments in favor of limiting popular participation in favor of efficiency.<sup>61</sup>

In an influential (and explicitly anti-Platonic) model, Robert Dahl (1989) predicates democracy on the widely shared conviction (regarded by Plato as false) that each individual is the best judge of his or her own interests. But that presumption does not entail supposing that the individual is capable of formulating or even deciding among the actual governmental policies that would best facilitate the achievement of her interests. Without that capacity, the opinionated individual cannot be a competent direct legislator of her own interest. This suggests that the role of non-expert opinion in governance is likely to be detrimental, unless it is very carefully controlled—and thus, well-designed structures of representation are required. In Dahl's theory, like most theories of republican government from James Madison onward, if a government is to be legitimate, the non-expert citizen must be permitted to vote for represen-

<sup>60</sup> For a range of views on Plato's late political thought, see, for example, Piérart 1974; Bertrand 1999; Bobonich 2002.

<sup>61</sup> Estlund 2007 argues against Platonic-type "epistocracy"—the rule of those who know—while accepting that there probably are only a few people who really do know best. Estlund's argument necessarily pits efficiency (the few-who-know-best rule without undue interference) against legitimacy (the rule of the knowledgeable elite must be acceptable from all reasonable points of view). Caplan 2007 argues for institutional changes in democracy that would limit the role of "irrational voters" in favor of policy made by expert economists (like himself). Organizational theorists sympathetic to workplace democracy, e.g., Fitzgerald 1971 and Putterman 1982, sometimes regard the scarcity of managerial expertise, and the alignment of managers' interests with hierarchical forms of organization, to be a potentially fatal weakness of democratic organizations in competitive environments; but see now Orlikowsky 2002, esp. 265–69; Locke and Romis 2006.

tatives: that is, to make a choice among various possible rulers based on his opinion of which of them will work most effectively to further his interests. The actual ruling is left to experts. This line of thought eliminates, by definition, directly participatory democracy as a form of governance.<sup>62</sup>

Democratic theory brings in representation and experts for two reasons: to accommodate the problem of scale, and as a prosthetic institutional mechanism to accommodate the incapacity of non-experts to rule directly in their own interests. The scale problem is a serious one; it is addressed in chapter 3. Because the scale of most modern states is vastly greater than that of the largest Greek polis, the Athenian case cannot be held to offer a participatory *alternative* to representation for any modern democratic state. But the prosthesis of representation is often clumsy in practice. Athenian deliberative and participatory institutions, with their emphasis on employment of diverse sources of knowledge for problem solving, might offer a valuable *supplement* to existing forms of representative government, especially at local levels. Of course, the political experience of Athens will be valuable as a supplement to modern representative practice only if Athenian institutions can be shown to have distinctive and valuable features that could potentially be abstracted from their original ancient setting. This conjoined theoretical and descriptive enterprise is undertaken in this book.

#### HYPOTHESIS

The hypothesis explored in the following chapters can now be framed as follows:

*Democratic Athens was able to take advantage of its size and resources, and therefore competed successfully over time against hierarchical rivals, because the costs of participatory political practices were overbalanced by superior returns to social cooperation resulting from useful knowledge as it was*

<sup>62</sup> Of course, the actual representatives for whom one votes need not be legislative experts; they must only defer to experts in formulating policy. On contemporary theories of representation, see chapter 3. Theoretical critiques of representation, favoring more participatory forms of democracy, include Dahl 1970; Pateman 1970; Mansbridge 1983; Barber 1984; Wolin 1994, 1996. These critiques do not have as much traction as they might, in part because of performance failures of participatory experiments of various kinds. The argument of this book suggests that those failures can, at least in part, be attributed to poor organization in respect to useful knowledge. Successful local participatory processes are documented by Fung and Wright 2003; Fung 2004; Baiocchi 2005.

*organized and deployed in the simultaneously innovation-promoting and learning-based context of democratic institutions and culture.*

The hypothesis can be tested, and potentially falsified, by reference to Athenian government institutions and history. If the hypothesis is correct, then distinctive and otherwise anomalous design features of Athenian institutions should be parsimoniously explained by reference to their role in organizing and deploying useful knowledge. Furthermore, it should be possible to show that democratic institutions did in fact organize dispersed useful knowledge, in ways that are plausibly related to general material flourishing. Finally, if the hypothesis is right, Athenian institutions, individually and taken as a system, should demonstrably have served to promote social learning and thus to facilitate productive routinization. They should also have adapted to change over time as a result of steady innovation. The hypothesis would be falsified if Athenian institutions manifested the strong path dependency associated with robust forms of socialization, or if they changed in the whimsical and undisciplined manner that Tocqueville (among others) associated with democracy as majoritarianism. Yet before testing the democracy/knowledge hypothesis, we need to confirm that there really is a substantial problem that it might solve. Was democratic Athens, in fact, an especially successful polis?