

# Introduction

## *Discovering Practical Reason*

### 0.1 THEORIZING RATIONALITY

This book is about an intellectual discovery, a theory of practical reasoning. The theory defined rationality as the self-conscious, deliberative use of reason as an instrument for the strategic pursuit of goals. It explained human motivation and action by reference to basic mental processes of desire and belief. It offered solutions to problems in ethics and politics. The theory, first developed in the fifth and fourth centuries BCE, was influential for the rest of classical antiquity—and long after. It remains consequential today and could provide a platform for reconnecting the study of politics and political economy with history, ethics, and literature.

To speak of practical reasoning as a “discovery” invites comparison to Molière’s disingenuous M. Jourdain, who, under the tutelage of a “master of philosophy,” discovered to his amazement that he had been speaking prose for his entire life.<sup>1</sup> Molière’s send-up of seventeenth-century intellectuals reminds us that ancient Greeks (and others) were

1. *Le bourgeois gentilhomme* (1670: act 2, scene 6. Greek philosophers (e.g. Aristotle, *Metaphysics* 981b14–24) were very concerned with the process of discovery (*heuresis*); ancient writers of what historians of science call heurematography sought to identify the “original discoverer” (*protos heuretēs*) of various phenomena (Zhud 2006: chap. 1). For reasons outlined below, no first discoverer of practical reason was named, but see chapter 8.3 for a mythic account.

quite capable of employing reason in pursuit of their goals long before rationality became a subject of theoretical inquiry. They were also capable of theorizing practical reason well before Aristotle addressed it in his ethical treatises. Aristotle identified practical reason as the intellectual counterpart to virtuous character, thereby establishing a standard interpretation for two millennia.<sup>2</sup> As I hope to show in the rest of this book, the original, pre-Aristotelian theorization of practical, means-to-ends reasoning was indeed a discovery, a big idea with real-world impact, whose salience was quickly recognized by poets, historians, and philosophers—including Aristotle. It is an overlooked chapter in the history of classical thought, with a long afterlife. It offers new insight into ancient history, Greek literature, and classical philosophy. And it provides methodological resources for contemporary political and ethical theorists.<sup>3</sup>

Practical reasoning is only one part of the wider domain of human reason. Unlike, for example, scientific reasoning, practical reason always concerns motivations for action. I will argue that, for the Greeks, practical reason invariably included, but was not always reduced to, instrumental (means to ends) rationality. Aristotle’s “reinvention” of practical reason, as a central component of his ethics (chapter 8.6), subordinated instrumentalism to the exercise of complete virtue—while acknowledging the role of instrumental rationality in the achievement of virtuous ends. As we will see, in the ethical and political thought of the Socratic philosophers, rationality included the choice of worthy ends, as well as the means for achieving them. Because the rationality

2. The key text is Aristotle, *Nicomachean Ethics*, book 6. Aristotle’s account of practical reason (*phronēsis*) was dominant until the seventeenth and eighteenth centuries, and it remains a major topic in ethical philosophy today. See further, chapter 8.5–7.

3. Instrumental rationality, as well as its relationship to practical reasoning, is a significant topic in contemporary ethics and moral philosophy. See, for example, Williams 1985; Broome and Piller 2001; Broome 2002, 2021; Fernandez 2016. As Kolodny and Brunero (2018) explain: “Someone displays instrumental rationality insofar as she adopts suitable means to her ends. Instrumental rationality, by virtually any reckoning, is an important, and presumably indispensable, part of practical rationality. However, philosophers have been interested in it for further reasons . . . it has been argued that instrumental rationality is not only a part, but a special part, or even the whole, of practical rationality. This thesis appears to threaten the ‘rational authority’ of morality. It seems possible that acting morally on some occasion might not be a suitable means to an agent’s ends. If so, then according to this thesis, it would not be irrational for her to refuse to act morally on such an occasion.” As we will see, a related concern motivated ancient Greek work on ethics. I do not, here, distinguish instrumentalism (sometimes defined as acting to satisfy *immediately present* desires) from prudentialism (sometimes defined as acting to satisfy desires *over time*, which may involve foregoing immediate satisfaction), although the distinction between short- and long-term advantage was, as we will see, a live one in Greek thought.

with which I am primarily concerned in this book is instrumental, however, when I use the term *rationality* without a modifier, it refers to the use of reason to choose the best means to a desired end.

The theorization of practical reason had specifiable effects when it was mixed into Greek social thought and when it was deployed in political and economic practice. Those effects were especially evident in democratic Athens. The theory features prominently in texts that became canonical in the Western tradition. The long-run survival and impact of those texts meant that instrumental rationality was poured into the foundations of Western civilization. It remains a feature—and perhaps also a bug—of our locally conflicted and increasingly globalized world.

In the following pages I address three questions: First, just what was discovered? Next, how did the discovery bear on Greek literature, ethics, and politics? And finally, why does it matter for contemporary historians of thought, students of literature, and political and ethical theorists? The short answer is that *instrumental rationality was identified as a core human capacity, capable of being refined as a powerful and versatile tool for making strategic choices among feasible options under conditions of social constraint and uncertainty*. The expert use of that tool was promoted as a specialized skill by the so-called Sophists and is manifest in Greek political institutions, international relations, and economic behavior. Its misuse was characterized as a social, political, and ethical problem by, among others, historians and philosophers. And, finally, because instrumentalism features prominently in Greek texts, and because it was integrated into the moral philosophy of Plato, Aristotle, and their successors, Greek ideas about practical reasoning crystallized into a persistently influential tradition of thought.

I make no claim here for the *uniqueness, priority, or superiority* of the Greek discovery. Roughly contemporary and highly sophisticated traditions of reasoning from means to ends arose, for example, in China and India.<sup>4</sup> While I am confident that a thorough, cross-cultural, comparative

4. China: Moody 2008, on the *Han Feizi*, a third-century BCE text in the Legalist tradition, which “shares the same individualistic and instrumental assumptions about human behavior and political action as contemporary rational choice theory” (p. 96), while also insisting that rationality be understood within its “conditions” (*shi*), including institutional structure and cultural setting. India: Trautmann 2012, on the *Arthashastra* of Kautilya (fourth century BCE or first/second century CE), a work of political economy that addresses scaling up household-level provisioning of goods, but also “values cool analysis of comparative benefits and choice-making among them, which corresponds to the notion of economizing behavior and the rational calculation of benefits and costs” (p.8). Examples could surely be multiplied.

study of premodern practical reasoning would be illuminating, I lack the skills necessary to undertake it. In any event, leaving aside the currently unanswerable question of whether an exhaustive comparative survey of global intellectual history might grant some premodern tradition of reasoning a position of uniqueness, priority, or superiority (however measured), the answer to the question of why the Greek discovery matters draws on other considerations.

Greeks writing in a range of genres addressed intellectually challenging issues related to the practice of reasoning from means to ends: *self-interest* and its limits; the psychological sources of motivating *desires*; the calculation of *risk*, *feasibility*, and the *strategic behavior* of others when deciding among options; and the possibility of coherent and effective *collective action*. A similar set of issues lies at the heart of contemporary formal choice theory. When applied to economics, and politics, formal approaches are practiced under the rubrics of rational choice and positive political theory.<sup>5</sup>

I contend that Greek thinkers and lawmakers anticipated the central assumptions about *desire*, *belief*, and *expectation* that underpin contemporary choice theory.<sup>6</sup> The ancient Greek approach to practical reason conjoins elements of three modern fields: a formal approach to rationality that assumes ideal-type agents with unlimited cognitive capacity, an experimental approach to behavior that studies the decisions of real people under controlled conditions, and an empirical approach to performance that analyzes the achievement of experts with high, but never final, mastery of specialized domains.<sup>7</sup> Ancient Greek writers and institutional designers, like contemporary behavioral game

5. Decision theory, game theory, and social choice theory are prominent methodological variants, discussed below. Each variant depends on the basic premises of rational choice and each is employed by economists and political scientists. As exemplified by the works cited in n. 3, above, contemporary analytic moral philosophers, while concerned with some of the same issues, have often approached the question of instrumental rationality in quite different ways than do formal choice theorists. My focus is on the latter, because it is the use of rationality as a tool (or a weapon) that most interested and worried classical thinkers.

6. For a clear and concise sketch of preferences, beliefs, expectations, and actions in contemporary rational choice theory, see Ferejohn 2009.

7. Formal theory and behavioral experiments: see below. Expertise and how it is acquired: Ericsson 2006; expertise in decision-making: Yates and Tschirhart 2006. On the different reference points assumed in each approach, see Bendor 2021, discussing the seminal work of Herbert Simon. In contemporary choice literature the conjunction of ideal-type theorizing and empirical applications is manifest in popular-audience books, such as Dixit and Nalebuff 2008.

theorists, recognized that there are limits to human reason and expertise.<sup>8</sup> They knew that real choice-makers cannot be reduced to mechanistic, ideal calculators of optimal outcomes. Yet they typically saw these limits as adjustments to or deviations from a fundamentally rational approach to decision-making under conditions of uncertainty, rather than as a nonrational alternative.<sup>9</sup> Although the Greeks did not analyze decision-making in mathematical terms, their rich literary exploration of instrumental reasoning complements modern theory and offers valuable resources for contemporary choice theorists—just as formal theory and empirical social science offer resources for humanists. That line of thought, if it is on the right track, has significant consequences for how we might think about ancient Greek civilization and the modern scientific study of rationality.<sup>10</sup>

In sum, the Greek approach to practical reason is valuable because it can be studied as a distinctive, well-documented, influential, and at least potentially enlightening contribution to deep and enduring questions of human *motivation*, *decision*, and *action*. It refutes the notion that the intuitions underpinning contemporary choice theory are nothing more than a by-product of unique conditions of modernity. I hope that juxtaposing ancient and modern theories of choice will encourage formal theorists to appreciate the value of complex literary narratives for expanding the “library of mechanisms” (Gailmard 2021) available to

8. Behavioral game theory seeks to address the gap between analytic choice theory and actual human practices. See, for example, Camerer 2003: 3: “Behavioral game theory is about what players *actually* do. It expands analytic theory by adding emotion, mistakes, limited foresight, doubts about how smart others are, and learning to analytical game theory . . . Behavioral game theory is one branch of behavioral economics, an approach to economics which uses psychological regularity to suggest ways to weaken rationality assumptions and extend theory.”

9. Compare Schelling (1960) 1980: 16–17: “Furthermore, theory that is based on the assumption that the participants coolly and ‘rationally’ calculate their advantages according to a consistent value system forces us to think more thoroughly about the meaning of ‘irrationality’ . . . departures from complete rationality may be in many different directions . . . It may not be an exaggeration to say that our sophistication sometimes suppresses sound intuitions, and one of the effects of an explicit theory [of rationality] may be to restore some intuitive notions that were only superficially ‘irrational.’”

10. Compare Brams 1994: 52: “What makes a literary creation is not just its overall structure but its details, including the emotional lives of its characters. Game theorists need to ponder these and adapt their theory accordingly, just as literary scholars need to appreciate that game theory has its own richness that goes beyond mathematical symbols and abstract forms.” Gailmard (2021: 79–81) argues that the virtues of rational choice theory for the study of history include intelligibility (making past behavior more intelligible to us) and epistemic humility (the premise that decision makers in the past understood their problems as well as do contemporary analysts).

rational decision-makers. It may help humanists and citizens to make better use of some techniques drawn from contemporary decision and game theory. If the argument of this book goes through, those techniques can be redeployed as analytic tools for exploring the ancient history of certain ideas often thought to be uniquely modern. The same tools might also be adapted for practicing an approach to citizenship often thought to be uniquely ancient.

## 0.2 SOCRATES ON CHOICE AND ACTION

The approach to practical reason with which this book is primarily concerned is succinctly captured in a line attributed to Socrates by the Athenian polymath Xenophon. Asked if persons who know what they should do and yet do the opposite are “wise and yet intemperate,” Socrates responds that they are unwise:<sup>11</sup>

For I think that all persons deliberately choose, out of what is available to them, what they think is most advantageous to themselves, and they do this. (*Memorabilia* 3.9.4 = LM 33.D48)<sup>12</sup>

Xenophon’s Socrates offers a concise, quasi-algorithmic description of choice-making, aimed at specifiable goals and resulting in purposeful activity.<sup>13</sup> While he does not, here, employ the philosophical vocabulary associated with reason (*logos*) or calculation (*logismos*), Socrates models the agent as a coherent persona, a self that employs integrated cognitive faculties to decide among ranked options, with the intent of securing the best among them.<sup>14</sup>

11. Some manuscripts read “wise and temperate” (*sophous te kai egkrateis*), which makes little sense. Likewise, depending on the manuscript, Socrates’ immediate rejoinder is either that they are unwise and intemperate (*asophous te kai akrateis*) or unwise and ignorant (*amatheis*); the latter reading accords with Plato, *Protagoras* 358b–60d.

12. Trans. Laks and Most (2016), adapted. Greek: πάντας γὰρ οἶμαι προαιρουμένους ἐκ τῶν ἐνδεχομένων ἃ οἴονται συμφερότατα αὐτοῖς εἶναι, τὰτα πράττειν. Socrates concludes that “those who act incorrectly [*mē orthōs prattontes*] are neither wise nor moderate [*sōphronas*].” Their error is presumably in *thinking* something is in their best interests when, according to Socrates, it is not.

13. Cf. Carugati and Levi 2021: 53–54: “Algorithms are, essentially, rule-based structures for making decisions . . . Algorithms follow logical rules to optimize for a given outcome.”

14. *Logos*, when used in philosophical contexts, is traditionally translated as “reason.” Moss (2014) surveys Plato’s and Aristotle’s use of the term, emphasizing the range of meanings of *logos* and the difficulties involved in simply equating *logos* with reason but, as Moss (2017: n. 3) elsewhere suggests, in sketching Aristotle’s ethical psychology, “there is no harm for our purposes, however, in sticking with the traditional translation.”

Socrates' account of choice-making is *universalizing* in its claim that a standard approach to reasoning about advantage is available to everyone ("all persons"). That approach is *deliberative*, in that it is a process of *advance* reasoning leading to a *choice* ("deliberately choose": *proairoumenous*). The process of deliberately choosing employs the agents' relevant *beliefs* ("they think") and it is carried out under contingent conditions of *feasibility* ("out of what is available to them"). The goal of the agents is *maximization of utility* ("most advantageous": *sumphorōtata*) *to the agents* ("to themselves"). The process ends in *action* ("they do this").<sup>15</sup>

Xenophon's Socrates need not be read as claiming that a process of clear-headed, comparative evaluation of options and outcomes is the approach to choice-making uniquely employed by all persons in all circumstances of willed action. Actions may be unwise, based on momentary impulse. Beliefs about what is most advantageous may arise from emotion or illusion rather than knowledge. People may vainly strive for an infeasible ideal outcome (Bendor in progress). The point, then, is not that Socrates has given us the germ of an account aimed at explaining an instrumentally rational mental process underpinning all human behavior. But he has given us an account of practical reasoning as a coherent, comparative method of making choices among options—motivated by desire, engaged with beliefs about the world, and ending in action in pursuit of the best available end. The process is not limited to philosophers. It is common enough to bear on the important ethical question of whether anyone knowingly goes for an inferior option.

Xenophon's quote assimilates what, in Plato's dialogues, we learn is Socrates' own highly distinctive approach to choosing among possible courses of action to the process employed by ordinary people. Plato's reader learns that Socrates' understanding of what it takes for a person to make a *truly*—or, in the terminology I adopt here, "ethically"—rational choice is very demanding. It requires objective knowledge of value, not just subjective preference and opinion. Ordinary persons may

15. The adjective *sumpheron/sumphoron/xumpheron* may be translated as advantageous, useful profitable, or expedient: LSJ s.v. The general sense is of "utility" to an agent; the superlative *sumphorōtata* alludes to maximum utility. Depending on how we read the force of *pro-* in the participle *proairoumenous*, it may be that Socrates means that if and when people engage in a process of deliberating in advance on how they ought to choose, and when they base their deliberations on an assessment of what is available to them, then (and perhaps only then), they make their choice based on what they think is most advantageous to themselves, and act accordingly. My thanks to Terence Irwin for discussion of this point.

be instrumentally rational, in the sense of being able to calculate costs and benefits in weighing options. But, under ordinary conditions (lacking the guidance of enlightened rulers) they are often incapable of acting virtuously, because their souls are not properly ordered. The ethically rational person's soul is ruled by reason. Her preferences are for objectively good ends identified and desired by reason (not by mere appetite or emotion). Thus, only the ethically rational choice-maker is capable of choosing that which is actually “most advantageous.”<sup>16</sup>

In the passage cited above, Xenophon's Socrates must include himself in the universe of “all persons” whose deliberate choices purposefully aim at goals and result in action. The rare and special kind of reasoning that, at least in Plato's view, enables a true philosopher to identify and then pursue the objectively best end is, therefore, an extension and refinement of, rather than an alternative to, a much more common kind of practical reasoning: an instrumental process of choice-making based on comparing ranked options.<sup>17</sup> This suggests that, while Socratic moral

16. In treating the agent as a persona, the Xenophon passage does not invoke Plato's distinctive moral psychology. Nor will I be much concerned in this book with the details of Plato's complicated and controversial ideas about the partitioning of the soul, ideas that were, in part, taken over by Aristotle. Briefly, Plato conceived of the human soul as having three ranked parts: reason, spirit, and appetite. Each part has its own desires. Reason: for knowledge and to rule; spirit for honor and esteem; appetite for (at least) bodily gratification. Each is involved in motivating action (Cooper 1999: chap. 4). Contemporary classical philosophers differ on whether each part has beliefs and the capacity to reason in the sense of calculating costs and benefits, if not in identifying and aiming at objectively good ends. Lorenz (2006), arguing for strict partitioning between the parts of the soul, denies that the two lower parts employ even instrumental reason. However, Bobonich (2002, 2010), rightly in my view, argues that each part has “contentful beliefs and desires and this content is, at least partly, conceptual” (2010: 149). Citing *Republic* 580e–81a on appetite's desire for money as an effective means to gratification of various other desires, Bobonich concludes, “Even the Appetitive part is capable, according to Plato, of means-end reasoning” (2002: 244). Bobonich (2002) shows that Plato revised his psychology in later works, but the core idea relevant to instrumental reason, that nonrational motivations involve beliefs or concepts, is retained. See also Annas 1981: 129–30; Irwin 1977: 327, 1995: 207–17.

17. Cooper (1999: 124–25 n. 9) proposes two possible models for Plato's idea of what it is for reason to rule in one's soul. On the weaker view, reason works out the means to an overall scheme of life, by calculating the relative weights of things desired, taking into account the intensity of wants and tradeoffs among them. On the stronger view, reason's work and its desires are more fundamental. Here reason determines what is good and how good, with other desires being subsidiary. In the *Republic*, the Form of the Good provides the relevant knowledge of goodness. Likewise, Lorenz (2006: 44 n. 9) suggests, “One strategy [for separating means-end reasoning from “Platonic reasoning”] might be to distinguish between (say) ‘purely instrumental reasoning’ (or calculation) and ‘reasoning about the good’—about, that is, how it is good (or best) to act, in the circumstances—



philosophy strictly subordinated instrumental reasoning about means to ethical reasoning about ends, its practitioners remained deeply concerned with nonideal motivations for action. The Socratics carefully analyzed practical reason as a worldly phenomenon, grounded in self-interest and feasibility. They deployed it in elaborate thought experiments, as a dangerous, essential tool. But it was not discovered by them.<sup>18</sup>

### *A Folk Theory of Instrumental Rationality*

Socrates is often thought to have broken with the background intellectual culture of his age, and most decisively with the thought of the loose collection of Greek intellectuals and teachers known collectively as Sophists (below, section 0.4). And in many ways, he certainly did. Yet the passage cited above is included in a recent, authoritative edition of the surviving fragments of texts written by the Greek Sophists. The editors, André Laks and Glenn Most, posit that, based on his interests and argumentative methods, Socrates can be seen as “an idiosyncratic Athenian ‘sophist.’”<sup>19</sup>

I propose that Xenophon has put in Socrates’ mouth a concise statement of a “folk theory of practical reasoning.” By folk theory, I do *not*

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and then to suggest that Plato reserves the vocabulary of reason for the latter.” Although Lorenz rejects this suggestion, it seems to me roughly right. Lorenz’s objections are defused if we recognize that the distinction is between subjective, fallible instrumental reasoning and reasoning *correctly* about the *actual* good.

18. Xenophon’s Socrates is, in various ways, different from Plato’s character of that name. For example, Xenophon’s Socrates is more concerned on practical matters of household and polis management (see chapter 7.5). As Irwin (1974: 412) notes, relative to Plato and Aristotle’s “queer and philosophically provocative” claims about virtue and motivation, those of Xenophon’s Socrates are “bland, familiar, and unexciting.” And yet, the statement attributed to Socrates by Xenophon is well aligned with Plato’s Socrates. While never mentioning Xenophon, Bobonich (2011) shows that the Socrates of the early dialogues accepts a descriptive “Principle of Psychological Eudaimonism” (see below, n. 34) that employs each element of the Xenophon passage: a universal practice of practical deliberation predicated on beliefs, leading to a choice among limited options, aimed at maximizing or optimizing the happiness (good, advantage) of the agent himself, and resulting in action. Vivienne Gray (1998: chap. 1) reviews the generally deflationary views of an earlier generation of scholarship on Xenophon’s *Memorabilia* and offers a sympathetic reading of the *Memorabilia* in the context of classical era wisdom literature and rhetoric. Pangle (2018) updates the esoteric reading of Leo Strauss and offers a comprehensive bibliography. Christ (2020: chap. 2) reads *Memorabilia* as teaching Athenian elites how to be worthy of leadership in the new political context of the post–Peloponnesian War era.

19. Laks and Most 2016: 2.4–5, quote: 293. On the relationship of Socrates’ thought and methods to those of the Sophists, see Woodruff 2006, 2010.

mean a naïve belief held only by the ignorant. Rather, it is a theory common to, and debated among, the diverse members of an intellectual community.<sup>20</sup> That theory was strongly associated with Sophists, but it was hardly unique to them. It had no identifiable author (hence “folk”), but it emerged as a shared feature of social thought at a specifiable time: the mid-fifth century BCE, and in a particular place: Athens. If that is right, Xenophon’s Socrates was not offering an original observation. While giving it a distinctively paradoxical spin, he was in agreement with an account of how people choose to act that was (1) the discovery of a broad-based social network of intellectuals, centered in Athens, (2) sufficiently coherent and analytic to count as a theory, (3) widely known and discussed by classical-era Greek thinkers and writers, and (4) put into practice by sociopolitical entrepreneurs.<sup>21</sup>

The folk theory accounts for behavior by reference to two distinct mental states: desire and belief. It holds that a rational person will go for whatever she believes is best for herself, in terms of desire satisfaction, among the options she supposes are open to her. It is a *theory* insofar as it is an axiomatic, internally coherent account of human motivation, deliberation, choice, and action. In Plato’s philosophically sophisticated restatement, considered below (especially chapters 1, 2), the theory is evaluatively *normative*, in the narrow (nonmoralized) sense of specifying the conditions necessary for an agent to be correctly judged to be in a positively evaluated state.<sup>22</sup> That is, it specifies how, to count as fully rational, an agent ought

20. In contrast to some other Greek intellectual “discoveries” (e.g., LM 37.R4: disputes over whether Antiphon or someone else discovered rhetoric; 35.D10, D11), the folk theory has no acknowledged author. It is not the modern “Folk Theorem” of repeated Prisoner’s Dilemma games, discussed by Binmore (2007: 75–76), but my use of the term “folk theory” is inspired by that rubric.

21. This hypothesis would help explain why, as Vivienne Gray (1998: 1) reports, Olof Gigon (1979: 3–5) could have supposed that Xenophon’s *Memorabilia* consisted of excerpts from the Sophists. Kamtekar (2018: 44–45) argues that “the many” in classical Athens assumed that anger or laziness led agents to choose worse options, citing examples from Euripidean tragedy.

22. Wedgwood (2017b) offers a detailed defense of the normativity of the concept of rationality, summarizing as follows: “To think rationally is to think *properly*, or to think as one *should* think . . . Rationality is a kind of *virtue* displayed in some of the mental states (like the beliefs and intentions) that agents have, and in the ways in which agents form and revise those mental states in response to reflection and experience” (p. 1, emphasis in original). In introducing their “prospect theory” critique (see chapter 6), Kahneman and Tversky (1979: 263) write: “Expected utility theory has dominated the analysis of decision making under risk. It has been generally accepted as a normative model of rational choice, and widely applied as a descriptive model of economic behavior, e.g.

to act. It is also *analytical*, in that it proposes causes and deductively yields explanations for behavior. Those explanations were tested against observations, hypotheticals, and counterfactual cases. Finally, it is *prescriptive* in that it purports to offer guidance for the conduct of personal affairs, social policy, and institutional design. As I will show in this book, the folk theory was pervasive in classical and postclassical traditions of social thought and assumed by Greek designers of formal institutions.

The philosophical works of Xenophon, Plato, and Aristotle feature prominently in the following chapters. I refer to them generically as “classical Socratics” in light of their common intellectual heritage, while fully recognizing substantive differences in their philosophical positions.<sup>23</sup> Plato and the other Socratics developed specialized vocabularies and methods for investigating and analyzing practical reason. We cannot inquire of ordinary Greeks, living in the classical period, whether they had any sort of theory of motivation and action. But we do have many ancient Greek texts in multiple genres beyond philosophy—including histories, biographies, forensic speeches, tragedies and comedies, political essays, and technical manuals. They shed light on background assumptions concerning reasoning about choices, assumptions that informed and were challenged by Socratic texts.

Passages from Plato’s *Republic* frame each of the following chapters. While that was not my original plan, it soon became apparent that among that dialogue’s less-often-recognized features is a profound and sustained interrogation of strategic reasoning and its limits. Given its status as, by some accounts, the greatest ancient work of political philosophy, and consequently its familiarity to a modern readership, the *Republic* provides continuity for an argument that ranges widely across historical eras and literary genres. Moreover, given Plato’s ambition to specify the conditions for an ideal state, the *Republic* provides a test case for the depth and breadth of the folk theory’s uptake by Greek intellectuals. Unlike modern ideal political theory, which “idealizes away the

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Thus, it is assumed that all reasonable people would wish to obey the axioms of the theory, and that most people actually do, most of the time.” What I am calling the *narrowly normative* account of rationality, adopted by contemporary choice theorists, does concern evaluation based on specifiable criteria, but does not require that the agent’s motivations for action arise from reasons that are objectively (or even widely agreed to be) good or right, as does the broader sense of normativity common to ancient and modern discussions of ethics and morality. See discussion in Broome and Piller 2001; Broome 2002, 2021; Abizadeh 2018.

23. In using this nomenclature, I follow ancient precedents: Compare LM 33.D62 (= Cicero, *On the Orator* 3.16.61–17.62), D63, D64.

possibility of law-breaking, either by individuals (crime) or societies (aggressive war),” Plato confronts cooperation dilemmas head-on.<sup>24</sup>

In the course of developing a bold new approach to metaphysics and epistemology, the *Republic* analyzes the self-interested motives and lawless choices of a hypothetical unconstrained rational individual (chapter 1), self-interested behavior as both an impediment to and prerequisite for the emergence of social order (chapter 2), the dangers of instrumentalism when rulers have a monopoly on violence (chapter 3), the relationship between the rational individual and the rational state (chapter 4), probability estimation as an essential aspect of choice-making in the high-stakes context of war (chapter 5), preference diversity as a problem for democratic rationality (chapter 6), the rationality of wealth accumulation and its pitfalls (chapter 7), and how the conscious and strategic pursuit of self-interest relates to human flourishing (chapter 8).

Texts discussed below were written over a millennium, from the eighth century BCE (Homer) to the second century CE (Plutarch). The primary focus is, however, on the classical era of the fifth and fourth centuries. I suggest that the folk theory crystallized at a certain time and place: in mid-fifth-century Athens. But I do not, here, offer a detailed explanation for *why* just there and then.<sup>25</sup> I seek to restore a missing part of the intellectual context by showing that classical-era historians and Socratic philosophers responded in detail to earlier sophistic claims about the role of self-interest in human affairs, as well as to one another. But I do not explore in detail the relationship between texts written by elites and the attitudes of ordinary citizens.<sup>26</sup> Chapters 4–6 are framed by the history of Athenian political development from the early sixth to the later fourth century BCE. But I forgo the strictly historicist approach to the history of

24. Quote: Wenar 2021a: sec. 2.3, with reference to the political philosophy of John Rawls. On ideal and nonideal theory, see further, chapter 8.7, with literature cited in n. 49.

25. The answer to that question must be sought in the broader context of the development of Greek culture, politics, and economics. As Solmsen (1975) and Netz (2019) (among others) have shown, Athens was the intellectual center of classical-era Greece and the site of dramatic advances in a wide range of fields. Mantzavinos (2014) shows that textual interpretation of the sort attempted here—aimed at answering questions of the type “what is (or was) the case?”—can be scientific in the sense of formulating conjectures and testing them by with the aid of empirical evidence.

26. Contrast Ober (1989, 1996, 2005), where a primary focus is on the attitudes of ordinary Athenians. I hope that the topic of instrumental rationality in popular Greek thought and culture, along with popular concerns about its dangers, will be explored in future scholarship. A catalog-in-progress of passages in (among other sources) Greek rhetoric, comedy, and epigraphy, being assembled by myself and some of my students, suggests that the evidence for such a study is rich and varied.

thought and practice that treats each historical period as an entity unto itself and regards each era's questions and concepts as distinctly its own.<sup>27</sup>

To illustrate the prevalence and persistence of themes and concepts, I move back and forth in time and across genres, juxtaposing passages drawn from Hellenistic and Roman historiography with archaic poetry and classical philosophy. In so doing, I slight what are, for intellectual historians and literary scholars, centrally important issues of context, influence, and intertextuality. That sacrifice is in aid of two goals: First, establishing that there was a coherent ancient Greek tradition of thinking and writing about strategic reason. Next, showing that the Greek tradition, taken as a whole, shared core intuitions with contemporary choice theory. And therefore that ancient ideas about rationality illuminate and are illuminated by modern theory. If this book clears the high bar of achieving those goals, others may choose to go further, by developing the fine-grained, deeply contextualized intellectual history that is forgone here.

### 0.3 RATIONALITY ANCIENT AND MODERN

The bar is high in part because of a tendency to emphasize how fundamentally *different* ancient Greek culture, thought, and social practices were from the forms of rationality characteristic of modernity. That tendency has been marked in the last two generations of classical scholarship.<sup>28</sup> In ethical and political philosophy it dates back to the seventeenth century and remains a common trope in contemporary ethics and political theory.<sup>29</sup> Meanwhile, for their part, formal choice theorists

27. For the historicist/contextualist approach associated with Quentin Skinner and the "Cambridge school of intellectual history," see the essays collected in Brett and Tully 2007 and discussion in Ober 1998a: 8, 31–32, 36–38, with works cited.

28. Greg Anderson (2018) makes a particularly strong statement of the "unlikeness" thesis in classical scholarship, concluding that the ancient Greeks were "ontologically" different from us and, as such, unknowable by ordinary methods of historical inquiry. For critical discussion see Ober 2020. For other examples see the preface and chapter 7 of the present volume.

29. For example: Thomas Hobbes's ([1651] 1996) stark rejection of Aristotle's theory of natural sociability, Benjamin Constant's 1819 essay "The Liberty of Ancients Compared with That of Moderns," and more recently in the work of both conservatives, notably Leo Strauss and Alasdair MacIntyre, who lament modernity's loss of ancient wisdom and virtue, and liberals, for example Isaiah Berlin (1969), who reject classical eudaimonism, civic republicanism, and an emphasis on virtues of character as inimical to ideals of autonomy, moral duty, and freedom as noninterference: See discussion in Berkowitz 1999: 7–21; Kalyvas and Katznelson 2008; Annas 2017.

tend to trace the origins of their fields only as far back as the philosophical and mathematical thought of the eighteenth century—for example, to Hume, Rousseau, and Condorcet (Binmore 2007; R. Hardin 2007; Sen 2017).

The question then arises: Does the “rationality of choice” capture a deep (if necessarily partial) truth about cognition and human behavior generally? Or is it only (if at all) a contingent feature of some people, inhabiting certain roles in certain modern societies? Of persons who think and act as they do only because they have been subjected to a culture of science and to economic conditions that are unique to modernity? Insofar as we, today, are instrumentally rational, is it because we are human? Or because we are modern?<sup>30</sup> Even if one accepts, as I do, that modernity has put its stamp on expressions of humanity, these questions may seem important. This book is addressed to those who think that they are.

### *Comparing Contemporary and Ancient Theories of Choice*

It is, I suppose, uncontroversial to say that reasoning about how individuals and groups make choices provided part of the intellectual infrastructure for Greek writers, including Plato, Aristotle, Herodotus, Thucydides, Xenophon, Polybius, Plutarch, and the dramatists. They aimed, in the first instance, at contributing to (or revolutionizing) existing bodies of work in the domains of history, moral and political philosophy, comedy, tragedy, and so on. There was no ancient Greek literary genre that corresponds to the modern fields of decision and game theory, or to the modern disciplines of economics and political science. But the central claims of this book are, first, that ancient Greek writers knew, developed, and criticized ideas about rationality, choice, and action in ways that were sophisticated, systematic, and well worth closer investigation. And, next, that those ideas were operationalized in individual behavior and in formal rules. Incidents described in Greek literature and various Greek political institutions are best understood as the result of rational choices and bargains. As such, they can readily be modeled by simple strategic games. In brief, ancient Greek thinkers may, in some

30. See discussion in Amadae 2003 (with critical response by Stone 2004) and 2016. Instrumental reason was described as a distinctive, and troubling, feature of modernity by the critical theorists of the “Frankfurt School” and, more recently, by Habermas (1996). Leese (2021: 6–10, 223–28), surveys recent historical work that rejects the possibility of premodern economic rationality.

ways at least, be more “like us” than is allowed by recent classical scholarship or by a long tradition of political and ethical theory.

To investigate Greek thought on the rationality of choice, I offer a series of close readings of Greek texts, employing the conventional methods of history, philosophy, and philology. I analyze the vocabulary of, for example, calculation, measurement, choice, constraint, utility, advantage, profit, risk, and likelihood.<sup>31</sup> Although I introduce some Greek terms and some of the specialized terminology employed by positive political theorists, I do not assume that the reader has prior knowledge of either classical Greek or game theory. I draw attention to metaphors (e.g., path or road) and allegorical tales (e.g., about Gyges the Lydian) that Greek writers employed to illustrate the relationship between individual decisions and social behavior. I also seek to show, by reference to decision trees and strategic games, illustrated in normal (box matrix) or extensive (branching) form, that the authors of the relevant Greek texts and institutional arrangements posed and answered questions like those raised by contemporary choice theorists. Schematic illustrations are simplifications that can clarify connections and contrasts among ideas, situations, and texts.

Humanists may worry that the approach I employ here is reductive. Indeed, turning passages of artful and subtle writing into games is reductive—it strips away much that every reader of Greek texts (including myself) cares about. But that need not be a cause for worry. I claim that, in the examples featured in this book, employing analytic tools that are self-consciously, scientifically reductive foregrounds otherwise obscure aspects of ancient rules, practices, and texts. The goal of reducing complexity is to increase analytic clarity (Gailmard 2021: 79–80). Gaining greater clarity can in turn help us to better understand the complex original—whether it is a normative claim, a phenomenon of social interaction, an institution, or a passage of Greek prose. It can help us to be better readers, better historians, and better students of human behavior. But formal analysis cannot and is never intended to replace the text or its context, which is *always* “more complicated than that.” Formality may enable us to see new facets of the meaning of a complex text, but never exhausts it.

The concern of formal theorists is likely to be the opposite: that the Greek approach to rationality is too informal, not reductive enough.

31. Respectively: *logismos*, *metron*, *hairesis* (and *prohairesis*), *anangkē*, *chrēsis*, *sumpheron*, *lusiteleia*, *kindunos*, *eikos*. See index for these and other Greek terms.

Greek writers and legislators concerned with the rationality of choice lacked the advanced mathematical tools, algebraic expression, and quantitative precision that exemplifies contemporary formal theories of decision and games. As we will see, Greek writers on practical reason worked out the implications of the folk theory primarily through narratives: some blatantly fictitious, others historical or quasi-historical. Even when we restrict ourselves to disciplinary domains centered on ethics, politics, and social organization (leaving aside mathematics and statistics), the mathematical formalization of choice theory has obvious benefits: It is a uniquely powerful and rigorous kind of abstraction and systematization. As such, formal theory makes it possible to treat hard problems that lack intuitive solutions, to compare seemingly dissimilar cases by using standard methods, and to incorporate precisely quantified estimates of probability.

I do not pretend that the Greeks anticipated those vital features and cardinal virtues of contemporary formal theory. But, so I will argue, the ideas underpinning the ancient and modern theories are relevantly similar, as are the habits of illustrating the theory with fanciful stories and historical anecdotes, and testing it against the observed behavior of individuals, groups, and states. As introductory texts by prominent game theorists demonstrate, the basic premises of formal theories of choice can be explained in ordinary language and simple illustrations, without algebra.<sup>32</sup> It is therefore quite possible that intuitions about motivation, rationality, and social behavior on which formal theory is predicated would be accessible to a culture lacking the mathematical methods that constitute contemporary formal theory's defining feature. And, taking the next step, such a culture might conjoin informal understandings of how the various intuitions cohere into a theoretical paradigm useful for explaining (and perhaps even predicting) phenomena that otherwise remained opaque. And, finally, that culture might develop ways of thinking about practical reason, applying abstract theory to real-world choice situations, that are sophisticated, powerful, and yet not readily captured by mathematical methods. This book con-

32. Textbooks on game theory: Davis 1983; Dixit and Skeath 1999; Camerer 2003; Binmore 2007. Camerer (2003: 3) notes, "The spread of game theory outside of economics has suffered, I believe, from the misconception that you need to know a lot of fancy math to apply it, and from the fact that most predictions of analytical game theory are not well grounded in observation." Cf. Myerson 2009 on the way in which analytic but informal work on conflict by Thomas Schelling ([1960] 1980) both anticipated and stimulated the development of formal game theory.



tends that the ancient Greeks did just that and that their results merit the attention of anyone concerned with rationality and cooperation.

### *Desire, Belief, Expectation*

The “family” to which modern rational choice theory belongs is the moral psychology associated, in the history of philosophy, with David Hume ([1739] 1978). Theories in this family understand choice as a psychological process conjoining desire and belief. For Hume, the agent’s motivating desires or preferences (conative states) were taken as being prior to, distinct from, and not, themselves, derived from or motivated by the agent’s beliefs about the world (cognitive states). Once a preference has been formed, belief informs deliberation aimed at calculating the feasibility of options and the likelihood of outcomes. The agent chooses accordingly, going for the most desired option among those believed to be available. While ancient theories did not strictly insulate belief from desire, they were similarly concerned with explaining how desire and belief relate to deliberation and choice, and thereby motivate purposeful actions.<sup>33</sup>

In common with modern choice theory, the ancient Greek folk theory, as it was reformulated by Plato in the *Republic*, abstracted from ordinary human choice-makers. It imagined in their stead hypothetical agents freed from certain of the cognitive limitations and social constraints that affect the choices of ordinary persons. Like modern choice theory, the ancient folk theory was, therefore, normative in that it specified how a fully rational agent ought to act. Yet it was also analytically descriptive and explanatory in that it inferred the causes of actions that people are observed to undertake.<sup>34</sup>

33. Hume’s theory of motivation: R. Hardin 2007; Sinhababu 2017. Irwin (1977: 80) claims that the Socrates of Plato’s early dialogues “agrees entirely with Hume that reasoning moves us only because it depends on some previous desire for an end, and disagrees with Hume only in rejecting desires independent of the final good.” Hume’s psychological theory contrasted to that of Plato: Lorenz 2006: 32–33; to that of Aristotle: Anscombe 1977: 69; A. Price 2011.

34. Bobonich (2011) defends the consensus view among classical philosophers that in the early (pre-*Republic*) dialogues Plato’s Socrates already accepts both (1) a normative “Principle of Rational Eudaimonism: It is rationally required that, for each person, his own (greatest) happiness is the decisive consideration for all his actions,” and (2) a descriptive “Principle of Psychological Eudaimonism: Each person pursues (and tries to act upon) his own (greatest) happiness as the decisive consideration for all his actions” (quotation: p. 296). On the essential role of causal explanation in Aristotle’s account of the deliberative reasoning that results in action, and its relationship to Aristotelian eudaimonism, see Moss 2014, 2017.

Like modern choice theory, the folk theory was predicated on the assumption that a rational agent will act according to well-ordered desires and beliefs. That is to say that the agent (1) has ranked preferences over outcomes;<sup>35</sup> (2) has coherent (not internally contradictory) beliefs about the relevant state of the world; (3) chooses the best available option; and (4) acts accordingly. The agent's choices and actions are determined by the anticipation of preference satisfaction. That anticipation is predicated on beliefs about the world: the perceived likelihood of certain things coming to pass. Agents, as we will see, may be either individuals or groups capable of modeling the choice processes employed by a rational individual. Specifying the conditions under which a group could be rational became a major concern of Greek theories of practical reason.

In the ancient and modern theories alike, the rational agent forms a *judgment* about possible outcomes. She does so through *deliberation*—getting clear about her preferences and beliefs relevant to a given situation. Deliberation involves thinking matters through and/or discussing the situation with others. She chooses the course of action that, having done the necessary calculations, she *expects* will lead to the best available outcome—that is, per Xenophon's Socrates (above), the *feasible* option she thinks is *most* advantageous (profitable, beneficial, satisfactory) *to herself*.<sup>36</sup> Thus, we may say that if *subjective value* (understood as an agent's satisfaction with outcomes) is conditioned by her *expectations* regarding preference satisfaction (the likelihood, desirability, and feasibility of alternative outcomes), rational action can be defined as behavior that *maximizes expected subjective value*.

35. Ideal-type ordered preferences are complete (covering all feasible outcomes), hierarchically ranked, and transitive, meaning that if there are three feasible outcomes (X,Y,Z), then in pairwise choices, X is preferred to Y, Y to Z, and X to Z. See further, chapter 1.3.

36. While reformulating the folk theory in terms of his own psychology and epistemology, in the early dialogues Plato's Socrates employs the ordinary assumptions of the folk theory as a sort of intuition pump for his interlocutors. See, for example, Plato, *Protagoras* 358c–d: Socrates claims that no one goes willingly (*hēkon*) toward evils (*kaka*), or what he considers evil, nor is it within human nature (*anthropou phusis*) to wish to go towards what one thinks to be evil rather than good. “And when one is forced to choose between two evils, no one will choose the greater [evil] if the lesser [evil] is available.” For Plato's Socrates' association of “goods and evils” with “pleasures and pains,” see Plato, *Protagoras* 357d–e: People make mistakes with regard to the choice of pleasures and pains (*ton hēdonon . . . kai lupon*)—that is (*tauta de esti*), with regard to *agatha* and *kaka*—and make these mistakes out of lack of knowledge. On the question of Socrates' hedonism in *Protagoras*, see below, n. 43.

*Self-Interest, Utility Maximization, Measurement*

Such behavior may be roughly described as egoistic, as *self-interested*. Even when the agent's highest-ranked preference includes, or just is, the good of others, getting that outcome is to her own advantage in the sense of desire satisfaction. Her rationality is *instrumental* insofar as the end is chosen because it is thought to be the most advantageous available outcome, in the sense of best satisfying a desire of the agent.<sup>37</sup> It need not, therefore, be chosen specifically for its own sake, as something that is choice-worthy as a good in itself, or as a moral duty owed to others, irrespective of its expected value for the choosing agent.<sup>38</sup> The definition of the "self" whose advantage is sought by a rational agent is not determined by the Greek folk theory. While pure, impartial, and disinterested other-regarding altruism is not accommodated by the theory, the self whose interests are served need not be, and often was not, limited to an individual. The extension beyond the individual of the self whose interests might be sought by a rational agent became a matter of intense interest for Greek theorists.<sup>39</sup>

In the quote attributed to him by Xenophon, Socrates described the process of choice as aimed at maximization of utility, based on the agent's beliefs. One method used by modern choice theorists for determining *intrapersonal* preference strength (that is, cardinal weighting rather than just ordinal ranking; see chapter 1.3, 1.8) is by comparing lotteries.<sup>40</sup> Treating each outcome as a lottery enables sums of utility

37. As we will see in chapter 1.6–7, the available outcomes may be very far from what the agent most desires; a rational agent's choice may reduce to the "least bad" among a limited set of bad options.

38. The instrumentally rational agent might choose an option that is regarded by the agent as a good in itself. That is, instrumental rationality does not preclude the belief that some things—e.g. justice, virtue—are intrinsically valuable. But it is the expected advantage to the agent, not the inherent goodness of the option, that is the reason for the agent's choice. See further, chapter 8.

39. Christ (2006: chap. 1) reviews the evidence for "self-interested citizens" in classical Athens, demonstrating the prevalence of the assumption that individuals were fundamentally self-interested. Balot (2001) focuses on Greek literature that concerns the devolution of self-interest into vicious greed: excessive desire to get more for oneself without regard for the claims of others.

40. The expected utility to a risk-neutral (neither risk-averse nor risk-preferring) rational agent of a given outcome is deduced by assuming that the agent is indifferent between a "sure thing" payoff (e.g., a 100% chance at \$1 vs. 0% at nothing) and a fair chance (expressed as a probability distribution) for a higher payoff (e.g., a 10% chance at \$10 vs. 90% at nothing). On the standard theory of expected utility maximization, and its limitations, see Buchak 2013. On maximization in Greek economic theory and practice, see Leese 2021.

associated with more and less likely outcomes, measured in an actual or pseudo-currency (e.g., dollars or “utils”), to be directly compared. The point at which the agent is indifferent between lotteries specifies the relative strength of the agent’s subjective preferences.<sup>41</sup> Her “utility function,” that is, her preference for one bundle of goods over another, is operationalized in her choice of the lottery offering the highest expected yield.<sup>42</sup> As we will see, some ancient narratives centering on consequential choices are readily redescribed as choices among lotteries, with payoffs to available outcomes imaged as measurable in a real or pseudo currency; I offer examples in the following chapters.

Ancient choice theorists concerned themselves with standards for measurement and comparison of desire satisfaction across available outcomes. The probability of a given outcome was not quantified as a frequency distribution. But the questions of how to gauge the likelihood of possible outcomes and how to measure the value of outcomes in a standard currency were hotly debated by Greek ethical philosophers. In Plato’s *Republic*, for example, oligarchs measure the comparative value of possible outcomes by a straightforward monetary standard. In Plato’s *Protagoras* (356a–57b) Socrates emphasizes the great value of an “art of measurement” that allows for choice and action to be predicated on the precise calculation of the size and number of current and anticipated pleasures and pains.<sup>43</sup>

The Socratics diverged from the background Greek “folk theory” and from modern choice theorists in their concern with the objectivity of value and the rationality of desires. For each of the Socratics, happi-

41. For example: Lottery  $x$  = sure thing of outcome  $X$  (0% chance of getting nothing); lottery  $y$  = 50% chance of outcome  $Y$  (and 50% chance of nothing); lottery  $z$  = 10% chance of outcome  $Z$  (and 90% chance of nothing). The agent who is indifferent among these lotteries ( $x = y = z$ ) has expressed a preference-strength ranking (cardinal subjective valuation of  $X, Y, Z$ ) in the ratio  $X:1, Y:2, Z:10$ . For discussion see Diaconis and Skyrms 2017.

42. Hun Chung (per litt. December 2019) suggests a slightly more formal account: “What modern expected utility theory simply assumes is that agents have preferences over available actions (seen as lotteries, i.e. probability distributions over sure outcomes) and whenever these preferences satisfy a number of formal consistency conditions (e.g. continuity, independence, etc.), then we are able to find a real-valued utility function representing the agent’s preferences that has (what people call) the ‘expected utility property’—viz. the utility of an action (seen as a lottery) is equal to its expected utility, and, hence, the agent strictly prefers option  $x$  to option  $y$  if and only if the expected utility of option  $x$  is greater than the expected utility of option  $y$ .”

43. Whether the Socrates of the *Protagoras* advocates an explicitly hedonistic standard for happiness (explicitly rejected elsewhere in Plato’s Socratic dialogues) is debated: See Irwin 1977: chap. 4, 1995: 85–92; Weiss 1989; Bobonich 2011; Kamtekar 2018: chap. 3.

ness, understood as complete human flourishing (*eudaimonia*), was the highest, best, end of human life: the goal pursued by an ethically rational person.<sup>44</sup> Unlike Greek Sophists and modern choice theorists, Socratic philosophers sought to establish an objective basis for measuring happiness in comparative, *interpersonal* terms. Abstracting from the subjective preferences of any specifiable individual, Plato's Socrates at one point (*Republic* 9.587b–e) calculates that “the philosopher” is precisely 729 times happier than “the tyrant.” Yet each of the Socratics also recognized that instrumental rationality, determining the best means to desired ends, was necessary for attaining that highest end, and all the subsidiary goals leading to it. And they saw that instrumental rationality was employed by those who aimed at what they regarded as bad ends. The potential value for *us*, today, of comparing ancient with modern accounts of value, choice, and reason is the primary justification for this book.

In the next chapters, I attempt to demonstrate that there was an influential “ancient Greek folk theory” of practical reasoning that centered on instrumental rationality and its limits. That is to say, the internally coherent set of assumptions about motivation and action sketched above was widely known in Greek antiquity and was operationalized in actual choice-making. Moreover, that set of assumptions was adopted as a *point d'appui* by Greek writers who concerned themselves with ethics, politics, and history—even when it was *not* considered a complete account of observed behavior or an adequate basis for morally choice-worthy action. Greek writers employed the folk theory as a foundation for more elaborate arguments aimed at causally explaining and normatively evaluating human behavior and social development.

The folk theory was adapted and refined over time. None of the thinkers with whom we will be concerned supposed that it accounted for all relevant human behavior or all aspects of development. It failed, for example, to explain human aspirations to identify objectively correct ends; to act well, finely, and justly; to “do the right thing, in the right way, for the right reasons.” Understanding why people, individually and

44. I am ignoring, here, salient differences between Aristotle and Plato, and between Plato's earlier and later dialogues, in the definition of happiness, its relationship to virtue, and concerning who is, or could possibly be, either completely or adequately happy; see discussion in Bobonich 2017, concluding (p. 298): “Being happy is, very roughly and with the caveat that different philosophers have distinctive conceptions of happiness, the attainment and correct use of the human goods or living the best possible (or at any rate, the superlatively choiceworthy) life for you.”