Melos' Prospects.

War and interstate relations

Chapter 6 of The Greeks and the Rational (provisional title)

Draft of 2019.10.26 17,900 words.

ABSTRACT. This chapter concerns relations between states, exploring both zero-sum conflicts and non-zero-sum bargains. Plato’s Republic addresses war and inter-state bargaining in the idealized state of Callipolis. War brings issues of chance, risk, and probability assessment to the fore. Plato’s discussion of the military training of the young Guardians establishes that the senior Guardians are capable of assessments of risk, based on their expert measurement of the probability that a given battle will be won or lost. Thucydides’ history is an extended treatment of interstate conflict, bargaining, and decision-making under uncertainty. He offers the Athenian empire as a case study in rational cooperation among unequal states, predicated on calculated costs and benefits. Athens’ imperial policy rested on the rationality of fear and self-interest. Because the empire, modeled as a “stationary bandit,” could credibly commit to low taxes in exchange for high levels of cooperation, rational subjects had no reason to defect from the coalition. But defect they did. Thucydides’ Mytilene narrative (book 3) explores the motives of the defectors and the implications for Athenian imperial policy. The limits of rationality are foregrounded in Thucydides’ Melos narrative (book 5), centered on the failed bargain chronicled in the Melian Dialogue and ending in the destruction of Melos. That outcome was inefficient (as well as unjust and tragic) in that it benefited neither party. It was the result, Thucydides suggests, of failures of practical reasoning. The Melians failed to recognize that the Athenians were credibly committed to destroying Melos should the Melians refuse to join the coalition. The Athenians failed to see that the Melians had predicated their choice on the psychologically intolerable prospect of great loss, rather than on calculations of expected advantage, based on a realistic assessment of probabilities.

War and interstate relations in the shadow of war were constants in the world of the classical Greek poleis. Wars between Greek states ranged from relatively minor territorial disputes to existential struggles with the potential of high casualties or even state death for the losing side. While classical-era wars between Greek states tended to be fought according to certain shared cultural
norms, there were no binding rules constraining the behavior of combatants or victors. Norms could be ignored, reinterpreted, or wantonly violated. War was a primary source of uncertainty and risk for individuals and states alike. The background context of inter-state relations in the Greek world may fairly be described as anarchic, insofar as there was no international organization capable of setting limits on conflict.¹

Yet the world of the poleis was far from “a war to the death of all against all.” The grim zero-sum game of war of extermination was played in the context of non-zero-sum bargaining games. These took the form of, for example, alliances, treaties, and conventions between states – bilateral or multilateral, on equal or unequal terms, with varying levels of mutual responsibility and commitment, with or without fixed terms. Interstate agreements, and institutionalized roles for individuals (e.g. proxenoi, theorodokoi) and groups that facilitated those agreements, were ubiquitous.²

Collaborative relations between states ranged from the free agreements among relative equals (in its strongest form federalism, for example the Achaean koinon), to hegemony in which a strong state led a coalition of lesser states (Sparta’s Peloponnesian summachia), to frank domination of subject tributary states by an imperial power (Athens’ archê).³ Meanwhile relations between states were complicated by the endemic possibility of intra-state conflict (stasis). Stasis typically concerned the question “who will rule the polis?” – and a change in one state’s ruling body could have profound knock-on effects on inter-state alliances. Like inter-state wars, staseis ranged in intensity from brief violent interludes with few casualties to existential crisis.⁴

The conditions of war and inter-state relations bring issues of instrumental rationality into especially sharp focus. Motivations of self-interest and divergent preferences over outcomes sought by individuals, groups, and states stand out clearly against the background of hot and cold war – violent conflict and the threat of conflict. The high stakes of Greek war and the complexity of factors contributing to conflicts in and beyond the city-state world meant that highly salient choices had to be made under conditions of uncertainty. The level of uncertainty might be lessened by reference to relevant information and to reasonable inferences from observable signs. If uncertainty could never be eliminated, it could, in the view of some Greek theorists and statesmen, be managed, as measurable risk.

Factors of chance, uncertainty, and risk were especially pressing in times of war. And that in turn meant that accurate assessment of the probability of various outcomes became an imperative for state survival. Yet information relevant to choices about fighting or alliance was often incomplete and asymmetric. This meant that even the most expert risk assessments by the most rational decision-makers might end in choices that were catastrophic for either side.⁵ Rational choices based
on preferences, beliefs, and expectations might be confounded by decision-making based on prospects – on hopeful reasoning that, from the point of view of expected advantage maximizers, over-weighted the value of current resource endowments relative to future gains and losses. All of this is reflected in the extensive tradition of Greek writing on interstate relations. War and the threat of war features prominently in many genres of Greek literature. Here we focus primarily on the historiography of Thucydides. But, as in other chapters of this book, the issues can be clarified by preliminary reference to Plato’s political philosophy.

6.1. War and risk in Plato’s Republic

In chapter 3 we surveyed the transition in Plato’s Republic book 2 from the healthy First Polis to the “luxurious, feverish polis” that will eventually become Callipolis. The transition was required because of Glaucn’s emphatic preference for a life that included various luxuries. Socrates had to accommodate that preference, so I argued, because he had previously agreed that Glaucn’s neo-Thrasymachean “Gyges with the ring” account of human motivation and instrumental rationality would be the challenge he must answer in demonstrating the intrinsic value of justice.

Accommodating Glaucn’s taste for luxury and the psychology it assumes has the immediate effect of sharply increasing the total population of the imagined polis. This is because many occupational specializations, unnecessary in the First Polis, will be needed to meet the anticipated demand for luxury goods and services. The increase in population requires, in turn, an expanded state territory, one large enough to be capable of supporting them all. Socrates assumes that the imagined polis that is to be constructed through reasoned argument will be located in a region that is already divided into city-states, each jealously guarding its borders: “We will have to seize some of our neighbor’s land if we are to have enough pasture and farmland.” Glaucn quickly accepts this necessity as inevitable (373d). The logical next step, says Socrates, must, therefore, be war (373e).

Socrates pauses at this point to generalize the argument, noting that he and his interlocutors had now uncovered the origins of war in “the same desires that are most of all responsible for the bad things that happen to poleis and the individuals in them” (373e). Those desires are, as we have seen, are for “more and more” – for luxuries in excess of what is necessary for life in a simple, healthy community. Thus, the origin of war between states is located in the self-interested motivations and instrumental reasoning that I described, in chapter 1, as the premises of a Greek folk theory of practical reasoning. The egoistic Thrasymachean variant of the folk theory leads us to suppose that the goal of a powerful state will be to rule tyrannically, in its own interest, over weaker states.
The soldiers of the imagined state of the Republic – who turn out to be the military-expert Guardians, per discussion in chapter 3 – will be employed not only to seize the territory of neighbors, but also to defend the state’s now-expanded territory and possessions against invasions by neighboring states (373e-374a). The choices of those rival states in respect to war are, therefore, assumed to be motivated by precisely the sort of reasoning Socrates had just established as war’s origin. The Guardians’ role is providing Callipolis’ military security, in the face of the endemic military threat created by the motivation, at the level of the state, to maximize of “Gygean” goods, “to seek to get more and more.” That motivation, conjoined with the requirement that each individual stick to his own tasks, requires the establishment of a class of Guardians with a specialization on violence provision (374e). Yet, as we have seen (above, chapter 3), Guardians are dangerous: Individuals with superior violence potential and Thrasymachean motivations would destabilize the harmonious internal order of the state. Addressing that threat by eliminating the incentives of the Guardians to use their expertise in war against each other, or against the productive classes, is the original justification for the special education of the Guardians and for the distinctive social rules that constrain the circumstances of their lives.

In book 4 of the Republic Plato returns to the question of inter-state relationships between poleis. Each polis is understood as a self-interested collective agent, seeking to further its own advantage. In an interchange with Adeimantus, Socrates confirms that, as Callipolis develops, the producing classes will own land, fine big houses, and furnishings to match (419). But there will be limits to the wealth that the Guardians will allow in the polis (421e-422a). The Guardians themselves, who are both warriors and rulers, will possess no wealth. The question then arises: How will Callipolis, lacking state-level capital resources, be able to compete successfully in a war against a great and wealthy rival polis, especially a polis that had gathered to itself the resources of many other poleis (422a, 422d)?

Socrates’ answer has three parts: First is the simple claim that the Guardians, being full-time experts at war, will be superior fighters (422b-c). Next comes an argument based on rational calculation of outcomes and expectations: Callipolis will send envoys to any polis that was in the process of deciding between attacking Callipolis (perhaps in alliance with other poleis) or joining Callipolis in a military alliance against some other polis or coalition. Callipolis’ envoys are in a position to make an offer that, Socrates claims, will be too good for another polis to refuse, given the assumption of state-level self-interested desire for more and more and the capacity of states to calculate their advantage through instrumental reasoning. Callipolis’ envoys will make the following offer: “We make no use of gold and silver nor is it lawful for us to do so, but it is lawful for you: so make war along with us and you can take the property of our opponents.” Socrates then asks, “Do you suppose
any [state] that heard such a proposal would choose to fight against hard and lean hounds [Callipolis’ Guardians], rather than fight with the aid of the hounds against fat and tender sheep [the residents of other poleis and their possessions]?” (422d). Here Plato’s Socrates reprises Thrasymachus’ (Republic book 1) metaphor in which the strong treat the weak as sheep fit for consumption.

Finally, Socrates concludes, all other poleis, lacking Callipolis’ fine-tuned harmonic unity, are presumptively divided against themselves, especially along class lines of rich vs poor. As such, they can be assumed to be relatively weak and liable to civil conflict (422d-423a). Once again, Callipolis will be in a position to exploit the self-interest of instrumentally rational opponents, this time by siding with one faction against another: “if you approach them [the residents of other poleis] as many [factions] and offer to give to the one [faction] the possessions, capacities, and indeed the very persons of another [faction], you will always find many allies and few enemies” (423a). Here we see a close approximation of the “primitive preferences” of wealth, power, and sex that featured as universal motivators in Glaucan’s neo-Thrasymachean challenge in Republic book 2. In sum, in Plato’s Republic, the conditions of inter-state conflict are explicitly modeled on the instrumental rationally assumed in the folk theory.

One other war-related passage in the Republic is especially relevant to our investigation of the role of preferences, beliefs, and expectations in Greek conceptions of practical reasoning. In describing the education of the young male and female Guardians in book 5 (the Guardians, both auxiliary guardian warriors and true guardians who graduate from warriors to rulers, now include women), Socrates makes the point that it is always beneficial for the children of craftsmen to observe elder master craftsmen at work, even before the children are themselves able to take an active part in the craft (467a). This, he says, extends to the craft of war.

The young Guardians-in-training will better learn their craft, and thus the polis will be benefited, if the girls and boys have the chance to see firsthand what they will be expected to do as adults. Thus it is established that Callipolis prefers that its young Guardians be exposed to war while still too young to fight. But Glaucan raises the obvious concern: placing children on a battlefield would endanger them. That, he notes, could result in a serious public harm: If the young Guardians in training are killed while observing a battle, the future of Callipolis could be forfeit. With reference to Figure 6.1, Glaucan seems initially to prefer outcome α: not having been sent to battle, the children will survive. In effect, he proposes to ignore the rest of the decision tree, so the value of having children observe a battle is foregone.

[Figure 6.1 about here: Elder Guardian decision tree]
In response to Socrates' prodding, Glaucon agrees, however, that the children’s exposure to war is highly desirable, because (per the premise of the value of observation to trainee’s) it is advantageous to the polis. Moreover, and crucially, he acknowledges that this desired outcome is worth some risk: "[Socrates] 'Do you think it makes a slight difference and is not worth some risk (axion kindunou) whether men who are to be warriors do or do not observe war as boys?' [Glaucon] 'No, it makes a great difference for the purpose of which you speak’" (467c). Therefore, it cannot be the case that the potential outcome “child Guardians exposed to war” should simply be foregone in order to guarantee their safety. But at what level of risk does the danger of losing the children become so great as to justify foregoing the benefit of their early training through observation? To answer the question of how the elders of Callipolis will choose between exposing the children to battle (thus benefiting the polis by giving young Guardians the right training, at the risk of endangering them) and not exposing children to battle (thus benefiting the polis by preserving their lives, at the cost of foregoing the benefit to the polis of their early training) Socrates proposes that risk can be correctly measured.

The factor Socrates introduces to enable weighing the value of early training against the risk of early death is the relative dangerousness of a given battle. Socrates asserts that the Guardian (collective) parents of the child Guardians will not be ignorant about which campaigns are dangerous (i.e. relatively likely to result in a battlefield defeat for Callipolis) and which are not (defeat is unlikely); indeed they are said to be as knowledgeable about this matter as any human being could ever be (467c-d). Here, Socrates has established a point that is highly relevant to our investigation of the processes involved in practical reasoning: He asserts that accurate measurement of risk is possible (within human limits) and he claims that such measurement is a matter of humanly attainable expertise.

While no quantities are assigned to possible outcomes, it is readily apparent that (with reference to Figure 6.1) a specifiable value \( b \) is being set on the exposure of children to battle. That value must be weighed against the value \( s \) of the children’s survival. In order to decide between the choices “send children to battle, enabling them to observe, but perhaps also to die” (resulting either in either a payoff of \( s+b \) or a payoff of \( -s \)) and “do not send them to battle, guaranteeing their lives but denying them the chance to observe” (payoff \( s \), the probability of the children’s surviving the battle observation experience must be estimated. Those responsible for making the decision are presumed to have the kind of expertise that enables them to measure the likelihood of victory or defeat in battle.

The probability of the survival of children sent to observe the battle is initially assumed to be a function of the probability \( p \) that the battle will not be too dangerous, i.e. that it will be won by the Guardian warriors. The elders "do the
math” of calculating values (s and b) against probabilities (win:lose) and thereby make a rational choice and act accordingly: If \( p(s+b) > s \) then the best choice will be “expose children to battle.” Because the elders are presumed to have the right expertise, a clear decision can be made in every case: The upshot is: “they will take the children to some campaigns and not to others” (467d).

It is worth noting that the expertise of the elder Guardians is applied to all potential military campaigns, and that some campaigns that will be engaged by Callipolis’ warriors are estimated to have a relatively high risk factor – too high to bring along the children. Accordingly, we must reject any notion that Callipolis’ rulers are infallible in their judgments about the outcome of the polis’ military conflicts. The Guardians cannot be certain of winning every campaign they must fight, but they can estimate the likelihood of victory. Socrates’ confidence in the factors that conduce to Callipolis’ long-term military success is not based on certainty, but on the expectation that over time the polis will do well enough against rivals to sustain itself through the correct estimation of probabilities.

The military experts of Callipolis send out the children as battle observers only if there is a high probability (p) that the battle will be won and that the children will, therefore, both observe and survive (expected outcome γ). The chance (1-p) that the children will be killed (outcome β) is correspondingly low. Yet Socrates does acknowledge that, even after expert measurement of the dangerousness of each campaign, there remains a certain level of risk to the observer-children: “but nevertheless, as we say, the unexpected frequently occurs.”

The chance of the unexpected occurring in the battle is indicated by the nodes labeled N(ature) on Figure 6.1. Although the likelihood of things not going as expected in the battle has been calculated to be small, it is not zero. Glaucon’s initial worry seems now to recur. Counterfactually, should the children be observing while on foot, and the unexpected (Guardians are defeated) were to occur, the chance that they would die (expected outcome δ) would be high, whereas their living (outcome ε) would be a matter of mere luck. Socrates therefore proposes a sort of backup insurance plan: The elder Guardians will arrange for the children to observe the chosen battles only while mounted on fast and manageable horses, “so that, should it be necessary, flying off, they shall flee.”

The goal of the horseback observation plan is to reduce the mortality risk to the observer-children in the event of the low-probability result of an unexpected battlefield defeat. Socrates seeks to gain the highly valued payoff b (“exposure of children to battle”) at the lowest possible risk to the polis that they will be lost. In Figure 6.1 the range of possible outcomes in the event of the unexpected is illustrated by outcomes δ to η: if the observer-children were (counterfactually) on foot, they would be hostage to the chance of “the unexpected” in the result of the battle. That goal of reducing risk is achieved by introducing a second high
probability (p’): that flight on horseback will succeed. The second probability combines with the first (p: the battle is assessed as relatively low risk) to increase the children’s overall chance of survival: Combining the two probabilities substantially reduces the risk to the children \(((1-p)(1-p')) < (1-p))

The chance of the children’s untimely demise has still not been reduced to zero (those who flee may nonetheless be caught: outcome \(\eta\)). There remains a persistent need for accurate measurement of risks in order to calculate the expected payoffs of all possible outcomes and thus to make the right, expected advantage maximizing, decision about sending or not sending the children out on a given campaign. The key point, for our purposes, is that the decision is made on the basis of ranked and weighted preferences, beliefs about the state of the world, and expectations based on the assumption that probabilities can be accurately measured. The upshot is that rational choices among different courses of action are made on the basis of expected advantage. The advantage with which Socrates and his interlocutors are concerned is that of the polis. There is no hint in this section of Republic book 5 of a concern for the children as autonomous, rights-bearing beings who must be treated as ends in themselves. The decision process is entirely instrumental, aimed at determining what option choice is expected to be most advantageous to the polis as a community.

6.2. Thucydides on power, risk, and state-level rationality

Plato’s comments on war in the Republic were written in the aftermath of the Peloponnesian War. The reference to the threat to Callipolis posed by a great and wealthy polis, one that had gathered to itself the resources of many other poleis, seems transparently to refer to Athens’ empire of the later fifth century BCE, the dramatic date of the Republic. The topic of Athens’ imperial power – how it was acquired, sustained, and ultimately lost – is a central theme of Thucydides’ history. Athens’ Aegean empire is treated by Thucydides as a special case of building and preserving a coalition of states through non-zero-sum bargaining between parties of differing strengths. Making socially valuable bargains is, in Thucydides’ analytic narrative, facilitated by an accurate calculation of potential risks and benefits. The social benefit realized by those bargains is, however, potentially threatened under the zero-sum conditions and increased uncertainty associated with existential war. Thucydides’ text may, reductively, be thought of as an analysis of the interplay between zero-sum and cooperative games.

The extended conflict that we are accustomed to call “the Peloponnesian War” is described by Thucydides as, “the war between the Athenians and Peloponnesians and the allies on either side” (2.1). The initial premise of Thucydides’ analysis of the war is that the Greek world had divided into two super-coalitions with some strikingly different organizational characteristics: Athens’
maritime empire, created and sustained by naval power, and Sparta’s land-power centered Peloponnesian League (1.1, 1.18.2).

As I have argued in detail elsewhere, Thucydides may be understood as a political scientist, in that his historical narrative of events is aimed at empirically testing the validity of a theory of state-level power. That theory is meant to predict and to explain the behavior of great and small states in the face of power asymmetries. Much of the action described in Thucydides’ narrative concerns attempts by hegemonic states to preserve their coalitions, and attempts, especially by Athens, to expand its coalition by recruiting new states. The questions of under what conditions, with what motives, and with what expectations, a given state would choose to join a coalition (or not to), to remain in a coalition or to defect from it, are central to Thucydides’ analysis.

Thucydides’ theory of power is, I will suggest here, built on the assumption that Greek states can, under the right conditions, be understood as rational, expected advantage maximizing, collective actors. Such states have coherent preferences, established methods for gathering and for assessing information relevant to forming reality-tracking beliefs about the state of the world. They also have methods for correctly measuring probabilities – in something like Plato’s sense (above) of estimating risk as well as is humanly possible. Although Thucydides does not reduce state-level preferences to the maximization of Glaucon’s primitive triad of wealth, sex, and power, or to Socrates’ (Republic book 5: above) triad of “possessions, capacities, and persons,” he does posit that states seek to ensure their own survival and the welfare of their citizens. As with individuals, the rational state predices its choices on a strategic assessment of constraints imposed by the presumptively rational behavior of other state-level players in the game.

A centrally important factor in the run-up to the Peloponnesian War was the growth, after the end of the Persian Wars, of Athenian power. That growth was manifest in its large and effective naval forces, its immense capital resources, and the increasing size and stability of its imperial coalition. By contrast, Spartan power is depicted in Thucydides’ text as great, but relatively stable. Unlike Athenian capital-intensive sources of power, Sparta’s power is predicated on the inherently limited body of fighting men than can be mustered by Sparta and its coalition partners. Thucydides famously asserts (1.23.6, cf. 1.33.3, 1.88, 1.118.2) that it was Sparta’s fear of Athens’ growing power that is the underlying – fundamental although unobserved by most contemporaries – cause of the war. Athens’ growth in powerfuless is, in Thucydides’ account, a product of policies that are closely associated with the general Pericles, but extend back to the Persian war era leadership of Themistocles. Those policies were predicated on the integrated triad of a navy of warships capable of projecting state power, massive city walls and
secure supply lines to ensure state security, and capital resources to pay for an immense pool of skilled human labor.16

Thucydides associated the rationality of Athens as a state (Chapter 5) with its leaders’ foresight – that is, their ability to gauge risk accurately. Accurate risk calculation was based on a careful assessment of material resources: armed forces, infrastructure, capital reserves (2.13.3-6). It was furthermore predicated on understanding the “types” of the various players in the relevant games of domestic politics and interstate relations. With the right information about resources and types, Athens’ leaders were in a position to formulate and update reality-tracking beliefs and thus to promote state policies on the basis of the community’s expected advantage. The highly successful Themistoclean-Periclean imperial policy of the early and middle fifth century BCE was predicated on taking frequent, substantial, and carefully calculated risks. While some ventures failed (e.g. 1.110.4), overall the Athenian imperial ledger was positive in the decades before the Peloponnesian War (2.36.2-3, 2.41.4). In brief, Athens’ policy, based on calculated risk-taking, proved effective in growing Athenian power. By contrast, Sparta, in the era from the end of the Persian Wars to the outbreak of the Peloponnesian War was relatively risk-averse. Spartan policy aimed at maintaining Sparta’s prominent position as a hegemon of a major coalition. Lacking individual leaders with the capacity to calculate the benefits associated with risk, and thus tending to regard risk only as danger of loss, Sparta was not in a position to increase its power.17

Thucydides’ narrative shows how and why the survival and welfare of weak and strong Greek states (and thus of their residents) could be advanced by rational behavior, and likewise compromised by violations of rationality. That behavior is readily modeled by non-zero-sum bargaining games. Under the right conditions, rational cooperation between asymmetrically powerful states was mutually beneficial, enabling growth (more security, higher levels of welfare, thus larger and wealthier populations) over time. The Greek world had, as Thucydides points out (Thuc. 1.13), progressed dramatically in both wealth and security within historical time. That progress, Thucydides suggests, was facilitated by inter-state agreements entered into by adequately well-informed, rationally self-interested parties capable of calculating expected advantage.18 Athens in the age of Themistocles and Pericles was, for Thucydides, a model of the strong and successful city-state that had benefited by both rational risk-taking and cooperative bargaining.

But, as Thucydides emphasized, major Greek states also sought at least to maintain, and in some cases, to expand their power at the expense of powerful rivals. When more than one strong, expansionist state was in play, as in the hypothesized territorial expansion of the “feverish” city in the second book of Plato’s Republic, there was a zero-sum competition over limited resources. The tendency of major states to seek “more and more” wealth and power at the direct expense of
rivals, through expanding coalitions and gaining control of strategic resources, is, in Thucydides’ history, a primary cause of inter-state instability. Athens’ rising power was, for Thucydides, a notable, but not unique cause of instability; the ambition of Syracuse to dominate the poleis of Sicily is another case in point.

Because of prior cooperative coalition-building, the requirements of inter-state compacts, and the multiplicity of flash-points, zero-sum conflicts between major states led to scaled-up wars between ever-larger coalitions of states. The Peloponnesian War was, in Thucydides’ view, the ultimate product of that dynamic. Under ideal conditions, rational states (or coalition hegemons) might avoid going to war, based on complete and symmetrical information concerning relative strengths, accurate measurement of risks, and calculation of the likely costs of conflict. But, as Thucydides recognized and James Fearon (1995) has shown for modernity, under real-world conditions of incomplete or asymmetric information, rational states will fall into costly conflicts. The size, complexity, and instability of a “world system” defined by two coalitions led by states with different “types” and different rates of growth contributed to the difficulty of estimating the relative present and future strengths of the key players in the run up the Peloponnesian War.

Moreover, Thucydides recognized and took account of significant deviations from state-level rationality. Given the fact of preference diversity and volatile interest-based factions within states, and in light of the range of decision-methods employed by states with different polietai, it was not certain that a given state, at a given moment, would manifest the sort of instrumental rationality that Glaucon’s challenge to Socrates in Republic book 2 claims as a universal feature of individuals.

States did not always maximize on a single material factor (e.g. power) or even on a straight-forward package of factors (e.g. power plus wealth plus honor/reputation) contributing to advantage. They might instead seek to satisfice across several factors, including “moral” factors such as justice, fairness, autonomy, and ethnic, regional, or history-based loyalties. Moreover, as we will see, states might not measure probability accurately. And even if they did, they might not employ the kind of cost-benefit judgments in means-end reasoning that were assumed in what we are calling the Greek folk theory of practical reasoning.

The sources of irrationality (behavior that is off the predicted path followed by self-interested, instrumentally rational, expected advantage maximizing actors), and the effects of irrational play on the possibility of correct measurement of risk and thus on actual outcomes, constitute a second major theme of Thucydides’ analytic history. Once again, his point is not that the course of events is simply irrational, nor is it that probabilities are incalculable. Rather his point is that an expert decision-maker, one employing the complete tool set of practical reason, must take into account not only uncertainty and constraints, but also the likelihood that some players in the game will deviate from the path of rational choice.
Understanding the conditions that make that kind of deviation more likely is, I will suggest, an overlooked aspect of the lessons Thucydides intends an astute reader to learn from a text that is explicitly didactic (Connor 1984).

6.3. Roving and stationary bandits

Thucydides’ review of early Greek history begins with the premise that in earliest times, before the emergence of organized states, all Greeks lived in unsettled and penurious conditions. The reason for their poverty was the inability of small, unwalled communities to defend themselves against predations by mobile bandits who roved at will by land and sea (1.2). The motive of piratical strong-men in raiding unwalled settlements was personal gain (kerdos) and building coalitions of followers through sharing the loot (1.5.1). Walls capable of frustrating raids could not be built because early communities lacked adequate capital for infrastructure improvements. The bandits, who moved freely across the Greek world, might never come back a to a place they had once raided. Therefore, they had no reason to be restrained in their looting. Residents of communities exposed to piratical depredations, expecting to be stripped of all they possessed by pirates, had no incentive to amass capital. All acted rationally and the result was general poverty. The situation is precisely that described by the political scientist Mancur Olson, in defining the incentives of “roving bandits” and those who are their victims. Meanwhile, such short-term concentrations of local power (dunameis) as might be achieved in more fertile regions of Greece were, Thucydides notes, quickly dissipated through a combination of internal strife (staseis) and the cupidity of outsiders (1.2).

The solution to this Panhellenic poverty trap was the providential emergence of a single hegemonic power, with a fixed base of operations, in possession of a substantial navy. The first such power known to Thucydides was Minos (1.4). Unlike the piratical roving bandits, Minos operated from a permanent base, his palace on the island of Crete. In Olson’s terms, he was a stationary bandit. As such, Minos had a longer time horizon: he had an incentive to promote the growth of prosperous communities so long as they could be taxed in ways profitable to himself. So, again unlike the roving bandits, Minos did not simply loot. Rather, as Thucydides points out, he exercised hegemony over (ekratēse) the better part of the Aegean. He ruled (èrxe) and also first colonized the Cyclades, driving out non-Greek residents. Generalizing, Thucydides states that the strongest communities, having greatest capital resources, made smaller poleis into subjects (hupēkoû) 1.5.3).

Minos also had good reason to seek to suppress the roving bandits who were his rivals for resource extraction and whose looting suppressed the development of stable, taxable communities. Thucydides notes that in addition to his ruling and colonizing, "in all probability," (hôs eikos) Minos sought, to the extent possible, to
suppress piracy. The motivation for all this activity was self-interest: Minos’ “desiring that his revenues (prosodoi) should come to him more readily” (1.4).\textsuperscript{21} As Minos’ navy reduced the danger of piracy to Greek communities within his zone of control, permanent settlements were established on the coasts, trade increased, and the wealth of communities grew (1.8.2-3). For their part, weaker communities recognized the value in trading the radical insecurity of the era of roving bandits for the relative security of a rationally self-interested hegemon: Thucydides notes that, motivated by new opportunities for material gain (tôn kerdôn), the weaker accepted domination (douleia) by the more powerful (1.8.3).

The operative dynamic of early Greek hegemony was, according to Thucydides’ analytic narrative, self-interest on the part of strong and weak alike – with the implicit proviso that the strong must have good reason (a stable base and long time horizons) to seek their profits by ruling and taxing rather than by raiding and looting. Under these conditions, there could be sustained economic growth: The growing prosperity of small communities meant that a hegemonic state could amass significant capital resources by taxing those communities at a sustainable level.

The key point is that, while the early Greek inter-state order was built up from highly asymmetrical relationships, and while the asymmetry was expressed as domination (douleia), the relations between ruling states and subject states were predicated on a bargain. The motivation to enter into the bargain was, by both parties, the desire for profits unavailable outside the bargain. Realizing those profits demanded conditions of relative stability and a credible commitment on both sides to defer some rewards by making capital investments aimed at future benefits.\textsuperscript{22} In brief, the game played by roving bandits and vulnerable communities, resulting in an equilibrium of poverty, was replaced by a game played between a stationary bandit and subject communities, a game that produced an equilibrium of growth.

Later imperial and colonial Greek powers followed the pattern established by Minos: emergent local naval supremacy, accompanied by suppression of piracy, hostility to non-Greek populations, domination of weaker states, and colonization. Thucydides offers first Corinth, then the Ionians, Samos, and the Phocaeans as examples of places that developed relatively powerful navies and manifested one or more of the features of what we may think of as the Minos hegemonic paradigm (1.13-14). Thucydides’ generalizes the point: In each case a navy was a source of strength, resulting in monetary revenues (chrēmata), and rule (archē) over other states (1.15.1).\textsuperscript{23} By contrast, he says, among early Greek states that lacked navies, there were neither great coalitions of states nor major wars. Violent conflicts were limited to the usual small-scale disputes over borderlands. There were neither hegemonies of the asymmetric Minos sort, nor large-scale confederations of equals (1.15.2).
Athens inherited, and, under Pericles’ leadership perfected, the Minos paradigm of naval power, colonization, hostility to non-Greek populations, and subjection of weaker states. By the time of the outbreak of the Peloponnesian War, most of Athens’ formerly free allies had been reduced to the status of tribute paying subjects (1.19, 1.96). Thucydides is certainly right to suppose that this was coalition-building on a scale unequalled by earlier Greek hegemonies. Based on epigraphic evidence and population estimates, at its height, Athens’ empire encompassed some 300 communities and perhaps two and a half million persons – roughly a third of the total Greek-speaking population (Ober 2015: 17-18 with table 2.3). But Thucydides had shown his reader that Athens followed a well-trodden path, and that the path was predicated on bargains based on mutual advantage.

6.4. Justifying empire

Thucydides’ analytic narrative of Greek development before the Peloponnesian War seems quite clearly to be based on the Greek folk theory sketched in earlier chapters. He assumes self-interest (notably manifest in seeking wealth and power), as a primary human motivation, one that extends across the levels of individuals, social groups, and communities. Decisions are made rationally, on the basis of the expectation of advantage maximization, in light of the moves available to other players, great and small. While Thucydides was, as we will see, well aware of honor-seeking as a motivation for action, he explicitly denigrated the binding force of voluntary oaths (1.9.1) in explaining the origins of the Trojan War. He ranks fear (phobos) above honorable reciprocity (charis) as the motive inducing the leaders of Greek states to join the powerful Agamemnon of Mycenae in the expedition against Troy (1.9.3).

Fear, for Thucydides, is the dark twin of desire. Fear of loss of what one currently has, or of being deprived of future gains, is a powerful motivator, arising from the same kind of calculations of advantage that drove Plato’s Gyges to seek “more and more.” Fear is frequently cited by Thucydides’ public speakers as a justification for the behavior of states. For example, in a well-known passage from book 1, unnamed Athenian speakers, who just happen to be in Sparta on unspecified business, respond to charges against Athens by Sparta’s allies. In these passages, Thucydides neatly sums up the instrumental rationality of the folk theory, as it is applies to interstate relations.

... we [Athenians] did not acquire this [empire: archē] by force (biasomenoi)... the allies (summachoi) came to us of their own accord and asked us to assume the leadership. It was under the compulsion of circumstances (katēnangkasthēmen) that we were driven at first to advance our empire to its present state, influenced chiefly by fear (hupo deous), then by honor (timē)

6.14
also, and lastly by self-interest (ôphelia) as well. After we had once incurred the hatred of most of our allies, and several of them had already revolted and then been reduced to subjection, and when you [Spartans] were no longer friendly as before but suspicious and at variance with us, it no longer seemed safe to risk (ouk asphales... kinduneuein) relaxing our hold. For all defectors would have gone over to you. And no man is to be blamed for making the most of his advantages (xumpheronta) when it is a question of the gravest dangers.24

The Athenians reemphasize the points made in the first passage with a counterfactual, a claim about human nature, a general argument linking strength and domination, and a final assertion that the Spartans are just as calculating of their interests as are the Athenians:

... if in the Persian war you [Spartans] had held out to the end in the hegemony and had become unpopular in its exercise, as we did, you would certainly have become no less obnoxious to the allies than we are, and would have been compelled either to rule them with a strong hand, or yourselves to risk (kinduneuein) losing the hegemony. Thus there is nothing remarkable or inconsistent with human nature in what we also have done, just because we accepted an empire when it was offered us, and then, yielding to the strongest motives—honor, fear, and self-interest—declined to give it up. Nor, again, are we the first who have entered upon such a course, but it has ever been an established rule that the weaker is kept down by the stronger. And at the same time we thought we were worthy to rule, and used to be so regarded by you also, until you fell to calculating what your interests were (ta sumpheronta logizomenoi) and resorted, as you do now, to the plea of justice...25

The Athenians then go on to claim that the practice of Athens' imperial rule (i.e. the “taxation rate” in terms of forcible extraction of resources) was more moderate and the Athenians themselves more attentive to justice than required (by implicit comparison with a strict cost-benefit calculation). They offer a second counterfactual as proof of the point: Any other powerful state in Athens' place would have been less moderate, less attentive to equity (1.76.3-4). Or, we might say, another state would have acted more like a roving bandit with short time horizons, and less like a rational stationary bandit, playing a cooperation game with a long time horizon.

Thucydides' Athenians in Sparta assert that acting in self-interest is a universal rule. But Thucydides in propria persona did not encourage his reader to
suppose that rulers acting according to their individual self-interest invariably led to the growth of a state’s power or its wealth. He notes that in the past, as a Greek state grew larger and wealthier, its *politeia* often changed accordingly: Tyrannies replaced hereditary kingships in many poleis (1.13.1). Tyrants tend to be regarded in the Greek tradition as proto-typically self-interested. According to Thucydides, from the perspective of state development, the Greek tyrants were too narrowly self-interested to amount to much in the long run: The tyrants’ focus on their private affairs, their own bodily safety, and their promotion of family members to positions of authority led them to rank security (*asphaleia*) above all other policy goals (1.17). As a result, tyrant-run states were overly risk averse and so they were noteworthy only for their lack of major accomplishments.

Thucydides’ reader will soon be introduced to the similarly risk-averse Spartans, who are accused by their allies, the Corinthians of being excessively narrowly self-interested – in contrast to the risk-taking Athenians who consistently look to the collective interest of their state (1.68-71, with Ober 2010). Yet the tyrannies in most Greek states were eventually overthrown – by Sparta (1.18.1). With the creation of a Peloponnesus-based league of oligarchies (1.19) Sparta also finally broke the earlier trend of the absence of major, long-lasting coalitions among land-based states.

One of Thucydides’ explicit motives in recounting the history of the roughly fifty-year period from the end of the Persian Wars to the outbreak of the Peloponnesian War (478-431 BCE) was to explain the origins and growth of Athens’ empire (1.97.2). After establishing the voluntary nature of the original confederation of Aegean states, as an anti-Persian alliance under Athenian leadership and financial management (1.96), his focus turns to a series of defections from the alliance (1.98). Here the historical narrative confirms some central claims made by the Athenian speakers in Sparta, above.

The primary causes (*aitiai*) of defection by Athens’ allies were, Thucydides asserts, failures by the subject allies to perform their duties in terms of supplying warships or funds, or their unexcused abstention from agreed-upon military operations. Defections occurred because the Athenians enforced the terms of the original agreement strictly (*akribôs*); this was sometimes taken badly by communities of persons who were either unused to performing mandated services or unwilling to do so (1.99.1). Thucydides points out, however, that the conditions in which the allies were saddled with mandatory monetary contributions were the result of the allies’ own preference orderings. They had preferred paying money to Athens and staying home to taking on the burden of building and maintaining a navy themselves. As a result, when an allied state did choose to defect, and when Athens responded with military force, the allied state entered the conflict “without preparation and without experience” (1.99.3). A weak state that voluntarily entered
into a cooperative bargain with a stronger state, and profited accordingly, might, Thucydides suggests, find itself without the ability to exit the bargain if and when the hegemon’s capacity to coerce grew as a result of investing its share of the profits in power rather than merely in wealth. The question then was whether the Athenian empire would come to be primarily based on coercion, or whether the bargain could be calibrated such that subjects would continue to recognize that they profited by their subjection.

6.5. Empire-Subject Game

The passages cited above from Thucydides’ book 1, when read in conjunction with the rest of Thucydides’ long narrative of the war (see below), allow us to think of Thucydides’ “Minos-Athens paradigm” of hegemonic coalition as a game. The game is played between a strong state (E) in possession of a large navy, and a weaker state (S) that is a potential or actual subject of the strong state. The game is non-zero sum, insofar as both E and S stand to gain from cooperation. Cooperation takes the form, first, of E providing protection to S against roving bandits and/or third-party state-level threats. Protection is offered at a cost lower than S would pay in providing for itself through its own capital expenditures on, for example, walls and warships. Protection in turn offers enhanced opportunity for S to invest in ways that lead to higher future profits and to gain from improved conditions for lucrative exchange with other states. Transaction costs drop as risks from pirates and third-party aggressor states are reduced, and through the coordination functions provided by E (for example, a common coinage). On the other hand, E stands to gain by taxing S at a rate that is in excess of the costs to E of providing protection. E is also a major beneficiary of the improved exchange environment. The game remains competitive, rather than being a matter of pure coordination, because E is assumed to prefer to extract maximum revenues from S, in the form of monetary taxes and required services. S prefers to pay the lowest possible tax rate while maximizing the advantages it gains from its subjection to E. The game is set out in extensive form in Figure 6.2.

[Figure 6.2 about here: Empire Game]

The imperial state (E) moves first, deciding at what level to set the tax for its services (protection, coordination leading to lower transaction costs). The options among which E’s choice is made are schematically listed as Low (E gains little or nothing from providing protection and coordination; S’s cost of subjection is therefore very low and its profits high); Medium (E’s revenues substantially exceed its costs; S’s costs are therefore substantial and its profit somewhat lower); or High.
(E extracts resources in a predatory manner, leaving S with little surplus and thus driving down the value of S's subjection of E to near or below zero).

In response to E's tax-setting move, the subject state (S), if not yet in subjection to E, decides whether to submit voluntarily to E. If S is already subject to E, its population decides whether to make substantial capital (human, social, and financial) investments, deferring short-term payoffs in expectation of long-term gains. We assume that S prefers, all things considered, to invest in the future, and will do so under reasonably good conditions. In each case, S's choice is schematically characterized as High (S submits willingly if not yet subjected, makes extensive capital investments if already subject); Low (grudging subjection; limited capital investments); or Resist (seek to avoid subjection or to defect from the hegemonic system).

In the event that S chooses Resist, N(ature) decides the outcome by a lottery. Depending on the outcome of the lottery, S's resistance will either Succeed (S stays out of the hegemonic system if not yet subject, or, if already subject, successfully leaves the coalition and thus is freed from the requirement of monetary taxes and service) or Fail (E forcibly imposes or re-establishes domination). In the case of Fail, E coercively imposes whatever conditions or punishment on S that E deems fit.

The outcome of the Resistance lottery is determined by the probability of Success, set at some point between 1 and 0. The probability of the success of resistance depends on a variety of factors, including the resources of E and S, whether other subjects join in resistance (forcing E to divide its attention and resources), the possibility of aid from other powerful states (which may mean exchanging the existing E for some E’ (e.g. Athens for Persia or Sparta). S must calculate the probability of success and the value of freedom in order to decide when (if ever) Resist offers a higher payoff than either High or Low cooperation.

E’s payoffs are determined by the taxes it collects from S and the advantages it gains from coordination, less the cost to E of providing protection, coordination services, and enforcement. E prefers to set the tax rate as high as possible relative to the costs of its services. E’s payoffs are reduced, however, if S chooses a Low level of cooperation, because E’s share of coordination benefits declines and the costs of extracting revenues and of providing protection increase with S’s lack of full cooperation. E’s payoff is very low in the event that S Resists and the resistance Succeeds. In this case, E pays the cost of whatever failed efforts it makes to force S to submit, loses the imperial revenues generated by S, and must confront the knock-on effects of successful resistance among its other subjects. If S Resists and the resistance Fails, E’s payoff is harder to determine: E must pay the costs of forcing S into (or back into) submission. E may profit by punishing S by confiscating S’s resources. But if the punishment is harsh, E may lose resources due to the long-term
degradation of S’s economy (with potential negative effects for the economy of its hegemonic domain).

S’s payoffs are conditioned, first, on the value to S of the protection and coordination services provided by E, less the cost of monetary taxes and S’s service requirements. That value of protection will depend on S’s assessment of threats (e.g. Persia, pirates) that are blocked by E and on the perceived value of the coordination that is specific to being within E’s zone of dominion (e.g. the advantages that accrue to using a standard coinage issued by E). S’s costs include monetary taxes (phoros), the moral effect of loss of autonomy, the possible imposition of a garrison, possible interference in local government, and the uncertainty associated with periodic imposition of new rules (e.g. the Athenian Coinage Decree). In the case of the Resist choice, the payoff to S of Fail will be determined by E’s choice of punishment; if E chooses to punish severely, the payoff to S from Resist-Fail will be very low. If the Resist choice succeeds, the payoff is the value of freedom less the costs of self-protection and the loss of whatever coordination advantages accrued to S from being in E’s zone of domination. Per above, S calculates the expected advantage of resistance based on the probability of its success.

If we bracket, for the moment, the Resist option, we can easily work out the outcome based on ordinal preferences (listed in Figure 6.2) of E and S by backwards induction. If E chooses High tax, then S prefers Low cooperation, eliminating outcome $\alpha$. If E chooses Medium or Low tax, S prefers High cooperation, eliminating outcomes $\zeta$ and $\kappa$. Working back on the game tree, E now chooses between $\beta$ and $\epsilon$; E chooses $\epsilon$ with its higher payoff. So the equilibrium solution of the game, without the Resist option, is a Medium level of taxation by E and High cooperation by S. That outcome fits Thucydides’ original “Minos paradigm” in which the weak voluntarily submit to the strong, with advantages accruing to both in terms of growth in material wealth. But, as we have seen, in the case of Athens, fairly soon after the original coalition had been created on a voluntary basis, some of Athens’ allies did in fact seek to leave to coalition, thus, in the terms of our game, choosing to Resist. A few states continued to try to defect from the coalition, even after Athens had proved effective in suppressing earlier defections (thus suggesting that the probability of Succeed was relatively low) and in the face of harsh Athenian punishments (showing that the consequences of failure could be severe). And yet, as Thucydides’ narrative demonstrates, Athens did not face a cascade of defection until very late in the Peloponnesian War, after Athens had raised taxes on subjects and battlefield reverses had weakened Athens’ coercive capacity.

In order to calculate the expected advantage of defection to any given S, we would need to know the probability that its resistance would be successful. That might be assumed to be fairly low, based on the historical experience recorded by Thucydides. But an accurate measurement of the probability of success for any
specific S at any particular historical moment will vary with the several factors alluded to above. We would also need to measure the value of freedom to a particular S at a particular moment, which is very hard to determine. It is clear, however, that, if we hold constant the probability of Success, as E sets the tax rate higher, the expected advantage of resistance to S increases. E cannot be certain that setting the tax rate at a Medium level (or even at a Low level) will ensure that S will submit willingly and will not defect. But E can be quite sure that setting the tax rate High will reduce S’s incentive to cooperate at a High rate, and will increase the likelihood that S will choose to resist.

The game suggests that a rational E should, under ordinary circumstances, avoid the High tax rate, which will lower its payoff due to a reduction in the level of cooperation by S and will increase the likelihood of costly resistance. If we have set the payoffs to resistance in the right general range (from very low to very high), resistance by S results at best in a low payoff to E, and at worst at a very low payoff. Thus, even if E has a high probability of suppressing resistance, E should seek to avoid conditions likely to provoke resistance. Likewise, unless (1) the probability of successful resistance is substantially higher than seems to be implied by Thucydides’ book 1 narrative and (2) it values its freedom from the hegemonic system very highly, S ought to avoid resistance in favor of the relatively favorable equilibrium of Medium taxes and High cooperation.

Nevertheless, as we see from Thucydides’ narrative of the war years, imperial Athens did sometimes raise taxes from what we might reasonably call a Medium to a High rate. And Athens’ subjects, and potential subjects, did sometimes seek to resist. So what was happening? Clearly, the exigencies of war led to some special circumstances. Answering the question of whether those special circumstances changed the calculus employed by rational state actors, or whether these choices concerning taxes and resistance were violations of the “folk theory” sort of instrumental rationality that Thucydides seemingly attributes to states in the passages of book 1 considered above, is among the many challenges that Thucydides’ extraordinary text poses to a reader concerned with human motivation and practical reasoning. Here, we consider two famous test cases: the revolt of Mytilene and Athens’ conquest of Melos.


In 428 BCE, the major polis of Mytilene, among the few states in the Athenian coalition that still provided warships rather than paying tribute, joined most of the other poleis of Lesbos in seeking to defect from the Athenian imperial coalition. Thucydides notes that the oligarchic leaders of Mytilene wished to revolt even before the outbreak of the war, but that they had failed to secure Spartan support (3.2.1). They were subsequently compelled to commence operations before they
intended, because news of their preparations (ship- and wall-building, hiring mercenaries) was conveyed to Athens from multiple sources (3.2.2-3, 3.4.2). The Mytileneans eventually secured a promise of aid from Sparta, but the Peloponnesian fleet sent to support the revolt was dilatory and ineffective. Mytilenean battlefield performance was mediocre. A plan to arm the lower classes backfired. The attempted defection ended in surrender a year later, in the face of a coordinated and highly effective, although very costly, Athenian military response.30

With the revolt crushed, the Athenians had to decide on punishment: moderate or severe? That question was answered in the course of two meetings of the Athenian citizen assembly. At the first meeting, the decision was to execute the entire male population and to enslave the women and children. The severe decision was revisited at hastily-called second meeting. Thucydides presents the most starkly opposed positions at this second meeting through two speeches in the famous “Mytilenean Debate.” The prominent demagogue Cleon urged that the original decision be sustained; the otherwise unknown Diodotus advocated for a substantially lighter punishment. Diodotus’ proposal narrowly passed on a hand vote. In the aftermath, on Cleon’s motion, something over 1000 Mytileneans, thought to be heavily implicated in planning and carrying out the revolt, were executed. The agricultural land of Mytilene and the other Lesbian poleis that had joined in the revolt was confiscated and distributed to Athenian colonists who leased it back to the original owners. While the punishment exacted was moderate compared to the severe punishment advocated by Cleon, Mytilene had clearly paid a high price for its failed attempt at defection.31

In his historical narrative of these events, and a series of speeches – by Mytilenean envoys to the Peloponnesian League meeting at Olympia and by a Peloponnesian commander, as well as by Cleon and Diodotus in the Athenian assembly – Thucydides presents his reader with a detailed account of the factors entering into the Mytilenean decision to resist, the timing and nature of the Athenian response, the reasons for the failure of the resistance, and the arguments offered on both sides in the Athenian assembly about how to punish the Mytileneans. Thucydides’ history of the Mytilenean resistance and its aftermath, along with the Melian narrative considered below, serves as a case study of empire-subject relations and as a test of the theory of power and empire that, so I have argued, is developed in Thucydides book 1. The hypothesis that Thucydides meant the Mytilenean and Melian narratives to test a theory of power predicated on what we have been calling the folk theory of practical reasoning is supported by the rhetoric of the Athenians at Sparta in book 1 (above), by the Athenian assembly orators, Cleon and Diodotus, in the Mytilenean Debate, and by the anonymous Athenians in the Melian Dialogue. In each case Thucydides’ Athenian speakers deploy a similar vocabulary of power, similar
premises about human motivations, similar claims for the priority of interests over moral considerations of justice, and a similar focus on the likelihood of salient outcomes. In each case the speakers buttress their positions with reference to counterfactual scenarios. But, contrary to the apparent confidence of the Athenians in Sparta that the theory leads inevitably to specific real-world policies, there is stark disagreement between Cleon and Diodotus about how to proceed in punishing the Mytilenans. And, as we will see, the instrumental arguments of the Athenians at Melos fail to persuade the Melians to act in a way that is consistent with expected advantage maximization. Thucydides has, it seems, offered his reader both a clear articulation of the folk theory as it applies to interstate relations and a demonstration of the practical limits of the applicability of that theory to real-world interstate politics.

Thucydides’ account of the Mytilenean revolt and its aftermath, both in narrative passages and the speeches, is rife with statements suggesting that states act in accordance with instrumental rationality. While there are occasional hand-waving references to justice and right (by the Mytileneans at Olympia and by Cleon), the primary motivation of states is assumed by all parties to be their own self-interest. States and individuals (especially military commanders) receive information that results in updated beliefs about the state of the world that are in turn the basis for calculations of risk, decisions, and consequent actions. There are frequent allusions to individuals and states making choices (or being presumed to make choices) on the basis of their expectations, which are in turn predicated on their assessments of likelihood and their attitudes toward risk and chance.

The Mytilenean envoys to the Peloponnesian League at Olympia seek to make a rational case for their defection. They admit that they joined the Athenian coalition voluntarily (3.10.2-4), but claim that their attitude changed to fearfulness after the Persians were no longer an immanent threat and Athens began making its allies into subjects. (3.10.4). At that point it seemed to them unlikely (ou gar eikos) that the Athenians would allow Mytilene to remain free, since now they had the power to do otherwise (3.10.6). The Mytileneans assert that their fears were exacerbated by the increasing power differential: Athens was “growing steadily more powerful and we more destitute” (3.11.1). They offer a generalization based on rational fear conjoined with risk aversion: The only secure basis for an alliance is a balance of fear, so each side, although desiring to violate the agreement, is deterred by expectation of failure (3.11.2). Clearly by the time of the revolt, there was no parity between Athens power and that of the Mytileneans. But, the Peloponnesians listening to this argument (and Thucydides’ reader) might well wonder, had there ever been?

The Mytileneans propose that the Athenians had thus far left them free as a signal to other potential allies that their coalition was credibly committed to
growing via the voluntary choices of subject states – since Mytilene had its own warships, the choice of supporting a navy or paying tribute was, it appeared, up to the new coalition member. They detail Athens’ long-term strategy: Lead the stronger states in military actions against the weak states first. That leaves the stronger states stripped of potential allies and less capable of resistance to the strongest (3.11.3-4). They claim that, “We [Athens and Mytilene] accepted each other against our judgment (para gnômên); fear made them attentive (etherapeouon) to us in times of war and us them in peace.”

The point seems to be that the Athenians, while rationally preferring to subject Mytilene from the start, did not do so because, as long as they were building their coalition and fighting Persia, the Athenians needed the signal of voluntary membership, needed Mytilene’s help in subjecting the weak, and were concerned that Mytilene might switch its alliance to the Peloponnesian League. Later, when the Athenians had grown more powerful and most of Mytilene’s potential allies had been subjected by Athens, the Mytileneans came to fear the Athenians who now had little reason to fear the consequences of reducing Mytilene to the level of mere subject. The balance of fear having become asymmetrical, Mytilene kept quiet, while secretly preparing for revolt. Asymmetrical fear among allies was, by the Mytilenean calculus, inherently destabilizing of the status quo, and thus motivated the choice to resist.

The Mytileneans’ stated justification for defection from the Athenian coalition is entirely based on expectations: their own anticipated loss of advantages in the face of changing relations of power and fear. They cite nothing that is particularly bad in their current situation: Mytilene remained free and non-tributary. But, in a close parallel with the motivation of the Spartans at the outbreak of the war (per Thucydides’ analysis at 1.23), given the steady growth of Athens’ power relative to their own, the Mytileneans anticipate a disadvantageous outcome. Absent their preemptive action, they regard that bad outcome as inevitable.

All that fits neatly with the premises of the folk theory. But, upon a moment’s reflection, questions arise. Why had the Mytileneans been incapable of looking down the game tree at the undesirable outcome of superior Athenian strength forcing them into overt subjection? Why did they agree to join in subjugating the weaker states if the game predictably ended in catastrophic Athenian superiority? The Mytileneans chose their course of action based on a calculation of expected advantage, but they were, it seems, inadequately expert at assessing the relevant state of the world and measuring the probabilities. They claim to have updated their beliefs in light of the conditions that arose when Persia ceased to be a threat. But in choosing to resist, they evidently discounted the chance that information about their preparations would be brought to Athens and would lead to a timely Athenian response. They under-estimated Athens’ capacity simultaneously to mount
defensive and offensive naval operations. They over-estimated the value of Sparta’s promises of aid. They miscalculated the likely response of the Mytilenean lower classes to being armed. The result was the failure of Mytilene’s resistance – a result that, Thucydides implies, could have been foreseen by a statesman (like Pericles) with adequate information and the capacity accurately to measure relevant probabilities.

In making their diverging arguments for punishment, Cleon and Diodotus address the question of the Mytileneans’ motives for defecting. Cleon’s argument hinges on casting the Mytileneans as vicious criminals who had willfully carried out aggressive and damaging actions, had been apprehended, and now must pay for their crimes (3.38.1, 3.39.1-2, 3.40.1). He emphasizes that the offense was deliberate (3.40.1). But he also characterizes the Mytileneans as incapable of reasoning clearly about means and ends. They failed to take into account relevant information: “The fate of those of their neighbors who had previously rebelled, and had been subdued by us, was no lesson (paradeigma) to them.” They were incapable of correctly weighing the value of their current situation against imagined future gains: The prosperity (eudaimonia) they enjoyed (as a privileged member of the coalition) did not make them hesitate in attempting their rash actions. And so, “boldly confident in the future and with hopes that exceeded their capacity (dunamis) but fell short of their wishes (boulēsis), they declared war, seeing fit to value strength over justice.”39

In brief, Cleon characterizes the Mytileneans, en masse, as devoid of an appropriate sense of justice, as the sort of incurable Thrasymachean egoists alluded to in (Plato’s) Protagoras’ account of social development (Chapter 2). Cleon sees the empire as the society that must be protected against the proliferation of egoistic behavior through the extermination of incorrigibles. But, unlike Protagoras, he characterizes punishment as vengeance, not education. Cleon addresses the Athenians as emotional individuals who were unfairly made to experience intense fear and anger upon learning of the Mytilenean revolt. He urges them now to maximize their own subjective happiness by exacting revenge on those who willingly caused them that emotional upset (3.38.1).

Cleon seeks to conjoin his legalistic argument about collective guilt and his emotional argument for the subjective value of vengeance with a state interest-based argument for severe punishment: Punishing willful defectors at the same (moderate) level as those who were compelled by an enemy to defect will lead other states to choose defection, meaning Athens will repeatedly be forced to risk lives and treasure in putting down revolts. Moreover, even when the revolts fail, the subject poleis will be ruined and revenues lost (3.39.7-8). Therefore, he urges the Assembly to conjoin justice with Athenian interests and to punish the Mytileneans with death (3.40.4). He concludes that punishing the guilty as they deserve will be a...
salutary example (saphes paradeigma) to Athens’ other subject states, teaching them that rebellion means death (3.40.7).

Diodotus reprimands Cleon, first for focusing on Mytilenean guilt rather than Athenian interests, as if the context were a lawcourt rather than a policy-making legislative assembly (3.44.1, 4) and then for over-estimating the deterrent effect of death penalties. He characterizes the Mytileneans’ motives for defecting and their faulty instrumental reasoning as typical of a flawed (from the point of view of rational choice-making) human psychology: Buoyed by hope, people always take foolish risks (kinduneuousi); no individual attempts something dangerous while believing that he will fail. (3.45.1). Likewise, every subject polis that resists supposes that its own resources or its alliances will enable it to succeed (3.45.2). Of course their calculations are faulty, but “all are by nature prone to error, both in public and private affairs.”40 Real humans are, in brief, not the perfect craftsmen of self-interest assumed in Thrasymachus’ and Glaucion’s versions of the folk theory.

Diodotus continues: The tendency to make errors in calculation is not a matter of specific material circumstances: Poverty encourages the boldness of necessity; plenty stimulates attitudes of arrogance (hubris) and greed (pleonexia); and every other condition of life has some corresponding passion (orgê) that promotes risk-taking (3.45.4). Hope (elpis) conspires with desire (erôs), “the one devising the enterprise, the other representing the chances as favorable”;41 and together they overpower observations of danger (3.45.5). Chance (tuchê) plays a role because (as Plato notes: above) unexpected things do in fact happen. Focusing on that (however remote) possibility induces risk-taking by those with inadequate means. This type of estimation error is especially typical of states contending for the high stakes of freedom and empire, because, when acting as part of a collectivity, each individual over-estimates his own capacity (3.45.6). The result, Diodotus’ audience is led to suppose, is an unrealistic assessment of collective capacity. In sum, “it is simply impossible and utterly absurd to suppose that human nature, when bent upon some favored project, can be restrained either by the strength of laws or by any other terror” (3.45.7). Thus, neither rules nor fear can be counted on to lead willful humans to act according to a rational calculus of their material interests.

For all his emphasis on the irreducible role of irrationality in human affairs, Diodotus focuses insistently on Athenian interests, which, he asserts, are best served by moderating the punishment of the Mytileneans and attending to the effects that present policy will have on future choices and outcomes (3.44.1-3). He notes that punishing rebellion with death would ensure that those who do revolt (as they will, given human proclivity to err in formulating beliefs essential to means-end reasoning) have an incentive to fight to the end. Every revolt will, therefore destroy the subject city and with it Athens’ revenues (46.1-3). The answer to the problem of
resistance is not retrospective punishment. Rather it is forward-looking and careful administration (epimeleia: 3.46.4) – presumably this means setting the tax rate at a level that will encourage investment and discourage resistance – and watchful guarding and proactive measures aimed at preventing subjects from ever forming the idea of resistance (3.46.5-6). Moreover, since it is not possible to prevent all revolts, Athens should (like Plato’s Callipolis, above) exploit factional differences. Athens has an obvious way to do that by consistently supporting the lower classes against local elites. Executing the masses of Mytilene along with its elite leaders would fatally undermine Athens’ current democratic advantage as “the friend of the demos” in every Greek state. (3.47.2-4). In sum, it is simply impossible to conjoin justice and Athenian interests, as Cleon vainly urges (3.47.5); a future-oriented, sound and well reasoned policy (eu bouleuetai) is more effective against adversaries than senseless force (ischuos anoiai: 3.48.2).

Given that Thucydides is openly hostile in his characterization of Cleon, and evidently disgusted by the prospect of the mass killing, the reader is led to favor Diodotus’ policy of relative leniency. But the attentive reader will not be surprised by the split Athenian vote. The instrumental rationality of the Greek folk theory is the governing premise of both speeches, and, according to Thucydides, guides the behavior of all relevant parties – Athenians, Mytileneans, and Spartans. But, by book 3, Thucydides in propria persona, along with the various speakers in his text, has acknowledged that, in practice, the folk theory cannot accurately predict actual behavior of collectivities or, therefore, of states.

The problem is not that the relevant actors do not imagine that they are acting rationally: making choices based on ranked preferences, updating reality-tracking beliefs, and accurately measuring the relevant likelihoods. Rather, the problem is that people, when acting as collectivities, are often mistaken in their beliefs about the relevant state of the world and they allow hope and greed (among other passions) to bias their assessments of chance and risk. That being the case, it is unclear how a rational decision-maker ought to proceed – even assuming, as Thucydides does not (Ober 1998 chapter 2), that a collective policy-maker, like the Athenian democratic assembly, was capable of sustaining rationality in the absence of a Pericles-like leader. If the choices of other players in the game are simply unpredictable, there is no obvious way to choose rationally among available options in setting imperial policy.

And yet, as we saw, Thucydides clearly expects his reader to believe that Themistocles and Pericles had been able to make rational policy in the face of these uncertainties. Stepping back from the possibility of rationality in the phenomenal world, as it is exemplified by the historical events described by Thucydides, might Thucydides’ reader reasonably hope to develop a “Periclean” ability to explain and
perhaps, therefore, predict the direction and level of deviations from rational behavior? That question recurs in the Melian narrative of book 5.

**6.7. Melos’ prospects**

In the summer of 416 BCE Athens dispatched a large fleet against the modest-sized Aegean island-polis of Melos. The goal was to force the Melians to join the Athenian coalition as a subject state. Thucydides catalogues the expedition: 30 Athenian warships, six from Chios, two from Lesbos; 3100 hoplites (1600 Athenian and 1500 allied); 300 archers and 20 mounted archers (5.84.1). Athens had attacked Melos a decade before. A 60-ship expedition (with an unknown number of hoplites and archers), led by the general Nicias, ravaged Melos’ territory in 426 BCE (3.91.1-3). The Melians refused to submit and Nicias moved along to pre-planned operations (3.91.4) against Boeotia and Locris. The 416 attack evidently had Melos as its sole target (5.114.2). The Athenian forces occupied Melian territory but before they commenced ravaging the Athenians sent envoys, who sought to negotiate terms of Melian surrender (5.84.3). The envoys spoke in camera with Melos’ oligarchic rulers (*hai archai kai hoï oligoi*), having been denied an audience with the Melian citizen masses (*plêthos* 5.84.3). After negotiations failed, the Athenians began a siege, building a wall around the city; the bulk of the Athenian-led forces then returned home. The Melians attacked the siegeworks twice in the course of the next months, inflicting some casualties. Athens responded by sending reinforcements and stepping up operations. The city was betrayed from within, leading the Melians to surrender. Choosing the severe punishment option that had been narrowly rejected in the Mytilenean Debate, the Athenians executed the remaining male population of Melos and enslaved the women and children. They later sent out 500 colonists to occupy Melos’ territory (5.114-115).

Thucydides offers his readers an account of the ultimately failed negotiations between Athenian envoys and Melos’ rulers in the form of a dialogue, a genre employed in extended form nowhere else in his text. As a result of non-negotiable discursive rules set by the Athenians at the outset (5.87) the dialogue focuses insistently on state interests, reality-tracking beliefs, risk, and expectations – rather than justice, rights, and wrongs. The Athenians state explicitly that both sides in the negotiation must accept as the premise of the negotiations a strong (in terms developed above: neo-Thrasymachean) version of the folk theory: The powerful will do just as they please (per Gyges and the ring, in the present case this means ruling over others). The weak must either submit or be destroyed (5.89).

[Figure 6.3 about here: Melos Game]
The Athenian envoys assume, however, that the negotiation is a non-zero sum bargaining situation, in which both sides have something to gain by striking a deal (see Chapter 4). For their part, the Athenians prefer Melos’ peaceful surrender to fighting because it avoids the costs of fighting and because it is in Athens’ interest, just as it is in the interest of the Melians, that Melos be preserved. This is close to Diodotus’ argument in the Mytilenean debate, to the effect that live subjects are a valuable resource.\textsuperscript{44} With reference to Figure 6.3, the Athenians prefer outcomes $\alpha/\beta$: after Melos submits Athens chooses a tax rate between moderate ($\alpha$) and heavy ($\beta$). The envoys suggest that their preference is for $\alpha$: They are making an offer that will allow the Melians to retain their country while paying tribute (5.111.4). This is in line with the “Minos-Athens” model of an imperial regime of moderate taxation and high capital investment, a logic that had sustained Athens’ empire to this point (above). Here the model is summed up in an apothegm: “those who, while refusing to submit to their equals, yet comport themselves wisely towards their superiors and are moderate towards their inferiors—these, we say, are most likely to prosper.”\textsuperscript{45}

The Melians ask how it can be in their interest to be enslaved. The Athenians reply that it is to the Melians’ advantage to submit before they “suffer the most terrible things” (\textit{pathein ta deinotata}), just as the Athenians will gain by “not destroying you” (\textit{mê diaphtheirantes humas}: 5.101-103). This is the most explicit statement in the dialogue about the likely level of punishment should the Melians resist and fail. The destruction they will suffer is worse than slavery; it is presumably death. The threat is reiterated in the Athenians summation: the Melians should reflect many times in their deliberation that it is the fate of their “one and only fatherland” (\textit{patris}) that is at stake in their decision (5.111.5); the implication is that if they fight they will lose everything. The key point in the Athenian bargaining position is that because the Melians have no realistic chance of winning a fight, they have a BATNA (best alternative to negotiated agreement: see Chapter 4) of zero. The Athenian BATNA, destroying Melos, while it is less good than the bargain the envoys seek, is not similarly low: subduing Melos will not be terribly costly.

The Melians’ top-ranked preference is for Melos to retain neutrality and for the Athenians simply to go away (outcome $\eta$). That is, they seek a “third road,” neither submitting nor fighting (compare. Chapter 1: Herodotus’ Gyges and the Queen’s “two roads”). That third option is unavailable to the Melians, however, as the Athenians state explicitly, because it is Athens’ least preferred outcome. The Athenians are credibly committed to fighting if Melos will not submit, because to accept Melian neutrality would be a fatal signal to the other subjects of Athens’ weakness. Athens’ choice to send out a large force with the announced purpose of subduing Melos was a way of binding the state to the mast of imperial expansion. It eliminated the risk that some persuasive argument (justice, pity, expedience) would
blunt Athens’ resolve to conquer the island polis. Backing down would reveal that Athens lacked the will and the means to gain its preferred ends (5.94-99). As such, allowing Melos to be neutral would threaten the survival of the empire.

With the top-ranked third option eliminated, the Melians must choose between submitting with a high probability of outcome $\alpha$ (pay moderate tax) and fighting. If they choose to fight, they will either win or lose. Winning gives them a good outcome ($\gamma$); losing means that Melos will be punished at some rate, chosen by the Athenians, between moderate and severe ($\delta/\varepsilon$). As we have seen, the Athenian envoys represent the punishment as likely to be severe.

Assuming that the Melians take the threat of severe punishment seriously, they must accept that if they lose, they will end up with nothing but others’ memory of their having fought honorably: no fatherland, property, or lives. So, if the Melians’ choice is to be made in accord with the principle of expected advantage, it will be determined by the relative weight of the value they place on their current condition (independent and tax free: Current), the remainder (Current – (Tax + Honor)) left them after submitting without a fight, and the probability ($p$) of winning or losing a fight. The Athenians seek to demonstrate that (1) attaching value to Honor is foolish: it is dishonorable indeed to submit to an equal without a fight, but no disgrace attaches to submission to vastly superior power; (2) Honor aside, Current – Tax is of very substantial value; the Melians will be prosperous under Athenian rule; (3) the probability of Melian victory is near zero (5.111.2).

For their part, the Melians cling stubbornly to the idea that Honor is of high value and they propose a series of reasons to believe that they have a chance of winning. Their optimism, characterized by the Athenians as a destructively vain hope, rests on three notions (1) the gods may favor them in light of the justice of their cause; (2) the Spartans, their kinsmen, might send them aid; (3) the unexpected can happen: there is always a chance of things turning out favorably. The Athenians bluntly reject these hopeful thoughts as contrary to reason: The gods (if they exist) are impartial and themselves live by the rule that the strong must rule. The Spartans act in their own interest even more consistently than do other people; moreover, they are risk averse. Sparta has no interest in challenging Athens at sea. (5.104-110). The envoys are clearly exasperated by the Melians’ supposition that hoping is a form of practical reasoning, and by their conflation of mere chance with calculated probability and risk assessment (5.104.2-3).

Readers interested in instrumental rationality, as Thucydides clearly believes we ought to be, are left with a puzzle. There was certainly a solution to the bargaining problem facing the Athenians and the Melians: both sides would have benefited from striking a bargain that left Melos intact. The Melians do not, in Thucydides’ text, seem to be Homeric in their hyper-valuation of honor and subsequent memory, nor so religiously deluded as to put full faith in divine
salvation. So they apparently made the wrong, seemingly irrational, choice to fight. Why? That question has often been asked and there can be no definitive answer. Perhaps the Melians held beliefs (in some aggregate of gods and Spartans) that failed to track reality. Perhaps they put too much weight on the recent precedent of their successful resistance to the Nicias expedition of 426 BCE and miscalculated the likelihood that Athens would give up after a short siege. Perhaps they thought the Athenians were bluffing when they alluded to “the most terrible things.”

While there is textual reason to think that each of those factors was in play, the repeated emphasis in the Melian Dialogue on the difference between hope and reason, assessable risk and mere chance, points to a somewhat different explanation: The Melians were not simply bad at the reasoning processes involved in maximizing expected advantage. They were, instead, operating with a different conception of practical reason. They did not weigh likely gains against likely losses to choose a course of action leading to outcome aimed at maximizing expected advantage. Rather, they based their decision on a reference point, their current condition; the intolerable prospect of losses that left them below their reference point; and a corresponding conviction that there must be some way to avoid that loss. I have argued, in an article written with Tomer Perry (Ober and Perry 2014), that the Melian Dialogue can best be understood in light of the prospect theory developed by Daniel Kahneman and his co-authors and collaborators. Here I reiterate a few of our conclusions.

In the face of the Athenian threat, the Melian oligarchs made a gamble that was ill-advised from the perspective of rationality as expected advantage maximization. In so doing, they acted just as other (modern) humans predictably do when they are driven by the hope of somehow avoiding the high probability of a large loss. Over-valuing their current condition, and discounting the remainder they will retain after the loss, they imagine the condition of salvation too vividly. They hope against hope, “a strange but all-too-human turn of thought,” that they will be able to retain their status quo. In this case, the status quo is Melos’ standing as an independent state and the oligarchs’ own position of authority in that state.

As the Athenian envoys point out to the Melians, there is very little chance that the Melians will win in a fight, and thereby keep the status quo. The Melians do not dispute this fact: They seemingly acknowledge that they have slim chances of victory in the case of military confrontation. As their representatives say: “you [Athenians] may be sure that we are as well aware as you of the difficulty of contending against your power and fortune, unless the terms be equal” (5.104). But then they seem to come up with a scenario that miraculously evens the odds: Since the unexpected can happen, who is to say it won’t? The dispute between the Melians and the Athenians, according to Thucydides’ narrative, was not due to deep disagreement about the facts; the actual odds of success can be taken as common
knowledge. Moreover, we have seen, the Athenians also make it clear to the Melians that incorporation into the empire will mean only limited losses: If the Melians submit without a fight they will be peacefully brought into what amounts to an Athenian co-prosperity sphere. The current ruling oligarchs may lose their monopoly on political power. Taxes will certainly increase, since Melos will pay tribute. And of course Melos will lose the coveted status of independent state. But the Melians will keep their lives and property (less taxes).

From the viewpoint of the “Minos-Athens” variant of the folk theory, the Melian decision-makers, faced with an uncertain prospect, ought to choose between the expected value assigned to different possible outcomes, based on material advantage and probability. The rational choice will be the one with the greatest expectation of material advantage, once probability has been properly factored in. The greater the probability of an outcome, the greater weight it should have. The Melians should weigh the tiny chance of keeping everything (the status quo: their reference point) against the certainty of keeping a substantial fraction of what they currently have. Whatever probabilities one might assign to the two possibilities, the general situation is clear enough: there is a minute chance of keeping the status quo but it is certain (presuming that the Athenians’ claim that submission will not entail destruction is credible) that the Melians can keep a sizable part of what they have if they submit. That remainder is, however, not counted by the Melians as a value, but as a loss relative to their reference point.

The seemingly irrational choice of the Melian rulers to gamble everything on the faint hope of retaining their current position seems to take the Athenian envoys by surprise, but it would not be unexpected to anyone familiar with what Kahneman and Tversky call “loss aversion.” Kahneman and Tversky showed that most people are risk-seekers when they are faced with a prospective choice between (1) a small chance to avoid any loss paired with a correspondingly large chance of suffering a great loss, and (2) the certainty of losing much of their current endowment while retaining a substantial part of it. Offered the choice between a tiny chance to keep everything (avoiding all loss) and the certainty of high costs (losing a lot but far from all), most people will irrationally choose to gamble on the slight possibility of avoiding the great loss. For the outside chance to lose nothing they bet against a high likelihood of catastrophe. As Kahneman underlines the circumstances and consequences of this form of reasoning: “people who face very bad options take desperate gambles, accepting a high probability of making things worse in exchange for a small hope of avoiding a large loss. Risk taking of this kind often turns manageable failures into disasters. The thought of accepting the large sure loss is too painful, and the hope of complete relief too enticing, to make the sensible decision that it is time to cut one’s losses.” This somber assessment exactly describes the Melians’ situation, their decision, and its outcome.
The Athenian speakers in the Melian Dialogue are exasperated because they believe that the better choice for the Melians is obvious, based on their severely constrained options and the near-certainty of the disastrous outcome should they choose to resist. Like Gyges confronted with the Queen’s guards in Herodotus’ story, they are confronted with a dire necessity, have no third option, and under the circumstances ought to choose to live. Moreover, the Athenians emphasize that Athens’ long-time-horizon approach to empire is, relative to the predations of a roving bandit, advantageous to its subjects (5.111.4). The Athenians could simply take everything by seizing the island by force; they do not do so because Athens plays the game of Empire aiming at maximizing returns in the long run. This is the substantive (as opposed to merely procedural) reason that the Athenians claim that the negotiation can be carried on under the banner of epieikeia – equitability or fairness: The envoys are in fact making an offer that is overall better than what Athens could demand. Yet the Melians stubbornly refuse, acting in accord with their loss-averse prospective reasoning, turning, in Kahneman’s words (cited above), “a manageable failure into disaster.”

The point readers may take away from Thucydides’ Melian narrative is that human choice-makers, when faced with very bad options, are, from the point of view of the Greek folk theory, not only irrational, but predictably irrational. This means that an instrumentally rational player in a bargaining situation will need to take account of the likelihood of deviation from play based on expected advantage. Any player aware of this aspect of human nature – which is to say, in the vocabulary of prospect theory, anyone who is aware of loss aversion – should anticipate a failure to employ the expectation principle when another player is confronted with dire prospects. Having paid proper attention to the arguments on both sides of the Melian Dialogue, Thucydides’ careful reader will anticipate a failure of practical reason understood in the terms of expectation-based instrumental rationality. The Athenian envoys, making their arguments as if they were facing an instrumentally rational player, did not do so and the result was the failure to strike a mutually beneficial bargain. The game devolves from non-zero-sum to zero-sum. The Melians lose everything and the Athenians gain less than they would have had the bargain been struck on the terms they had offered.

Had the Athenian envoys had a more sophisticated idea of the difference between reasoning from expectations and from prospects, they might have taken the likelihood of an “irrational” Melian choice to resist into account. But would that have made a difference in the end? Could the bargaining problem they faced be solved, in light of the of Athenian commitment to the conquest of Melos? The Athenian demos – off the stage of Thucydides’ Melian narrative, but ever-present in the consciousness of his reader – had evidently decided, when authorizing the
expedition against Melos, to stake Athens’ credibility as an imperial power on subduing the island polis. Had that decision already sealed the Melians’ fate?

Moreover, the reader may conclude that by committing themselves to expanding their empire, the Athenians had abandoned the possibility of returning, in a credible way, to the status quo ante of Pericles’ original non-expansion strategy (1.144.1, 2.65.7). As the reader will learn, in the next book of Thucydides’ history, the impossibility of a credible Athenian commitment not to expand will prove to have serious consequences after the Athenians have launched an expedition against Syracuse. When the Athenians seek to recruit allies in Sicily and southern Italy their assertions to the effect that their motivation was fear and not greed are greeted with skepticism. Potential allies reject Athenian offers of cooperation. Did the seemingly casual (perhaps consensual? In any event not productive of a debate regarded by Thucydides of worth recording) choice of the Athenian assembly to incorporate little Melos into the empire substantially increase the likelihood that Athens would end up losing in Sicily, and then ultimately losing the Peloponnesian War? It is by posing those sorts of questions that Thucydides may lay claim to making an enduring contribution to ancient and modern theories of rationality and choice.
Figure 6.1. Elder Guardians’ decision tree. Notes: Notes: $E =$ Elder Guardians; senior armed forces of Callipolis; $p =$ probability Guardians win or lose battle ($=$ risk to children); $p’ =$ probability children escape from battlefield on horseback; $s =$ value of children’s survival; $b =$ value of children’s observation of battle.
Figure 6.2. Empire game. E = Empire (Athens); S = subject or potential subject state; N = Nature (lottery over success or failure in resistance).

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Path</th>
<th>Payoff (E,S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>α</td>
<td>HH</td>
<td>5,1</td>
</tr>
<tr>
<td>β</td>
<td>HL</td>
<td>3,2</td>
</tr>
<tr>
<td>γ</td>
<td>HRS</td>
<td>low, v. high</td>
</tr>
<tr>
<td>δ</td>
<td>HRF</td>
<td>low, v. low</td>
</tr>
<tr>
<td>ε</td>
<td>MH</td>
<td>4,4</td>
</tr>
<tr>
<td>ζ</td>
<td>ML</td>
<td>2,3</td>
</tr>
<tr>
<td>η</td>
<td>MRS</td>
<td>v. low, high</td>
</tr>
<tr>
<td>θ</td>
<td>MRF</td>
<td>low, v. low</td>
</tr>
<tr>
<td>ι</td>
<td>LH</td>
<td>2,5</td>
</tr>
<tr>
<td>κ</td>
<td>LL</td>
<td>1,2</td>
</tr>
<tr>
<td>λ</td>
<td>LRS</td>
<td>v. low/medium</td>
</tr>
<tr>
<td>μ</td>
<td>LRF</td>
<td>low, v. low</td>
</tr>
</tbody>
</table>
Figure 6.3. Melos Game. Notes: M = Melians; N = Nature; A = Athenians; p = probability Melians win or lose the fight; r = range of Athens’ taxation on Melians; r’ = Athens’ range of punishment of Melians.
6 Melos. References.


6 Melos Notes. (still only vestigial)


4 Stasis: Gehrke 1985; Price 2001; Gray 2015; Arcenas 2018;

5 Fearon 1995.

6 Kahneman 2011; with discussion below.

7 ἡμεῖς μὲν οὐδὲν χρυσῶν οὐδ’ ἀργυρῶ χρώμεθα, οὐδ’ ἡμῖν θέμις, υμῖν δὲ: συμπολεμήσαντες οὖν μεθ’ ἡμῶν ἔχετε τὰ τῶν ἐτέρων;’ οἷοι τινὰς ἀκούσαντας ταῦτα αἱρήσεσθαι κυσὶ πολεμίεν στερεοῖς τε καὶ ἰσχυοῖς μᾶλλον ἢ μετὰ κυνῶν προβάτων πίσσι τε καὶ ἄπαλοῖς.

8 ἐάν δὲ ώς πολλαῖς, διδοὺς τά τῶν ἐτέρων τοῖς ἐτέροις χρήματά τε καὶ δυνάμεις ἢ καὶ αὐτοὺς, συμμάχοις μὲν οἷς πολλαῖς χρήσι, πολεμίοις δ’ ὀλίγους.

9 ὡς ἐπεὶ διαφέρειν καὶ οὐκ ἐξίσουν κινδύνου θεωρεῖν ἢ μή τὰ περὶ τὸν πόλεμον παίδας τοὺς ἄνδρας πολεμικοὺς ἐσομένους; οὔκ, ἀλλὰ διαφέρει πρὸς ὁ λέγεις. The girls have, for the moment, disappeared from the discussion, but we must, I think, assume Socrates means to include all the child Guardians.

10 πρῶτον μὲν αὐτῶν οἱ πατέρες, ὡς ἄνθρωποι, οὐκ ἀμαθεῖς ἔσονται ἀλλὰ γνωμονικοὶ τῶν στρατευοῦσα τε καὶ μὴ ἐπικίνδυνοι;

11 Cf. Plato, Protagoras 356e-357a: Soc.: “Well now, if the saving of our life depended on the choice of odd or even, and on knowing when to make a right choice of the greater and when of the less—taking each by itself or comparing it with the other, and whether near or distant—what would save our life? Would it not be knowledge; a knowledge of measurement, since the art here is concerned with the greater and the lesser, and of arithmetic, as it has to do with odd and even?” τί δ’ εἰ έν τῇ τοῦ περίττου καὶ ἄρτιον αἱρέσει ήμῖν ἢν ἢ σωτηρία τοῦ βίου, ὅποτε τὸ πλέον ὀρθῶς ἐδεί ἐλέεσθαι καὶ ὅποτε τὸ ἔλαττον, ἢ αὐτὸ πρὸς ἑαυτὸ ἢ τὸ ἔτερον πρὸς τὸ ἔτερον, εἰτ’ ἐγγὺς εἶπε πάρορα εὗ; τί ἢ ἐσωζέν ἡμῖν τὸν βίον; ἄρ’ ἢ ὦκ ἐπιστήμη; καὶ ἄρ’ ἢν ὦν μετρητική τις, ἐπειδὴ περὶ [???] ὑπερβολῆς τε καὶ ἐνδείας ἔστιν ἢ τέχνη; ἐπειδὴ δὲ περίττου τε καὶ ἄρτιον, ἄρα ἄλλη τις ἢ ἀρίθμητη;

12 For example, if, hypothetically, the value of s=100, b=10 and p=.9, then the children will not be brought along on campaign (99<100), but if the probability of victory is increased to .95 they will be (104.5>100).
ἀλλὰ γὰρ, φήσομεν, καὶ παρὰ δόξαν πολλὰ πολλοίς δὴ ἐγένετο: 467d.

ιν’, ἂν τι δέη, πετόμενοι ἀποφεύγωσιν: 467d.


I have discussed Thucydides’ assessment of Athenian dynamism in contrast to Spartan conservatism, and the “triadic” bases of Athens’ power in Ober 2001 and 2010.

Thucydides’ positive assessment of Pericles’ and Themistocles as leaders, centered on their foresight and analytical capacities: Ober 1998, chapter 2. Thucydides’ (book 1) account of the half-century from the end of the Persian Wars to the outbreak of the Peloponnesian War centers on Athenian dynamism and Spartan reticence.

The dramatic (by premodern standards) historical growth of the Greek economy in the era 800-300 BCE is documented in Ober 2015, ch. 4.

κέρδους τοῦ σφετέρου αὐτῶν ἑνεκα καὶ τοῖς ἀσθενέσι τροφῆς


καὶ γὰρ αὐτὴν τὴν τίνδε ἔλαβομεν οὐ βιασάμενοι, ἀλλ’ ὑμῶν μὲν οὐκ ἔθελε σάντων παραιμέναι πρὸς τὰ ὑπόλοιπα τοῦ βαρβάρου, ἡμῖν δὲ προσελθόντων τῶν ἄρματων. 3καὶ αὐτῶν δειθηθέντων ἡγεμόνας καταστήματον, εἰς αὐτοὺς δὲ τοῦ ἐργοῦ κατηναγκάσασθαι τὸ πρῶτον προαγαγεῖν αὐτὴν εἰς τόδε, μάλιστα μὲν ὑπὸ δέους, ἐπείτα καὶ τιμῆς, ὅστε τινα καὶ ἐργαλείας, 4καὶ οὐκ ἄσφαλέσ ἐπὶ ἐδόκει ἐνα, τοῖς πολλοῖς ἀπιχθηθείσι καὶ τινὶς καὶ ἡ ἄρχοντας καταστραμμένων, ὑμῶν τε ἡμῖν οὐκετί ὃμοιος φίλοι, ἀλλ’ ὑπόπτων καὶ διαφόρων ὄντων, ἀνέντας κινδυνεύειν (καὶ γὰρ ἂν αἰ ἀποστάσεις πρὸς 5ὑμᾶς ἐγίγνοντο)· πάσι δὲ ἀνεπίφθονον τὰ ἐξωφέροντα τῶν μεγίστων καταστραφών, ὑμῶν δὲ καὶ ἀνείμενον τὰ πρώτα τοῦ τοιοῦτου ἄξιοί τε ἅμα.
νομίζοντες εἶναι καὶ ὑμῖν δοκοῦντες, μέχρι οὗ τὰ ξυμφέροντα λογιζόμενοι τῷ δικαίῳ λόγῳ νῦν χρήσθε. 1.76.1-2.

26 τὸ ἐφ’ ἐαυτῶν μόνον προορώμενοι ἐς τε τὸ σῶμα καὶ ἐς τὸ τὸν ἴδιον οἶκον αὐξεῖν δι’ ἀσφαλείας ὡσον ἐδύναντο μάλιστα τὰς πόλεις ὄκουν.

27 τῆς ἀρχῆς ἀπόδειξιν ἔχει τῆς τῶν Ἀθηναίων ἐν οἷῳ τρόπῳ κατέστη.

28 οἱ γὰρ Ἀθηναῖοι ἀκριβῶς ἔπρασσον καὶ λυπηροὶ ἦσαν οὐκ εἰωθόσιν οὐδὲ βουλομένους ταλαιπωρεῖν προσάγοντες τὰς ἀνάγκας.

29 διὰ γὰρ τὴν ἀπόκνησιν ταύτην τῶν στρατειῶν οἱ πλείους αὐτῶν, ἵνα μη ἄπτ᾽ οἴκου ὅσι, χρήματα ἐτάξαντο ἀντὶ τῶν νεῶν τὸ ἱκνούμενον ἀνάλωμα φέρειν.

30 Thucydides 3.1-18, 25-35. I have discussed the military operations, with special reference to collective action and knowledge organization in Ober 2010: 78-82.

31 3.36-50. I have discussed the Mytilenean Debate in Ober 1998: 94-104.

32 States do, or should, act from self-interest: xx

33 Seeking information and reality-tracking beliefs: xx

34 The Athenian commanders on Lesbos accept an armistice, fearing that they will not have enough forces to subdue the island (3.4.3). The Mytileneans approach the Spartans, believing there is little chance of getting favorable terms from Athens (3.4.5). The Mytilenean commanders abandon the field after a victory doubting their chances of succeeding in staying overnight (xx). The Mytilenean envoys at Olympia state that it had seemed to them unlikely (ou... eikos) that, after subjecting the other allies, Athens would, if powerful enough, leave Mytilene free (3.10.6); they posit that equal allies do not violate agreements because the odds of success are too low (3.11.2); they claim that before the war Mytilene did not expect to keep its privileged position within the Athenian coalition and so made preparations to revolt; they assert that the time is right for Sparta to aid them because it is improbable that Athens has any ships to spare. Teutiaplus of Elea argues that if the Peloponnnesians attempt a surprise attack they can expect to catch the Athenians off guard; the Athenians will probably be scattered after their victory (3.30.2). But Alcidas of Sparta finds Teutiaplus’ plan too risky (3.31.1). Thucydides claims that had the Peloponnnesians been bolder they could probably have received help from a Persian governor (3.31.1). The Ionians came out to greet what they believed to be Athenian ships, because they had no expectation that a Spartan fleet would appear off their coast. Diodotus claims that orators must have superior foresight (3.43.4); he imagines that it is probable that punishments for crimes became more severe over time as lighter punishments failed to deter wrongdoing (3.45.3); he notes that chance misleads people into overly bold actions, because the unexpected does sometimes happen (3.45.6); he notes that if the imperial power is known to be lenient, those who revolt may quickly reassess their chances and change their behavior (3.46.2).
At 6.83–87, the Athenian envoy, Euphemus, attempts to persuade the Sicilian state of Camarina to ally with Athens against Syracuse, arguing that Athens seeks free allies, not subjects and that Athens’ motive for the Sicilian expedition is fear of Syracuse, not aggrandizement. Thucydides (6.88.1) states that the Camarinaeans
feared Syracuse and sympathized with the Athenians, “except insofar as they might be afraid of their subjugating Sicily.” Camarina refused the Athenian offer of alliance.