

INTRODUCTION



Divination and the History of Surplus Knowledge

Divination is like this: By the visible it knows the invisible, and by the invisible it knows the visible, and by the present it knows the future, and by dead things it gains knowledge of the living, and it becomes aware from things that have no awareness. The person who knows it is always correct, while the person who doesn't sometimes is and sometimes isn't. In this way it imitates human life and human nature.

Μαντικὴ τοιόνδε· τοῖσι μὲν φανεροῖσι τὰ ἀφανέα γινώσκει, καὶ τοῖσιν ἀφανέσι τὰ φανερά, καὶ τοῖσιν ἔονσι τὰ μέλλοντα, καὶ τοῖσιν ἀποθανοῦσι τὰ ζῶντα· καὶ τοῖσιν ἀσυνέτοισι συνιᾶσιν, ὁ μὲν εἰδὼς ἀεὶ ὄρθως, ὁ δὲ μὴ εἰδὼς ἄλλοτε ἄλλως. Φύσιν ἀνθρώπου καὶ βίον ταῦτα μιμεῖται.

—The Hippocratic treatise *On Regimen* 1.12

FROM ALL CORNERS OF THE ANCIENT MEDITERRANEAN, PEOPLE that had run up against the limits of their own knowledge brought their remaining questions to a frail, illiterate woman housed in a massive stone temple at Delphi. She was Apollo's human embodiment on earth and the most revered source of wisdom in the classical world. As they prepared for their consultation with the mysterious Pythia, seekers would have read an enigmatic, deceptively simple two-word sentence cut into the temple wall, “Know yourself.”¹ No one could remember where the

¹For a sample of the scholarship, see Eliza Wilkins, “‘Know Thyself’ in Greek and Latin Literature” (Ph.D. dissertation, University of Chicago, 1917), 60–77; S. Levin, “Know Thyself: Inner Compulsions Uncovered by Oracles,” in *Fons perennis: Saggi critici di filologia classica*

saying came from or what exactly it was supposed to mean, but this only heightened the aura around it. Why should the god advise those consulting him to know themselves? Wasn’t it precisely their lack of knowledge that had led them to him? Perhaps the god was trying to tell us that, in some way or other, knowing oneself is the key to knowing anything at all, and that any inquiry could start only from a condition of self-awareness. Maybe it meant that self-knowledge is not the beginning but rather the end of true wisdom. While we may be looking for answers to other things, what we really come to know in the end is ourselves. Whatever it meant, the position of the inscription, over the entry hall to the inner sanctum, invited those reading it to look at it as some kind of key to the place they were entering. The riddle of the cryptic abundance of divine knowing they were about to experience had been rephrased as a riddle about self-understanding.

The idea of knowing oneself takes a bit of unpacking. From a contemporary vantage, we might first think of knowing one’s own tastes and proclivities, the kind of self-discovery that is the stuff of the modern *Bildungsroman*. But for the Greeks it was not so much a question of knowing oneself as a *sui generis* individual but rather of developing an understanding of oneself as a member of the order of things. To know yourself meant to pursue what it is to be human. Ideas on that question are thick and varied in the ancient sources, but a few shared points of reference set them on the trail. As humans we are composite creatures. On the one hand, we possess an extraordinary intelligence, a knowingness that is so mysterious as to seem to have something to do with the divine. On the other, we also have a bodily nature, a creaturely self, that we share with the other self-propelled organisms we see around us. Although they do not partake in our intelligence, like us they do eat, metabolize, reproduce, and eventually die. For most of day-to-day life in Greek antiquity, this pair of considerations produced

raccolti in onore di Vittorio d’Agostino (Turin: A Cura della Amministrazione della RSC, 1971) 231–57; Hermann Tränkle, “Gnothi seauton: Zu Ursprung und Deutungsgeschichte des delphischen Spruchs,” *Würzburger Jahrbücher für die Altertumswissenschaft* n. F. 11 (1985): 19–31; Christian Gorm Tortzen, “Know thyself’: A Note on the Success of a Delphic Saying,” in Bettina Amden et al., “*Noctes Atticae:*” *Thirty-Four Articles on Graeco-Roman Antiquity and Its Nachleben: Studies Presented to Jørgen Mejer on his Sixtieth Birthday, March 18, 2002* (Copenhagen: Museum Tusculanum, 2002), 302–14; cf. also Pierre Courcelle, *Connaistoi toi-même de Socrate à Saint Bernard*, vol. 1 (Paris: Études Augustiniennes, 1974).

three very broadly understood layers of reality, with humans somewhere between the divine realm of gods in the heavens and the world of animal nature.

These are distinct zones, whose boundaries are enforced by foundational taboos, such as hubris on the one hand and cannibalism on the other. But the cultural walls that separate them have cracks. Greek myth is filled with figures that blur the lines. Satyrs, centaurs, and other hybrids split the difference between us and the animals, while heroes and spirits populate the other boundary. In more complex cultural formations as well, we find both barriers and bridges.² For example, in the protocols around sacrifice, one sees all three spheres coming into conversation, as the animal's embodied self, demanded by the god, both secures divine favor and goes to the enrichment and nourishing of the human organism. As scholars in the last several decades have shown, sacrifice is as much about human nature as it is about the gods or the animals they supposedly desire.³ I will argue in this book that the kind of thing that took place not just in consultations with the Pythia, but in a kaleidoscopic array of common ancient divinatory practices, performed a similar kind of organizing function. Such practices orient us between our weird knowingness, which we share with the divine, and our creaturely selves, which traverse the terrestrial world alongside the other animals. Divination does this by drawing a connection between the two.

For many millennia and across the whole Old World, from Eastern to Western Eurasia, and from the tip of southern Africa to the highlands of Britannia, people were in the habit of practicing divination, or the art of translating information from their gods into the realm of the human. On a scale whose breadth we have yet to fully appreciate, they assumed that clandestine signs were buried in the world

²For an illuminating reading of Hippolytus and Hercules that reaches a similar end point by Freudian and structuralist means, see Charles Segal, "Pentheus and Hippolytus on the Couch and on the Grid: Psychoanalytic and Structuralist Readings of Greek Tragedy," *The Classical World* 73.3 (1978): 129–48.

³The seminal modern work on the topic is Walter Burkert, *Homo Necans: The Anthropology of Ancient Greek Sacrificial Ritual and Myth*, trans. Peter Bing (Berkeley: University of California Press, 1983) (originally published, Berlin: De Gruyter, 1972). Of similar importance is the collection by Jean-Pierre Vernant and Marcel Détienne, eds., *La cuisine du sacrifice en pays grec* (Paris: Gallimard, 1979).

around them. Consultants perceived messages from temple-based oracles, like the one at Delphi, as well as in their dreams, the entrails of the animals they killed, lightning, fire, lots, pebbles, livers, fired tortoise shells, the stars, birds, the wind, and nearly anything else that moved.⁴ These practices were not, for the most part, considered esoteric or marginal. The inclinations of the divine, like the weather, were simply a part of the ancient atmosphere, and just about wherever we look in the sources, we find people trying to gauge the prevailing winds. Scholars have yet to take account of the extraordinary diffusion of the phenomenon. It belongs to a small group of rather widely shared cultural forms from antiquity—alongside things like myth or sacrifice. Although no global answer to why this is so will easily be found, it is also true that better local answers will emerge if scholars make a fuller reckoning of this near universal diffusion.

Diverse as they are, the preponderance of divinatory signs in the classical world shares a grounding in natural processes. From climactic phenomena, to animal behaviors, to involuntary human actions like sneezes, twitches, or dreaming, the language the gods spoke was understood to be anchored in the other bookend of the human being—according to the Greek scale—namely, the world of nature and the animal. Even in the case of the more ephemeral, internal states of divine possession, whether oracular trances or unconscious visions, bodily natures are made salient, as the strange, quickened bulk in which our consciousness resides takes on the function of an instrument—whether we ourselves are vibrating in sleep or we witness another human body writhing, twitching, and providing vocal cords to the divine message. The Pythia's legendary illiteracy is consonant with this view. The void in her education makes her creaturely nature all the more prominent; and her gender aligns with this sense of corporeality, since Greek men typically associated women with body over mind.⁵ When that realm which lay above us chose to speak, the messages mostly came in and

⁴ And even some things that don't, including cheese. Artemidorus, 2.69, cited in Sarah Iles Johnston, *Ancient Greek Divination* (Oxford: Wiley-Blackwell, 2008), 8.

⁵ On the question of gender and the Pythia, see for example, Lisa Maurizio, "A Reconsideration of the Pythia's Role at Delphi: Anthropology and Spirit Possession," *Journal of Hellenic Studies* 115 (1995): 69–86.

through the one that lay below us. It does not simply stand to reason that the phenomenon would be organized this way.

DIVINATION, MAGIC, AND POLITICS

The study of ancient divination does not typically begin like this. When it has been treated by classicists, it tends to appear in one of two scholarly venues: either as an important component of social and political history—which it clearly was—or as a subset of the study of magic, a field that has been burgeoning in recent decades. Taking social history first, several important advances have been made. Informed by anthropological studies, and ultimately by Evans-Pritchard, classicists have looked at divination as a means to invoke the ultimate authority of the divine in order to construct and maintain social orders by building consensus and managing conflict.⁶ This approach grows pretty naturally from the kind of evidence most often cited in scholarly studies—that is, the captivating tales of divinatory practice recorded by historians and poets, including such famous stories as those of Oedipus, Croesus, or the Athenians' Wooden Wall. These typically unfold according to the literary logic of the puzzle or riddle, and show people trying to grope their ways through life on incomplete and partial information, always in contrast to a divine fullness of knowledge. We see elite figures fastening onto this or that sign and enlisting the gods' voices in the service of their own ends. Such famous cases invite us into high stakes public venues, looking at leaders in politics or war struggling with what something ominous portends for them. By focusing here, one can surely see why some scholars have developed the view that divination was mainly about politics.

⁶For a lucid recent overview, see Michael Flower, *The Seer in Ancient Greece* (Berkeley: University of California Press, 2008), 72–80. For a standard of scholarship, see H. W. Parke and D.E.W. Wormell, *The Delphic Oracle* (Oxford: Oxford University Press, 1956); and the reworking of this tradition by Joseph E. Fonenrose, *The Delphic Oracle: Its Responses and Operations* (Berkeley: University of California Press, 1978); cf. Robert Parker, "Greek States and Greek Oracles," in P. A. Cartledge and F. D. Harvey, eds., *Crux: Essays in Greek History Presented to G. E. M. de Ste. Croix* (London: Duckworth, 1985), 298–326. E. E. Evans-Pritchard, *Witchcraft, Magic, and Oracles among the Azande* (Oxford: Clarendon, 1937); cf. J. C. Mitchell, *The Yao Village* (Manchester: Manchester University Press, 1956), 165–75, and George K. Park, "Divination and Its Social Contexts," *Journal of the Royal Anthropological Institute* 93.2 (1963): 195–209.

Attractive as it obviously is, and as useful as it has been in clarifying political and social history, this approach has limitations. Briefly put, it moves all too quickly away from the divinatory moment itself, classifying it as a pretext for the real work divination does, according to this view, working through a social problem in a political forum. But we may be left wondering why (on earth) the ancients would have chosen these peculiar methods of doing politics. There isn't an obvious logic that explains why such debate would be catalyzed by, and authorized by, the screech of birds or the coloration of a sheep's liver. In addition, current scholarly studies of this variety are sometimes shaped by a rather straightforward picture of an enlightened few manipulating the masses with ostentatious mystery. But such claims rarely take into account that the elites, just as much as the larger public, typically thought divination worked. And further, if divination were really mostly about politics, why would such techniques have been equally useful in private matters, even in questions of intimate and personal concern, in which social manipulation plays no part? When seen as a pretext, the divinatory sign, as a medium, with all its curious characteristics and qualities, is passed over. It becomes a cipher, isolated and irrational, to be bracketed and filled with other more comprehensible—that is, social-historical—content.

The second significant body of scholarship begins from entirely different premises. It treats divination as though it were a part of the underworld of occult practices that thrived in the classical period. The prevalence of the pairing “magic and divination”—to be found in the titles of books, chapters, articles, and conferences, and enshrined in the title of Evans-Pritchard’s seminal work of anthropology, *Witchcraft, Oracles and Magic Among the Azande* (1937)—suggests that the two are twinned in the modern imagination.⁷ But, from the perspective of the classical evidence, this view also has its limitations. Although magic and divination may seem to us to be complementary, and although they may have been so for Evans-Pritchard’s Azande, that is not the Greek and Roman view, and in the classical context we lose something in our understanding of both by lumping them together. While we are learning more in recent years of a learned form of “magic,” attached to

⁷A modern *locus classicus* for the field is W. R. Halliday, *Greek Divination: A Study of Its Methods and Principles* (London: MacMillan, 1919).

the traditions of the Persian *magoi* in the classical period,⁸ the vast majority of the evidence we have for the tradition of magic (γοντεία, μαγεία) makes it out to be a fringe, esoteric, occult activity. This is something divination (μαντεία) was certainly not considered to be. Magic was nearly always malicious and deeply socially stigmatized. It was not something done in polite company. The magician has a reputation as a secretive and nefarious miscreant; the diviner does not—even though he or she can make enemies, as the Pythia does of Croesus or Tiresias of Oedipus. It is the γόνς and not the μάντις that becomes simply synonymous with a cheat. Greeks and Romans reserved multiple, prestigious offices for their diviners; no parallel exist for magicians. A few stereotypes, informed by class distinctions, of unscrupulous or charlatan diviners, particularly itinerant ones,⁹ do exist, but they find their closest analogues not in treatments of magicians, but in ancient views of technical experts of all kinds, like medical doctors or rhetoricians, whose specialists' knowledge is sometimes an irritant.

It is true that we find many spells in the *Greek Magical Papyri* offering expertise in the divinatory arts, but then again, the writers of these spells claim expertise in all kinds of things.¹⁰ They offer results in the fields of rhetoric, athletics, the making of pottery, medicine, or nearly any other highly skilled craft for which people were accustomed to hiring expert help. That magicians should claim skills as diviners does not mean divination has particularly to do with magic any more than it means medicine does. It is better to say that the two fields have some relationship, but not a bidirectional one. The most famous diviners and oracles—Teiresias, the Pythia, the priestesses of Dodona, and the Sibyl, for example—have no reputation as magicians. It is probably more accurate to position the evidence this way: while on the one hand we have magicians who make rather indiscriminate claims about the range of

⁸See James Rives, “Aristotle, Antisthenes of Rhodes, and the *Magikos*,” *Rheinisches Museum für Philologien* n. F. 147.1 (2004): 35–54; and Phillip Horky, “Persian Cosmos and Greek Philosophy: Plato’s Associates and the Zoroastrian *Magoi*,” *Oxford Studies in Ancient Philosophy* 37 (2009): 47–103.

⁹See John Dillery, “*Chremalogues* and *Manteis*: Independent Diviners and the Problem of Authority,” in Sarah Iles Johnston and Peter T. Struck, eds., *Mantikē: Studies in Ancient Divination* (Leiden: Brill, 2005), 167–231.

¹⁰For the most thorough recent treatment of divination in the magical texts, see Johnston (2008), 21–27, 144–79.

their areas of expertise, the practitioners of the other specialties tend to be more circumspect. We find an occasional Gorgias and his equivalent in the parallel arts, who will claim powers to bewitch and beguile, usually to be purposefully provocative, but the claim of affiliation is usually one-sided.¹¹ For the most part, divination is understood as one of the useful arts—a speculative one, to be sure, but not an occult one. This general picture is supported on the level of simple terminology. It is telling that divination gets a commonly used Greek substantive adjective form in -ική (*μαντική*), which ranks it among the other well-known *technai*. The parallel formations hardly exist in the vocabulary for magical practice.¹² Finally, one could highlight the awkwardness of the pairing, magic and divination, by a comparison with sacrifice. One would not get far in classical scholarship arguing that magic and sacrifice were a natural heuristic combination. Although one could imagine a scenario in which sacrifice struck a scholarly audience as mysterious behavior, which could perhaps lead to a positioning of the two as subsets of the same kind of phenomena, this would be a rather obvious mistake. Someone could even support a claim of a relationship between magic and sacrifice from the magical papyri, since magicians also give copious examples and detailed instructions regarding sacrifice. But this makes the pairing no less awkward. We have known for many centuries that sacrifice was a core, nonoccult part of classical religious life, and have achieved a richer understanding of it by letting it stand as a subject of study on its own.

The scholarly approach to divination that treats it as a subset of the study of magic seems to share little with the social-historical one. However, after some reflection a simple, though consequential, similarity comes into view. Both proceed from an irrationalist premise. They participate in an area of classical scholarship that, since Dodds, has received corrective attention under the umbrella of recovering the “irrational” aspects of Greek and Roman life, on which more in a moment; and this context means that both begin with the idea that divination is a form of human behavior that does not, properly speaking,

¹¹Gorgias, *Encomium of Helen*, speaks of the power of words to work like a magical charm (Diels-Kranz B11.8, B11.10).

¹²The form *γοητική* as a substantive is unattested in the literary corpus. The substantive *μαγική* does appear, but not until the Septuagint and only rarely.

make sense. The question of the logic that might lie behind it is either not asked at all, since it is assumed not to have one, or it is deflected onto other, functionalist grounds. In place of a rational logic, the social historian explores the more comprehensible realm of social capital, while the historian of magic will tend toward the psychological, presenting an ancient mind-set, groping to find effective means of dealing with a sometimes brutal world. These intellectual histories group divination into a cluster of oddities of a past time that emerge from exotic theological commitments, unearthed with a kind of curatorial spirit.¹³

In my view, the current study of divination has been overly functionalized. This has left us with atrophied answers to a question that, in the largest sense, animates the present study. The question is this: Why did it made sense to most Greeks and Romans to think that their gods were sending them messages through the natural world and its creatures, including their own bodies, asleep or awake? Answers in the current scholarship are not very satisfying. They move quickly into generalities like superstition or a desire for social manipulation. These are after all rather broad impulses, and while they are relevant to divination, they don't very directly lead to it. It's not as though with sufficient amounts of superstition and manipulative intent, the idea that the universe is percolating with hidden messages will just emerge. In my view, the question of "Why?" has been positioned too narrowly, doubtless partially as a result of the kinds of source texts that have been the focus of study. Immersed in the case studies of divinatory situations both real and imagined, told by historians or poets, a scholar finds local answers, tactical purposes, specific goals, and targeted outcomes. Croesus sent messengers to Delphi to ask if he should attack the Persians, because he wanted to know if he would win. The kind of testimony about motivations that one extracts from actual instances of divination, told from the point of view of participants, does not offer much purchase on the potential underlying reasons why divination seemed like a reasonable activity to nearly all ancient people in the first place.

There is another kind of answer offered in the classical evidence. It emerges from a set of texts, less well studied than the literary and historical ones. From back to at least Democritus' time, we find a tradition

¹³A welcome exception is Johnston (2008), 1–30.

of philosophical reflection on divination. While there is rarely a question that it is poised on the edge of comprehension, these thinkers do not generally assume that it has fallen into the abyss. Only a few of our sources are entirely hardheaded on the subject, like Epicurus¹⁴ and Cicero's own persona in book 2 of the *De divinatione*. These currents of thought, which have been unduly amplified, are only eddies in the main stream. And the outsized influence of Cicero's text, which his academic background leads him to structure as a for-and-against proposition, has lead us to overemphasize the controversial dimension of the topic, and to overlook the earnestness with which nearly all of our sources pursue it. Most ancient intellectuals, in short, take divination more or less seriously. The contrast with magic is again striking: theories of magic are very rare and sketchy.¹⁵ The evidence base is orders of magnitude more robust in the case of divination theory.¹⁶

Rather than setting out to reckon with the meaning of one particular sign or other, these thinkers explore the premises of the whole enterprise. They study the structure of this language of signs, not particular iterations. Their works provide a remarkably rich vein of thinking on the subject, which has hardly been explored beyond specialized studies of individual texts. They vary in their emphases. Plato and Aristotle devote most of their serious attention to prescient dreams. The Stoics and Neoplatonists open up the consideration to all kinds of divinatory activity. Although one can find some interest in linking the phenomenon to gullibility, manipulation, or superstition, each of these schools also has much more to say about it. In the parts of their studies on which I will focus, they start with what they see as a curious

¹⁴See Cicero, *De div.* 1.3, 2.40.

¹⁵The most thorough study is Fritz Graf, "Theories of Magic in Antiquity," in Paul Mirecki and Marvin Meyer, eds., *Magic and Ritual in the Ancient World* (Leiden: Brill, 2002), 93–104. Though, again, the studies of Rives and Horky are beginning to see a tradition attached to the Persian *magoi* that shows philosophical interest, not least in the attribution to Aristotle of a tract called *Magikos* (Rose [1967], F32–F36). It is doubtful that this tradition will be much illuminated by the goetic magic of the *Papyri Graecae Magicae*, etc.

¹⁶Sarah Iles Johnston is surely right to call divination a "tertium quid" and to point out that this has played a role in keeping divination from being vigorously pursued by scholars. See Sarah Iles Johnston, "Introduction," in Johnston and Struck (2005); and in more depth in Johnston (2008), 21–30. Even after Dodds, while magic had the irresistible attraction of a kind of purity of unreason, divination, which has always been an alloy of sorts, was largely passed over in the rush to the opposite pole.

phenomenon; one that seems to them to be both hard to understand and a more or less observable fact. Certain people are just good at arriving at useful knowledge, in crux situations, in difficult to understand ways. After making a degree of allowance for the speculative nature of the topic, they ask something like: How in the world do they *do* that? The traditional Homeric view, that an anthropomorphic Olympian divinity intervenes in an act of purposeful communication, placing a kind of person-to-person call, is never embraced. Instead, we find a rather long list of singularly powerful minds meditating on what for them is an undeniable sense that we humans sometimes acquire knowledge—on matters past, present, and future—in deeply enigmatic ways. Their very general approach and their purpose of looking behind examples to underlying processes invites a more rudimentary investigation of divination. The way these thinkers examine the question has suggested to me that another, parallel history of divination is also possible to tell, one that sees it not so much as a social or occult phenomenon, but rather as belonging to the history of a certain kind of cognition.

Before going on with this point, it is perhaps useful here briefly to make a distinction between classical Greek ideas of divination and the quite different phenomena of prophecy in the Hebrew Bible or the later development of apocalyptic literature. Some further remarks on these traditions will again become pertinent in the later parts of this study. With very few exceptions, Greek diviners produce incremental advice on tactical matters in the proximate future. These increments may have grand consequences, but the insights themselves are small bore.¹⁷ They provide guidance on whether a particular god is angry; whether this or that time is more advantageous for a military attack, or a business deal, or a marriage; and (commonly from Delphi) whether it's a good time to set up a colony in a faraway place. They do not offer large judgments about the alignment of the universe, or have revelatory visions that open a vantage to the underlying structure of the cosmos. Their knowledge is narrower and meant to be put to use when a small increment of

¹⁷ See a similar assessment at Parker (1985), 77. Parker extends this as a general characterization drawn from anthropological treatments of divination across contemporary cultures. On the Greek side, see these testimonia: Xenophon, *Mem.* 1.4.15, *Cyrop.* 1.6.46; Herodotus 1.157.3; Hipparchus 9.9. For the case of the specific evidence at Didyma, Bernard Haussoullier made this point nearly a century ago, “Inscriptions de Didymes,” *Revue du Philologie* 44 (1920): 271–74.

knowledge can make a big difference. As we will see in the later material under consideration here, these aspects of the classical tradition undergo some change after the Hellenistic period, and after substantive contact with the Near East. More expansive views like these become rather thoroughly embedded in the work of the Neoplatonists, whose ideas mark a distinct break with their predecessors, though they appear already in imperial prophecies recorded from Claros.¹⁸

RATIONALITY AND COGNITION

For many years the category of rationality governed modern accounts of the distinctive place of the Greeks in intellectual history. With a few exceptions around the school of Cambridge Ritualists, scholars took them to stand for a stage in which humanity was emerging into a new kind of critical self-awareness, one that, as the story goes, had eluded their predecessors.¹⁹ A half-century ago, after the obvious contributions of the Greeks to the development of rationality no longer seemed to need advocates, E. R. Dodds added powerful nuances to the dominant narrative with his Sather Lectures of 1949–1950, published as *The Greeks and the Irrational*. Dodds showed that Greeks were not, in fact, always and everywhere following the course of *logos*, but instead engaged in a range of practices and held a range of beliefs that would seem, to us at least, to be decidedly *irrational*. Dodds's landmark study initiated whole fields of inquiry and left us a more balanced picture of classical intellectual culture, but it also, in an infelicitous side effect, reinforced the centrality of rationality (or now its lack) in Greek intellectual history. Too often, in my view, classical cultural forms are thought of exclusively in terms of whether, or to what extent, they are rational or irrational.

The most important contributions to the study of divination's place within intellectual history, a study which has never quite achieved critical mass, mainly place the question of rationality/irrationality at the center. A useful but mostly documentary section of Auguste

¹⁸Johnston (2008), 78–82.

¹⁹See further, Johnston (2008), 18–19.

Bouché-LeClercq's four volumes on the *Histoire de la Divination dans L'Antiquité* (published between 1879 and 1882) deals broadly with divination in its ancient intellectual contexts, and a not well-known dissertation, of Friedrich Jaeger from Rostock University, on *De oraculis quid veteres philosophi judicaverint* (1910) returned to the idea. W. R. Halliday published his *Greek Divination* three years later, embracing, in the wake of the Cambridge Ritualists, a possibility for an irrational, "pre-Olympian" realm of Greek life.²⁰ Arthur Stanley Pease showed the remarkable depth of Cicero's *De divinatione* in his monumental edition and commentary (1920–1923), which included copious commentary on the philosophical tradition, almost always from the standpoint of source criticism. Since then the topic mostly languished until Dodds's watershed book, where divination appeared as one species of the irrational. A quarter century after Dodds, Jean-Pierre Vernant and his collaborators made important advances in his collection *Divination et rationalité* (1974). These observations were pursued by Detienne within the realm of structuralist anthropology.²¹ Valuable studies of Aristotle and the Stoics appeared in the history of science by R. J. Hankinson, followed by pathbreaking contributions by Philip van der Eijk.²² Friedrich Pfeffer examined some of the same evidence studied here in his *Studien zur Mantik in der Philosophie der Antike* (1976), a study from which I have profited. A revival of interest in ancient semiotics has made promising inroads, in the work of Giovanni Manetti, Ineke Sluiter, and Walter Leszl.²³ More recently, Johnston has set out a clear overview of the whole.²⁴ Collectively, the main contribution of this area of

²⁰See discussion in Johnston (2008).

²¹Marcel Detienne, *Masters of Truth in Archaic Greece* (New York: Zone, 1996), originally published as *Les Maîtres de vérité dans la grèce archaïque* (Paris, Maspéro 1967).

²²R. J. Hankinson, "Stoicism, Science, and Divination," *Apeiron* 21.2 (1988): 123–60; Philip van der Eijk, *Medicine and Philosophy in Classical Antiquity: Doctors and Philosophers on Nature, Soul, Health, and Disease* (Cambridge: Cambridge University Press, 2005); and his edition and commentary, Aristotle, *De insomniis; De divinatione per somnum* (Berlin: Akademie Verlag, 1994), is extraordinarily helpful.

²³Giovanni Manetti, *Theories of the Sign in Classical Antiquity* (Bloomington: Indiana University Press, 1993); Ineke Sluiter, "The Greek Tradition," in Wout van Bekkum et al., eds., *The Emergence of Semantics in Four Linguistic Traditions: Hebrew, Sanskrit, Greek, Arabic* (Amsterdam: John Benjamins, 1997); Walter Leszl, "I messaggi degli dei e i segni della natura," in Giovanni Manetti, ed., *Knowledge through Signs: Ancient Semiotic Theories and Practice* (Turnhout: Brepols, 1996), 43–85.

²⁴Johnston (2008), 4–27.

scholarship has been to work through the powerful observation that rationality has a history, and to show the gains we realize by a deeper understanding of cultures whose notions of it are not always isomorphic to our own.²⁵

But by letting the category of rationality and its negative twin set the terms for the discussion we have missed out on some of the subtleties of the ways Greeks thought about the topic at hand—and, more important, and in a broader sense, how they thought about thinking in general. The binary of rationality/irrationality is too blunt. It places self-conscious, volitional, discursive, inferential intellectual activity on the one side and absurdity on the other. But according to the general view among the philosophers, while divinatory knowledge arrives via processes that are not quite rational—the mechanisms that lie behind it are not like those of our normal, waking thinking—they are not precisely irrational either, in the sense of being unreasonable, illogical, or absurd.

These texts treat the phenomenon in a different way. They work through the investigation starting from a sense that even if it is sometimes difficult to know how we arrived at a particular insight by using the normal measures and standards for how we know things (vigorous ideas about which vary widely from thinker to thinker) it is still at least possible that there is some accounting to be made for how we got it right. I have come to the view that trying to measure the rationality of divinatory thinking is actually a stumbling block and not a pathway to understanding it. As I hope to justify in the following pages, the contemporary category of cognition (as used in its broadest sense within the cognitive sciences) allows us to describe such intellectual phenomena better precisely because it allows for a study of thinking that is agnostic on the question of rationality. Cognition, as I will be using it, captures all activities of the mind and allows them an equal share of attention. The modes of thinking that the philosophers speculate about in studying divinatory insight, characterized in multivariate and elegantly subtle ways, is best approached from this broad scope.²⁶

²⁵This is an ongoing theme in Johnston and Struck (2005).

²⁶Thomas Habinek has already shown the gains that accrue from taking this perspective on Stoicism, in “Tentacular Mind: Stoicism, Neuroscience, and the Configurations of Physical Reality,” in Barbara Stafford, ed., *A Field Guide to a New Meta-Field: Bridging the Humanities and Neuroscience Divide* (Chicago: University of Chicago Press, 2011), 64–83.

SURPLUS KNOWLEDGE

Starting from these preliminaries, this study proceeds via a central axiom. It is likely to be relatively uncontroversial, and if it is a good axiom it should have been just as true in antiquity as it is now: *Our ability to know exceeds our capacity to understand that ability*. This means that our cognitive selves are to some (let us say, for now, irreducible) degree mysterious to us. After bracketing entirely the claims of psychics or enthusiasts of ESP, it is not uncommon that we find ourselves in the position of knowing things, about which, if pressed, we cannot quite develop a clear account of how we know them. The messages that we receive from the world around us add up, sometimes in uncanny ways, to more than the sum of their parts.

The residual I am calling “surplus knowledge.” By this I mean the quantum of knowledge that does not arrive via the discursive thought processes of which we are aware, and over which we have self-conscious control. Beginning from this axiom, the overall argument here runs like this: Surplus knowledge exists, as a fact of human nature; over the course of history cultures have developed different strategies for getting a grip on it; and divination is just the most robust ancient version in a long series of attempts to do so. By “get a grip,” I mean to acculturate it, to fit it into a coherent worldview and to some extent regulate it and make it socially useful. According to this account, divination will be best understood as driven not mainly by exotic theological commitments, nor by primitive minds tempted by superstition, nor by political ambitions to manipulate the masses; but rather by an underlying characteristic of the nature of human cognition. The rich political and social dimensions, then, unfold posterior to—and as an epiphenomenon of—this peculiar zone of knowing. The theology is not the cause, but rather the authoritative local language, if you will, that is the favored classical means to express and describe a durable human experience.

The best modern analogue to ancient divination by this account is not horoscopes, palmistry, or tarot cards, since, in most current valuations, these and similar practices are esoteric and self-consciously marginal. They partake of the occult, in the same way that ancient magic did; and are mostly meant to be engaged in when no one is

looking, or at least from the safety of an ironic distance. In the pages that follow I will be working through evidence that positions divinatory knowledge within the classical thought-world in a way that is more or less analogous to the position of the modern concept of intuition, in the way it is generally understood. Both are widely accepted, socially authorized placeholders to mark those things we know without quite knowing how we know them. Neither is fully understood, when used in the common parlance of their respective times, and this undertheorized nature is likely to be part of their point and usefulness for the general audiences that put the categories to use. The categories themselves are provocative, and intellectuals produce studies to try to figure them out. Like modern intuition, divination gave the ancients a way to talk about surplus knowledge, although the whole phenomenon remained (as it still does) somewhat squirrelly.

TECHNICAL AND NATURAL DIVINATION

Of course, this line of argument needs to reckon with a very old division in the field, between the classes of natural and technical divination, to which we find ancient authorities attesting, including Plato (*Phaedrus* 244) and Cicero (*De div.* 1.6, 18; 2.11).²⁷ Divination by nature happens through an inspiration that produces an oracle, dream, or daytime vision in the recipient's mind, while technical divination proceeds by interpreting signs in the surrounding environment. Although the first is congenial enough to the idea of an alternative mode of cognition, given that it centers on altered states of mind, the second appears not to be, since it seems to proceed by the application of self-conscious inferential logic to empirically gathered external signs. Plato and Cicero both speak of the thought processes involved in these classes as being divided in this way.²⁸ But there are reasons to see this division as less than a clean line.

²⁷ Contemporary scholars have mostly followed this division, but several have cast doubt on its coherence and importance for ancient thinking; see Flower (2008), 84–91; Johnston (2008), 9, 17, 28.

²⁸ Plato, *Phaedrus* 244c–d; Cicero, *De div.* 1.2–4.

A recent treatment by Michael Flower has shown the general fuzziness of the lines between these hoary categories in actual practice, outside of the testimony of Plato and Cicero.²⁹ Technical and natural divinatory techniques often accompanied one another, and dream divination appears on both sides of the divide. Flower has pointed to rhetorical motivations behind both Plato's and Cicero's distinction between the modes of thinking involved in the two forms. As we will see, the Stoic Posidonius will go to some lengths to try to show that the modes of thinking in each case are the same. This brings up another point of note. It holds true in the evidence in this study, albeit not comprehensive on this question, that those who take technical divination seriously (Posidonius) characterize its mode of thinking as partaking in the nondiscursive, while those that call it inferential and discursive (Plato, Aristotle, Cicero, and Iamblichus) do so accompanied by doubts on whether it should count as divination. These observations prompt us to try looking at Greek technical divination in a slightly different light.

We start by noting that in almost all cases for Greeks and Romans, discerning the external sign itself is, after all, a strenuous process that resists neat formulation. The gnarled traditions that try to systematize these practices make this obvious. The loci on which technical divination unfolds are almost never high-contrast evidence of strict black and white. Flights of birds are erratic, entrails have no straight lines, and discerning the degree of greediness with which chickens eat their grain is subject to ambiguity. Even the relentlessly regular movements of the heavenly bodies become so laden with interpretive schemata that the lore of astrology remains, let us say, murky. On the Roman side, the augural laws, like the astrological treatises, are another interesting case. The expanse of the literature, and the profusion of rule making, looks much more like something set up to thwart the application of inferential logic than to facilitate it. It offers any interpreter a wide array of choices, a kind of jurisdiction shopping. Jerzy Linderski's famous efforts to

²⁹See Flower (2008), 84–91; and see also Philip Peek, "Introduction: The Study of Divination, Past and Present," in Peek, *African Divination Systems: Ways of Knowing* (Bloomington: Indiana University Press, 1991), 12, cited in Flower (2008), 86.

work through the laws help prove the point.³⁰ And on the Greek side, we simply do not have surviving *any* tract, let alone the collection of tracts one would expect, to attest to an impulse toward the development of standard rules for interpretation in any of the technical varieties of divination, including such prominent ones as entrail- or bird-reading.³¹ If such practices had actually been based on discursive inference from the straightforward observation of signs, guided by the collection of lore (such as Cicero describes it) one would have expected to find a convergence on practicable rules. But such a thing, beyond vague generalities, does not exist.

Now, the absence of clarity with respect to such phenomenon, from a functionalist perspective, of course, looks like the diligent production of refuges for the system when particular instances result in failure. This is no doubt the case. But at the same time, from the perspective of this study, there is an orthogonal point to be drawn. From within the cognitive reality of the system, it speaks to a cultural attempt to make space for precipitating a shift in the kind of thinking engaged, a change to a noninferential, nondiscursive mode of knowing, at the moment of observation. It breaks open the normal sequential thinking of long-form wrestling with inference, directs attention away from the details of the problem at hand, and invites more associative and correlative cognition to take over for a while. The reading of livers on the battlefield is closer to a gut-check, so to speak, than to a calculation; and the mode of cognition most salient in riddling out an answer from most of the rest of the technical forms remains as inscrutable as it does in the natural ones.³²

³⁰Jerzy Linderski, “The Augural Law,” *ANRW* II.16.3 (Berlin: De Gruyter, 1975), 2146–312.

³¹The clearest surviving example of a rule-based record of inferential thinking, ironically, pertains to a mode of divination mostly thought to be based on inspiration, in the case of Artemidorus’ *Dreambook*. For a recent, lucid translation and commentary, see Artemidorus, *Oneirocritica*, trans. Daniel E. Harris-McCoy (Oxford: Oxford University Press, 2012).

³²The case of sortition leads one to entertain exceptions. On the question as a whole, see Sarah Iles Johnston, “Lost in the Shuffle: Roman Sortition and Its Discontents,” *Archiv für Religionsgeschichte* 5 (2003): 146–56. The results from the Roman practice of placing names in a jar for the assignment of offices is open to no ambiguity. But it is also true that this has led some contemporary commentators to doubt its status as a divinatory technique (N. Rosenstein, “Sorting Out the Lot in Republican Rome,” *American Journal of Philology* 116 [1995]: 43–75, cited in Johnston [2008], 147). And further, since the result of the lot toss was subject to veto by

There is a useful contrast with Babylonian divination, where a different kind of clarity is observable in the crystallizations of tradition that survive in the cuneiform tablets.³³ Long strings of codified if-then statements are preserved in the lore. This should give pause to any global conclusion drawn on the basis of the general messiness of such records on the Greek side. Further work would be needed, however, to determine the precise contours of the contrast. For example, the protases of the Babylonian texts are often not straightforward. One omen warns, “If Jupiter becomes steady in the morning, enemy kings will be reconciled.”³⁴ One could imagine some room for latitude in readings of “steadiness,” which would, by the argument here, open space for forms of noninferential thinking; the observation applies even more in the case of an omen like: “If the coils of the intestine look like the face of Huwawa: it is the omen of the usurper king who ruled all the lands.”³⁵ Further, while some have pointed to these texts as a kind of birth of scientific thinking, in the form of inference from empiricism, Rochberg has pointed to doubts, based on the other observable forces, beyond empirical observation, that steer the process of drawing connections between the protases and apodoses.³⁶ Some are clearly based on paranomastic relations or analogical connection, and other apodoses are in fact impossible situations, which could never have been observed. The system of omens, she concludes, grows up independent of empiricism.

an adverse oblate sign, even this seemingly clear form opens a space for interpretation, since adverse, unsolicited signs require observers, and observers will value what they see differently. See Johnston (2008) for further citations of scholarly disagreement on the question.

³³See Francesca Rochberg, “If P, then Q: Form and Reasoning in Babylonian Divination,” in Amar Annus, ed., *Divination and Interpretation of Signs in the Ancient World*, Oriental Institute Seminars 6 (Chicago: The Oriental Institute, 2010), 19–27.

³⁴Erica Reiner and David Pingree, *Babylonian Planetary Omens: Part Four*, Cuneiform monographs 30 (Leiden: Brill, 2005), 40–41 line 1, cited in Rochberg (2010).

³⁵Albert T. Clay, *Epics, Hymns, Omens and Other Texts: Babylonian Records in the Library of J. Pierpont Morgan*, vol. 4 (New Haven: Yale University Press, 1923), no. 13:65, cited in Rochberg (2010).

³⁶See, for example, J. Bottéro, *Mesopotamia: Writing, Reasoning, and the Gods* (Chicago: University of Chicago Press, 1992), 125–38; for further discussion, see Rochberg, *The Heavenly Writing: Divination, Horoscopy, and Astronomy in Mesopotamian Culture* (Cambridge: Cambridge University Press 2004), 268–71.

FURTHER CONSIDERATIONS

Understanding divination as more closely related to surplus knowing than occult religion helps make more comprehensible why ancient philosophers commonly thought it worthwhile to try to explain it. The philosophers rarely theorize seriously about religious practices.³⁷ There is a pronounced dearth of ancient thinking on traditional cult practices, including such a fundamental one as sacrifice. When philosophers approach questions having to do with religion, they theorize about the nature of the gods, not praxis. The comparatively rich tradition of thinking about divination is an outlier here. That it piqued the curiosity of philosophers mostly uninterested in religious practices is made more comprehensible when we realize that they could understand it as a way of knowing, an area in which they had developed interests.

On a linguistic level, another curious piece of information, which as far as I know has never been recognized, finds an explanation when the topic is positioned as it is here. Greek has long been appreciated for its rich vocabulary for cognitive processes. There are words for reason (*λόγος*), calculation (*συλλογισμός*), discursive reasoning (*διάνοια*), opinion (*δόξα*), belief (*πίστις*), wisdom (*σοφία*), practical wisdom (*φρόνησις*), a rational mind (*νοῦς*), and scientific knowledge (*ἐπιστήμη*), among many others. But there is no good fit within the standard domain of such cognition terms for what we mean in English when we use the term *intuition*—which the *Oxford English Dictionary* describes as an immediate apprehension of something without the intervention of any reasoning process. Even Greek words for surmising, like *ὑπονοέω* or *ἐπεικάζω*, point to unsure, speculative inferences not to insight that arrives *without* inference. If one does a search (which electronic tools make it possible to do) of the English side of the standard Greek and Latin lexica, one finds there that nowhere have scholars seen fit to assign the English term “intuition” to any particular element of the Greek or Latin language.³⁸ But, then, one might next think that if

³⁷ See Johnston (2008), 4.

³⁸ There are a handful of exceptions. First, there are a few instances, over the surviving corpus, where such a notion seems fitting (see below, n. 39), and some of these show up in the lexica as well, as an extended sense of a term whose home meaning is not intuition. See, for example, the sense of *ἐπιβολή*, which likely has a sense for Epicurus that fits within the “rational

Greeks or Romans didn't have a single term for it, perhaps instead they used some standard phrase which might not be picked up at a dictionary-level analysis of the language. If that were the case, we would expect that any such larger phraseology would be captured when translators sat down to render classical texts into English. If one turns next to standard translations of much of the core Greek and Latin corpus made available by the Perseus project, which at the time of this writing, housed English renderings of 17 million words of Greek and Latin literature, one finds that in only precisely six cases did these words suggest to the English translators the term "intuition."³⁹ The Perseus database is of course not comprehensive, but the result is a nontrivial proxy for what would appear in something that was. Further, while the idiosyncratic interpretive choice of this or that translator would not be probative, the aggregation of the interpretive choices of many scholars, each from his or her own perspective, over a broad swath of the corpus is certainly suggestive. What it suggests to me is either: a) the Greeks didn't think much about the human capacity to know things without self-conscious inference, as contained in my earlier axiom, or b) the English translators had some aversion to the standard way English talks about this phenomenon when they saw parallel ideas expressed in Greek words, or c) the Greeks thought we had such a capacity and just expressed in a cultural form sufficiently different from our own that it shows up in entirely different terms. I will be arguing here for c). Their

"intuition" tradition (see below), carrying forward early ideas contained in Aristotle' *voūc*, but this is a far cry from surplus knowledge. See Gregory Vlastos, "Cornford's *Principium Sapientiae*," in Daniel W. Graham, ed., *Studies in Greek Philosophy*, vol. 1, *The Presocratics* (Princeton: Princeton University Press, 1995), 118 (= reprint of a review originally published in *Gnomon* 27 [1955]: 65–76). Second, there are a few terms that show up in late Greek, among the Neoplatonists, which LSJ finds stretch over to meaning "intuition" (ἐπιβολή, προσβολή, ἀνενόητος; ἐπαφή could be added, but LSJ does not include it). As will be shown in chapter 4 below, the emergence of a vocabulary that matches our sense of intuition corresponds exactly with the decline in prestige and authority of traditional notions of *mantikē* under the scrutiny of Iamblichus in the *De myst.*; see 3.26.

³⁹ Plato, *Crat.* 41b (for μαντεύω; trans. Fowler [1926]); Plato, *Laws* 950b (for θεῖον δέ τι καὶ εὑστοχὸν; trans. Bury [1929]); Plato, *Rep.* 431e (for μαντεύω; trans. Shorey [1969]); Ovid, *Met.* 6.510 (for *praesagia*; trans. More [1957]). The remainder are drawn from Aristotle's development of a category customarily rendered "rational intuition" (*voūc*; trans. Rackham [1926]; see below, and chapter 2), which he references in the *NE* 6.8 and 6.11, for the faculty that apprehends first principles (1142a23–30 and 1143b6). Such a search may well have picked up *Posterior Analytics* 2.19, but did not in this case.

way of talking about the cognitive capacity that in common English parlance is called intuition is through their very robust cultural construction of divination. Consonant with this view: of the six instances where translators introduce the English term intuition into the translations housed in the Perseus database, four of them serve as translations of ancient metaphorical uses of Greek or Latin terms for divination.⁴⁰

DIVINATION IN THE HISTORY OF INTUITION

In another potential gain in our understanding, by setting divination within its cognitive context we open up the possibility for a larger history to come into view. If the overall picture presented here is correct, then surplus knowledge, considered as a result of human cognitive capacity, would presumably have been noticed and made comprehensible in different cultural and intellectual formations over time, and it should be possible to tell a history of it, in which ancient divination and modern intuition would be the bookends of a series of attempts to understand and describe it. Such a study sits well beyond the ken of the current one, but there is enough low-hanging fruit to set out a few very general parameters.

As a first step, it is important to recognize that intuition, at least at this point, has more than one history. Within the field of philosophy, “rational intuition,” as it is commonly called, is understood as an immediate apprehension of fundamental prerequisites to discursive intellectual activity, and has a rich scholarly history in the study of epistemology. In a masterful overview of the topic, Richard Rorty marked out the main contours in an article in the *Encyclopedia of Philosophy* (1967). He discerned three principle strands: 1) knowledge of the truth of a proposition not preceded by an inference—he limits these mostly to the form of first-person statements about a psychological state, such as “I feel pain,” or underived a priori truths, such as “every event has a cause”; 2) acquaintance with a concept that allows for proper use of it, without being able to give a full explanation of it—under this category are discussed abstractions from concrete sensory data with which one

⁴⁰Ibid.

develops a facility through habituation; and 3) nonpropositional knowledge of an entity, including a universal, or the insensible particulars of time and space. This is mostly a carefully circumscribed story about the acquisition of certain bedrock intellectual quanta—concepts, rules of logic, and sensory ground truths—that form the necessary preconditions of knowledge. The discussion makes clear efforts to separate noninferential knowing of these preconditions from any more popular idea of a hunch that turns out to be right, which Rorty identifies as a final, philosophically inconsequential, notion attached to the term “intuition.” It is “unjustified true belief not preceded by inference; in this (the commonest) sense ‘an intuition’ means ‘a hunch.’ The existence of hunches is uncontroversial and not of philosophical interest.” The case will be made in the following pages that there is, in fact, a set of thinkers in antiquity that imagined divinatory insight as something precisely like a hunch, and addressed it as a question of philosophical interest.

In addition to the philosophical tradition of studying “rational intuition,” there is another pertinent scholarly literature, burgeoning in the decades since Rorty’s article, which has grown up, mostly without conversation with the discourse of philosophical epistemology. In empirical research in psychology and cognitive science, the salience of phenomena that would fit under the nonspecialist’s category of “intuition,” has recently risen greatly. “Cognitive intuition,” let us call it, speaks not of a capability to acquire fundamental intellectual quanta, but one that results in phenomena closer to what I have here called surplus knowledge. The field has yielded striking results, tracking examples of people knowing things, nondiscursively and without self-conscious inference. Various subfields explore different facets of the topic, as the recent overview by Osbeck and Held has shown.⁴¹ We see understandings of intuition as a primitive cognition that steers evolutionary forces by advancing survival and facilitating adaptation. Other scholars associate it with the category of implicit learning, which takes place underneath the attention of the subject, is associative and works by similarity and contiguity, and is not symbolic, nor does it work by a rule structure

⁴¹ Lisa M. Osbeck and Barbara S. Held, eds., *Rational Intuition: Philosophical Roots, Scientific Investigations* (Cambridge: Cambridge University Press, 2014). The introduction of Osbeck and Held (2014) sets out the ground adopted here.

of logically fixed relations. Scholars have further invoked the category to describe one half of various two-process models of cognition—most well-known is Kahneman’s “thinking fast and thinking slow”—marking out a region of quick, pre-attentive, preconscious processing.⁴² These scholars are after a verifiable description of the modes by which humans process information, and they are expanding our understanding of the multiform ways this happens.

To a greater degree than studies within philosophical epistemology, this line of work shows connections, in subject matter, though not in methodology, with the studies the ancient philosophers undertake of divination. I am cautious to add that contemporary scholars working in these areas may well be quick to resist such an assertion, since a common theme in their work is to dissociate the scientifically observable and verifiable phenomena they are finding in clinical studies from the kind of ill-conceived and popular fantasies that surround the traditions of seers in antiquity. They are understandably cautious to separate their findings from the mystical penumbra of soothsaying or clairvoyance. I can only beg indulgence from this group, in the hope that the whole of the present study justifies the claim of an analogy between their work and the materials under study here: my claim is not about popular fantasies regarding seers, but about the hard-nosed study undertaken in ancient philosophers’ accounts, of observable and provocative phenomena, of people sometimes being able to see around corners, or see through things, in ways that defy appeal to the customary modes of our intellects.

A synthetic account of the two traditions—rational intuition on the one hand and cognitive intuition on the other—has not yet been produced. The epistemologists are disinclined to cross into terrain associated with extravagant claims (at least by nonspecialists); and the experimental psychologists needn’t, exactly, wrestle with the history of epistemology to measure the effect of implicit learning or alternative information processing in their subjects. Further complicating the matter is the imbalance of scholarly development in the *history* of these two groups. The history of rational intuition has been thoroughly studied, while the history of cognitive intuition has not. Discrete moments have been

⁴² Daniel Kahneman, *Thinking, Fast and Slow* (New York: Farrar, Straus, and Giroux: 2011).

investigated, but not synthetically assembled. It is likely that they could be, and that some accounting for the parallel presence of the notion of nondiscursive and noninferential knowing in the two discourses would pay mutual benefits.

Studies of the history of rational intuition typically speak of Aristotle as the initiator of the idea, and among the Aristotelian works they enlist are some of the handful of texts mentioned above (fn. 39) in which the English word *intuition* and its cognates appear in standard renderings of core texts from the ancient corpus. According to the still influential reading of Ross, Aristotle attributes to the *nous* an intellectual faculty of apprehending, nondiscursively, basic first principles as fundamental prerequisites for inferential knowledge.⁴³ The philosophical history proceeds from Aristotle, typically jumping up to Spinoza (although Epicurean ἐπιθολή could be enlisted),⁴⁴ who builds up a tripartite view of human ways of knowing. The first is sense-based opinion. The second is reason, which discursively moves from premises to firm conclusions, and by which we infer a cause (a characteristic of God) from its effects (entities in the observable world). Intuition is our third way of knowing and it is a nondiscursive apprehension of a thing as it really is.⁴⁵ Descartes' nonsensory *intuitus*⁴⁶ along with Kant's *Anschauung*

⁴³For a recent overview of the question, along with some suggested revisions of the traditional views, see Robert Bolton, "Intuition in Aristotle," 39–54, in Osbeck and Held (2014). Also particularly helpful is the discussion of Victor Kal, *Aristotle on Intuition and Discursive Reason* (Leiden: Brill, 1988). The modern locus classicus is W. D. Ross, *Aristotle's Prior and Posterior Analytics* (Oxford: Oxford University Press, 1949). See also Terrance Irwin, *Aristotle's First Principles* (Oxford: Oxford University Press, 1989), 134–50; Han Baltussen, "Did Aristotle Have a Concept of 'Intuition'? Some Thoughts on Translating *Nous*," in E. Close, M. Tsianikas, and G. Couvalis, eds., *Greek Research in Australia: Proceedings of the Sixth Biennial International Conference of Greek Studies, Flinders University June 2005* (Adelaide: Department of Languages—Modern Greek, Flinders University, 2007), 53–62. The Greek *nous* in this Aristotelian context has been regularly rendered with some reference to intuition: see "intuitive reason" (Ross [1949], 608) and "intuition" (Allan [1952], 69); for disagreement, see Barnes (1975), 256–59.

⁴⁴For more on this term, see below, chap. 4, fn. 47.

⁴⁵See Steven M. Nadler, *Spinoza's Ethics: An Introduction* (Cambridge: Cambridge University Press, 2006), 181–85; Yirmiyahu Yovel, *Spinoza and Other Heretics*, vol. 1, *The Marrano of Reason* (Princeton: Princeton University Press, 1989), 154–65. For a fascinating treatment that draws connections between Spinoza and contemporary cognitive science, see Antonio Damasio, *Looking for Spinoza: Joy, Sorrow, and the Feeling Brain* (New York: Harcourt, 2003), 3–24, 274–76.

⁴⁶See especially, Descartes, *Rules for the Direction of our Native Intelligence*, rule 3 in John Cottingham, Robert Stoothoff, and Dugald Murdoch, ed. and trans., *Descartes: Selected Philosophical Writings*, vol. 2 (Cambridge: Cambridge University Press, 1988), 2–4.

anchor the idea in modern epistemology as well. Kant in particular informs the Romantics and their desire for an immediate apprehension of things.⁴⁷ Fichte and Schelling each develop a sense of immediate knowing by way of developing Kant's ideas.⁴⁸ There are likely to be points of overlap between this line of thinking and the traditions of cognitive intuition, which are waiting to be considered.

On the history of cognitive intuition itself, I will point out a few prospective linking points. First, as we will see in chapter 1, Plato speaks of capacities analogous to those present in Aristotle's *nous*, in his discussion of the immediate, nondiscursive apprehension of the forms. Plato will commonly use the language of divination to express this (these make up most of the rest of the handful of standard translations of classical texts that find use for the English "intuition"). While the scholarship has rightly pointed out the differences between Plato and Aristotle on this question (particularly on their valuing of dialectic as a mechanism), it has given shorter attention to their commonality. While each uses a different language to express it, both imagine a distinctive noninferential character to this cognitive process. According to the history assembled here, Plato represents a moment *prior to* the separation of rational and cognitive intuition, that is, prior to the development of a language of *nous* separate from that of *mantikê*.

It is also surely of interest that when medieval theologians coin the term *intuitus* (which in classical Latin was limited to descriptions of vision) they use it to speak about a nondiscursive knowing that particularly characterizes the divine cognition of angels.⁴⁹ This is the avenue by which the term enters the modern European languages. Thomas Aquinas proposes that angels understand things, via intuition, all in a

⁴⁷ See Jennifer Mensch, "Intuition and Nature and Kant and Goethe," *European Journal of Philosophy* 19 (2011): 431–53.

⁴⁸ See Moltke S. Gram, "Intellectual Intuition: The Continuity Thesis," *Journal of the History of Ideas* 42.2 (1981): 287–304; Dale E. Snow, *Schelling and the End of Idealism* (Albany: SUNY Press, 1996), 55–66.

⁴⁹ Anselm, *Proslogion*, chaps. 14 and 18; Thomas Aquinas, *Summa Theologica*, 1a56.1, 55.2, 58.6–7. See Harm Goris, "The Angelic Doctor and Angelic Speech: The Development of Thomas Aquinas's Thought on How Angels Communicate," *Medieval Philosophy and Theology* 11 (2003): 87–105. For some further parameters of these developments, see Jerome V. Brown, "Henry's Theory of Knowledge: Henry of Ghent on Avicenna and Augustine," in W. Vanhamel, ed., *Henry of Ghent: Proceedings of the International Colloquium on the Occasion of the 700th Anniversary of his Death, 1293* (Louvain: Louvain University Press, 1996), 19–42.

flash, without recourse to sequential reasoning and inference (*Summa Theologica* 1a58). The mode of angelic intuition likely has connections with how Aristotle's *nous* works, and so it has links to the history of rational intuition. But given that the medieval topic is centrally concerned with divine knowing, it also echoes ancient conceptions of divinatory knowledge. When humans are able to think according to intuition, as certain of the Scholastics imagine they can, they are partaking of a mode of knowing that principally resides with the divine.⁵⁰ Of further interest, the appeal to angels in the medieval discussion echoes a consistent appeal to the realm of intermediate divinity (typically under the designation of the Greek *daimonia*) that plays a critical role with regard to divination in classical texts.⁵¹

This cognitive capacity plays a further part in the work of John Milton, during a conversation Adam has with the archangel Raphael over plates of fruit on his grassy table in the garden of Eden. In the seventeenth century, Milton took bold steps to draw out the connections between divine and human realms. Not only did angels partake of human food, but also humans could sometimes partake of the angelic onrush of knowing. Raphael says reason comes in two varieties: "Discursive, or Intuitive; discourse/ Is oftest yours, the latter most is ours,/ Differing but in degree, of kind the same" (5.488–90).⁵² It seems that intuitive reason is precisely what Adam uses to name the animals. Full knowledge of them arrives to him without a need to think about it: "I named them, as they passed, and understood / Their nature, with such knowledge God endued / My sudden apprehension" (8.352–54). This kind of

⁵⁰ See in particular the ideas of Duns Scotus, outlined in Robert Pasnau, "Cognition," in Thomas Williams, ed., *The Cambridge Companion to Duns Scotus* (Cambridge: Cambridge University Press, 2003), 285–11. For a connection between intuition and prophecy in Duns Scotus, see Mary Beth Ingham and Mechthild Dreyer, *The Philosophical Vision of John Duns Scotus: An Introduction* (Washington, D.C.: Catholic University Press, 2004), 29. For an overview of Duns Scotus' position in the period as a whole, see Marsha Colish, *Medieval Foundations of the Western Intellectual Tradition: 400–1400* (New Haven: Yale University Press, 1997), 306–11.

⁵¹ The closest English for this term, "the demonic," likely conjures ideas of evil sprites, but in antiquity, the Greek category had nothing to do with the minions of an evil overlord. It referred instead to any deities not as high as gods. After Augustine, this one category is split into two binary opposites: there are purely good ones, the angels, and the term demon is left to name the purely evil ones. No such split is operative in any of the uses of the term in the thinkers under study here.

⁵² See Patrick J. Cook, "Intuition, Discourse, and the Human Face Divine in *Paradise Lost*," *Essays in Literature* 23 (1996): 147–64.

knowing could possibly fit into the history of rational cognition, perhaps under Rorty's third category of nonpropositional knowledge of an entity; the scene presents these names as fundamental truths, which are in a way prerequisites for knowledge. But it may also have a place in a history of cognitive intuition. Adam's sudden apprehension provides him knowledge of their full natures, beyond just recognizing them as discrete categories, which suggests something closer to the surplus knowledge at stake in this study. The views at play in Milton's work endure to the doorstep of the Enlightenment. Speaking of angels and brute animals in 1711, the English playwright, essayist, and politician Joseph Addison wrote: "Our superiors are guided by intuition, and our inferiors by instinct" (Joseph Addison, 1711; *Spectator*, no. 162, daily, precursor to the *Guardian*, cited in the *OED*).

As the modern era advances, we see further developments that would be a better fit for a history of cognitive, rather than rational intuition. The work of Erasmus Darwin, physician, natural philosopher, grandfather of Charles Darwin, and poet, whose life spanned the eighteenth century, wrote to moderate acclaim a set of poems along with an accompanying philosophical commentary in which he develops the idea of "intuitive analogy," whereby we nondiscursively and unconsciously assimilate present experiences to our stock of past ones and consolidate our basic sensations. We are able to do this because certain patterns are stamped into nature, ourselves included, and when we sense them in the external world, they are activated internally.⁵³

In the nineteenth century, the expanding field of human physiology, energized by the work of Erasmus Darwin's grandson, brought further developments in the history of cognitive intuition. Flush from locating the electrical and chemical impulses that made the human organism function, and working from Descartes and his ghost-in-the-machine dualism, scientists quickened their interest in the phenomenon of reflex action. These muscular movements happen irrespective of our volition, operating by the machinery not the ghost, and they set the physiologists to wondering whether there were analogous cognitive systems at work. These scientists worked over the terrain more thoroughly

⁵³See Devin S. Griffiths, "The Intuitions of Analogy in Erasmus Darwin's Poetics," *Studies in English Literature, 1500–1900* 51.3 (2011): 645–65.

than anyone since the ancient thinkers at the center of the current study. William Carpenter, author of the standard anatomy textbook for most of the century, which was reissued in many editions and grew to a thousand pages, took a particular interest in the physiological basis of cognitive functions.⁵⁴ He reports his discovery of a subvolitional form of thinking he called “unconscious cerebration.” In a special additional textbook on *Mental Physiology*, Carpenter concludes that “a large part of our intellectual activity . . . is essentially *automatic*”⁵⁵ (emphasis in the original). Among chapters such as “Of the Nervous System,” “Of Sensation,” and “Electro-Biology,” he devotes one to unconscious cerebration. He describes it as a short-circuiting of normal rational thought, and it hums away, processing information and achieving insights, without our realizing it. It becomes a stewing pot into which insights drop to simmer into full-fledged ideas. Just as, in the system of our musculature, external stimuli may produce impulses that move through the spinal cord to give rise to reflex motor movements, so too in the tissue of our brains we experience “ideo-motor reflexions” that take place along an unselfconscious track of information processing. He provided a chart (see figure 1) as an illustrative aid, which shows the pathway via which unconscious cerebration proceeds.⁵⁶

The idea became widely popular and held a fascination for pivotal literary figures and intellectuals in an era that, as one scholar recently characterized it, was an opening of realism “to the uncertain processes of the organism.”⁵⁷ Among its propagators were figures as diverse as Oliver Wendell Holmes, Mark Twain, and the inventor of the telephone, Alexander Graham Bell, who wrote:

I am a believer in unconscious cerebration. The brain is working all the time, though we do not know it. At night, it follows up what we think in

⁵⁴William Benjamin Carpenter, *Principles of Human Physiology* (Philadelphia: Blanchard and Lea, 1842).

⁵⁵William Benjamin Carpenter, *Principles of Mental Physiology* (London: H. S. King and Co., 1874; reissued Cambridge University Press, 2009), 515.

⁵⁶Reproduced from William Benjamin Carpenter, *Principles of Human Physiology* (Philadelphia: Blanchard and Lea, 1860), 441.

⁵⁷Randall Knoper, “American Literary Realism and Nervous ‘Reflexion,’” *American Literature* 74.4 (2002): 717. See further Vanessa Ryan, *Thinking without Thinking in the Victorian Novel* (Baltimore: Johns Hopkins University Press, 2012), which despite some controversy in its reception remains a helpful guide.

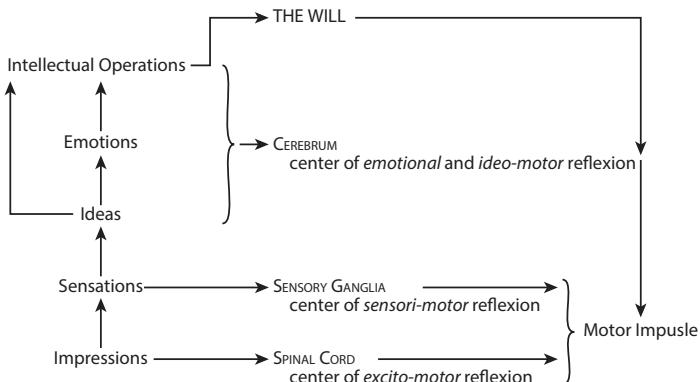


Figure 1. William Carpenter's outline of unconscious cerebration

the daytime. When I have worked a long time on one thing, I make it a point to bring all the facts regarding it together before I retire; and I have often been surprised at the results.⁵⁸

In his preface, Henry James tells that *The American* grew from an abrupt insight that hit him upon his arrival into the sensory rush of Paris, and that he then dropped into a “deep well of unconscious cerebration.”⁵⁹ And in his *Autobiography* the father of Social Darwinism, Herbert Spencer, recounts a conversation with George Eliot, in which he explained how he came upon his ideas:

My mode of thinking does not involve the concentrated effort which is commonly accompanied by wrinkling of the brows. . . . It has never been my way to set before myself a problem and puzzle out an answer. The conclusions, at which I have from time to time arrived . . . have been arrived at unawares—each as the ultimate outcome of a body of thoughts that slowly grew from a germ. . . . Little by little, in unobtrusive ways, without conscious intention or appreciable effort, there would grow up a coherent and organized theory.⁶⁰

⁵⁸Cited by Orison Swett Marden, *How They Succeeded: Life Stories of Successful Men Told by Themselves* (Boston: Lothrop, 1901), 33.

⁵⁹Henry James, *The American*, Oxford World’s Classics (Oxford: Oxford University Press, 1999), 4.

⁶⁰Herbert Spencer, *An Autobiography*, vol. 1 (London: Williams and Norgate, 1904), 399–400.

The linkage between this tradition and the involuntary nature of dream symbolism in Jung has also recently been pointed out, suggesting further ties to the ancient traditions at stake here.⁶¹

And reaching to the contemporary period, the advances in the cognitive sciences mentioned above would clearly belong to a history of cognitive intuition. In 2011, Daniel Kahneman set out the memorable pairing of thinking fast (intuitive and nonconscious) and thinking slow (deliberative and self-conscious), a binary that puts the former on a par with the latter in importance. In the decades preceding, scholars and scientists, including Antonio Damasio, Nalini Ambady, Timothy Wilson, Nicolas Epley, Gerd Gigerenzer, and many others, have brought a new kind of respectability to the claim that our ways of knowing are many and diverse.⁶² One does not find in this work broad claims about the reliability of such thinking, but there is a consistency in the theme that some nontrivial portion of the knowledge we assemble at any given time arrives to us by ways other than self-conscious, goal-directed, inferential chains of thought.

This body of work has spurred broad interest and many popularizing accounts, one vivid example of which appeared in a newspaper during the height of the recent war in Iraq.⁶³ While the American army was being menaced by hidden improvised explosive devices, certain soldiers appeared to their comrades to have preternatural abilities to sense the presence of these bombs. The army, in a deeply pragmatic spirit, poured money into studies of such people, trying to see whether there was anything to the anecdotes. Cognitive scientists determined, in a finding not at all surprising to those familiar with the discipline, that some soldiers indeed had more accurate predispositions to sense

⁶¹ Sonu Sharmdasani, *Jung and the Making of Modern Psychology: The Dream of a Science* (Cambridge: Cambridge University Press, 2003), 120–21; Farzad Mahootian and Tara-Marie Linné, “Jung and Whitehead: An Interplay of Psychological and Philosophical Perspectives on Rationality and Intuition,” in Osbeck and Held (2014), 395–420.

⁶² Antonio Damasio, *Descartes’ Error: Emotion, Reason, and the Human Brain* (New York: Putnam, 1994; revised Penguin edition, 2005); Nalini Ambady and John Skowronski, eds., *First Impressions* (New York: Guildford, 2008); Timothy Wilson, *Strangers to Ourselves: Discovering the Adaptive Unconscious* (Cambridge, Mass.: Belknap, 2002); Nicolas Epley, *Mindwise: Why We Misunderstand What Others Think, Believe, Feel, and Want* (New York: Knopf, 2014); Gerd Gigerenzer, *Gut Feelings: The Intelligence of the Unconscious* (New York: Penguin, 2008).

⁶³ Benedict Carey, “Brain Power: In Battle, Hunches Prove to be Valuable,” *New York Times*, July 27, 2009.

trouble than others. When the soldiers were asked to describe how they knew something was out of order, they called it a hunch, or a gut feeling. Antonio Damasio, was quoted for the article:

Not long ago people thought of emotions as old stuff, as just feelings—feelings that had little to do with rational decision making, or that got in the way of it. Now that position has reversed. We understand emotions as practical action programs that work to solve a problem, often before we're conscious of it. These processes are at work continually, in pilots, leaders of expeditions, parents, all of us.

It is, of course, more than just uncanny that two millennia ago the single arena in which the seer's gifts were most consistently valued was also the battlefield. According to the Greek military handbook by the first-century CE tactician Onasander, a general should be temperate, self-restrained, vigilant, and hardened to labor—and he should also be a skilled reader of entrails, so he can be personally involved in the readings his diviners are giving him.⁶⁴ This is something he would have to do often, since Onasander also says that a general should not initiate *any* attack, nor any movement of troops at all, for that matter, until after taking omens to determine the optimum time. The diviner meditated on the pulsating innards of slaughtered goats to come up with a judgment, often in the heat of the moment, regarding the likely success of a proposed maneuver. Back in our own age, Antonio Damasio includes pilots alongside military officers, which again parallels the ancient evidence, since, as we will see, ancient pilots (of boats in this case) often appear in discussions in which divinatory knowledge is particularly pertinent. Then as now, people become interested in surplus knowledge precisely in cases where it would be most valued: when the right twitch at the right time makes a big difference, and a lot is riding on people who get the right gut feeling.

I hope to show in the pages that follow that the ancient philosophers' approaches to divinatory phenomena belong to an historical stream of attempts to understand cognitive intuition, or the mechanisms that

⁶⁴Onasander, *The General*, 10.10. For more, see Kendrick Pritchett, *The Greek State at War*, part 3 (Berkeley: University of California Press, 1979).

result in surplus knowledge. Although the differences are manifold, there are also likely to be some as yet unfathomed connections between their philosophical attempts to account for divinatory insight, Thomas Aquinas' interest in instantaneous angelic thinking, Milton's idea that humans might be able to do it too, William Carpenter's search for unconscious cerebration, and even the approach of contemporary cognitive scientists. All these investigators try to make an account of the momentary, nondiscursive, apprehension of things by processes that fall outside our self-conscious control. This is not to say that any of the thinkers in this rather long line see the answers as the same—they do not. But they see the problem in a way whose similarly promises to be instructive.

DIVINE SIGNS AND HUMAN NATURE

In addition to the gains already set out, one final insight is advanced when we place ancient studies of divination within this longer history of studies on intuitive thinking. At several moments in that history, the topic of human physiology emerges as a close allied field. The experience that we have some form of nondiscursive knowing is regularly linked with the proposal that this way of knowing is embedded in the natural processes of our natures as organisms. This aspect of the longer history gives a context for something perhaps unexpected in the ancient evidence. As I alluded to above, ideas about divination among the philosophers also show a consistent engagement with questions of human nature, the dimensions of ourselves that we share with the animal realm, as bare organisms. One would think, given the customary Greek habit of linking our knowingnesss in general, and in divination in particular, to the divine realm, that theories about it would try to work their ways mainly through questions about the divine. But while the ancient investigators gathered here engage in a host of related fields—including epistemology, cosmology, causation, empiricism, intentionality, the study of signs, and occasionally questions about the divine—their thinking on divine signs activates and engages most vibrantly a study of human nature.

In the search for alternative systems of information processing, the philosophers appeal frequently to the natural functions of the human organism. We will see that it is not a coincidence that Plato addresses divination most explicitly in tandem with his most detailed discussion in the dialogues about human physiology. In the *Timaeus*, he considers the human organism, the ἄνθρωπος (a usually uninteresting topic for him), as a more or less dynamic piece of the cosmos. This physiological focus continues in a different way in Aristotle's account, which reaches deeply into some of his most profound statements about teleology in general, and specifically its manifestations in the human animal. For the Stoics as well, the critical piece of their understanding rests again on bodily processes, and specifically on their provocative positioning of the human being as a microcosmic corpuscle living within a universe they conceive of, explicitly, as a unified single animal. They will simply equate the coursing semiotic machinery of the cosmos with the messages and purposes that course through an animate, self-sustaining organism. Finally, the fact that ancient thinkers consistently framed the investigation this way also helps make sense of a further counterintuitive aspect in the thinking of the Neoplatonists. Given their association with various kinds of mystical thinking, they would seem likely to find μαντική a congenial domain. But as we will see the opposite proves true. Iamblichus will strike cautionary notes, for the most part, toward traditional forms of divination and advocate instead for what he consistently calls a more disembodied form of introspection, specifically situated outside of traditional μαντική, which for him is a *too* bodily form of knowing. This position is difficult to understand without fully appreciating the general background in which the Neoplatonists are working. For them, divinatory knowing is, by the most thorough prior traditions that try to account for it, embedded in corporeal functions.

The central idea here is best captured by the notion of the organism, which needs to be disambiguated from a distinct idea with its own long and enduring history, the notion of the body. Since antiquity, and under the influence of Plato, the latter commonly carries the sense of a more or less aimless *corpus*, sitting to some degree external to the center of personhood that regulates one's goals and desires. It answers to the

Greek concept of the *σώμα*—Pythagoras’ tombstone or, in Platonic thinking, a prison to which we are shackled. From this Platonic positioning, the category of the body holds a tight grip on large swatches of Western intellectual history, in both the ancient and the modern eras. The concept of the organism (Greek *ζῷον*), by contrast, is more characteristic of Aristotle. It points to a self-generating and self-perpetuating entity that has built into it, and not separate from it, a set of dynamic processes that add up to a teleology of some kind.⁶⁵

One is tempted to conclude that this trope of thinking, this centripetal pull toward questions about human nature in the ancient study of divine signs, illuminates an aspect of divination that we have not yet quite noticed. In addition to revealing divination as a cultural formation around the phenomenon of surplus knowledge, the following studies will suggest why this form has the general shape it does. The embeddedness of divination within the nature of organisms hints that divination serves as an expression of our unique position within the cosmos, poised between the twin wonders of our animate natures and of our self-aware sentience. Typically, as I mentioned at the outset, the Greeks set these two aspects of the experience of being human in opposition to one another. We exist between the regions of the animals and the gods, sharing aspects of both, but mostly witnessing and testifying to their separateness. But, in addition to all its other cultural dimensions in social and political history, divination contains an ongoing testimony about a linkage between the two. This divinatory awareness, this most cryptic and rudimentary region of our own epistemological capacities, is tracked backward and situated not in opposition to our creaturely selves. It is shown rather to emerge from them.

This principle provides a context for the often obsessively corporeal qualities of the most common Greek and Roman divinatory practices. It gives some reasoning behind the odd, almost perverse links made between our remotest insides and our remotest outsides, when astrologers

⁶⁵ Within the philosophy of biology, there are well placed scruples about the use of the notion of teleology. Here I am using the term to denote a purposiveness to maintain a certain organization of organic components, which, if left to its own devices, the organism performs rather than doesn’t perform.

and diviners by viscera find links between their respective domains.⁶⁶ The phenomena of divination, in addition to all its other potent cultural dimensions, tightly embraces both our weird knowingness and our creaturely selves. It does this by standing as an expression that, in the end, the former emerges from the latter.

⁶⁶See, for example, Hephaistion of Thebes, a fourth-century CE astrologer, *Apotelesmata*, book 3, where the parts of the liver are correlated with different heavenly bodies (see D. Pingree, ed. [Teubner, 1973] 254.15ff). For fascinating further discussion on the theme, see Thomas Habinek, “Probing the Entrails of the Universe: Astrology as Bodily Knowledge in Manilius’ *Astronomica*,” in Jason König and Tim Whitmarsh, eds., *Ordering Knowledge in the Roman Empire* (Cambridge: Cambridge University Press, 2007), 229–40.