

Part I Experience and Knowledge among the Greeks

From the Presocratics to Avicenna

Michael Chase

Do things gradually lose their names in your mouth?
Where once were words, flow discoveries,
Freed, with surprise, from the flesh of the fruit.
Dare to say what you call “apple.”
This sweetness, that starts by thickening; in order
lightly raised to the status of taste,
To become clear, awake and transparent,
Ambiguous, sunny, earthy, local,
O experience, feeling, joy: immense!

(Rilke, *Sonnets to Orpheus* 1. 13, translation Michael Chase)

Introduction: Translation and Experience

Both “experience” and “translation” are what Aristotle called *pollachōs legomena*, terms with many meanings, the underlying unity of which may be hard to discern. In the present contribution, taking the notion of experience as formulated and utilized in ancient Greek thought as my focus, I will investigate the extent to which our current linguistically determined concepts of knowledge and experience help us, or hinder us, in understanding analogous concepts as used in the premodern culture of ancient Greece and Rome. To what extent does our language condition our thought?¹ Are there aspects of experience that cannot be adequately formulated in a natural language?

However we may wish to define “experience,” we usually assume it has something to do with knowledge. But the English word “knowledge” is itself a *pollachōs legomenon*, and in this case the relative poverty of English may inhibit our understanding. Romance languages have two very different verbs corresponding to the English “to know”: *savoir* and *connaître*, *saber* and *conocer*, *sapere* and *conoscere*. In all these cases, the former verb generally denotes a kind of propositional knowledge, “knowledge-that x is the case,” while the latter tends to denote a kind of “knowledge of x” or “knowledge of what x is like,” to express which English is constrained to fall back on paraphrases, such as “knowledge

by acquaintance or familiarity.” Ancient Greek also possesses at least two nouns that correspond to English “knowledge,” *epistēmē* and *gnōsis*, as does Arabic (*‘ilm* and *ma‘rifa*—often translated as “experiential knowledge”—respectively), and I would argue that their meaning broadly corresponds to the Romance language distinction between *savoir/saber/sapere* and *connaître/conocer/conoscere*.²

Since English lacks these conceptual nuances, in this chapter I will use the term knowledge₁ to designate *epistēmē* as certain, objective, propositional “knowledge-that,”³ and knowledge₂ to denote *gnōsis* qua personal knowledge by familiarity or acquaintance. As we will see, this distinction is crucial in Greek epistemological discussion, not least because, according to the Aristotelian tradition, *epistēmē*, knowledge₁ characterized by certainty, is reserved for universal and necessary truths. There can be no *epistēmē* of the sensible, perceptible individual things that constitute our *Lebenswelt*, nor can there be any definition of them. In short, in this tradition, there can be no knowledge₁ (*epistēmē*) of experience; only knowledge₂ (*gnōsis*). Nevertheless, for the Aristotelian tradition it is experience, *qua* knowledge₂ of individuals, that provides the raw material out of which knowledge₁ derives, in the form of technique (*technē*) or certain, demonstrative, disciplinary knowledge (*epistēmē*). Yet how can certain knowledge₁ arise out of individual experiences, each one of which is an instance of knowledge₂?⁴

However we translate them, *technē* and *epistēmē* were generally held to be quite different notions, but both were distinct from mere experience (*empeiria*). For Aristotle, following Plato, technique, unlike incoherent experience, necessarily presupposes a knowledge of causes and an ability to teach what one knows. Yet while this Aristotelian doctrine remained dominant down to the end of Greco-Roman Antiquity and into the Middle Ages, it was not quite the only game in town. There were rival views, which questioned the complete epistemological and sociological superiority of knowledge₁, maintaining that experience itself, when suitably organized and preserved in memory, is quite sufficient for the constitution of a technique (*technē*) such as medicine.

Although a minority view, this revaluation of “technical” knowhow persisted throughout Antiquity as an underground current, and was influential on some exponents of Islamic thought, especially Avicenna. This may have been due to the realization that the Aristotelian edifice of theoretical, certain, demonstrative knowledge₁, precisely because it declares itself incapable of providing knowledge of individuals, was inadequate for practice-oriented techniques such as medicine. In what follows, therefore, I will trace the history and development of this conflict between reason and experience from its origins in Greco-Roman Antiquity, as an instance of intercultural translation that can be studied “as a method of revealing difference and similarity.”⁵

Some Presocratic Exponents of Epistemic Modesty

I will limit myself to a few examples from the Presocratic philosophers, beginning with a text that may derive from the physician and physiologist Alcmaeon of Croton, active sometime between 500 and 470 BCE.⁶ In Plato's *Phaedo*, when Socrates, while recounting his intellectual autobiography, is describing the doctrines of "natural science" (Gk. *phusiologia*) that fascinated him in his youth, he mentions one of the questions such "physiologists" discussed:

Is it the brain that gives us the sense of hearing, seeing and smell, and from these come memory and opinion, and from memory and opinion remaining fixed we get knowledge₁ [*epistēmē*]?⁷

Here we have the following epistemological scheme:

brain → senses → memory/opinion → knowledge₁

Note, for the moment, two aspects that will be prove to be important later: the presence of memory as a key faculty in the cognitive process, and the absence of any separate intellectual faculty that could be identified as reason or intellect. This last feature makes our text perhaps the earliest testimony to the doctrine that Michael Frede has dubbed "memorism": the ancient tradition in Greek thought that did not posit the existence of a separate faculty of reason, but believed that memory alone was sufficient to explain the acquisition of knowledge.⁸ It is not certain that this text can actually be attributed to Alcmaeon,⁹ but if it can, then its interest is even greater, since Alcmaeon was a late-sixth- or early-fifth-century BCE thinker who came from southern Italy, just like Acron and Polos, whom we will meet later.

Alcmaeon was also an exponent of proto-Skeptical and/or Empirist views,¹⁰ such as the following: "About invisible and about mortal things, the gods have clear knowledge [*saphēneia*], while humans can only form conjectures [*tekmairesthai*]."¹¹ Alcmaeon thus seems to have been an exponent of what has been called epistemic modesty:¹² the stance, prevalent in archaic Greek thought, that set limits on what human beings can know about nature, the gods, and reality. Another proponent of this stance was Alcmaeon's near-contemporary and countryman Philolaus (c. 470–385 BCE), who, although he admitted the legitimacy of "nature in the cosmos" as an object of study,¹³ claims that "nature in itself"—that is, the sector of reality that is beyond direct experience—is inaccessible to the human mind, and reserved for the gods.¹⁴ Summing up this archaic tradition of epistemic modesty, Jonathan Barnes remarks that "belief and verisimilitude, not knowledge and truth, mark the goal of man's cognitive journey."¹⁵ It is this attitude that, as we shall see later in the

chapter, best characterizes the theory and practice of the Empirist medical school.

Plato on Experience and Technique

Traces of what one might call an empiricist attitude toward medical treatment are already found in the Hippocratic Corpus, a disparate assemblage of works written at different periods.¹⁶ Clear evidence of a developed empiricist viewpoint, however, first emerges in Plato, especially in the *Gorgias* and the *Laws*.

At *Gorgias* 448C–D, the rhetorician Polos, praising his teacher Gorgias, points out that many of the techniques (*technai*) have been discovered by means of experience. It is experience that “makes our life proceed in accordance with technique,”¹⁷ says Polos, while inexperience (*apeiria*) makes our lives be governed by chance or fortune (*tuchē*). Polos thus appears as a champion of experience, which, as the source of the discovery of the techniques, frees us from the randomness of chance.

We know little about Polos of Acragas (the modern Agrigento in Sicily), who may have been born around 440 BCE.¹⁸ However, if, with Aristotle (discussed in the next section), we take seriously the attribution to him of the doctrine that experience is the origin of *technē*, this may suggest that Polos was associated in some way with the very beginnings of the medical school of the Empirists. As we shall see, Acron, the semi-legendary founder of the Empirist school of medicine, also came from Acragas and was a contemporary of Polos.¹⁹

Later in the *Gorgias* (500A–501B), Socrates points out that cooking, since it deals only with what is pleasant and does not know what is good or evil, is not a *technē* but mere experience (*empeiria*). In this, it differs from medicine, which, since it has investigated the nature of the patients it treats and the causes of the remedies it prescribes and is therefore capable of providing an account (*logos*) of its methods,²⁰ does qualify as a *technē*.²¹ Cooking proceeds in a completely non-technical (*atechnōs*) and irrational (*alogōs*) way, relying on mere routine and experience (*tribēi kai empeiriai*) to preserve the memory of what usually happens.²²

We have here, *in nuce*, the key points of difference between the two later medical schools of the Rationalists or Dogmatists (*logikoi*), on the one hand, and the Empirics (*empeirikoi*) on the other. Like Plato, the former insisted on the need to start out from a rational understanding of the nature and function of the human organism and the causes of illnesses, from which they then deduced the appropriate treatments. In contrast, “relying on routine and experience to preserve the memory of what usually happened” could have served as a perfect formulation of the Empiric credo: they did indeed rely on frequentation (*tribē*) and experience (*empeiria*), and their technique (*technē*) did consist primarily in observing which phenomena occur previously, concomitantly, or subsequently to which other phenomena. As we shall see, however, if the

Empirics largely minimized the importance of reason for defining the nature of the human body and seeking the causes of illness, this was because they thought such intellectual activities were largely irrelevant.²³ For Plato, in contrast, as for the Rationalist physicians, the defining feature of both knowledge₁ (*epistēmē*) and technique is that one knows, and can explain, the causes and reasons for what one is doing.

Aristotle on Experience, Technique, and Knowledge₁

As he often does, Aristotle picks up where Plato left off, elaborating upon and transforming Plato's ideas.²⁴ At *Posterior Analytics* (2.19, 100a3–9), Aristotle presents his famous account of the origins of technique and knowledge₁. From sensation derives memory,²⁵ and repeated memories of the same thing amount to one experience (*empeiria*). Experience, which is equivalent to the establishment of a universal in the soul, then gives rise to a technique (*technē*) if it concerns the world of generation or becoming, but to knowledge (*epistēmē*) if concerns what (truly) exists. Aristotle presents a very similar scheme in the opening chapter of the *Metaphysics* (A, 980a20 ff.). In humans, memory leads to experience (*empeiria*), for many memories of the same thing “produce the power of one experience” (ibid., 981a1). Experience almost seems to be similar to knowledge₁ (*epistēmē*) and to technique, the difference being that experience is the *means* through which human beings acquire technique and knowledge₁; the role of experience is thus purely instrumental. Aristotle then quotes Polos to the effect that experience produced technique, while lack of experience produces chance.²⁶

For Aristotle, then, technique results when, from many thoughts of experience, one universal judgment about similar things comes into being.²⁷ He illustrates this process with examples taken from medicine. Instances of judgments arising from experience include “remedy x helped Callias when he was suffering from illness y,” “remedy x also helped Socrates when he was suffering from illness y,” and so on. Technique comes into play when those who have been benefited by remedy x are identified as belonging to a single class—for instance, phlegmatics, bilious people, or those suffering from bilious remittent fever.²⁸ Technique thus seems consist in the power to make inferential generalizations, or at least to identify universal classes, presumably by means of reason.

Aristotle goes on to point out that we often see experienced people succeed where those who possess an account (*logos*), but no experience, fail.²⁹ This is because *experience is knowledge₂ of individuals, while technique is the knowledge of universals*,³⁰ but all actions and comings-into-being concern individuals. The example he cites comes once again from medical practice: rather than curing “man” as an abstract universal, what a doctor cures are individuals such as Callias and Socrates. More than experience (*empeiria*), Aristotle continues, technique is characterized by knowing₁ (*to eidenai*) and understanding (*to epaïein*),³¹ and this is

why we consider technicians (*technitai*) to be wiser (*sophōterous*) than experienced persons. This is because technicians know the reason *why* the means they employ actually work, whereas persons with mere experience know only the *that* (*to hoti*), not the *why* (*to hoti kai to dioti*).³² Accordingly, master craftsmen are considered more honorable and wiser than manual laborers, who are analogous to inanimate things such as fire, insofar as they act as they do without knowing the reason why.

Here, in what reads very much like a development of ideas set forth in Plato's *Gorgias*, we have a clear distinction between experience as pre- or subrational knowhow that arises on the basis of memory, and technique as rational knowledge that is aware of the causes involved in a given practical activity and can articulate them. This view is accompanied by a devaluation of manual labor and those who practice it. If technique is considered to be more of a certain knowledge₁ (*epistēmē*) than mere experience,³³ it is because those who possess technique are able to teach what they know, whereas those who have experience alone are unable to do so.³⁴ In addition to this Platonic-Aristotelian devaluation of the epistemic value and status of technical, artisanal knowledge, what is important to retain here is Aristotle's principle, mentioned almost *en passant*, that experience is the knowledge₂ (*gnōsis*) of individuals, while *technē* deals with universals.

Aristotle's epistemological scheme in both *Metaphysics* A 1 and in *Posterior Analytics* B 19 can be roughly schematized as follows:

sensation → memory → experience → technique/knowledge₁

This scheme contains an innovation as compared to the analogous scheme we saw above in Alcmaeon: the appearance of the stage of experience. However, Aristotle is by no means clear about the nature or function of this new stage. In the passage of *Posterior Analytics*, he seems to envisage experience as equivalent, on the one hand, to a *logos*,³⁵ a notoriously ambiguous Greek term; and on the other to a universal concept.³⁶ Yet the reader remains puzzled as to exactly how, in this schema, such universals come into being. Subsequent generations of Peripatetics were to devote themselves to clarifying this point.

Alexander of Aphrodisias on *Metaphysics* A 1: Experience and the Formation of Universal Notions

The commentary on our passage from Aristotle's *Metaphysics* offered by the great Peripatetic philosopher Alexander of Aphrodisias (late second–early third century CE) is complex. Writing half a millennium after Aristotle, Alexander tries to elucidate what the Stagirite meant by his account of the formation of universals and the role of experience in the cognitive process. One reason for the complexity of his undertaking is that Alexander seems to be integrating conceptual schemes from at

least two post-Aristotelian philosophical orientations: Peripatetic epistemology as elaborated by Aristotle's successor Theophrastus (c. 371–287 BCE), and the methodology of the medical school of the Empirics. Alexander begins his commentary as follows:

He [Aristotle] clearly states how experience comes about from memory. For experience is already a kind of rational knowledge₂ [*logikē tis gnōsis*], but it is inferior to technique [*technē*], because experience is a kind of universal knowledge₂ of what has been remembered several times, which was the individual, whereas technique is not only knowledge₂ of this, but also of everything that similar to this insofar as it is one thing.³⁷

Here, Alexander sketches an initial distinction between experience and technique. Experience is a set of memories of individual things, persons, or events; but even more explicitly than in Aristotle's account, it is also a kind of *rational knowledge*: knowledge₂, or knowledge in the sense of acquaintance or familiarity (*gnōsis*), rather than the certain, demonstrative, and propositional kind I have designated as knowledge₁ (*epistēmē*).³⁸ It is important to note Alexander's innovation here: Aristotle never speaks of a *logikē gnōsis*.³⁹ According to Alexander, technique knows everything that experience knows, but it goes one step farther, achieving cognition of what is *similar* to the individual things that have been remembered and processed by experience.⁴⁰ Alexander continues: "And as experience is to memory, which is of something that is one ..., so technique and knowledge₁ [*epistēmē*] are to experience."⁴¹

Here, Alexander establishes a relation of analogy or proportion: experience is to memory as technique and knowledge₁ are to experience. In both cases, the analogy consists in the following point: just as experience is a knowledge₂ (*gnōsis*) that is the result of processing or elaborating memories, so technique and knowledge₁ (*epistēmē*) result from the processing of experience. Thus we have the following developmental scheme:

memories → experience/knowledge₂ → knowledge₁

Very roughly, then, we can say that according to Alexander, Aristotle's epistemological scheme is an account of how knowledge by acquaintance or familiarity (*gnōsis* = knowledge₂) is transformed into certain knowledge (*epistēmē* = knowledge₂).⁴²

Alexander continues his explanation of *Metaphysics* A 1 as follows:

For from experience comes the fact of knowing₁ [*eidenai*] that this medication is useful for those who are suffering from this illness, but from technique [comes the knowledge that] making use of such [medications] benefits those who are suffering from such an illness, whence it is able to see the things that are similar [*homoia*] to the

things that have been grasped by experience [*ek peiras*]. For it is to technique [*technē*] that the transition from the similar [*hē tou homoioiou metabasis*] pertains, as he clearly showed from his examples ... for the transition by technique according to similarity [*hē kata to homoion tēi technēi metabasis*] does not apply to medications alone, but also to illnesses.⁴³

Perhaps influenced by Aristotle's liberal use of medical examples in *Metaphysics* A 1, Alexander here mobilizes technical concepts (*peira, tou homoioiou metabasis*) deriving from Greco-Roman medical theory, and particularly the school of the Empirics. Let us see whether any light can be shed on these notions by what we know about the doctrines and practices of the Empiric school of medicine.

The Empiric School of Greek Medicine and Its Epistemology

Followers of the philosophical school known as Skepticism traced their origin back to Pyrrho of Elis (c. 365–c. 270 BCE).⁴⁴ When accompanying Alexander the Great to India,⁴⁵ Pyrrho had been impressed by the “gymnosophists” or “naked philosophers,”⁴⁶ who may well have included Buddhists. One basic feature of Pyrrho's doctrine was that the nature of reality is unknowable, a view that has parallels in some Buddhist schools of thought.⁴⁷ A key difference between the Skeptics and their main opponents, the Stoics, whom they characterized as “rationalists” or “dogmatists” (*logikoi*), concerned their attitude toward the epistemic status of techniques (*technai*), and the corresponding axiological status of their practitioners. For the Stoics, as for the Platonic-Aristotelian tradition, technical knowledge—knowledge that is exhibited in such techniques as small-scale manufacturing, craftsmanship, sculpture, farming, sailing, medicine, and so on—was inferior to theoretical knowledge₁ (*epistēmē*).⁴⁸ The Skeptics, perhaps following in the footsteps of the Academic philosopher Speusippus,⁴⁹ tended to regard technical knowledge as a heuristic instrument intended to assist the human senses, which, unlike the Stoics, the Skeptics held are always fallible. We may thus speak of a Skeptic rehabilitation of artisanal knowledge, which may have played a key role in the elaboration of the epistemology of the Empiric medical school.

The Empiric school was, along with the Rationalists and the Methodists, one of the three main schools of ancient Greco-Roman medicine during the Hellenistic period (c. 323–31 BCE).⁵⁰ Some Empirists claimed the fifth-century BCE physician Acron of Acragas as their founder.⁵¹ Throughout the history of their movement, many Empirist doctors were associated with the philosophical “school” of the Skeptics.⁵² Contrary to the Rationalists, the Empirists denied the value of seeking for hidden causes in medical diagnosis and treatment,⁵³ focusing instead on analyzing the patient's syndromes of symptoms and on determining which cures were effective in any given case. This focus on therapeutics and on discovering

cures, rather than searching for their causes, is one of several points in which Empiric theory and practice are reminiscent of Buddhism.⁵⁴

Eclipsed by rival medical schools, and especially by the overwhelming influence of Galen,⁵⁵ the writings of the medical Empirists were soon lost.⁵⁶ Despite this limited circulation, however, Galen's account of Empirist ideas in his *De sectis* (On the sects) was highly influential. When, in the medical schools of sixth- to eighth-century CE Alexandria, a canon of sixteen Galenic works was established as a curriculum for medical students,⁵⁷ the *De sectis* was placed first, as a kind of introduction to the study of medicine,⁵⁸ thus occupying a position similar to Porphyry's *Isagoge* in the contemporary philosophical curriculum. As a result, the *De sectis*, like the *Isagoge*, was the object of intense study and teaching, as is reflected in the large number of surviving commentaries, summaries, and paraphrases of the work, written in Greek, Latin, and Arabic, all of which are remarkably similar in structure, form, and content. Thus, at least the outlines of Empirist thought were well known to every Islamicate philosopher who had medical training, including Avicenna.

The methodology of the Empiric school of medicine was based on three pillars: (1) first-person observation (Gk. *autopsia*⁵⁹), (2) *historia*, the "history" of first-person observations that previous doctors had recorded in the form of case histories; and (3) "transition from the similar" (*metabasis ek tou homoioi*), a method that allowed extrapolation from one case, illness, part of the body, or remedy to another one perceived as similar. Of these three aspects, it is (1) and (3), *autopsia* and "transition from the similar," that are most relevant to this chapter.

Autopsia was, for the Empirics, the most reliable source of knowledge. As first-person witnessing or observation, it is sometimes equated with experience (*empeiria*) itself.⁶⁰ According to Galen, *autopsia* is acquired by experience, trial, or testing (*peira*).⁶¹ The Empirics' methodological-epistemological scheme distinguishes successive, increasingly refined stages of *peira*, which can be roughly summarized in the following schema:

natural or accidental experience (*peira*) → imitative experience →
expert experience (*tribikē peira*) → theorematic experience → state of
being experienced (*empeiria*) → art, craft, or technique of medicine.

Let us compare this Empiric schema with those we have encountered previously in Alcmaeon, Aristotle, and Theophrastus (Table I.1). We note both striking similarities and important differences among these schemes. The apparent absence of memory in the Empiric scheme is misleading, insofar as the entire Empiric epistemology is based on careful observation and memorization of which phenomena precede, accompany, and follow which other phenomena.⁶² The most striking contrast is with the Theophrastean scheme. Whereas Theophrastus and Aristotle's other Peripatetic successors seem to have bypassed the role

Table I.1 The Role of Experience in the Formation of Knowledge

<i>Alcmaeon,</i> <i>Test. A 11</i> <i>Diels-Kranz</i>	<i>Aristotle, Metaph.</i> <i>A 1; Anal. Post.</i> <i>B 19</i>	<i>Theophrastus</i> <i>fr. 301a</i> <i>Fortenbaugh</i> <i>et al.</i>	<i>Empirics</i>
brain → senses → memory/ opinion → knowledge ₁	sensation → memory → experience → formation of universals → <i>tekhḗnē</i> <i>epistēmē</i>	sensation → memory/ representation → intellect → concept (<i>ennoia</i>) → <i>tekhḗnē</i> / <i>epistēmē</i>	natural or accidental experience (<i>peira</i>) → imitative experience → expert (<i>tribikē</i>) experience → theorematic experience → state of being experienced (<i>empeiria</i>) → <i>tekhḗnē</i> of medicine

of experience, emphasizing and further articulating the role of intellect in the formation of universals as a necessary prerequisite for the development of both technique (*technē*) and knowledge₁ (*epistēmē*), the Empiric tradition, like Alcmaeon, sees no need to postulate the existence of a separate faculty of intellect. Instead, it rehabilitates the notion of experience, concentrating on a careful elaboration of the information it transmits and its role in the emergence of technique. As Frede saw, the Empirics thus represent a prolongation and/or a revival of the archaic Greek tendency of memorism.⁶³

Another aspect of Empiric theory and practice, which is probably echoed in Alexander's exegesis of *Metaphysics* A 1, is the third pillar of the Empiric "tripod" of principles, "transition according the similar."⁶⁴ Like *historia*, this was conceived as a supplement to the problem that the individual Empiric practitioner's personal, firsthand experience (*autopsia*) is necessarily limited. He must therefore expand his knowledge base by studying case histories from the past (*historia*), but also has to provide himself with a heuristic tool in the form of transition to the similar or by similarity,⁶⁵ which will allow him to extrapolate from what he has experienced and apply it to previously unfamiliar cases.⁶⁶ Here again, as with the emphasis on experience (*peira*), we seem to have a close correspondence with Alexander's *Commentary on the Metaphysics*. The question of the extent to which Aristotle himself, who uses abundant medical examples in *Metaphysics* A 1, already had in mind Empiric or proto-Empiric doctrines, must remain open.

Our results so far seem to bear out Frede's contention that medical Empiricism represents not a late Hellenistic development, but a revival of an ancient tendency of memorism and epistemic modesty, which, unlike the Rationalist tradition embodied by Plato, Aristotle, and the Stoics, rehabilitated the importance of artisanal-technical knowledge. To explain such knowledge, the early Empirists—like other representatives of the

memorist tradition—saw no need to postulate the existence of a separate faculty of reason responsible for the process of abstraction and inference involved in the formation of universals.⁶⁷ Instead, they believed that observation and the faculty of memory, with its tendency to associate phenomena, were all that was needed. The Empirics' cautious attitude of sticking to the phenomena, which they share with the Skeptics, and their admission that the results of their application of the principle of "transition by similarity" can never aspire to certitude, but only to a probability that awaits confirmation by proto-experimental experience, all seem to place them in the camp of what has been called "the epistemic modesty characteristic of Archaic thought."⁶⁸ This tradition may thus be one important ancestor of Empiric thought. Another source may be Buddhism, which may have influenced the thought of Pyrrho, founder of the Skeptic school, a philosophy closely associated with Empiric thought and practice.

Aristotle on the Ineffability of Individuals

As Rilke pointed out in the epigraph to this contribution, it is one thing to utter the words "apple, pear, banana," but something quite different happens when we taste the actual fruit. Now, the words that designate them—names and definitions—suddenly become irrelevant, compared to the rich experience of the taste of the fruit, which alone can convey its connotations of sun, earth, and presence or "hereness," giving rise to feelings of wakefulness, transparency, and joy. At least one of Rilke's points thus seems to be that words fall short of conveying the infinite, concrete wealth of perceptual experience.

As we have seen, Aristotle mentions in passing that experience (*empeiria*) is the knowledge₂ (*gnōsis*) of particulars.⁶⁹ This remark may hold the key to understanding the need later felt by some thinkers for a revival and development of aspects of the Empirist reappraisal of artisanal or technical knowledge. We have also seen that later Greco-Roman philosophers saw difficulties entailed by the Aristotelian doctrine of epistemology and scientific demonstration. One particularly problematic point was that for Aristotle, there can be no definition, demonstration, or, consequently, knowledge₁ (*epistēmē*) of individuals or particulars.⁷⁰ Knowledge₁ is based on definitions, and definitions take place by genus and differentiae. Yet the highest reality of all, the divine First Principle, has no genus, and so cannot be defined. Likewise, the lowest realities in the hierarchical scale of being, such as individuals and matter, have no differentiae, and consequently no definition either. Both the highest and lowest levels of the Scale of Being are thus unsusceptible of knowledge₁, and hence, at least to this extent, ineffable.

As Aristotle explains in *Metaphysics* Z 15, using arguments that show affinities with the thought of Gorgias,⁷¹ when we seek to define an individual entity, language forces us to use universal terms ("white,"

“thin”) if we wish to be understood. Every definition of an individual is hence inherently ambiguous: the (necessarily universal) terms we use to pick out such an entity could just as well apply to some other entity.⁷² Thus, whatever words we choose to describe such entities necessarily fail to grasp the uniquely characteristic essence of the individual persons, things, and events that constitute our experience. It follows that certain aspects of our experience—some of them among the most important for us in our daily lives—are ineffable. If this is so, however, then language, and hence rational, discursive thought, falls short of achieving and communicating a completely adequate grasp of sensible particulars or individuals. Yet, as Aristotle himself underlines,⁷³ techniques such as medicine deal first and foremost with individuals. Whatever form of knowing is most appropriate for the practical techniques in general must, therefore, be something other than demonstrative, certain knowledge₁ (*epistēmē*).

From the Ineffability of Individuals to *mushāhada*

These may be some of the reasons why the great physician and philosopher Avicenna (Ibn Sīnā, c. 980–1037), who appears as an enthusiastic proponent of the Aristotelian theory of cognition and demonstration in his magnum opus *The Healing* (*al-Shifā'*), seems to question its adequacy in several passages from his less-studied works.⁷⁴ In these texts,⁷⁵ he points out that some domains of human experience, including sexual and intellectual pleasure, but also the experience of the Divine Light and Beauty, are inaccessible to reason or to syllogistic or rational thought (Ar. *qiyās*): one can only know them through taste (*dhawq*) and witnessing (*mushāhada*).⁷⁶ The pleasure proper to the human intellectual faculty, for instance, cannot be known by those who have not experienced it,⁷⁷ any more than an impotent man can know or desire the pleasures of sex, or a blind person can know the beauties of colors.⁷⁸

One example Avicenna adduces is that of the sweetness of a cake: in a sense, one “knows” that the cake is sweet, even if one has never tasted a cake, because one has heard or read that cakes are sweet. This, however, is an inferior and inadequate kind of knowledge of the cake’s sweetness. One cannot really *know* that the cake is sweet until one tastes it, and this is an instance of first-person witnessing (Ar. *mushāhada*). Similarly, the experience of the Divine Light, writes Avicenna, is

a splendor, a light that comes from God through the intermediary of the Intellect. Discursive and rational thought only lead to it as far as affirmation <is concerned>. From the perspective of the proper character of its quiddity and its quality, the path to it is indicated only by witnessing [*mushāhada*]. This witnessing is only obtained by one who is disposed toward it by a healthy complexion of his soul, as when a person who has not tasted⁷⁹ something sweet agrees that it is

pleasant by a kind of reasoning or by testimony: he will not acquire the proper character of pleasure unless by tasting it.

All sensible and intellectual matters have aspects that can be known through reason [*bi-l-qiyās*] and properties of states that are known [only] by experience [*bi-l-tajriba*]. Just as neither flavor nor the ultimate nature of sensory pleasures can be captured by reason—for at most, reason can apprehend the affirmation of their [existence] devoid of specific details—so in the case of intellectual pleasure and the ultimate aspects of the witnessing [*al-mushāhada*] of supreme beauty, reason can only inform you *that* they are superior in splendor. As for their specific characteristic, however, it can only be known through direct appreciation [*mubāshara*], to which not everyone is guided.⁸⁰

The precise interpretation of these texts, and others like them, is controversial,⁸¹ yet they certainly seem to present a coherent doctrine. For Avicenna, there are aspects of experience that syllogistic reasoning cannot grasp: the specificity or proper character of things. Syllogistic or demonstrative reasoning, as theorized by Aristotle, can conclude that such phenomena as the Divine Light, pleasure, or sensory qualities such as flavor, *exist*. What it cannot grasp, however, but direct, first-person perceptual observation can, is the unique essence or *individuality* of such phenomena. Reason, in other words, can conclude *that experiential phenomena exist*, but it has nothing to say about *what experiential phenomena are like*:⁸² this function is reserved for knowledge by acquaintance (*gnōsis* = knowledge₂). Genuine knowledge₂ of qualia such as taste and intellectual or sexual pleasure, or of divine truth and beauty, can thus be acquired only by experience.

The modality by which, according to Avicenna, such direct, first-person, experiential knowledge can be achieved is witnessing (*mushāhada*). At least two things are interesting about this term. First, in addition to its common meaning of personal witnessing or knowledge by acquaintance,⁸³ it is an important technical term in Sufi thought, where it often appears as one of the last stations or states (*aḥwāl*) along the mystic path.⁸⁴

Second: when, sometime between 850 and 870, the great translator Ḥunain ibn Ishāq came to render Galen's *De sectis* into Arabic, he translated the key Greek term *autopsia*—which, as we have seen, the medical Empirics coined as a technical term to designate their principle of first-person personal observation—by that same Arabic term, *mushāhada*.⁸⁵ As a physician, Avicenna will certainly have read the Arabic translation of *De sectis*;⁸⁶ but he will also have been familiar with the abundant Sufi literature which, by his time, had been using *mushāhada* as a technical term for well over a century.

We do not need to evaluate precisely the relative contributions to Avicenna's thought of these two currents: Greek Empirist medical theory and practice on the one hand; Islamic Sufism on the other. What is

perhaps a more promising pointer for future research is the fact that both these intellectual orientations exhibit affinities with Buddhist thought. As we have seen, medical Empirism was associated with philosophical Skepticism, whose founder Pyrrho of Elis may have been influenced by Buddhists. As far as Iranian Sufism is concerned, the region of Tirmīdh had been covered with Buddhist temples prior to the Islamic conquest.⁸⁷

Avicenna may be drawing on all these traditions to express a similar doctrine of the way the human cognitive apparatus can become aware of domains of reality which, because of their particularity and individuality, fall outside Aristotelian demonstrative/propositional thought (knowledge₁ = Greek *epistēmē* = Arabic *ilm*) and call instead for knowledge by acquaintance or familiarity (knowledge₂ = Greek *gnōsis* = Arabic *ma'rifa*). Like the Empirics and the Sufis, moreover, Avicenna seems sometimes to entertain the idea that this cognitive modality of first-person observation or perceptual experience (Greek *autopsia* = Arabic *mushāhada*) is not just an *alternative* way of knowing, but a *superior* way: direct, first-person observance or experience can grasp aspects of reality that rational and logical knowledge cannot. Might Avicenna have come to feel, late in life, that while Aristotelian doctrines of cognition and demonstration are well suited to deal with fields of logic, physics, and ethics, they may be less than completely adequate for the domains at both extremes of the hierarchical scale of being: the sublime, transcendent First Principle above, and the individual things, persons, and processes in this world below that constitute our everyday experience?

Conclusion

There is indeed the inexpressible.

This shows itself; it is the mystical.

(Wittgenstein, *Tractatus Logico-Philosophicus*, 6.522)

In the long development we have surveyed, we have repeatedly encountered what seems to be basically the same conflict, between the rival cognitive claims of reason and experience. This conflict may date back to the late sixth or early fifth century BCE, when doctors, rhetoricians, and empirically minded philosophers, echoing a fundamental tendency of Archaic Greek thought, recommended—against the more ambitious claims for the powers of reason advanced by the early Ionian natural philosophers—a kind of epistemic modesty that acknowledged limits on reason's domain of validity. On this view, human beings can truly know only that of which they have experience; knowledge of the rest of reality is reserved for the gods. Similarly, Empirist doctors and Skeptic philosophers reacted against what they saw as the exaggeratedly speculative claims for reason made by Platonists, Aristotelians, and Stoics. In the process, they reasserted the validity and value of the kind of embodied wisdom inherent in the practices of artisans, skilled craftspeople, navigators, farmers, and doctors. Despite

Galen's ambiguous attitude in this regard, the triumph of his overall pro-Rationalist viewpoint led to the eclipse of the Empirist stance in medical science and contributed to the disappearance of their writings. In philosophy, the triumph first of Aristotelianism and then of Neoplatonism led to the overshadowing of rival schools such as Skepticism and the triumph of Rationalism. That legacy was bequeathed to the Islamic, Hebrew, and Latin Middle Ages.

Throughout this period, however, the ancient Skeptical and Empirist ideas and attitudes persisted, underground as it were, surfacing occasionally among scientists but also, unexpectedly, even in such predominantly rationalistic thinkers as Avicenna, who seems at times to have sensed the shortcomings of the rationalist-Aristotelian approach when it came to accounting for the incommunicable splendors of empirical, perceptual, particular existence. Some basic features of this Empirist attitude are also reflected in Sufi exponents of mystical experience: they, too, advocate an epistemic modesty that reserves for God the knowledge of that which is beyond the realm of human experience. Unlike the ancient medical Empirists and Skeptics, however, Sufi thinkers allowed for certain privileged moments in which, by a combination of spiritual exercises and divine grace, the seeker could hope to attain direct, first-person witnessing (*mushāhada*) of divine truth. As a foretaste of post-mortem bliss, this could lead to a kind of knowledge and “certitude” that, in their view, far exceeded the certainty the philosophers claimed as the exclusive domain of rational philosophy.

If we had access to more of the writings of the earliest Greek exponents of epistemic modesty, such as those of Alcmaeon of Croton and the earliest medical Empirists, might we find that their attitude of epistemic modesty (limiting the validity of reason to the field of human experience), far from being contradictory to “mysticism,” is in fact perfectly compatible with it? Wittgenstein famously maintained that “the mystical” *just is* the fact that certain aspects of reality—from perceptual experience of individual beings and processes, to whatever suprasensible, divine realities may transcend human rational capacities—cannot be expressed by language, nor, consequently, grasped by rational, discursive thought.⁸⁸ If so, then perhaps “empiricism” and “mysticism” are, contrary to what is usually maintained, not so much polar opposites as cognitive approaches that can be complementary in a Bohrian sense,⁸⁹ as long as we are aware of, and respect, the domains of validity proper to reason and to experience.

Notes

- 1 I will not expressly address this question here. It would require, at a minimum, an account of the contrasting perspectives the Chomskyan tradition and defenders of the linguistic relativism of Sapir and Whorf. See Steiner, *After Babel*, 88–94; Lloyd, *Cognitive Variations*, 5–29.
- 2 See Lobel, *Between Mysticism and Philosophy*, 101 n. 51.

- 3 The Greek word *epistēmē* is often translated by “science,” yet this connotes a range of ideas that are arguably lacking in the Greek. Today, the English word “science” connotes “experimental,” but scholars debate whether the notion of a scientific “experiment” existed in Greco-Roman Antiquity. See Lloyd, *Magic, Reason, and Experience*; Lloyd, *Science, Folklore, and Ideology*; Lloyd, *Revolutions of Wisdom*; Lloyd, *Methods and Problems*. *Technē* is equally hard to translate: it is often rendered by “art,” but the aesthetic connotations of the term as we currently use it are lacking in the Greek word, so I have rendered it here as “technique.”
- 4 See, e.g., Simplicius, *In Physicorum*, ed. Diels, 1075.10–11.
- 5 Hanks, “Space of Translation,” 18.
- 6 Centrone, “Acron d’Agrigente,” 116, places Alcmaeon’s floruit at c. 500 BCE. See Lebedev, “Alcmaeon,” 241–47. For a survey of the widely varying scholarly opinions on Alcmaeon’s dating, see Huffman, “Alcmaeon.”
- 7 Plato, *Phaedo* 96b = Alcmaeon, Test. 24. 11 Diels-Kranz. On this text, see Frede, “Empiricist View,” 238.
- 8 Frede, “Empiricist View.”
- 9 It is omitted in Laks et al., *Early Greek Philosophy*. Perilli, “Alcmeone,” 66–69, emphatically accepts the attribution; Huffman, “Alcmaeon,” is slightly more cautious.
- 10 Perilli, “Alcmeone.”
- 11 Alcmaeon, fr. 24 B 1 Diels-Kranz (= fr. D4 in Laks et al., *Early Greek Philosophy*). See Barnes, *Presocratic Philosophers*, 136–37; Hadot, *Veil of Isis*, 29; Lebedev, “Alcmaeon” (who proposes a modified text).
- 12 See Philolaus, *Pythagorean and Presocratic*, ed. Huffman, 125–26, citing Kahn, “Pythagorean Philosophy,” 173, on the “epistemic modesty characteristic of Archaic thought.” Huffman considers the emblematic representatives of such epistemic modesty to be Homer (*Iliad* 2.484 ff.); Barnes, *Presocratic Philosophers*, 137–38, lists Xenophanes, *Fragments*, 161–86, Alcmaeon, and the Hippocratic *On Ancient Medicine* (cf. Hankinson, “Art and Experience,” 8–9). Lebedev, “Alcmaeon,” 246, rightly adds Heraclitus (fr. 55 Diels-Kranz). On epistemic modesty in early modern English thought, inspired in part by the revival of Greek Skepticism in the sixteenth century, see Corneanu, *Regimens of the Mind*, who defines it as “an attitude of opting for prudent enquiry rather than positive assertion, for the probable rather than for the infallibly certain” (99). For the possible relevance of such an attitude of epistemic modesty in the “Age of Covid,” see Chase, “Which School.”
- 13 Philolaus, *Pythagorean and Presocratic*, fr. 1, ed. Huffman, 93.
- 14 *Ibid.*, fr. 6, 123: “the being of things, which is eternal, and nature in itself admit of divine and not human knowledge.”
- 15 Barnes, *Presocratic Philosophers*, 140.
- 16 Philodemus, *On Methods of Inference*, ed. De Lacy, 120–24; Edelstein, “Empiricism”; Perilli, “Alcmeone,” 62, 73.
- 17 Plato, *Gorgias* 448c5–6. See also 462C–B.
- 18 See Chiron, “Pôlos d’Agrigente.” The first collection (without translation) of the fragments of Polos was not published until Fowler, “Polos of Akragas.”
- 19 Chiron, “Pôlos d’Agrigente,” 1220; Renehan, “Polus, Plato, and Aristotle.” On Acron, see Deichgräber, *Griechische Empirikerschule*, 270–71; Edelstein, “Empiricism,” 195–96; Perilli, “Alcmeone,” 68; Nutton, “Acron.”
- 20 Plato, *Gorgias*, 501a.

- 21 See Hankinson, "Art and Experience," 4.
- 22 On the hendiadys *empeiriai kai tribē* in Plato, see *Phaedrus* 269d ff.; *Philebus* 55d ff. Cf. *Laws*, IV, 720a ff., where a distinction is made between free and slave doctors. The former have learned their trade "in accordance with nature" (*kata phusin*), possess and practice medicine as a technique (*technē*), start out from the causes of illness, take into account the nature of human body, know the reasons (*aitia*) for their actions, and can therefore give an account of them. Slave doctors, in contrast, have obtained their knowledge either by orders from the genuine doctors or by experience and technique (*kat' empeirian kai technēn*). See Plato, *Nomoi*, ed. Schöpsdau, 238–39.
- 23 See Frede, "Empiricist View."
- 24 On what follows, see Hankinson, "Art and Experience"; Krause in this volume.
- 25 Sensation is defined here as an innate faculty of judgment (99b34); memory as the persistence or remaining of a sense-impression (99b35–36).
- 26 Aristotle may have been quoting from a now-lost treatise by Polos; see Renehan, "Polus, Plato, and Aristotle."
- 27 Aristotle, *Metaph.* A, 981a4–6. Note that Aristotle does not say *how* this occurs.
- 28 This is presumably an instance of what Aristotle describes as identifying "the one apart from the many, whatever is one and the same in all those things." *Metaph.* A, 981a10–11.
- 29 *Metaph.* A, 981a13–14.
- 30 *Ibid.*, 981a14–15.
- 31 *Ibid.*, 981a24–25.
- 32 *Ibid.*, 981a27–29. On the distinction between knowledge of the *hoti* and of the *dioti*, see Aristotle, *Posterior Analytics* I, 13.
- 33 *Metaph.* A, 981b7–8.
- 34 A Platonic notion, as we have seen; see *Alcibiades* 118c–d and the texts cited above.
- 35 "And when many such things come about, then a difference comes about, so that some come to have an account [*logos*] from the retention of such things." *Posterior Analytics*, 100a1–3, trans. Barnes.
- 36 "experience, or ... the whole universal that has come to rest in the soul (the one apart from the many, whatever is one and the same in all those things)." *Ibid.*, 100a3–6, trans. Barnes.
- 37 Alexander, *In Aristotelis Metaphysica commentaria*, ed. Hayduck, 4.21–25.
- 38 See Aristotle's key statement that experience is knowledge₂ (*gnōsis*) of individuals (*Metaph.* A, 981a16).
- 39 Nor does any other Greek author prior to Poseidonius (second–first century BCE).
- 40 Alexander's comment here is probably inspired by Aristotle's definition of *tekhne* as a "judgment about similar things" (*Metaph.* A, 981a6). On experience as "extensive accessible memory knowledge of similarity classes," see Bolton, "*Technē* and *empeiria*," 140–41.
- 41 Alexander, *In Aristotelis Metaphysica commentaria*, ed. Hayduck, 4.25–5.2.
- 42 See the fragment of Alexander's lost *Commentary on the Physics*, preserved by Simplicius, *In Physicorum*, ed. Diels, 1074.27–1075.2. In the continuation of his text, Alexander gives a highly condensed account of the formation of

- universals, probably based on the theories of Theophrastus, on which see Chase, “Porphyry on the Cognitive Process.”
- 43 Alexander, *In Aristotelis Metaphysica commentaria*, ed. Hayduck, 5.2–8.
- 44 For more detail on what follows, see Chase, “Which School.”
- 45 See now especially Halkias, “When the Greeks,” 75–78; Beckwith, *Greek Buddha*, 10, 14–21, 48–49.
- 46 Diogenes Laertius, *Lives of the Ancient Philosophers*, 9, 61.
- 47 Long, *Hellenistic Philosophy*, 81–82. See Pyrrho, Testimony 53 Deleva Caizzi. For parallels with Buddhist thought, see Beckwith, *Greek Buddha*, 25–34; Chase, “Which School.”
- 48 See Aristotle, *Metaph.* A 1, 981a23–28. The Stoics, in contrast, held that only the Sage knows why and how even the most skillful and successful technicians—great sculptors such as Polycleitus, for instance—do the things they do (Cicero, *Lucullus*, §§ 144–45).
- 49 Speusippus developed a theory of a “scientific sensation” (*ēpistēmōnikē aisthēsis*) that participates in “scientific practice”; see Sextus Empiricus, *Adv. math.* 7. 145 (= fr. 75 Tarán). Compare Speusippus’s “scientific sensation” with the notion of “rational experience” (*rationalis experientia*), which was how the Empiric doctor Theodas of Laodicea (early second century CE?) classified the Empiric method of “transition from the similar.” See Galen, *Subfiguratio*, 4, ed. Deichgräber, 50.2–4; Stok, “La scuola medica,” 606.
- 50 For a more detailed presentation of the epistemology and scientific methodology of the Empiric physicians, see Chase, “Which School.”
- 51 On Acron, see n. 19 above. However, current scholarship usually considers the Empiric school to have been founded around 250 BCE by Philinos of Cos. “Philinos 9”; Deichgräber, *Griechische Empirikerschule*, 254–55; Boudon-Millet, “Philinos de Cos.”
- 52 Allen, “Pyrrhonism,” 232.
- 53 As early as the first half of the third century BCE, the Empirics were called *anaitiologētoi*, “those who refrain from talking about causes”; see Erasistratus, fr. 35 ed. Garofalo (= fr. 25, 106–7 ed. Deichgräber). See Edelstein, “Empiricism,” 197.
- 54 Compare the parable of the poisoned arrow in *The Shorter Exhortation to Mālunkya/Cūla Mālunkyaovāda Sutta* (MN63), www.dhammadownload.com/suttas/MN/MN63.html, and see Frede, “Empiricist View,” 229, on the Empirist view that “the task of a doctor is not to provide patients with a theoretical account of their disease and its cure, but to cure them.” See also Celsus, *On Medicine*, I pr. 38; Chase, “Which School.”
- 55 In general, Galen believed that medicine required a combination of both reason and experience; see Frede’s introduction in Galen, *Three Treatises on the Nature of Science*, ed. Frede, xi–xxxiv; Van der Eijk, “Galen’s Use”; Hankinson, “Art and Experience.” Galen objected that the Empiricists’ allegedly unsystematic approach led them to results that were insufficiently “scientific and certain” (Galen, *De simplicium medicamentorum*, ed. Kühn, 231.2; see Van der Eijk, “Galen’s Use,” 49).
- 56 Galen was almost the only source, for the subsequent Greek, Latin, Hebrew, and Arabic traditions, of all information about Empiric theories and practice. The three main works in which Galen transmits Empiric doctrine are a good example of the importance of intercultural translation. Only one, the *De sectis*, survives in the original Greek, while the other two, *On Medical*

- Experience* and *Empirical Sketches*, are preserved in an Arabic and a late medieval Latin translation respectively. For modern translations of all three works, see Galen, *Three Treatises on the Nature of Science*, ed. Frede; Galen, *Traité philosophiques et logiques*, ed. Pellegrin and Dalmier.
- 57 On this canon, see Boudon-Millet's introduction to her edition of Galen, cxviii–cxxvi, 29–33; Bürgel, *Ärztliches Leben*, 140–62.
- 58 On this prominent position of the *De sectis*, see Pormann, “Jean le grammairien”; Pormann, “Alexandrian Summary”; Overwien, *Medizinische Lehrwerke*, 26–34. Ibn Hindū (d. 1029–1032) explains why the medical curriculum began with the *De sectis* as follows: “for it was necessary that it introduce the curriculum, in order to expel from the student's mind the doubts and sophistries of the Empirists [*aṣḥāb al-tajriba*] and the Methodists.” *Keys to Medicine*, cited by Overwien, *Medizinische Lehrwerke*, 32.
- 59 A term which, as Galen observes, they seem to have coined. *Subfiguratio*, ed. Deichgräber, 47.8–11.
- 60 *Ibid.*, 44.6–8; see also 47.23–26. The Empirics were known not only as *tērētikoi*, “the observant ones,” but also as *mnēmoneutikoi*, “the memorious ones” (Galen, *De sectis*, 1, ed. Helmreich, 2.8).
- 61 See Liddell-Scott-Jones, *Greek-English Lexicon*, I.1. According to Galen (*De sectis*, 1, ed. Helmreich, 2.2–3), the Empiric school is that which “proceeds to the discovery of cures by means of experience” (*dia peiras*). See Alexander, *In Aristotelis Metaphysica commentaria*, ed. Hayduck, 5.4. On the succession of types of experience, see Deichgräber, *Griechische Empirikerschule*, 297.
- 62 Indeed, for the Empirics, such observation and memorization are precisely what knowledge consists in; see fr. 45 Deichgräber. See Sextus Empiricus, *Adv. math.*, 8. 288 (I thank Emidio Spinelli for this reference).
- 63 Frede, “Empiricist View,” 227.
- 64 This method is designated by various forms: *hē kata to homoion metabasis*, *hē tou homoiou metabasis*, etc.; see Deichgräber, *Griechische Empirikerschule*, 301 ff. See Alexander, *In Aristotelis Metaphysica commentaria*, ed. Hayduck, 5.6–9.
- 65 *Hodos epi tēn heuresin* in Galen, *De sectis*, 3, ed. Helmreich, 4.7; *via ad experientiam* in Galen, *Subfiguratio*, ed. Deichgräber, 70.6.
- 66 Such “transition to/from the similar,” or extrapolation on the basis of similarity, could be applied to similar illnesses, similar body parts, or similar diseases. See Chase, “Which School.”
- 67 In a personal communication, Emidio Spinelli suggests a comparison with Sextus Empiricus, *Adv. math.*, 11. 160–65.
- 68 Kahn, “Pythagorean Philosophy,” 173.
- 69 *Metaph.* A 1, 981a14–15.
- 70 See *Posterior Analytics* I. 8, 75b24–5. On this problem, and the Neoplatonic attempts to palliate it by means of the doctrine of the description (*hupographē*), see Chase, “Individus et descriptions.”
- 71 Mazzara, *Gorgia ontologo e metafisico*, 179.
- 72 This implication of Aristotelian thought plays a key role in Avicenna's approach to the problem of the divine knowledge of individuals, with its crucial implications for the doctrine of divine providence; see Chase, “Individus et descriptions,” 3–6.
- 73 See *Metaph.* A 1, 981b19–20: “the physician does not cure a man ... but Callias or Socrates or some other called by some individual name.”

- 74 For other reasons, see Sebti, “La notion de mušāhada,” especially her discussion of Avicenna’s *Ta’liqāt*, ed. Badawī, 34–35, a melancholy lament over the fact that human beings know only the properties and accidents of things, never their essence or reality (Ar. *ḥaqīqa*).
- 75 In addition to the two passages from Avicenna’s *Notes on the Theology of Aristotle*, discussed below, Gutas, “Intellect without Limits,” cites Avicenna’s *Al-Mabda’ wa-l-ma’ād*, *Ishārāt*, and *Al-Mubāḥaṭāt*. See the additional texts cited and discussed by Sebti, “La notion de mušāhada.”
- 76 Treiger, *Inspired Knowledge*, 60.
- 77 Avicenna, *Al-Mabda’ wa-l-ma’ād*, ed. Nūrānī, 112.10–15, cited by Treiger, *Inspired Knowledge*, 61.
- 78 Avicenna, *Metaphysics of The Healing*, 9. 6, ed. Marmura, 349. Similarly, the Andalusian mystic Ibn Ṭufayl (1105–1185) writes in *Ḥayy ibn Yaḡzān* that his vision of the Absolute Being cannot be acquired through syllogistic reasoning, but only through tasting (*dhawq*, ed. Gauthier, 7–8), just as a blind person could know (*ya’rifu*) colors only by explanations of their names and ostensive definitions.
- 79 The verb here is *yadhūq*, formed from the Arabic root *dh-w-q*, source of the noun *dhawq*, “taste,” sometimes translated as “experience.” This is a key concept in descriptions of Sufi mystical experience; see Lobel, *Between Mysticism and Philosophy*, index; Frank, *Philosophy, Theology, and Mysticism*, 216–17; Sebti, “La notion de mušāhada,” 166–67. Avicenna described his *Ishārāt* as intended for those who possess “gustatory wisdom” (*al-ḥikma al-dhawqiyya*); see Michot, *La destinée*, 3–4. Like *mushāhada*, *dhawq* is one of the stages on the Sufi path (no. 70 of the hundred stages enumerated by al-Anṣarī, c. 1006–1088 CE); see Tabbara, *L’itinéraire spirituel*, 298.
- 80 Avicenna, *Notes on the Theology of Aristotle*, ed. Badawī, 56.8 ff.; *ibid.*, 44.12–16; I follow the text of Treiger, *Inspired Knowledge*, 61, 142 n. 52; translation Treiger slightly modified.
- 81 follow the interpretation of Lobel, *Between Mysticism and Philosophy*, 89 ff.; Treiger, *Inspired Knowledge*, 60 ff.; Sebti, “La notion de mušāhada.” For a fierce denial that there is anything “mystical” about such passages, and the assertion that they are fully concordant with Avicenna’s purely rational empiricism, see Gutas, “Intellect without Limits”; Adamson, “Non-Discursive Thought.”
- 82 See Sebti, “La notion de mušāhada,” 165.
- 83 In Arabic, one way to say “I did not know X personally” is *lam a’rifuhū mushāhadatan*.
- 84 Gutas, “Intellect without Limits,” is silent on the Sufi resonances of the term, but see Treiger, *Inspired Knowledge*, for a list of ten characteristics of *mushāhada* in al-Gazālī. On the way in which knowledge₂ (*ma’rifā*), accompanied by divine illumination, leads to *yaqīn* according to the Khorasanian Sufi al-Ḥakīm al-Tirmidī (c. 830–910 CE), see Radtke, *Drei Schriften*, 2:60. For Tirmidī on *mushāhada*, see, e.g., al-Tirmidhī, *Bayān al-farq*, ed. Herr, 39, 62, 64–65. *Mushāhada* also plays a key role in the thought of al-Tirmidhī’s contemporary Sahl al-Tustarī of Khuzestan (c. 818–896 CE); see Sahl al-Tustarī, *Tafsīr al-Tustarī*, 384 (index, s.v. *mushāhada*). Thus, in his use of the concept of *mushāhada*, Avicenna may be following a current that dates back to ninth-century Iranian Sufism. On al-Tirmidhī as a transmitter of “Hellenistic philosophical ideas,” see Schimmel, *Mystical Dimensions*,

- 56–57; for the suggestion that this may imply the existence in Balkh and Tirmīdh of “eine Schule neuplatonischer Mystiker” dating back to the second half of the eighth century, Radtke, “Theologen,” 552.
- 85 Galen, *Kitāb Ḡālīmūs*, ed. Salīm Sālīm: “wa-sammū al-mujtami’ ayḍan al-mushāhada, wa-huwa ḥifz mā li-ashyā’ qad shūhidat marāran kathīratan ‘alā ḥāl wāḥid” (Galen, *De sectis*, ed. Helmreich, 3.15–17: *eklēthē de hup’ autōn autopsia*).
- 86 And, in all probability, the Alexandrian epitomes of Galen’s sixteen canonical works as well. At *Notes on the Theology of Aristotle*, ed. Badawī, 44.12–16, as we saw, Avicenna speaks of *mubāshara* alongside *mushāhada*: *mubāshara* is the term used to render the Greek *autopsia* by the anonymous author of the Alexandrian epitomes of Galen’s works. See Galen, *On the Medical Sects*, §13, ed. Walbridge, 16: “According to the Empiricists, there are two ways in which things are apprehended and understood: by vision, which is called **autopsy**” (*immā bi-l-baṣar wa-yuqāl la-hū al-mubāshara*).
- 87 See the references in Crone, “Al-Jāḥiz,” 220 n. 22. Tirmīdh was also the site of the teaching activity of Jahm ibn Ṣafwān, the early heretical thinker (d. 746) whom some scholars have considered a Neoplatonist.
- 88 On the limits of language, see Wittgenstein, *Philosophical Investigations*, 119; Wittgenstein, *Tractatus Logico-Philosophicus*, 5.6. This theme was dear to Pierre Hadot. See Hadot, *Philosophy*, 155, 163; Hadot, *What Is Ancient Philosophy?*, 88 ff.; Hadot, *Selected Writings*, 86. Faced with the enigma of existence, Hadot concludes, “language reaches its impassable limits” (Hadot, *Exercices spirituels*, 192–93). According to George Steiner: “Paralysed by the vacuum of words, by the chasm which has opened between individual perception and the generalities of speech, the writer falls silent.” Steiner goes on to speak of “the limits of language, the necessary defeat of language by the privacy and radiance of the inexpressible.” Steiner, *After Babel*, 83.
- 89 On the notion of complementarity as elaborated by the Danish physicist Niels Bohr (1885–1962), see ch. 10, “Complementarity Is Mind-Expanding,” of Wilczek, *Ten Keys*, 206–22.

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