CHAPTER 4

Seeming and Being

Binary oppositions, often originating in Greek antiquity, have attracted a good deal of critical attention in the last few decades, most notably from Derrida (e.g. 1982), but the character of the binaries under attack and the relations between the opposed terms vary considerably. We cannot afford to ignore both the logical and the substantial differences between the following highly contested oppositions: nature versus nurture or culture or the artificial, demonstration versus persuasion, reason versus perception, mind as opposed to body, the analytic versus the synthetic, the a priori versus the a posteriori, the literal versus the metaphorical, the contrast between convergers and divergers (Hudson 1966), between the masculine mind and the feminine (Baron-Cohen 2003), or even masculinity and femininity themselves, between causal accounts and correlative ones, competition and cooperation, realism and relativism, Being and Seeming.

In every case understandings both of the character of each disjunct and of the relationship between them have been challenged, modified, even debunked, and in several instances I have elaborated some of the necessary revisions in this set of studies here. It turns out, over and over again, that what were sometimes construed as mutually exclusive and in many cases exhaustive alternatives are nothing of the kind. When that is so, to insist on a choice between the two alternatives is to force some issue, to leave out of account the complexity of the concepts in question, the possibility, sometimes, of combining them, or of finding options that the original binary masks or ignores. It also turns out, again and again, that those who introduced the contrast used it in polemic, in two ways especially, first to downgrade one half of the binary in favour of the other, and second and more especially to claim special expertise in the matter of the understanding of the binary itself. We have seen examples of this in the last chapter in relation to nature and to what I dub the master binary that we are concerned with, namely rationality and the irrational, and the present study will enable us to throw further light on the issues.

Picking up the theme of reality from the last chapter, I shall take as my chief topic here Seeming and Being themselves, aiming to explore some of the different ways in which that pair has been invoked, the limitations of its usefulness and the dangers of certain common assumptions about its applicability. The pair formed, of course, the main articulating framework in Plato's metaphysics, but it antedates him in Greek thought, having a variety of roles in Presocratic philosophy and indeed going back to our earliest Greek pre-philosophical texts, which is where we must begin. In Homer already a god or a goddess may take the form of some other creature, a human or a bird, for example. Some passages merely compare the gods with birds (for instance) (*Iliad* 5 778, 13 62, 15 237; *Odyssey* 5 51 f.) but in others the gods appear in the guise of birds (e.g. *Odyssey* 3 372; cf. 22 239 ff.). Again, gods can appear as humans and they can disguise humans to look more decrepit, or alternatively more beautiful and even godlike, than normal. So you can never be too sure. Appearances in these and other contexts can evidently be deceptive.

How the divine reveals itself is evidently problematic and uncertain. Is the bird a manifestation of the god or what conceals the godhead? There is even a difference, in Greek, in the constructions used with the verb *phainesthai* (to appear) that mirrors this ambiguity. When the verb is followed by a participle, we normally understand that the appearance tells us what something is, but when it governs a verb in the infinitive we read it as 'appears but is not really so'. Yet as the grammarians remind us, that general rule is far from always strictly adhered to, so there is always an element of doubt.

Hesiod, in turn, lays claim to much abstruse and esoteric knowledge in both the *Theogony* and the *Works and Days*, and he gives a story to justify this. His authority is the Muses, although he says that they know how to tell not just the truth but also many lies that are like the truth (*Theogony* 27–8). Hesiod assures his audience that he can tell the differences between auspicious and inauspicious days in the month for a whole range of human activities, but he remarks that there are few people who have knowledge of this (*Works* 822–5). Sometimes a day is a stepmother, sometimes a mother, as he puts it (825). The problem, by implication, is to distinguish between them in time and not mistake the one for the other. Initial appearances evidently may be deceptive.

From the start of their speculative inquiries the Presocratic philosophers devoted much of their energy, as we said, to attempting explanations of a wide variety of natural phenomena, especially, though not exclusively, those that were particularly striking or frightening – where they had

generally been considered by their fellow Greeks to be signs of the work of the gods, of Zeus with his thunderbolt, for instance, or of Poseidon the earthshaker. For Anaximander, lightning and thunder were explained as due to wind, which, when enclosed in cloud, may burst out violently: then the tearing makes the sound and the rift brings about the lightning flash.[1] In a more elaborate example he proposed a theory of the heavenly bodies that explained their circular movement and occasional eclipses. He imagined the heavenly bodies as wheels of fire, enclosed in mist, which have vents through which the sun, moon or stars are visible. Eclipses occur when the vents temporarily become blocked.[2] A little later Xenophanes is quoted as saying (Fr. 32) that 'what people call Iris [the usual Greek name for the rainbow, though Iris was also imagined as the messenger of the gods], that too is a cloud, purple and scarlet and yellow to behold'. By treating it as a cloud, he naturalises it: we have no need to think of the rainbow as a portent, though that was not to say he persuaded all his fellow Greeks not to do so. At the same time he stays with the appearances: the rainbow with its special bright colours is different from other clouds. Those colours were not what we call optical illusions, as Aristotle seems to suppose with respect to some of the appearances of the rainbow.[3]

But of course many Presocratic explanations go far beyond the appearances. For Heraclitus, for whom, as we have seen, 'nature loves to hide' (Fr 123), the cosmos (world order) as a whole is an 'ever-living fire' (Fr. 30), not something we can be said to 'see'. True, he is also quoted as saying that 'those things of which there is sight, hearing, learning, they are what I privilege' (Fr. 55), but the addition of 'learning' (*mathēsis*) there shows that not all his evidence is perceptual, as indeed is also clear from his insistence that we should follow the *logos*, which is not a matter of what he says, but of the ratio or rule according to which everything comes to be.[4]

[1] This view is reported in the late source Aetius 3 3 1, though we should note that when Aristotle comes to review earlier theories of lightning and thunder in his *Meteorologica* book 2 ch. 9, he does not mention Anaximander.

[2] Again we rely on late sources, Hippolytus, *Refutation* 1 6 4, and Aetius 2 13 7, 2 20 1, 2 25 1. Anaximander is further reported as holding that the sun, moon and stars (in that order) are at regular distances, measured in earth-diameters, from the earth, with the stars being closest, the sun furthest away. Such a theory owes more to a desire for symmetry than to any empirical observation.

[3] In his *Meteorology* 371b33–372a10, Aristotle identifies three colours in the rainbow, roughly 'red' 'green' and 'blue', but he adds that there is often an appearance of 'yellow' between the 'red' and the 'green'. I use the conventional translations of Greek colour terms, although in many, indeed most, other contexts these refer not to hues but to luminosity (see Lloyd 2007a: ch. 1).

[4] What Heraclitus means by the *logos* is the key issue in the controversies that continue over the interpretation of his philosophy. In Fr. 50 he tells us to listen not to him, but to the *logos*. Fr. 2 describes it as common, although most people live as if they possessed their own wisdom. Fr. 1 from the start

By the middle of the fifth century BCE several Greek medical writers, responsible for some of the treatises in the Hippocratic Corpus, were also attempting theories and explanations, of diseases, of the structure and functioning of the human body and even, in some cases, of the constitution of physical objects as a whole. In the last example some based their accounts on elementary opposites such as hot, cold, wet and dry. On the one hand these qualities were in principle observable. On the other, that feature is subject to two major reservations. What might appear to be 'hot' may or may not be truly so. The true quality of an object was to be judged by its effects rather than by how we perceive it. Thus a cool alcoholic drink could be categorised as warming: a poisonous drug that was neither hot nor cold to the touch was nevertheless essentially 'cold'. So even those who, like Aristotle and much later Galen, stayed with a qualitative account of material objects (as opposed to the quantitative theories of the atomists) were faced with the basic difficulty of deciding what counts as 'hot' or 'cold' or 'wet' or 'dry'. Galen even introduced the idea of different grades of these qualities, corresponding, in the first case, not, of course, to degrees Celsius, but rather to the severity of their effects. Meanwhile for the atomists those qualities were to be accounted for by the properties of geometrical shapes taken singly or in combination, though Aristotle for one objected that to explain qualities in quantitative terms was a simple category mistake.

Then more generally the writer of the treatise *On Ancient Medicine* explicitly recognised that when some of his opponents invoked, as the causes of diseases, such primary qualities (hot, cold, wet, dry) as the constituents of the body, these were theoretical entities, 'postulates' or 'hypotheses', as he calls them, that were beyond verification. This writer says that medicine has no need of such 'hypotheses' and is in that respect unlike 'obscure and problematic subjects',

> concerning which anyone who attempts to hold forth at all is forced to use a hypothesis, as for example about things in the heaven or things under the earth: for if anyone were to speak and declare the nature of these things, it would not be clear either to the speaker himself or to his audience whether what was said was true or not, since there is no criterion to which one should refer to obtain clear knowledge.[5]

of his book claims that the *logos* is that according to which everything comes to be, while other fragments speak of the *logos* of the soul (Frr. 45, 115). At one end of the spectrum it covers words or speech, but at the other it is the objective rule or proportion governing physical changes (as in Fr. 31).

[5] *On Ancient Medicine* ch. 1, *CMG* 1,1 36 15 ff.

Yet of course he himself goes beyond what can straightforwardly be observed when he tackles such problems as the effects of combinations of 'powers' in the body or those of the different structures of different parts in it. In the latter context he remarks that there are important differences between those structures. Some are 'hollow and tapering', some 'spread out', some 'hard and round', some 'dense', some 'loose and swollen', some 'spongy and porous', for instance. He poses the question for himself which type of structure is best suited to draw fluid to itself and answers the 'hollow and tapering' ones. 'One should learn these things outside the body from objects that are plain to see' (ch. 22, 53.12 f.).

This is one of several clear references to a methodological principle that probably goes back to Anaxagoras, according to which 'the phenomena [appearances] are the vision of what is obscure'.[6] Insofar as the 'vision' or understanding that is arrived at is a matter of the underlying nature or causes of the obscure objects or processes, the principle justifies a theoretical – that is, speculative – move. But insofar as the theory in question is based on the appearances, it appeals to some empirical support, not necessarily direct observable evidence, but at least some analogue to the explanandum, leaving, of course, the major problem of whether the positive analogies in question outweigh the differences between the explanandum and the model on which the explanation is constructed.[7]

Across the board, from philosophy to medicine, Greek writers already before Plato were trying out a variety of methodological justifications for their speculations, in most of which the appearances figure either as the objects to be explained or as the basis for some explanation. But at the opposite extreme, there is Parmenides' position radically undermining the appearances, in a move that goes far beyond raising a doubt or two about this or that phenomenon. He presents us with the contrast between the Way of Truth and a Way of Seeming or Opinion, Doxa.[8] The way of truth starts from the statement (Fr. 2) that 'it is and cannot not be' and proceeds to deduce a set of characteristics of what is. It is ungenerated and indestructible, not subject to any alteration or movement or change, for

[6] The dictum in this form is attributed by Sextus (*Against the Mathematicians* [*M*] 7 140) to Anaxagoras, and Sextus also says it was approved by Democritus. We find echoes of the dictum (with different nuances in its application) in the medical writers and even in Herodotus. The extensive secondary literature on the principle starts with Regenbogen 1930–1 and Diller 1932. Cf. Lloyd 1966: 338 ff.

[7] Cf. most recently Lloyd 2015, especially ch. 4.

[8] The Greek term *doxa* has a particularly wide semantic range. It may refer to seeming or opinion or judgement. The decisions taken in Greek assemblies were referred to as what was agreed by them, the verb being *dokei*, what seems good, but elsewhere where the contrast is with what is, what seems carries negative undertones. In another context, however, *doxa* may have a strong positive valence, as when it is used for 'fame' or 'reputation'.

to attribute any of those characteristics to it would – impossibly – imply 'it is not'. It is 'whole-limbed', present 'now', the object of thought, not of perception.[9] The Way of Doxa, introduced at the end of Fr. 8, is the way in which ordinary folk wander in ignorance, making assumptions about coming-to-be that the Way of Truth had effectively ruled out. Yet in the account offered of that second way Parmenides continues to talk, in certain contexts, of the Necessity in play. The nature, *phusis*, of the stars, for instance, is held fast within the bounds of necessity (Fr. 10), so it would clearly be incorrect to equate the contrast between truth and doxa with that between the necessary and the merely contingent.

Parmenides thus sets up a fundamental opposition between the findings of reason and those of opinion. The further step that Plato took was to construct a theory of Forms whose ontological status is radically contrasted with that of the perceptible particulars that nevertheless 'participate' in the Forms or 'imitate' them (terms that Aristotle was to criticise as mere poetic metaphor).[10] Plato's account of reality, then, allows not just for what truly or unqualifiedly is on the one hand (the *ontōs onta*), but also for what is 'in a way' (*tropon tina*), courtesy of some relationship to the truly existing and eternal Forms.[11] When he comes to offer a cosmological account, in the *Timaeus*, the contrast between the intelligible unchanging Forms and what is subject to change remains in place, though where the latter is concerned it is possible to give a 'likely account' (Burnyeat 2005) even if not a stable nor incontestable one such as he claims is possible where the Forms themselves are concerned.

It is striking that this comprehensive Platonic revision of Parmenides' fundamental ontological separation was immediately challenged and rejected by Plato's most famous, and in many respects very loyal, pupil, Aristotle. The chief respect in which Aristotle followed Plato was in endorsing the need for intelligible forms, yet their nature is now radically transformed. They continue to provide the answer to the question of the formal causes of substances or processes, that which distinguishes them from other things. The form of human being captures the essence of human beings (as

[9] How to understand the characteristics of Parmenides' Being and how to evaluate the arguments used to arrive at them remain among the most disputed topics in Presocratic philosophy. But all are agreed that he held that one arrives at an understanding of the Way of Truth by thinking and reasoning, not by appeals to empirical evidence.

[10] Aristotle, *Metaphysics* 991a20 ff., 1079b24 ff.

[11] *Symposium* 210e–212a. The *Phaedo* (79a) explicitly distinguishes two types of being, the visible and the invisible. At *Republic* 479cd Plato says of the many beautiful things that they also on occasion appear ugly. So the conventions of ordinary people (the many) about such matters are 'tossed about' between 'being' and 'not-being', one of many images used to describe their ambivalent ontological status.

opposed to their properties or their mere accidents) and can and should be given a clear definition. But the major departure from Plato that marks Aristotle's metaphysics is that, in the sublunary region at least, the forms do not exist independently of the things of which they are the forms. His idea of primary substance, in the *Categories* at least, is that it is the individual composite whole, consisting of form plus matter, that can be said to exist.[12] To give an account of any such individual, Socrates, say, or this olive tree, we have not only to identify its form, but also its matter, what it is made of. Indeed, for a full account we need to include two other types of cause, how the object came to be (its 'efficient cause') and its end or goal, what it is good for, what it is for it to fulfil itself, its final cause.

There are, to be sure, complications when Aristotle comes to talk of the heavens, where in any case the matter in question does not consist of the four sublunary elements and their compounds, but of the fifth element, *aithēr*.[13] But the message concerning the ordinary objects we encounter here on earth is clear. To understand them we need to give an account of their intelligible forms: but those forms do not exist independently of the compound wholes that combine matter and form. If a species were to have no living member, then it would cease to exist, though it must be stressed that Aristotle's belief in the eternity of the world rules out any possibility of such extinction events.

In later Greek philosophy and science very different views were taken on the relationship between the appearances and reality, but some recognition of the or a fundamental gap between those two is common ground to many thinkers and to many fields of inquiry. Both those points are important and I shall take some time to illustrate both.

[12] In the *Categories* the individual substances, Socrates, Callias, this particular horse or dog, are said to be 'primary', while their species and genera are 'secondary' substances. Elsewhere, however, in the *Metaphysics* (book Z) what is said to be primary is the essences or forms of such substances, from the point of view, in other words, of the question of what makes them the substances they are.

[13] Aristotle's doctrine of the fifth element, that is neither hot nor cold, neither wet nor dry, has often been castigated as a disaster for his and much subsequent science. It has to be granted, however, first that he thinks he has good empirical evidence – citing astronomical observations carried out by the Babylonians and Egyptians – for the conclusion that the movements of the heavenly bodies have never been subject to change (*On the Heavens* 270b13 ff., cf. 292a7 ff.). Second, once he is convinced that those movements take place perpetually – and so that must be naturally – in a circle, he argues that the heavenly bodies cannot be made of the sublunary elements, whose natural motions are either to or from the centre of the universe, identified – again in part on the basis of empirical considerations – with the centre of the spherical earth (*On the Heavens* Book 2 chs. 13–14, Book 3 ch. 2). On that account one might say that the problem was not so much that Aristotle idealised the conditions of motion in the superlunary sphere unduly, but rather that he did not abstract enough from the effects of what we would call friction and the resistence of the medium in his account of motion in the sublunary region.

In ethics, for instance, the idea that was already proposed by Plato and by Aristotle, that true pleasures are to be contrasted with merely apparent ones, continues to reverberate. Two types of mistake might be made. First you could be mistaken in your subjective impression of some pleasant experience, for such might just be illusory. But then you might need to revise your general idea of which pleasures are the most important and valuable ones. The philosophers were in business to suggest that merely transient or superficial pleasures were to be rated far lower than the true and lasting ones, which would bring you real happiness as opposed to some short-term sense of well-being.

Similarly, where friendship, for instance, is concerned, you could discover you were mistaken about the character of some person you initially took to be a friend. But again the philosophers set about contrasting different modalities of friendship, where Aristotle already distinguished between friendship based on mutual pleasure or for profit or self-interest, and the true variety based on virtue.

On the one hand, Aristotle has a healthy respect for what he calls the *endoxa*, the accepted or reputable opinions, and the 'phenomena', though that latter term can cover both what appears to the senses and what appears in the sense of what is believed to be the case. But two famous texts illustrate the ambivalences in play. At *Nicomachean Ethics* 1145b2 ff. he describes his method, and not just in ethics, as first 'positing' the 'phenomena' and after first discussing the difficulties going on to prove all the *endoxa*, or at least most of them and the most authoritative ones. Faced with the Socratic paradox that 'no one does wrong willingly' (*Nicomachean Ethics* 1145b27 f.) he says that that is in plain contradiction with the 'phenomena'.

Then in his zoology, in his convoluted discussion of the reproduction of bees, he gives us this (*On the Generation of Animals* 760b27 ff.):

> This then seems to be what happens with regard to the generation of bees, judging from theory [he means his a priori assumptions about the roles of male and female] and from what are thought to be the facts about them. However, the facts [*ta sumbainonta*: what happens] have not been sufficiently ascertained. And if they ever are ascertained, then we must trust the evidence of the senses rather than theories, and theories as well as long as their results agree with the phenomena.

So on the one hand 'what appears' is often the starting point of his own investigations and can be appealed to as evidence in arriving at his conclusions. But on the other, not all the common opinions will withstand critical scrutiny, not even all the most authoritative ones. As for the

phenomena that appear to perception, some do, some do not, correspond to what careful examination reveals to be the case.

After Aristotle, in the Hellenistic period, the general epistemological doubts about the reliability of sense-perception were joined by other sceptical arguments that also undermined reason as the criterion as well. In the matter of perception, much use is made of examples of how it can be mistaken. The square tower appears round at a distance. A straight stick appears bent in water. What a healthy person perceives as sweet may taste sour to someone who is sick. Sometimes the problems relate to the circumstances of the perception, sometimes to the perceivers themselves. The positivist philosophers, Epicureans and Stoics, could agree that reports of what is perceived were liable to error, but still maintain that perception had a positive role in knowledge. The Epicurean Lucretius indeed held that all perceptions (as such) are true, while the Stoics adopted a special kind of impression, dubbed 'kataleptic', as the criterion. Meanwhile both schools invoked reason and argument, of course, to support their alternative claims concerning the underlying realities. Yet they were far from agreeing what those underlying realities consisted in, whether atoms and the void, or some adaptation of a qualitative continuum theory. Accordingly, as I noted before, the Pyrrhonian sceptics exploited such disagreements to support their view that any such search for hidden reality was doomed to failure. Those sceptics did not assert that there is no underlying reality at all, for to do so would be to be dogmatic. On their view, then, there was no criterion, whether perception or reason, that justified any such definite statement. Yet that left them with the recommendation that one should live by the appearances, without committing to any theories of underlying causes and realities.

One might suppose that such radical epistemological doubts and disagreements would quite undermine any efforts to engage in the empirical research of physical phenomena. Yet on the contrary, sustained inquiries in such fields as astronomy, harmonics, pneumatics, 'mechanics'[14] and medicine were carried out, culminating in the work of investigators such as Hero of Alexandria in the first century CE and Ptolemy and Galen in the second. The phenomena or perceptible appearances themselves might manifest irregularities, but some argued they could nevertheless be 'saved' by accessing the underlying realities, though this slogan of 'saving the phenomena' was, as we shall see – yet again – not unambiguous.

[14] On Hero of Alexandria, see Tybjerg 2004; and for a recent careful analysis of ancient Greek work in the general field of mechanics, see Berryman 2009.

The most famous example of this is in astronomical theory, where the irregularities of the apparent movements of the planets, moon and sun – the stations and retrogradations of planets, for instance – could be explained as being due to the combinations of perfectly regular circular motions, even if different views were proposed, at different periods, concerning what those circular motions themselves consisted in. Some theories postulated concentric spheres, others epicycles or eccentric circles, or – in the case of Ptolemy – combinations of both. But the upshot always was that the irregularities were merely apparent, the result of the complexity of the combination of the underlying circles. In that way those irregularities ceased to be an embarrassment for the theory and even became positive evidence *for* it. 'Saving the phenomena' could thus also be a way of saving (in this case validating) the hypotheses proposed.

So one mode of 'saving' was to reduce apparent irregularities to underlying regularities. But the actual status of the objects invoked in the models that did the explanatory work remained unclear. The idea that the models were just calculating devices that corresponded to no reality is mentioned in our ancient sources, though in certain key texts this is to express dissatisfaction with any such notion.[15] The opposing realist view, that the circles or epicycles are indeed physical realities, corresponds to the majority opinion in those practising astronomers for whom we have good concrete evidence on the point.[16] Of course the problem of determining their nature remained a major stumbling block. But astronomical theorists continued to work with such models, confident (most of them, at least) that they would eventually successfully account for the irregularities in the appearances.

A second field of investigation in which the task of 'saving the phenomena' figures is music theory.[17] The fact that the main concords of octave, fifth and fourth could be expressed in terms of the simple ratios of 2:1, 3:2 and 4:3 was known already before Plato, but different views were taken,

[15] The chief advocate of the so-called 'instrumentalist' view of ancient Greek astronomy was Duhem (1908), though as I endeavoured to show in Lloyd 1991: ch. 11, his interpretation of his key texts, in Proclus especially, is open to radical objections and cannot be accepted. Thus in the *Outlines* (236.15 ff.) Proclus mentions the idea that the epicycles and eccentrics are mere contrivances – that is, objects of thought – but he does so not to endorse that view (as Duhem supposed) but to reject it.

[16] As for Ptolemy himself, the second book of his treatise *Planetary Hypotheses* leaves us in no doubt that he sought a realist account of the tambourines or segments of spheres on which the planets are carried. Lloyd 1991: ch. 11, 269–71.

[17] The full story of the controversies between different musical theorists in ancient Greece is set out by Barker 1989 and 2000. In the latter book he shows how in his *Harmonics* Ptolemy very largely successfully combined the appeal to mathematical theory with perception. What a trained ear hears is both the explanandum and, when the theory has successfully done its explanation, what serves to confirm the theory.

then and later, on the question of the relation between the perceptible phenomena and the underlying mathematical relations. To those who privileged the latter, concords had to conform to one of two mathematical ratios, namely multiplicate (as in the example of 2:1 or in general *n*:1) or superparticular (as in 3:2 and 4:3, or in general *n*+1:*n*). But this meant that the interval of an octave and a fourth (expressible as the numerical ratio 8:3) cannot *be* a concord, even though to some it *sounded* like one. So once again what was perceived might be in conflict with what theory, whether arithmetical or geometrical, dictated, and at the limit the phenomena could only be 'saved' by denying what the senses reported.

It is obvious, then, that throughout Greek thought the modalities of the contrast between appearance and reality differ, even though some idea of the gap between those two is, as I put it, common ground. That gap opened up a space for the claims of rationalists of one type or another, strong ones who maintained that reason alone is to be trusted and more moderate ones who held that it was one route to knowledge, though it should be combined with sense perception and experience more generally. So my next task is to try to evaluate what elements of this binary have been shared across different cultures and which appear rather to be distinctive preoccupations of the ancient Greeks and of their legacy to later Western thought.

In a variety of contexts ancient Chinese were as alert to the possibility that the appearances are deceptive as the ancient Greeks were. One such is when problems arose in the assessment of humans' behaviour, intentions and motives. There is all the difference in the world between the true ruler and one who is king in name alone, a theme that recurs in many ancient Chinese texts (e.g. Mencius I/A 6 and 7, *Hanfeizi* 12).[18] When judging true filial piety, true courage, true goodwill, true virtue or sagehood more generally, we have to beware, for many apparent examples fail to pass muster. In the *Lüshi chunqiu* there is a chapter (22/3, *yi si*, 'spurious resemblances') that points out that distinguishing the genuine article from something that superficially resembles it is a problem not just with human character but with physical objects. The examples there are of what looks like jade but is not, and what appears to be an excellent sword but again is not.

[18] Mencius in the late fourth century BCE is an important source for views generally associated with Confucius. Han Fei, author of at least parts of the *Hanfeizi* in the third century BCE, is a notable critic both of those views and of those of the main early rival group of Mohists. In the *Shuo nan* chapter (12) Han Fei is also responsible for our first sustained Chinese examination of 'the difficulties of persuasion', where his focus is not so much on the logic of the argumentation used, as on the psychology of the individual whom you are trying to persuade (see Lloyd 1996a: 41).

Then a second context in which the ancient Chinese deploy a contrast between appearance and reality in ways that are strictly analogous to Greek usages relates to disease. A person may indeed appear to be healthy but in reality be sick. We find examples of this in our earliest extant Chinese medical case histories which are contained in the first great general history, the *Shiji*, composed around 90 BCE, when it sets out the biography of the second-century BCE physician Chunyu Yi. Thus case 12 relates to one of the servant girls in the palace of the King of Jibei, who did not look ill, though Chunyu Yi diagnoses an injured spleen. Even so the king himself does not think there is anything amiss, because her complexion has shown no alteration – only to be proved wrong when the girl drops dead (*Shiji* ch. 105: 2805).

It is particularly striking that one move that we find in Greece to get past the 'mere' appearances is paralleled at least up to a point also in China, namely when mathematics is invoked to get a handle on a problem. In the cosmological treatise *Zhoubi suanjing*, which I have mentioned before, the master Chenzi is questioned by his pupil Rong Fang, who says he has heard something about Chenzi's Way, namely that it is 'able to comprehend the height and size of the sun, the area illuminated by its radiance, the amount of its daily motion' and a whole range of other astronomical matters. Chenzi duly confirms that it does: 'Yes, all these things can be attained by mathematics [*suan shu*, the art or method of reckoning]', where as I have noted before (ch. 3 n. 12) one key technique is the use of gnomon shadow differences.[19] But while Chenzi says that it is possible to acquire mathematical knowledge, Rong Fang makes several failed attempts before eventually succeeding with the help of Chenzi, whose role as expert in the matter is thereby highlighted.

This shows very clearly that as in Greece so too in China we can find evidence of the idea that some understanding of the phenomena can be achieved by measuring them and by using geometry or arithmetic to bring them within reach of our understanding. Yet there may be crucial differences in the ways in which that principle is invoked and in general in how ancient authors represented the relationship between what, with important reservations, we may label 'mathematics', on the one hand, and 'physics' on the other. For their part the ancient Chinese categories *suan shu* or *shu shu*

[19] *Zhoubi suanjing* 23–4, cf. Cullen 1996: 175 ff. A second context in which Chinese theorists gave quantitative accounts of perceptible phenomena is harmonics, the analysis of musical sounds. Lloyd 2002: 56 ff. briefly sets out the main texts from *Huainanzi* and the *Shiji* and discusses the various types of approximation and idealisation that had to be entertained to get the numbers to fit the perceived harmonies.

(which we conventionally translate 'mathematics') referred to methods of reckoning or calculation, but that presupposed no ontological contrast with the things to which that calculation was applied. Of course Greek 'mathematics' is far from exactly equivalent to what we mean by that term,[20] just as their 'physics' is the study of nature more generally (Lloyd 2009: ch. 2). But in some Greek views at least there was a clear sense that mathematics deals with intelligible, not perceptible, reality, even if in some other opinions (Aristotle's most notably) the subject matter of mathematics is the mathematical properties of physical objects, not separate mathematical entities existing independently of them. We find no ancient Chinese parallel to the – Platonic – view that the reality that mathematics accesses has an altogether different ontological status from the perceptible phenomena that it explains.

The contrast between some Greek and some Chinese speculations is perhaps most interesting when dealing with overall accounts of change. Once again at a superficial level there appears to be much in common between the frequent Greek focus on the interplay of opposites and a broadly similar Chinese preoccupation. The pre-Aristotelian Pythagoreans set up a Table of Opposites, starting with Limit and the Unlimited, Odd and Even, the One and the Many, and encompassing a number of other pairs of different types, where one recurrent theme which we have discussed before is that one member of each pair carries positive overtones while the other has negative undertones. Right and left are one example, male and female another, while good and evil themselves are also included.

Now as is well known, the Chinese too appealed extensively to opposites as a basis of some account not just of physical processes but of many other things as well. Modern commentators have often drawn up Chinese tables of opposites and in many cases have some good primary evidence to justify doing so. The *Book of Changes* (*Yijing*), parts of which go back to the ninth century BCE, develops ideas connected with sixty-four hexagrams, each constituted by a combination of unbroken, *yang*, lines and broken, *yin*, ones, where the interpretation of the combinations serves as a manual of prediction and a guide to behaviour.[21] The general contrast between *yang* and *yin* is used in many other contexts, as we have seen in chapter 3

[20] The Greek term *mathēmatikē* from which our own 'mathematics' is derived is cognate with *mathēma* and *manthanein*, general terms for 'study' and 'to learn'. In practice when the word *mathēmatikos* is used in our texts it often refers to people engaged in 'astronomy' or 'astrology' or both.

[21] In the original version, the diviner started with bundles of sticks of yarrow or milfoil which, when they were sorted and some discarded, produced an array of six broken or unbroken lines, a hexagram. Each hexagram was accompanied with a name, a judgement, an image and commentaries on each of its constituent lines, where an added complication was that some of the lines are unstable and switch

considering Chinese cosmogonies that start from their differentiation. As a structuring principle, then, oppositions of many different types are used as commonly in China as in ancient Greece, and again as in Greece there are often hierarchical assumptions, concerning the superiority of one member of each pair to the other, in play.

However, at one point the typical Chinese view stands in marked contrast to that of the Pythagoreans. For the Chinese *yang* and *yin* are interdependent. You do not find *yang* devoid of *yin*, nor vice versa. When *yang* is at its height, *yin* is already beginning to re-emerge, and conversely when *yin* is at its maximum, the first signs of re-emerging *yang* appear.[22]

Standing back now and reviewing what our brief and selective cross-cultural historical study can reveal, it is clear, of course, that while distinctions and contrasts are built into any language, their modes and the assumptions made about the relationships in question manifest enormous diversity. We can here usefully bring to bear some logical distinctions that in many cases go back to Aristotle, though they do not get similar attention in the more limited extant ancient Chinese texts that deal with analogous topics. Aristotle first defined contradictories as pairs of propositions such that one must be true and the other false (*Categories* 13b2 ff., 33 ff.). Then there are contrary terms, and these come in two types: those that do, and those that do not, permit intermediates. Hot and cold and wet and dry are examples of the first group, odd and even of the second.[23] In other oppositions the contrast may be looser and may imply no difference in value nor in ontological status.

That takes us back to a fundamental point. One Greek legacy is an insistence on that radical ontological break paradigmatically exemplified by reality and appearance. That, as we have seen, can be the driving force in a search for underlying regularities, where the irregularities in the appearances can be dismissed as merely apparent, discarded as just so much noise.

into their opposite. That means that the original hexagram yields multiple possible situations, each a rich source of potential associations. The interpreters then had to apply their readings to give a verdict, e.g. of the possible success or failure of a particular enterprise, or otherwise to derive guidance as to what should be done. Shaughnessy 1997 is a reliable guide on how the *Changes* were used.

[22] See, for example, Lloyd and Sivin 2002: 198–9.

[23] Aristotle, *Categories* 12a6–8, for odd and even. For most Greeks, *arithmos*, which we conventionally translate 'number', picks out integers greater than one. Euclid (VII def. 2) defined the term as a 'multitude composed of units', and on that view one itself is not an *arithmos*. There are further complications with sub-categories of numbers termed 'even-times even', 'odd-times odd', 'odd-times even' and 'even-times odd' (e.g. Plato *Parmenides* 143e–144a), on which see Heath 1921: I, 70–3.

On the other hand, another Greek line of argument that also has its analogues in a recurrent, even dominant, Chinese set of assumptions is that we should allow interacting opposed processes equal ontological status. Both at the level of what is brought into opposition, and at that of how it can be understood, there is a potential contrast. On the one hand, we have seen Chinese notions of the interdependence of opposites in play where some Greek views would posit, as an ideal at least, the independence of one member of each pair. On the other, at the level of our understanding, the former view allows reality to be homogeneous, while the latter insists on the heterogeneity that separates reality and appearance.

Binary distinctions, the lesson is, may appear to be a homogeneous group but that is one of those appearances we should recognise to be deceptive. At one end of the spectrum there may be the idea that communication between the disjuncts is possible, at the other it is ruled out. At one end, communication, interaction, interdependence are allowed, at the other the theme is radical ontological difference and separation.

So although our study of just these two ancient societies shows that there are plenty of cross-cultural commonalities to be found, one should not miss the divergences. These are especially important where the issues are those of the ethical or evaluative implications of the underlying assumptions, and where that has consequences for claims to authority and expertise. Let me conclude with some remarks on those two points.

We have noted that in both ancient China and Greece (to go no further afield) one member of a pair of opposites is frequently given a positive value, while the other is downgraded. Male and female are one example in both those ancient societies. It is not that the Greeks were unaware of the need for both in reproduction, but true to the common assumption that ideally the superior member of the pair should and can be independent of the other, we find Aristotle, for example, claiming that in the animal kingdom it is better that male should be differentiated from female (*On the Generation of Animals*, Book 2, ch. 1, 732a1–11). In his view this separation allows the – superior – male to fulfil his – superior – potentialities. The Chinese notions of the interactions of *yang* and *yin* do not just allow for the interdependence of male and female, but also for an admixture of the feminine in the masculine and vice versa. Moreover, there are some famous Chinese texts that positively celebrate the feminine. In the *Daodejing* attributed to the legendary Laozi but probably compiled in the third century BCE, the recommendation is to 'know the male', but 'preserve the female' (28). 'In calm, the female overcomes the male' (61), for 'the soft and weak overcomes the stiff and strong' (36).

Yet although there are differences in the Greek and Chinese accounts of the relationship between the sexes, in reality in both these ancient societies women were, for sure, generally treated as inferior to men. So in that respect locating this contrast where it is put in tables of opposites or in views of *yin* and *yang* clearly reflects deep-seated assumptions about the social position of males and females. On that score when male is associated with the positive, female with the negative, items in those oppositions, that does not just reflect, but also supposedly confirms, those ideas about their place in society. In this and other instances what might purport to be a merely analytic distinction turns out to be heavily charged with ideological preconceptions. To set up a binary opposition and especially to emphasise the ontological contrast or the contrast in values is miles away from being a merely innocent piece of analysis even though it may present itself as such, as a straightforward description of what everyone should accept to be the case.

Another example would be the contrast between rulers and the ruled, where again the Greek ideal is that the masters should be quite independent of the slaves on whom they nevertheless – as everyone knew – depended. The master/slave opposition does not play such a key role in this domain in China, though as we have seen the contrast between ruler and minister certainly does. The more this is woven into the fabric of the story of the inherent oppositions at work in the world, the more this could be taken to corroborate the power situation with which the ancient Chinese were familiar, and the more difficult it becomes to mount any challenge to that aspect of the status quo.

So we find plenty of confirmation of what we may intuitively suspect, namely that political, ethical and social values and presumptions are in play in the focus on the importance of binary oppositions. Finally the dualist account of what is there to be known plays into the hands of, and is manipulated by, those who would lay claim to be the knowers. Those Greeks who postulated a radical ontological gap between being and seeming make more of this than the Chinese for whom there is no such fundamental gulf between their ontological statuses. The significance of the Greek position is most easily seen by observing how, in Plato, but already also in Parmenides, knowledge is correlated with what is, while mere opinion has as its subject matter what comes to be. When Being is set in fundamental opposition to Becoming or to Seeming, that underpins the contrast suggested between different levels of cognition. Of course that serves as a weapon in the hands of those who insisted on their own expertise as authorities in many different fields. The tendency to read binaries by way of association with other

binaries – a tendency that I have argued is dangerously obfuscatory – is an important part of the techniques used by would-be experts to shore up their claims to that position.

No understanding is possible without making use of the distinctions which are everywhere present in every natural language. There can be no question of pronouncing all binaries to be misleading. The nub of the issue is how they are used, particularly to convey values, to enforce social distinctions and to claim superior knowledge – and that includes how modern writers continue to redeploy them (think of the continued reliance on some contrast between nature and culture). The binaries we have considered in this chapter may be particularly treacherous since they can be invoked to disenfranchise those associated with the inferior members of such pairs. But they were certainly not used in exactly the same way in ancient Greek and Chinese writers.

The Chinese certainly often speak of the difficulties of attaining correct knowledge – of the world and of how humans should behave. But they were less prone than some Greeks to try to insist that the most that could be attained in certain contexts was mere opinion. As I have argued on other occasions (Lloyd 1996a: chs. 3 and 4), they did not develop epistemological positions aiming to guarantee incontrovertible truth by way of valid argument from self-evident premises. The ideal of attaining the *Dao* was not a matter of having reasoned one's way to an understanding of it, but rather of embodying and practising it. Criticising others for false understanding, misleading advice, leading people astray, pretending to knowledge that they do not have, is common enough throughout early Chinese literature. But that was not done by way of constructing a notion of what truly is, and what indubitable knowledge consists in, which (if you accepted that notion at least) had the effect of radically downgrading most of what most people ordinarily believed, let alone of dismissing common opinions in their entirety. It is certainly the case that the Chinese sharply contrasted how people should behave with how many folk actually do, but this was less an epistemological distinction than a moral one, the contrast being one between the behaviour of the 'gentleman', *junzi*, and that of the 'petty person' (*xiao ren*) who on one ground or another fails to live up to the standard the gentleman sets.[24]

[24] This is a major recurrent theme in Chinese discussions of how one should behave from the *Lunyu* (*Analects*) onwards. This is a treatise that was regularly ascribed to Confucius himself, though it is now generally agreed to be a composite work, put together over an extended period by those who considered themselves his followers.

In relation to one of the contrasts we have detected, it seems possible to correlate the particular penchant that certain Greek thinkers had for the Being/Seeming dichotomy with the feature we have noticed so often before in their exchanges, namely the mode of public competitiveness that governed much of their intellectual life. Greek sages did not just let their wisdom speak for itself. They strove for pre-eminence as Masters of Truth by victory in argument. It is this rivalry that stimulates frequent appeals to second-order, epistemological, justifications which in turn often depend on and reflect ontological claims. You won the victory because your arguments were based on secure criteria for knowledge, ones that were often claimed to give access to a hidden, privileged reality beyond the grasp of ordinary people – or of your rivals. They were confined to the realm of seeming, even of mere illusion, while you could be confident in the correctness, the validity, and so the rationality, of your procedures. Or so some sought to insist.

That said, we have seen that such a feature was certainly not totally absent from ancient Chinese thought. Nor can we say that it was driven, in the Graeco-Roman world, by some characteristic of the Greek and Latin languages they spoke. We have seen evidence enough in this chapter that Chinese too could be alert in certain contexts to the contrast between what seems and what really is. The second point, the influence of language on thought, forms part of the agenda for my next chapter.