

VIII

Hellenistic Philosophy: Stoicism

1. THE FOUNDERS: ZENO, CLEANTHES AND CHRYSIPPUS

On a commercial voyage from Phoenicia to sell purple dye Zeno was shipwrecked near the Piraeus. He went into Athens (he was thirty years old at the time) and sat down by a certain bookseller. The bookseller was reading the second book of Xenophon's *Memorabilia* aloud. He enjoyed it and asked where men like Socrates spent their time. Fortuitously, Crates came by and the bookseller pointed to him and said, "follow this man." From then on he studied with Crates, being in other respects fit for and intent on philosophy, but too modest for Cynic freedom from shame...

Diogenes Laertius VII 2–3.

The Stoic philosophy¹ was founded by **Zeno of Citium (ca. 334–262)**. Citium, a Greek colony in Cyprus, had, by the time of Zeno, become predominantly Phoenician in language, and perhaps even in population. Although some taunted Zeno for being a Phoenician,² his family seems to have been of Greek culture, and his father, who bore a Greek name, at least, reportedly brought home many "Socratic books" from his trips to Athens.³ Zeno came to Athens in 312, at the age of 22, some ten years after Aristotle's death.⁴ The apocryphal story of his shipwreck is a little too pat, and it seems more likely that Zeno came to the city as a merchant, and, already acquainted with philosophy, sought out instruction, and eventually gave over his

¹Good general works on the Stoics include Sandbach (1975), Rist (1969) and (1978), and A.A.Long (1971). For a thorough collection of texts in translation with commentary and a good bibliography, Long and Sedley (1987), and also Inwood and Gerson (1988). For most of what we shall lay out here, we depend, not on the original works of the Stoics themselves, but on reports of their works in Neoplatonic commentaries, late Skeptical writers such as Sextus Empiricus, Roman Stoics such as Seneca, and Cicero. For the most part, I shall refer in the notes to the collection of texts in Long and Sedley (1987) for translations of the sources.

²Polemon, head of the Academy, teased him that he was stealing his doctrines "like a Phoenician" when Zeno came to hear his lectures one day while still a student of Diodorus and Stilpo (Diogenes Laertius 7.25). The Phoenicians were merchants and seamen, of course, who contested commercial dominance of the Mediterranean with the Greeks, and so the Greeks often represented them as grasping businessmen with only the vaguest of ethical principles.

³This is recorded by Demetrius of Magnesia, according to Diogenes Laertius 7.31. It should probably be credited as the more humdrum story, and so less likely to have been invented. For Zeno's life, I use especially Sandbach (1975) 20 ff. The chief ancient source is Diogenes Laertius 7.

⁴This, and the age of his death given below, are reported as the view of his pupil Persaeus (see Diogenes Laertius 7.36) in his *Ethical Studies*, according to Diogenes Laertius 7.28.

I.VIII. Hellenistic Philosophy: Stoicism.

2

merchant's vocation for philosophy. Zeno made a hero of Socrates and admired Crates, the philosopher he thought most resembled his hero.⁵ Later, no doubt in search of a more intellectually satisfying foundation for his views than Crates would have provided, he studied with Stilpo and Diodorus Cronus of the Megarian school, from whom he may even have learned the propositional logic that would later, in the hands of the Stoics, venture to supplant the class logic of Aristotle in the Ancient world. From Diodorus, no doubt, he learned to deny the existence of universals. Later he also worked under Polemo in the Academy, from whom he perhaps learned that virtue lies in agreement with nature, and that the pursuit of external goods such as health and security had some value, at least as a part of the natural life for a human being. Around 300 he founded his own school, lecturing at the Painted Portico, the *Stoa Poikile*, adorned with murals by Polygnotus and other great 5th century artists, at the northwest corner of the agora. His school eventually took the name of this favorite spot, and came to be called the Stoa. The Stoic school seems to have absorbed and supplanted the Megarian school, just as the Epicureans eclipsed the Cyrenaics. Zeno was a highly principled, severe and ascetic man after the Cynic pattern. He declined an offer of Athenian citizenship to remain a Citian, and turned down an invitation from Antigonus Gonatus to visit his court, sending two of his pupils instead. He is said to have taken his own life at seventy-two, no doubt in response to a debilitating illness.

Only fragments of Zeno's writings survive, and in the doxographies it is difficult to separate his views from those of his successors Cleanthes and Chrysippus. He reacted strongly against the hedonism of Epicurus, who had been in Athens since 306. Certainly Crates would have told him that virtue, which lies in wisdom, is to be preferred to pleasure, and would have emphasized control over the passions as a good. While with Crates Zeno supposedly wrote a *Republic* in reply to Plato, envisaging a world-state in which all were citizens of the cosmos, rather than settling for a state that is second best, embracing only a few people, and at war with other states. Patterned on universal nature, and composed entirely or almost entirely of wise persons who were, of course, friends, his ideal state had no class divisions, no idleness or hatred, no coinage (since friends have all things in common), no laws or courts (since just people have no need of them), and no gymnasia or temples (since the wise need no human workmanship to represent national unity or the duties due to God),

⁵Others said that he came to Athens as a merchant, but suffered no shipwreck—see Diogenes Laertius 7.5. Perhaps the shipwreck would explain why he gave up his career as a merchant, having been wiped out by his loss, but it seems reasonable to suppose that he came to Athens in a merchant vessel intending to take up the study of philosophy from the beginning. Bevan (1913) 17, suggests with plausibility that his status as a resident foreigner living in an alien culture might have inclined Zeno to Cynic notions of the equality of men, and the harmful artificiality of particular customs. Philosophers are often observant outsiders. Zeno lived a very plain life, not requiring the services of slaves.

while its citizens enjoyed a community of wives (since the community together cared for the children and saw to the security of its members).⁶ In sum, his ideal state does not draw on the standard Greek model of competitive groups living together under laws moderating and controlling the terms of their competition. Zeno thought the wise would never be in competition at all. Clearly Zeno, unlike Plato, was not even minimally concerned that his state actually be realizable in the world, but only that it be in fact an ideal. By implication, the current arrangements in states in which people are neither wise nor just may be justified as stopgaps to limit the harmful effects of competition and hatred, and to provide at least a forced approximation to the ideal society. This is all pretty much to be expected from a Cynic, and resembles the first state, without luxury, proposed by Socrates in Plato's *Republic*. We have seen that the first state represented the ideal given the Intellectualist views of Socrates that Plato rejected, and Zeno's *Republic* would seem to be a declaration of loyalty to that Intellectualist ideal. The passions should serve no role at all in the life of wisdom.

Zeno also wrote, according to the reports, *On the Universe*, *On Substance*, *On Vision*, *On Life in Accord with Nature*, *On Impulse*, *On Human Nature*, *On the Passions*, *on Appropriate Actions*, *On Law*, *On Greek Education*, five books on *Homeric Problems* and a work on Hesiod's *Theogony*.

One of Zeno's more noted pupils, **Aristo of Chios** (active about 270–250), simplified Stoic doctrine to the point where it seemed but a variety of Cynicism. He rejected logic as useless, physics as unknowable, and in ethics he claimed that what was right was always obvious, so that no instruction was needed. The sum of his doctrine was that virtue was the only thing of value. In connection with this, he held that morally indifferent things could not be ranked in value, as Zeno held, for no one of them has preference no matter what the situation. In particular, health (so often presented by Plato as something absolutely good in itself) might not have preference over sickness if one's illness made it possible to avoid military service under a tyrant and probable death, and so health is not to be preferred to sickness. This suggests, not that morally indifferent things had no value, but only that there were no rules by which one could rank different sorts of indifferent things in value. In his example, at least, probable death seems to be taken as intrinsically bad, but perhaps it is only bad if it hinders the moral life, so that it is preferable to continuation of a life sunk in injustice. So he may have thought that indifferent things had no value at all in themselves. Cicero rejected Aristo's view,⁷ and argued that one has no way to order one's life if morally indifferent things cannot be ranked in value.

⁶See Diogenes Laertius 7.32 for Zeno's *Republic*.

⁷Probably following Antiochus.

I.VIII. Hellenistic Philosophy: Stoicism.

4

Apparently he thought moral considerations alone were not enough, most of the time, at least, to enable us to settle on what we should do, though, of course, they would rule out some options. Aristo might have responded that a wise man will do whatever seems good to him, *all things taken into account*,⁸ implying that his choice does not have some objective validity so that other wise men would necessarily do the same thing, as long as it is not rooted in moral considerations. One is free, once the requirements of morality and rationality are met, to do what one is inclined to do. After Zeno's death Aristo's views came to be seen as more or less heretical, but probably were not viewed in that way while Zeno was alive. He set up his own school at the Cynosarges gymnasium outside the walls. The school did not last long, but Aristo had some notable pupils, most especially the scientist, Eratosthenes, and was perhaps considered Zeno's equal during his lifetime. He had an attractive style, and some of his works survived long enough to be read by Marcus Aurelius four hundred years later.⁹

Other pupils of Zeno included **Herillus of Carthage**, said to have been a powerful writer, and to have disagreed with Zeno on the ultimate end, making it knowledge instead of virtue, as well as **Dionysius of Heraclea** (on the Black Sea), a poet who eventually abandoned Stoicism when severe ophthalmia convinced him that pain was indeed an evil, and adopted hedonism in its place. **Persaeus of Citium** (active about 280–243), became civil governor of Corinth under Antigonos. **Philonides of Thebes** accompanied Persaeus to the court of Antigonos. **Sphaerus of the Bosphorus** (active about 240–210) went to Sparta, where he was associated with the reforms of Cleomenes, and later traveled to the court of Ptolemy IV Philopater in Egypt. Other pupils were **Callipus of Corinth**, **Posidonius of Alexandria**, **Zeno of Sidon**, and **Athenodorus of Soli**.

Cleanthes of Assos (331/30–232) inherited the leadership of the school and adhered closely to Zeno's views. He was a poor man from Assos, about thirty miles south of Troy, who had come to Athens to study, first under Crates and then Zeno. At one time a boxer, he worked as a laborer while a student. He had great humility, industry and patience, but no great skill in teaching, and little originality of thought. He wrote much, but only fragments survive. The school seems to have faltered under his leadership. Perhaps the most famous of his literary remains is the *Hymn to Zeus*, a pantheistic work which wonders at and submits to the world order and fate. His religious inclination, the story goes, led him to accuse of Aristarchus of Samos of

⁸Cicero, *On Ends* 4.69, 4.43.

⁹*Letters of Fronto* 4.13. For this material, see Sandbach (1989) 38–39.

impiety for his view that the Earth goes around the Sun.

Chrysippus of Soloi (in Cilicia) (ca. 280–ca. 206), succeeded Cleanthes as head of the Stoa about 232. He was called the Stoa's second founder, because of his systematization of doctrine, and his restoration of the school's prestige. His views define classical Stoicism. Chrysippus studied under Arcesilaus and Lacydes in the Academy, and became an Athenian citizen. Living deliberately in modest poverty, he worked continually, turning out hundreds of books noted even outside his school for their dialectical skill. Their literary quality is another matter. Indeed, Galen, and the surviving samples of Chrysippean prose, suggest that Greek was not his native tongue, so clumsy is his writing, though he usually made his thought quite clear. Chrysippus's work is marked by intellectual honesty, making an earnest attempt to deal with difficulties, sometimes even confessing that he knew not what to say. Many standing disputes within the Stoic school are rooted in Cleanthes's and Chrysippus's variant understandings of Zeno's doctrines, for the founder's writings had become its defining works.

2. THE PHILOSOPHICAL CURRICULUM

They compare philosophy to an animal, likening logic to the bones and sinews, ethics to the fleshier parts, and physics to the soul. Or again, they compare it to an egg. For the outer parts are logic, the next part is ethics, and the inmost part is physics. Or to a productive field, of which logic is the wall surrounding it, ethics the fruit and physics the land and the trees. Or to a city which is beautifully fortified and administered according to reason. And, as some Stoics say, no part is separate from another, but the parts are mixed. And they taught them mixed together. Others put logic first, physics second and ethics third. Zeno (in his *On Rational Discourse*) and Chrysippus and Archedemus and Eudromos are of this group.

Diogenes Laertius VII 40.

The Stoics held that philosophy is a single whole, taking sides with Plato against Aristotle's view that the different sciences could each be understood on its own without consulting the rest.¹⁰ They thought, with Plato, that we can only understand the world if we see the ends for which it is constructed, so that the study of nature (physics) draws us into ethics, and that we can only understand these ends by seeing that the end of

¹⁰For this section see Diogenes Laertius 7.39–41 (Long and Sedley (1987) Section 26B), and the other texts in Long and Sedley (1987) Section 26.

the universe involves the mind and understanding, so that we can only grasp the world if we know first what knowledge is and how it is to be acquired.¹¹ This also means, of course, that all philosophy tends to one end, the understanding how we ought to conduct our lives and why, an understanding to be put into practice, and an end that can only be achieved through a knowledge of the nature of things, and of the nature of reason and knowledge.

In their similes, logic and epistemology is likened to the wall around the field, the skin of the animal, the shell of the egg—logic is something hard we must penetrate to get at the more interesting parts, but it also provides an outer defense, and perhaps holds it all together.¹² We aim at ethics, the ultimate fruit of the enterprise, to know the best way of life. Physics deals with the underlying nature that makes the good way of life what it is, and so it represents the reality lying behind ethics, the soul of the matter. At its highest, it concerns God and human nature.

Such a view of philosophy led some later Stoics to discuss all three fields together, but this apparently did not impress the early Stoics as a wise pedagogic strategy. Instead, they taught logic first, so that the student might have the tools of judgment at hand, then the nature of things, and then, on this basis, ethics last of all.¹³ One must first build a wall to protect the field, then plant and cultivate the land, and reap the fruit of one's labors only afterwards.

3. ONTOLOGY

Posidonius says that there are four kinds of destruction and generation from the existent to the existent. For they recognized that there was no such thing as generation from or destruction into the non-existent . . . But of change

¹¹Thus we can understand the remark of Ammonius, *On Aristotle's Prior Analytics* 8 (Long and Sedley (1987) Section 26E), that logic, according to the Stoics, should not be considered a tool of philosophy (an *organon*, as in Aristotle) but rather a primary part of it. Philosophy itself gives birth to logic. Seneca, *Letters* 88.25–8 (Long and Sedley (1987) Section 26F), following Posidonius, insists that the particular sciences and crafts are *not* parts of philosophy, even if they are sometimes of use to it. "Philosophy demands nothing from another. It erects its own structure just by itself." That logic and epistemology are part of philosophy is central to this claim.

¹²Posidonius preferred to compare philosophy to an animal, physics, taught first, being the blood and flesh, logic the bones and sinews, and ethics the soul. Here logic perhaps connects physics and ethics by a web of argument, as an active force present in all the work of philosophy. He liked the image better because it makes the parts of philosophy inseparable from one another. Sextus Empiricus, *Against the Professors* 7.19.

¹³Chrysippus, as cited in Plutarch, *On Stoic Self-Contradictions* 1035A, Long and Sedley (1987) Section 26C, taught the science of nature last, theology being the last part of the science of nature. Perhaps this can be reconciled with Diogenes Laertius VII 40 if we take it that he taught a more elementary portion of the science of nature to introduce ethics, and then taught the last part only after ethics was completed.

into the existent he says that one kind is by division, one by alteration, one by fusion, and one an out-and-out change which they call “by resolution.” Of these, that by alteration belongs to substance, while the other three belong to the so-called “qualified individuals” which come to occupy the substance. . . . The substance neither grows nor diminishes through addition or subtraction, but simply alters, just as in the case of numbers and measures. And it follows that it is in the case of peculiarly qualified individuals, such as Dion and Theon, that processes of growth and diminution arise In the case of peculiarly qualified individuals they say that there are two receptive parts, the one pertaining to the presence of the substance, the other to that of the qualified individual. . . . The peculiarly qualified individual is not the same as its constituent substance. . . . the substance both is a part of and occupies the same place as it

Stobaeus 1.177,21 – 179,17.¹⁴

Like the Epicureans, the Stoics held that only body exists, on the ground that what exists must be capable of acting and being acted upon, and only body fills this bill.¹⁵ The premise goes back, no doubt, to Plato,¹⁶ though Plato intended to open up the lists to souls and other invisible and intangible things with causal power, and the Stoic intent is to close the lists, leaving body as the only contender. This may not be unreasonable, for the Platonic account of ‘interaction’ between the Forms and the mind, or the Forms and the things participating in them, seems to rely on some relation other than cause and effect. In the end, this relation, it seems, must depend on identity, and Neoplatonism would make knowledge of the forms a purely internal affair, the soul consulting itself to find Nous and the One, something it can do without causation entering into the transaction, since it is identical to itself (and to the Nous and the One) and so automatically aware of itself. Aristotle had pointed out that the Forms cannot cause things to be what they are, unless we count them as causes inasmuch as they are the substantial forms of things—again, they are identical to the things of which they are Forms. The Stoics did not deny that such non-causal relations are sufficient to establish reference to real things, but they held that such things cannot be said to exist, but only to ‘subsist.’¹⁷ Among

¹⁴Translation from Long and Sedley (1987) Section 28D.

¹⁵Long and Sedley (1987) Section 45. Note especially the testimony of Nemesius, who presents the arguments of Cleanthes and Chrysippus that soul is a body because it interacts with the body, and because death is a separation of the soul from the body, but what was never in contact with body cannot be separated from it, and only body can be in contact with body.

¹⁶*Sophist* 247d–e.

¹⁷The word is given in Galen, *On Medical Method* 10.155,1–8, Long and Sedley (1987) Section 27G.

subsisting things, as we shall see, are space and time, the void, and, corresponding in some ways to the Forms, *lekta* or ‘things said.’¹⁸ That only body could act or suffer action derives from the assumption that action only arises from contact, and so presupposes spatial extension. Body is defined as what has spatial extension, and occupies space in such a way as to prevent other bodies of the same sort from occupying the same space,¹⁹ though the Stoics identified two forms of contact, one between bodies of the same sort, which make contact at their spatial limits, and the other between bodies of different sorts capable of mixing together, which make contact by occupying the same place. This second sort of contact serves somewhat the same functions as identity does in Aristotle and Plato, and body and soul, for instance, come into contact in this second way.

A second argument might be proposed for the Stoic view, here. It may seem that some change in the relation between two things must take place to initiate action and bring about change, else action would be continuous (as Aristotle seems to imagine the action of God of the *Primum Mobile* is). Such a change of relation is conceivable to the Greeks, it seems, only if we imagine things spatially related, so that they move about, and come into and lose contact with one another. In particular, no change in what the mind perceives independent of material changes in the physically based images of the imagination was envisioned in Greek philosophy until the Neoplatonists. Aristotle too, in his later work, suggests that all action is physical, and requires contact,²⁰ even speaking of a kind of contact between God and the heavens,²¹ and argues in *On the Soul* III that one can turn one’s attention to a fact or even a non-sensible substantial form only through the medium of changing images.²²

Chrysippus seems to have been responsible for the Stoic classification of bodies into four sorts:²³ (1) substrate, (2) qualified individual, (3) qualified individual in a state, and (4) qualified individual in a relative

¹⁸Sextus Empiricus, *Against the Professors* 10.218, Long and Sedley (1987) Section 27D.

¹⁹Galen, *On incorporeal qualities* 19.483.13-16, Long and Sedley (1987) Section 45 F.

²⁰Aristotle, *On Coming-to-be and Passing-away* I 6, 322b22–28.

²¹Aristotle, *On Coming-to-be and Passing-away* I 6, 323a25-32. “If anything imparts motion without itself being moved, it may touch the moved and yet itself be touched by nothing—for we sometimes say that the man who grieves us touches us, but not that we touch him.”

²²Aristotle, *On the Soul* III 7, 431a16—“The soul never thinks without an image.”

²³Simplicius compares this classification to Aristotle’s categories in *On Aristotle’s Categories* 66, though the comparison is less than apt, given that the Stoics thought that there were things that do not exist and are nonetheless available as a subject of discourse, and which, indeed, we must allow a kind of reality if we are to make any sense of the world. For sources, see Long and Sedley (1987) Section 27–29.

state. A given existing individual will fall under a number of each of these categories at once. In describing a qualified individual, say, “the prudent individual” or “that pale, warm stuff,” one may mean only to pick out the individual under a certain description, say, Socrates in both cases, or one may intend to pick out the specific material parts of the individual responsible for the description by which it is picked out, in which case “the prudent individual” contains a reference to the particular acquired *tonos* of reason (a physical body occupying the same place as the body of Socrates), this *tonos* being prudence, as well as the rational person in whom that *tonos* lives, while “the pale, warm stuff” refers only to the underlying stuff making up Socrates and those modifications of that stuff (or whatever is mixed with it) responsible for its warmth and whiteness, ignoring Socrates’s rationality, humanity and the like. So one may say that the pale warm stuff is rational, speaking in the first way, or deny that it is, considered as such, speaking in the second.

A substrate is first of all, matter, which is taken to be extended in space so that it can be split up into individual quantities corresponding to the volumes the quantities occupy. The only characteristics strictly and directly attributable to it are those involving location, and the only change proper to it is splitting up or joining together. Matter in itself has no causal characteristics, and it exists inasmuch as it takes on such characteristics joined to a quality or state, so there is no matter which is simply matter—every quantity of existing matter is qualified in various ways. To refer to a qualified individual as a substrate is to view it inasmuch as it underlies a quality or state. This can happen in two ways, since qualities belong to matter (not in itself a qualified thing) as their substrate directly, but states belong to a qualified thing as such as their substrate. One can sort out the two cases by considering different sorts of change. Change from one sort of stuff to another, for instance, fire to air, is treated by Aristotle as a kind of substantial change, since no persisting kind of material underlies it—rather, first there is one sort, then there is another sort in the same place. For the Stoics, such change involves a quality being removed from matter, and the matter taking on new qualities, for we cannot identify any *qualified thing* that persists through such a change, but only the body considered as such, the extended, space-occupying stuff that is the substrate for the change. If a dog dies or is conceived, another sort of substantial change for Aristotle, the collection of different kinds of matter making up the dog persists through the change, but the dog (the qualified thing) does not. It is rather replaced by something else, the dead body of a dog. The Stoics will say that some material body has left it, the *dog-pneuma*. If, in yet another way, the thing that persists is a qualified thing, as when the dog grows fat, or begins to run, then what is added or

removed in the change is a state, and the substrate is the qualified individual, the dog.²⁴ For the Stoics all existing things are particulars. They explain talk about universals in terms of conditionals, so that, for instance, to say that “humanity” is rational, or that “redness” is a color is only to say that if some particular thing is a human being, or a red thing, then it is rational, or colored.²⁵

Some qualities correspond to Aristotelian substantial predicates, so that man, or donkey is a quality, but a quality need not be essential to the existence of the individual substrate to which it belongs, and some, such as whiteness, would be viewed by an Aristotelian as accidents. A state was thought of as belonging to an already qualified individual, and taken most narrowly is a dispositional state of some *tonos* possessed by the individual, so a disposition of the intellect, or of vision. What could not be viewed in this way was considered a quality alone—most strictly, quality names a *tonos* found in the matter, for instance, whiteness, or humanity. In a change, it is a new *tonos*, not a new disposition of an already existing one. But taken in another way, there are many non-dispositional characteristics of qualified things. For instance, a man may be bearded, or a dog may be running, or someone may have her guard up. Such things were held to be qualified individuals in a loose sense, but it was claimed that no quality was possessed by them in virtue of which they were qualified in the way they were, for they would be qualified in virtue of some ongoing process, say, or in virtue of some temporary arrangement of their parts, not in virtue of possessing some *pneuma* or modification of a *pneuma* found throughout the unified thing.²⁶ Again, some things are said to be qualified when they are not individuals, but collections of such, as, for instance, a ship, which may be rigged for sailing (an artificial object does not have a unity due to possession of some *pneuma* that would make it a substrate—Aristotle would have said it was an artificial unity, not a natural one), or again, a chorus may be well trained, or an army determined to win.²⁷ Once more, there is no *pneuma* pervading the whole thing which is responsible for the qualification, but some other account must be given.

A relative state, though it depends on absolute states and qualities of the thing to which it belongs, depends also on the state of something else, and that in such a way that a change outside itself in the other will change the relative state. So a person may be to the left of another person, and this state can change without

²⁴Stobaeus 1.177,21 – 179,17, Long and Sedley (1987) Section 28D.

²⁵Sextus Empiricus, *Against the Professors* 11.8–11, Long and Sedley (1987) Section 30I.

²⁶Simplicius, *On Aristotle's Categories* 212, 12 – 213,1, Long and Sedley (1987) Section 28N.

²⁷Simplicius, *On Aristotle's Categories* 214, 24–37, Long and Sedley (1987) Section 28M.

the person doing anything or changing in any way intrinsically, if the other person moves.²⁸ This might seem pretty humdrum, but the Stoics do have it in mind to reject the doctrine that the relations of a thing to another thing are somehow contained within it intrinsically, so that each thing in its inner nature reflects the whole of which it is a part. This view was held explicitly later in Neoplatonism.

Qualities and states occupy the same space as their substrates, though two different substrates cannot occupy the same space at one time. Thus, the Stoics thought several bodies could occupy the same space at the same time, as long as one could be substrate of the other, or both might belong to the same substrate. This helps explain a puzzle about qualities, for the breath which is a quality was thought to be moving continuously outward toward the surface and back into the center, with both motions at the same time. This is possible if two parts of the quality that are moving in opposite directions could occupy the same space at the same time. It seems there was a concern that body should affect body by contact, and so if a body holds together and is affected as a whole, this must be due to a rapid circulation of the quality which conveyed the effect at one point on it through the rest of the body.²⁹

It was a Stoic doctrine, then, probably introduced by Cleanthes, that different sorts of material could be in the same place, and so blended in such a way that some of each was found in every place where the other was, the volume of the resultant stuff being the same as the volume of one of the masses.³⁰ Such blendings of different qualities occur when water and wine are mixed, for instance, though here the volumes and weights are added to one another in the mixture, and a quality is blended directly with a substrate when iron is heated and becomes red hot, the fire adding no weight or volume to the iron at all. Chrysippus identifies three sorts of mixture, mechanical mixtures such as that of salt and sugar, mixture by fusion, wherein a new kind of stuff results, and a third sort in which no fusion occurs, but no part is so small that it does not contain both elements

²⁸Simplicius, *On Aristotle's Categories* 166,15–29, Long and Sedley (1987) Section 29C.

²⁹Not all scholars agree on this reading of the matter, some arguing that the notion that two bodies might occupy the same space was deduced from what the Stoics said by their critics. Rather, there is only one body in a place, but it has a number of different aspects. So, for instance, Sorabji.

³⁰Long and Sedley (1987) Section 48. This seemed to other thinkers to imply that several bodies could be in one place, and the Stoics did not deny it. The mixture is, however, one in which the things mixed together retain their separate identities, and may be separated again, as, it was suggested, water can be extracted from a mixture of wine and water by a sponge treated with oil. (Water and wine was the most commonly encountered mixture in the ancient Mediterranean, no doubt, since everyone drank their wine watered.)

of the mixture, for instance *krasis* in liquids, *mixis* in non liquids (metallic alloys, for instance).³¹ *Pneuma* or soul is mixed with things in this third way. God would be such a breath pervading the universe. It would have been natural to read Plato on these lines, and conclude that the form placed in the receptacle was one sort of stuff blended with another, or to take Aristotle's substantial form as something blended with matter.

The matter that makes up Socrates occupies the same place as the man Socrates. This is why it is the matter of Socrates, and it can be said to be Socrates, considered together with its qualities and states. Moreover, Socrates occupies the same place as the balding, ugly man, and that is why Socrates is the balding, ugly man. So the upshot is that the location of a particular thing establishes its identity, and whatever substrates, qualified particulars, or things in a certain state are at the same place are one and the same. If we talk about qualities and states as independent bodies, then they belong to whatever particular is at the same place they are. The different qualities and states of a thing are distinguished from one another, but by their motions or their causal powers, by the kinds of body they are, not their location.

Plutarch notes that the Stoics claim that not to accept the reality of these different sorts of body to serve as real substrates is to "destroy our preconceptions and contravene our conceptions," that is, to fly in the face of concepts and beliefs that must be held to make sense of our experience.³² He objects that the Stoics in fact introduce out of the way beliefs when they postulate separate bodies to constitute the matter of a dog, and the dog itself, "seeing double," or rather, four-fold, but, of course, the Stoics did think that without their assumptions one could not admit to the real existence of a dog, and would be forced to translate talk into the dog's changes, actions, and effects into talk about something else entirely, perhaps the atoms making up the dog or some such thing. With Aristotle, they thought this translation could not be done, in fact, and so we would have to admit to the reality not only of the matter, but also of the individual constituted by the matter, and the reality of all the different levels of causation and change that we identify in an individual and its matter.

This is not simply a matter of one body being regarded in several ways—there really are several bodies in one place, for the different bodies in the one place can have contradictory traits, such as moving in opposite directions. Such traits as motion and location, of course, cannot be viewed as bodies, however tenuous, for they belong to the most tenuous of bodies, and an infinite regress is to be avoided. The most fundamental predication that can be made concerning a body gives its location and movement, though even here it seems

³¹Alexander, *On Mixture* 216.14 – 218.6, Long and Sedley (1987) Section 48C.

³²Plutarch, *On Common Conceptions* 1083a–1084a, Long and Sedley (1987) Section 28A.

the body is *in a place*, and so is in relation to something subsistent. This is one reason why one cannot speak of the world without reference to merely subsisting things. One cannot, in the end, say anything about existing, bodily things without reference to space and time, which are subsistent, that is, are not bodies.³³

An ‘individually qualified thing’ has its qualities so fully specified that nothing else can share the same qualities. The Stoics seem to take it that if two things really are different, then there is some way to tell them apart. It is less clear if they think two things can always be told apart on the basis of their appearances to human beings, so that two eggs, for instance, cannot be indistinguishable. The discussion of this question revolves around the question whether one can in fact tell the eggs apart, rather than whether they have some perhaps humanly undetectable difference, and that strongly suggests what is really at issue here—it is the question how one can in fact pick out a single thing to talk about, that is, assign a proper name without danger of its being assigned to several things at once. The Stoic answer here, it seems, is that whatever can be talked can be discerned from other all other things, but that one may be able to do this in fact *without being able to discern the object from all other things in every conceivable situation*. One only has to have a description of the thing that fits it, and nothing else, *in the situation one is actually in*. It is, of course, plausible that this is often the case, and the Stoics admit that if it is not the case one cannot claim to have singled something out. There are situations in which one cannot tell two eggs apart, but then one cannot refer to one egg to talk about it in distinction from the other. But it might seem that one can always, in *some* imaginable situation, tell two things apart if they really are different. That would mean that two different things must always possess different characteristics if we consider *all* their characteristics, and so in the right situation they can be told apart, by the right person, due to this difference. The difference simply has to become apparent to the observer.

At the other end of the spectrum, a qualified thing in its loosest sense would be whatever possessed some intrinsic quality, however temporary and however common it might be to other things. So “the dark thing” might name something as a qualified individual in this sense, while “Socrates” would name it as a peculiarly qualified individual. In a middle sense, one would restrict qualified things to things named from long-term dispositional qualities, like “the rational thing.” This middle sense corresponds roughly to Aristotle’s

³³Perhaps another way of looking at this is to note that bodies are *particulars*, and the suggestion then amounts to this, that one cannot speak of particulars without speaking of their relations to one another, spatial and otherwise, and their properties, causal interactions with other particulars, and so on. And none of this other stuff is a matter simply of listing further particulars, and even when it involves listing further particulars they are relevant to the particular we are interested in only because of their relations to it, which are not causally active particulars. The world is not simply a collection of particulars, but rather a collection at best of related particulars.

secondary substance, and the “individually qualified thing” to primary substance, while the other sense seems to correspond to the qualities that might establish a kind of material stuff, such as bronze, as opposed to an individual.

Are states bodies? It seems reasonable that a state be traced to and identified with the particular arrangement in space of the quality or breath pervading a thing. So Socrates may have raised his arm, and this is because of the presence of certain spirits in his nerves and the like, which produced that outcome. Perhaps it is important that the breath must be in a certain relation to other elements of the body for the state to occur. That is, the breath has its own nature, and this particular action is due to the peculiar conditions in which that nature is placed. What of a relative state? Perhaps a relative state is in fact always accounted for by a non–relative state belonging to the complex of related items. One must be careful here. Relative location might be a state because the two things are brought into their relative positions by some larger united system of which they are a part, with its own driving soul or spirit. Indeed, God himself might be responsible for the relative locations and movements of heavenly bodies. But it should not be supposed that there is anything that serves as a quality in prime matter, as the ‘first form’ of matter does in the Platonic analysis, providing prime matter with spatiality. Individuality depends on the spatial locations of portions of matter, and the very notion of a quality pervading matter only makes sense if there are already spatial relations, for a quality pervades a given portion of substrate if and only if it is at the same place as that portion of the substrate. Moreover, it might be objected that a relation presupposes unity and interaction of some kind between the related things, which is provided by a tenuous body occupying the same space they do, and so a relation cannot be prior to division of things into individuals, but rather must always presuppose it. Thus spatial relations do not fall under any of the categories of ‘existing things,’ and space, though allowed to be real enough, is not classified as an ‘existing thing,’ but only as that which existing things are in. The relation between space and existing things involves no causal interaction between the two, and so space does not fall under the categories of existing things. Qualities and states were conceived as causally active, so not every property or relation that might be expressed in a sentence would necessarily be identified as a quality or state. Indeed, this bare ‘logical’ theory leaves it open what the states and qualities to be found in the world are, and what states and qualities account for all the various things we can say about the world and its contents, in the same way that the Epicurean insistence that everything is, in the end, atoms and the void leaves it open what shapes and sizes of atoms, in what organization, may account for any given situation in the world.

The Epicureans represent the other view, as it were, of material reality. They held that the atoms, the

only bodies there are, do not *ever* interpenetrate, though they may hang together while maintaining their shapes absolutely unchanged, but they denied that there are any breath-souls in macroscopic things providing their qualified existence as the particular kinds of things they are. The quality of a thing is entirely the outcome of the motions of the different sorts of atoms making it up. So it was necessary to argue for the existence of qualities occupying the same place as their substrates. The most cited argument points out that if there is only one thing present of a certain size, and something is added to it, then one should have a second thing if we think of the thing simply as a certain mass of matter. The addition of matter to the mass produces another, different, larger mass. Yet we often say we still have the first, though it has grown, as when a puppy becomes a full-grown dog. So there must be something else present, other than the mere mass of matter, that constitutes the puppy, which persists even though the original mass of matter is no longer what constitutes it (is controlled and pervaded by it). So, in addition to the matter making up the puppy, there is the canine quality shaping that matter. That this is not an Aristotelian, immaterial substantial form, but a body, is shown by the fact that it causally interacts with other things.³⁴

Although the substrate is considered to be material, it is not clear that it interacts with other things of itself. We should note here that one could refer to the location alone, and not what is in it, and then we would not be speaking of an existing thing, but of space, which only subsists, as we shall see. So if we speak of the matter in that place, our intention is to speak of the possible causal interactions that a thing in that place might participate in, without being specific about what those interactions are. We refer to it as ‘that mass of stuff,’ as it were, and we can view that mass of stuff as something that undergoes changes, for instance, it might begin as water, and then turn into air. Its interactions, though, are always due to the presence of some quality in it, and so it is argued that the substrate is of itself material because it can take on qualities, and thus interact, whereas qualities, considered in themselves, are material and exist because they can be taken on by the substrate, and the resulting composite interacts. Alternatively, ‘this matter,’ and ‘this dog,’ and ‘this large black dog,’ and ‘Duke,’ all refer to the same thing, the ‘composite’ of matter, quality and states, though they speak of different parts of it.

All causal powers, then, including those we might associate with matter (for instance, shape and coherence, and the ability to move other things in contact with it), are accounted for by qualities and states.

³⁴The argument is not convincing. Surely we can explain why we call the larger mass “the same dog” without introducing some other existing then than the mass into the picture! We can talk about the spatial arrangement and behavior of the parts of the mass—it is roughly the same shape, bounces about in the same way, and so on—in conjunction with spatio-temporal continuity.

In effect, the notion of the Milesians, that what underlies all phenomena at bottom is different kinds of stuff with different characteristics, is adopted, and some of these underlying kinds of stuff are assimilated to souls. So the Stoic view of nature, despite their materialism, is fundamentally the biological view of Aristotle, except that forms are taken to be material, and it is supported by the same arguments Aristotle used against materialists who, like the Atomists, assume that matter follows mechanical laws, without teleology, in its interactions.

The Stoics were committed to the view that all existing things are individuals, and so they identified 'ideas' or universals as concepts applicable to a number of things, and refused to allow that things participated in such ideas in any sense that would make the ideas, rather than the things, causally prior.³⁵ Things produce universal concepts, and such concepts were in no way responsible for the existence or natures of things. The Stoics referred to such universals as "not-somethings," meaning that a universal is not a something, not a this, but is nonetheless a conceived thing (a concept or *ennoia*), an object of the intellect created by the intellect, or figment,³⁶ based on its acquaintance with particulars, as dream-persons or fictional entities are figments of our imagination or our literary efforts. When we seem to speak of such a non-particular, we do not in fact refer to something universal, for that is impossible, every something being a particular, but rather we intend to say something that can be expressed as a conditional. "Man is rational" means "if it is a man, then it is rational."³⁷ Universal concepts are distinguished from general terms in a language, and also from commonly qualified things, like "the black dog." In particular, a commonly qualified thing is always a particular thing, it is just that the qualification identified does not provide us with enough information to identify it in its particularity.³⁸ Despite their insistence that universals do not exist, the Stoics nonetheless held that one can understand a thing only by grasping it as falling under a universal concept, and they held that the definition that leads to a scientific understanding of a thing is in fact of the universal concept.³⁹ A definition explains, or provides an analysis of,

³⁵For this paragraph, see Long and Sedley (1987) Section 30.

³⁶A 'figment' is, etymologically, something *made* by our thought. So it is something, but it has an odd sort of being, one that does not involve existence, for it cannot interact causally with other things, and its being hangs entirely on its being a subject of perception or thought.

³⁷Sextus Empiricus, *Against the Professors* 11.8-11, Long and Sedley (1987) Section 30I.

³⁸This account of universals is very like the accounts given by the British Empiricists of the 17th and 18th centuries.

³⁹Augustine, *City of God* 8.7, Long and Sedley (1987) Section 32F.

a peculiar characteristic.

To balance this account of the genera of existing things, it must be noted that the Stoics also allowed other sorts of things (or “somethings” as Chrysippus would have said), which subsist (*huphistasthai*) but do not exist. Although subsisting things do not causally interact with other things, they are presupposed in any talk about things that do interact, can be talked about, and have a nature that can be understood. The four genera of non-existing somethings are what is said (*lekta*), void, place, and time.⁴⁰ *Lekta* will be discussed below. Void, space, and time, though they do not themselves act on anything or receive any action, are implicit in any account of material causality, and the rational, ruling faculty learns of these, not by receiving an impression from them, but by receiving impressions *in relation to* them.⁴¹ Perhaps the thought is that no impression can be received that is not somehow in relation to these, for every impression is received at a certain time or place, or perhaps is *of* a certain time and place, and if it is understood by the ruling part as a sign of something, it is received in relation to something linguistically assertable, a *lekton*, saying that something is the case. The void must be assumed if we speak of bodies at all, for every body must have limits, and so the that body which is the world is limited by a void, the void itself being unlimited. Of course, the void does not act on anything, and receives no action, and so is immaterial.⁴² Another classification, fictions constructed in thought, included things that were neither corporeal nor incorporeal, even though they are something. This class included fictional entities such as Centaurs, and geometrical entities built up from a consideration of the limits of material objects, such as triangles and spheres. These objects do not impress our minds in connection with actual impressions (like void, time, place and *lekta*), but are rather constructed by our minds *after* receiving impressions. Mathematical fictions are useful for understanding causality, of course.⁴³

The Stoics held to the Aristotelian theory of the continuum, assuming the infinite divisibility of space,

⁴⁰Sextus Empiricus, *Against the Learned* 10.218. Chrysippus introduced the term “something” to cover both existents and subsistents, regarding the substrate as something in itself without qualities, but nonetheless material sheerly in virtue of being an existent capable of receiving properties.

⁴¹Sextus Empiricus, *Against the Learned* 8.409.

⁴²Cleomedes (a second century Greek astronomer) 8, 10–14. The Stoics followed Aristotle in expecting no void to be found within a body, so that the universe is free of any void, but placed an infinite void outside “body” = the universe, so that this body would have a place in which to be.

⁴³This third category of that which is neither existent nor non-existent is never directly attested, but Long and Sedley (1987) Section I 165 points out that the Stoics like such triads (so true, false and neither for complete speech acts, and good, bad and neither in ethics), and that fictional and mathematical entities are not ever listed as falling under subsistent things.

and taking the limits of bodies, i.e., planes, lines and surfaces, to be fictional constructions of thought (though Posidonius later apparently took them to be subsistent).⁴⁴ Chrysippus refused to admit that there were ultimate parts of bodies, though in the usual sense there are parts, of course, inasmuch as arms and legs are parts of a human body. They also refused to admit that the limits of bodies are parts of them, or corporeal. It seems that the Stoics held that two bodies touch when they share a limit (which would not be sharing a part). Plutarch's report is incredulous that one could say such things, and seems to garble it completely when he moves on to the problem of Democritus, who had asked about a cone sliced into two parts, whether the circle limiting the upper and lower parts where the cut occurred were equal or not. If they are, he thought, then the cone will turn out to be a cylinder. He assumes that there is a series of *adjacent* circles stacked to make up the cone, and if any two adjacent circles are equal in the stack, then all the circles are equal, and the cone turns out to be a cylinder. If adjacent circles are not equal, then one cannot say by how much they differ without admitting an intermediate circle between them. According to Plutarch, Chrysippus answered that the two circles are neither equal nor unequal, which he takes to mean that they differed, but did not differ by any specifiable amount. (One might say something similar in trying to say how 1 and .9999... are different—they must be, one might think, but by no finite amount.) Probably, Chrysippus said that we do not deal with *two adjacent* circles here at all, *neither equal nor unequal*, but *the same* circle, which is the limit of both halves of the cone—one can't regard the cone as made up of stacked circles, as though the circles were parts of it, or as though there were distinct, adjacent circles to be found in it.⁴⁵ To Zeno's paradoxes, for instance, the Stadium, it was answered that there was no particular number of parts of the motion from one end to the other of the Stadium at all, and certainly not an infinite number of parts, and so one need not accept that an infinite time is needed to complete the motion. Again, there is always a first motion, however we divide the stadium into parts, and so to ask what part of the Stadium is run first is not to ask an impossible question, as long as one has some particular division into parts in mind. If one does not, the Stoic will undertake to answer the question as soon as such a (finite) division is specified. Since no *infinite* division exists, he need never worry about that case.⁴⁶

Time, like space, was taken to be infinitely extended and infinitely divisible. It is one measure or

⁴⁴On the continuum, Long and Sedley (1987) Section 56. Here see Diogenes Laertius VII 135.

⁴⁵That is putting the most favorable reading on Plutarch's report in *On Common Conceptions* 1078E–1080E (50 C5 in Long and Sedley (1987)).

⁴⁶So I read Sextus Empiricus, *Against the Professors* X 121–6, 139–42. (50 F in Long and Sedley (1987)). Sextus is trying to make out that the reply cannot work, of course.

dimension of the world's motion (the world's because that is a motion that never ceases, whereas any other motion within the world might cease at some point, and so have a limit). Since time is infinitely divisible, there is never a time (i.e. a period of time) which is present. This is because the present is merely a limit, the boundary between future and past.⁴⁷ Thus, since only periods of time actually subsist, the present does not.⁴⁸ Still, often when one speaks of the present a period of time including the present moment is indicated, and then one can even say that the present has a part that is future, and a part that is past, as the present year does.

Chrysippus argued that the soul is corporeal because death results when the soul is separated from, and so no longer in contact with the body, and only another body can come into contact and out of contact with a body. The chief premise in the argument, that death is the separation of soul from body, derives from Plato. Zeno could not conceive how anything immaterial could move the body or be affected by it. The soul must be the warm breath which leaves an animal when it dies. It was conceived that the soul might be held together for awhile by its own tension, and Chrysippus allowed that a wise soul, which possessed greater tension than the usual soul, might rise as a sphere into the heavens and hold together until the final conflagration at the end of the world cycle, but even the wise soul loses its coherence then and merges with the mass of fire. Perhaps this is a merging with God. (Panaetius and Marcus Aurelius seem to have denied any kind of survival altogether.)

Cleanthes argued that soul must be corporeal because children resemble their parents in their mental characteristics. Now the incorporeal cannot enjoy such similarity and dissimilarity, for it is an essence, and so is perfectly what it is, without accidental characteristics, and so the souls of all human beings, if incorporeal, would be precisely the same.⁴⁹ Of course, it may be answered that variations in mental characteristics might depend on the body in which the immaterial soul dwells, but such a view led the immaterialists to the view that the soul, which is the real self, when freed from the body, would lose all the characteristics that makes one the person one is, including one's memories, and so would at least seem to threaten the prospects of personal survival.

Even the virtues were held to be corporeal, and were sometimes identified as states of the soul (and

⁴⁷Long and Sedley (1987) Section 51. Plutarch, *On Common Conceptions* 1081C–1082A (51C in Long and Sedley (1987)).

⁴⁸Here we might find the ultimate source of Augustine's puzzle about the existence of time and things in time in *Confessions* X.

⁴⁹Hahm (1977) 16–17. Hahm does not seem to see the point of the argument. It could be suggested, of course, that souls are all of them exactly the same, and every difference between individuals, mental as well as physical, traced to physical differences affecting how the souls' identical innate capabilities are realized.

so material things pervading the body which might even be regarded as souls of a kind in their own right), sometimes as the soul itself in various states. On the physical level, the latter view may make sense if we see a quality of a physical thing as something absolutely dependent on the physical thing for its existence, so that it can be identified simply *as* that physical thing, in a certain state. On the psychological level, the former view may make sense, for a virtue might be identified as a kind of self, which acts in the world, a Jungian “complex,” a “justice complex,” for instance, which acts as a rudimentary person when it is activated, becoming, for the moment, one’s ruling self. A virtue is a special sort of *tonos* in the soul, and a *tonos* marks off a particular substance in its kind, and so a virtue would be a substance in its own right, or at least very much akin to one.⁵⁰

The soul was conceived to arise as a mixture of fire and air, the breath soul of popular thought. The center of its operation, which is capable of judgment and independent action, the *hegemonikon*, was placed in the heart by Chrysippus, again following popular conceptions. From the heart there extended seven different breaths, each with its own tension, five to the eyes, ears, mouth, nose, and skin, to convey sensory information to the central breath, one to the sex organs and one to the organs of speech. Cleanthes assigned other breaths to the movements of other parts of the body, but Chrysippus held that the *hegemonikon*, the ruling breath itself, was responsible for bodily movements in general. The *hegemonikon* has four functions, the formation of images (*phantasia*), the production of voluntary actions (*hormê*), assent to a proposition suggested by reason or the senses (*sugkatathesis*), and reason (*logos*). The infant in the womb, according to Chrysippus, had a nature (*physis*), but not yet a soul (*psyche*). Apparently its nature governs its growth, as in a plant, but is not yet capable of independent thought and movement. Upon contact with the cold air, the nature is tempered like red hot iron thrust in a vat of water or oil when one makes a steel blade, and becomes a soul through an increase of its tension.

The rational soul, then, which possesses free will, arises by stages, as conceptual formation and the processes of reasoning begin to occur. Once the soul is able to envision a goal and various ways of accomplishing it it can initiate an action of its own, an action that can only be explained by taking into account its own nature, beliefs and goals. It then differs from irrational souls, the actions of which are immediate responses to sensory impressions arising within them.⁵¹ Thus, the Stoics regarded rationality and the pursuit

⁵⁰Hahm (1977) 17–18.

⁵¹The Stoic notions here lie behind later Christian notions of free will, which is a result of rationality. See Origen’s report of Stoic doctrine, *On Principles* 3.1.2–3. For the soul and its physical character, see Long and Sedley (1987) Section 53.

of goals as a development out of more basic, physical, patterns of causation, rejecting the teleological approach of Aristotle, which made rationality and the pursuit of goals itself fundamental and irreducible. Nonetheless, they also thought even the universe had its own soul, the ruling part of which was located in the ether. So despite the more fundamental character of physical causation the world is ruled by foresight and providence, for it is like a rational animal in its structure.⁵²

Zeno identified four elements—earth, air, fire and water—but allowed that one could transform into another, and permitted a number of different forms for each element, so that air takes both the invisible form, and the form of mist, fire can be the sort observed in fire, or light, or the designing fire that is God. Fire is the primary element, for the others arise from fire at the beginning of each world cycle, heat is the driving force in all things, and fire is intelligent.⁵³ *Pneuma* arises as a mixture of the two active elements, air and fire, providing simultaneous contractive and expansive forces. The ultimate principles are God and matter. Matter (earth and water) is entirely passive, and has no qualities of its own beyond extension and a resistance to compression (two bodies *of the same sort* cannot occupy the same place). Earth apparently is rigid, water an incompressible fluid, but neither has any activity. For Zeno, God is active and the *logos* of the world, providing the rational order in things. God is a breath–soul for the world, and is sometimes identified as fire, the fire that controls the world. Perhaps the idea is that air contracts a quantity of fire into an individual soul, but God embraces all things, and so is not contracted by any admixture of air at all. Zeno asserts that God and matter are distinct from one another, but always found together, underlying the standard four elements. He sometimes uses the word “God” of *pneuma*, breath, which in a man would be a mixture of fire and air, and sometimes of *pyr technikon*, “designing fire,” that is, fire in its function of holding things together as substantial unities, rather than destroying them, and he presumably does this because such bodies are considered as active, unifying forces. But most properly, God is the basis of activity, though he provides the material involved in the activity from his own substance, through condensation of designing fire into the other elements, which it then structures and provides an active principle for. In all this it seems that Zeno had Plato’s *Timaeus* in mind, and we find even verbal echoes of the book.⁵⁴ Form or Soul would be responsible for the causal activity of whatever

⁵²For God as just another animal, see Diogenes Laertius 7.147. On God, see Long and Sedley (1987) Section 54.

⁵³Stobaeus, 1.129–130 for the elements, Cicero, *On the Nature of the Gods* 2.23–30, for fire. See Long and Sedley (1987) Section 47.

⁵⁴*Physics* IV 2, 209b11, identifies the receptacle in the *Timaeus* as space *and* as matter.

it lent itself to, of course.⁵⁵ Aristocles wrote, in the 2nd century CE, that the Stoics say “the elementary stuff of things is fire, as Heraclitus said, and that its principles are matter and God, like Plato.”

4. PHYSICS

Zeno says that the sun and moon and each of the other stars are intelligent and prudent and have the fieriness of designing fire. For there are two kinds of fire, one is undesigning and converts fuel into itself, the other is designing, causing growth and preservation, as is the case in plants and animals where it is *physis* and soul respectively. Such is the fire which constitutes the substances of the stars.

Stobaeus 1.213,15–21.⁵⁶

Cleanthes is the first Stoic we know to have mentioned *tonos*, or tension, and he may have been the one who introduced the notion into Stoic physics, Zeno and the Cynics restricting the term to ethics and psychology. In essence, tension for the Stoics is a cohesive or attractive force that holds things together, while lending them a certain firmness and stability, so that they retain their form, resiliently returning to it when distorted. There was considerable difficulty in explaining such a force, for it was assumed, as in Epicurean atomism, that at bottom all force is mechanical, and so a matter of pushing and rebounding, depending on contact. Cleanthes called tension “a stroke of fire,” which is hard enough to interpret.⁵⁷ The later, orthodox view, probably formulated by Chrysippus, took tension to be a property of the air or fire infused in a thing. This *pneuma* was supposed to move both outward toward the surface of a thing, providing it its resistance to being crushed, and inward, providing a tension like that in a drawn bow string, internal coherence, and resistance against being split apart. Thus the *pneuma* makes the thing a single substance, so that when one touches any part of it, the touch is communicated to the rest. The whole universe is held together by the *tonos* of the *Pneuma* which is the world–soul, and this *tonos* explains the interactions of the parts of the universe, for

⁵⁵This reflects a consideration of Sandbach (1989) 71–5.

⁵⁶Translation, Long and Sedley (1987) Section 46D.

⁵⁷Plutarch, *Moralia* 1034D. For *tonos*, see Long and Sedley (1987) Section 47.

instance, the reaction of the tides to the moon.⁵⁸ The states and qualities of things are explained by the *tonos* of the *pneumata* with which they are identified, as well. There is some difficulty in telling how the opposite movements occur. There seem to be three possibilities: (1) *Tonos* may arise from a circulation of the *pneuma*, so that some of it is continuously moving outward just as the rest of it is moving inward. Perhaps the two streams are mixed together in such a way that they occupy the same place.⁵⁹ (2) It may be due to a rapid alternation of movement back and forth, of the *pneuma* or the body it inhabits, such as might occur when waves spread out from a stone thrown into a pool. (3) There may be no movement at all, but only opposing forces, each trying to move the *pneuma* or body infused by the *pneuma*, but equally balanced, so that it remains stable in one place, or at least close to it, perhaps vibrating in one place, as in the second suggestion.⁶⁰ Perhaps the best way to take it is that the first is intended, and it was supposed that vibration and the opposing forces followed from it, so that the opposing motions in one place produced opposing forces which not only held the body in one place, but also tended to restore it to its place whenever it was disturbed.⁶¹ If the third is intended, perhaps air could be assigned the contracting force, while fire is assigned the expansive force, *pneuma* being a mixture of air and fire.

Discipline, *engkrateia*, is the *tonos* of our internal soul currents, and loss of *tonos* leads to passion. Virtue is this *tonos* or discipline, not Zeno's wisdom. Wisdom, in fact, is not even on Cleanthes's list of virtues. He did view virtue as natural, inasmuch as uncorrupted natural impulses lead to virtue. Does this represent an abandonment of Zeno's Intellectualism? It would seem to assign virtue to the middle part of Plato's soul, the part that loves honor and drives toward the ideal.

In the fiery end of the universe Chrysippus allowed that the cosmos expands and suggests there must be an external void to allow such a possibility. The universe has no void within it, since this would interrupt the sympathy of the whole and lead to a breakdown of causal interaction. Natural motion up and down is due

⁵⁸It is of some interest that if there were a second universe, another body in the infinite void, events within it would not affect anything that goes on here, since no *tonos* can be present in the void separating the two worlds to convey the causal force from one to the other. If one thing acts on another, the two must be parts of a larger, single body united by one indwelling fire and a single *tonos*.

⁵⁹Philo, *God's Immutability* 35, suggests that this is how *pneuma* works, and he borrows much from the Stoics. A similar picture is found, perhaps, in some pre-Socratics who suggest that the soul is air or fire in circulation.

⁶⁰Sandbach (1989) 77 points out that Galen, in *On Muscular Movement* 1.8, reviews the last possibility and suggests that it may lead to a rapid vibration around a given position, rather than true stability.

⁶¹Sandbach (1989) 76–78.

to the individuating quality establishing the world, and so the nature of the world itself, not any absolute directions in space. Chrysippus's cosmography is generally Aristotelian. Against such pre-Socratics as Anaximander, and the Epicureans, he argues that the cosmos requires no outside nourishment, and is complete in itself. Like Cleanthes, Chrysippus used the argument from design to prove there is a God. The central seat of God's power is the Sun in Zeno, Cleanthes and Chrysippus, but some Stoics put it at the center of the Earth. Chrysippus compared the periodic *ekpyrosis* to the Cosmos breathing. (One may view breathing as maintaining the balance between fire and air in one's bodily *pneuma*, the outbreath due to expanding fire, the inbreath due to the contracting air. Thus breathing maintains our temperature at a proper mean.) Boethus said the deity is found only in the Heavens, and affects affairs on Earth from there. Many later Stoics, in particular, Panaetius, gave up *ekpyrosis* and made the world eternal, and some even postulated alternate destructions by fire and water.

Light lends to air the *tonos* needed to transmit effects to the eye, while air provides itself the *tonos* needed to transmit sound, and in general perceptual information is conveyed by a "tensional motion" (*kinesis tonike*) transferred from the medium of perception to the *pneuma* of the soul by contact, the *pneuma* causing the *hegemonikon* to form appropriate images. The situation was sometimes described as though the medium, having come into contact with the *pneuma*, actually extended the *pneuma* so that it could, as it were, touch the objects perceived, but it is not to be imagined that this extension involved a transformation of the medium by the sensory organ, such as the production of visual rays. This occurs in the way in which a stroke against a taut string will transmit the vibration to the other end of the string. Consciousness is due to tensional motion towards the center, so that everything is conveyed to the center from the periphery of the body. The taught strings all end in one place, where the information from them merges together. This movement is compared to wave motion, and does not involve translational motion of the *pneuma* or the medium of perception.

Feeling and desire spring from reason, there being no separate parts to the soul as in Plato. Feeling and desire dominate when the *tonos* of the soul, or *logos* is weak, and amount to an external influence, an overreaction to external events because of a lack of internal tension and control. The view emerges later in Spinoza's theory of the emotions. If the *tonos* of a soul is strong, it can hold together without the assistance of the body, and Cleanthes held that human souls persisted until the conflagration, though Chrysippus thought that only the souls of the wise would last that long. Eventually all are reabsorbed into the cosmic *pneuma*, the material base losing its distinctive *tonos*.

5. GOD

Most majestic of immortals, many-titled, every omnipotent Zeus, prime mover of nature, who with your law steers all things, hail to you. . . Let us achieve the power of judgment by trusting that you steer all things with justice, so that by winning honor we may repay you with honor, for ever singing of your works, as it befits mortals to do. For neither men nor gods have any greater privilege than this: to sing for ever in righteousness of the universal law.

Cleanthes, *Hymn to Zeus*.

We have one report of an argument for God's existence from Zeno, to the effect that it is reasonable to honor the Gods, and therefore they must exist.⁶² This was parodied with the reply that the wise must exist, since it is reasonable to honor the wise—it being well known that the Stoics held that no truly wise man had yet appeared. But perhaps it is not as bad as it looks, if some care was taken to establish that it is in fact reasonable to honor the Gods, due to evidences of their actions on behalf of justice, say, or their providence. The argument is reminiscent of an argument in Aristotle's *Eudemus*, that there must be survival after death since people make libations to the dead, and no one makes libations to or swears by the non-existent.⁶³ Diogenes of Babylon apparently filled in the argument by holding that Zeno had claimed that it was not reasonable to honor things which were of a nature not to exist. But if the Gods were of a nature which *could* exist, they must sometime have been,⁶⁴ and then, since they are such as to be indestructible if once they do exist, they would exist now.

Zeno was also said to have argued that the world must be alive and intelligent since it generates beings that are alive and intelligent. Again, the world is the best of things (perhaps because it is at least as good as any of its contents), and so it must be rational and alive.⁶⁵ When it was countered that it is better to be grammatical than not, but it would be absurd to claim that the world was grammatical, it was replied that the intelligent is absolutely superior to the non-intelligent, that is, everything intelligent is necessarily superior to anything

⁶²Sextus Empiricus, *Against the Professors* IX 133–136. On God see Long and Sedley (1987) Section 54.

⁶³Rose, Frag. 33.

⁶⁴Assuming, of course, that whatever is possible must occur given an infinite extent of past time to do it in.

⁶⁵Cicero, *Nature of the Gods* II 22. Neither of these arguments works, of course. Intelligence may arise from what is not intelligent, or at least so we now believe, and if the world has a certain degree of goodness at least equal to the goodness of the two intelligent beings in it taken together, and so is the best of things, it does not follow that the world is itself intelligent.

non-intelligent, whereas this is not true of the grammatical. It is not clear why it was supposed that the world is absolutely superior to the things in it. If it is at least as good as the things in it, this could be merely due to the fact that those things *are* in it. It might have been argued that the absolutely good things in the world must stem from something absolutely good in the way they are, and in that case we are back to Zeno's argument in the beginning of this paragraph.⁶⁶ In a similar vein, the Stoics argued in a Platonic manner that there had to be a self-moving, everlasting God to explain activity and change in matter while avoiding an infinite regress of explanation, and that such a God could only move matter if it pervaded it, as the soul does the body, and was itself material.⁶⁷

An argument for God's existence from Cleanthes is reported, suggesting that there must be a living being and a nature that is best if there are degrees of excellence among these things. But the best must needs be self sufficient and perfectly good, and this would be God.⁶⁸ Chrysippus modified the argument, proposing that if one does not believe in the Gods, then he would have to believe that there is nothing better than human beings in the world, which is arrogant and foolish. Somewhat less question-begging, he proposed that the maker of the heavenly bodies must be superior to human beings.⁶⁹ The Stoics seem to have been interested chiefly in appealing to everyday common sense in their arguments proving God's existence, and may seem to have been anxious to give their seal to everyday religion, but as a matter of fact they were not. They found the Greek anthropomorphic Gods indefensible, even if they did reject the Epicurean view that the Gods were only to be admired as ideals and did not intervene in earthly affairs. They interpreted the gods as natural phenomena (so that Hera, for instance, is air), and rejected sacrifice, temples and images—the whole cult. Their religion was a pure naturalistic pantheism.

Cleanthes's *Hymn to Zeus* claims that everything that happens does so according to God's intentions, except the actions of evil men. God cleverly turns the actions of evil men to his own good ends, but it seems

⁶⁶Sextus Empiricus, *Against the Professors* IX 104, 108–109.

⁶⁷Sextus Empiricus, *Against the Professors* IX 75–76. Long and Sedley (1987) Section 44.

⁶⁸Sextus Empiricus, *Against the Dogmatists* IX 88–91. The argument seems pretty bad. After all, there may be a best thing which is in fact not all that good. But it does not seem to follow from the variation in goodness that there must be a best *possible* thing, only a best *actual* one. He also lists reasons why people believe in the gods, apparently without giving his *imprimatur* to their validity, suggesting their observations of prediction of the future, the benefits provided to humanity by the world, the terror inspired by natural catastrophes, and the regularity of the movements of the heavens. The first and last reasons are given by Aristotle in *On Philosophy* (Rose, frag. 12).

⁶⁹Cicero, *the Nature of the Gods* II 16.

that human beings nonetheless have a freedom of will by which they can perform actions that are neither rational nor for the best, and contrary to God's will.⁷⁰ Chrysippus abandoned this position, since it is inconsistent with the notion that God controls all things through a deterministic Providence.

The argument from design for God's existence as reported for the Stoics in Cicero lies behind the discussion of that argument in David Hume's *Dialogues Concerning Natural Religion*, where it is rather severely criticized. It did not escape criticism in ancient times either, above all from Skeptics. Some fairly bad arguments were made. So it was suggested that the world, ordered as it is, could not have arisen by accident, any more than the *Annals* of Ennius could have arisen from a random ordering of letters, and that an armillary sphere would be recognized by anyone to be designed, whereas the heavens are better ordered than the armillary sphere that imitates them.⁷¹ But what sort of argument from design is pressed here? That nature might be orderly of itself in such a way as to give rise to the sort of order intrinsic in a rational being was not foreign to Stoic speculation, as we have noted, and the Stoic God did not explain why anything was orderly at all in the first place. But given that such a God could arise from the natural order, it certainly had to be granted that lesser biological beings could arise as well, and indeed, it does not seem at all impossible that only lesser beings should arise. In the end the argument then, would have to point to the overall organization of the world to support the notion that the organization of those lesser beings is due to the designs of the rational God, though it might reasonably be supposed that this ordering arises from the God's soul more in the way that the ordering of one's body does than in the way the ordering of objects outside one's body does. At bottom, perhaps, two sorts of explanation from intelligence were envisioned, one in which a person designed an object outside itself, the other in which an animal's intelligence orders its own body. But given the fact that the potentially rational *tonos* of the body becomes actually rational by ordering the body so that reason can arise in it, it seems that Stoic reasoning does not lead to a Christian God, transcendent and omnipotent, but only to an intelligent world that remains subject to natural laws.

Much here seems to rest on the doctrine of the conflagration at the end of the world. Here God becomes all in all, and if this God is rational, and plans the development of the new world system as the fire cools, then God could be said to design it all. Indeed, this suggests that the organization of the body of a rational being is not itself necessary for rational functioning, but only strengthens and enables the *tonos* within it so that

⁷⁰This is pointed out by Bevan (1913) 54–55.

⁷¹Cicero, *On the Nature of the Gods* II 88 and 93.

it can express its own nature more fully. The *tonos* is itself rational, and most perfectly so when there is no body to hinder it. This seems to be the best reading of our sources, and if it is the right reading, then the Stoic God really does design the world, rather than merely unconsciously serving as its organizing soul.

Does the presence of evil in the world undermine the Stoic conclusions? The Stoics argued that every evil is somehow justified, inasmuch as it contributes to a greater good which, within the natural system, can only be obtained by suffering that evil. Thus it was argued by Chrysippus that bedbugs keep us from sleeping too late, and mice encourage tidiness. Moreover, some things, for instance, peacock tails, are in the natural world only because of their beauty, which indicates that the world is here to serve rational beings.⁷² Carneades the Skeptic replied rightly enough that even if the pig's death is suited to provide us with meat, this does not benefit the pig,⁷³ so it seems the natural world is designed to benefit rational beings (note that God embraces the whole and is a rational being), beings who will accept through reason the necessity that the part suffer if that is needed to produce the best whole. It is not clear from this, of course, why there is as much evil as there is in the world, indeed, a preponderance of evil if one regards human character, the wise being very rare indeed. It might be argued that human beings have to grow up to become wise, and this takes trial and error, or it might be pointed out that it is the fault of human character that so many go so wrong, but, of course, one can ask with Cicero's Cotta why it is that human beings were not made with better natures to start with.⁷⁴ This suffering is necessary because of natural laws, which limit what God can do. He makes the best world possible given natural law as things emerge from the universal conflagration, which forces on him many evils as necessary concomitants to the good. The usefulness of harmful things that apparently lack redeeming features is yet to be discovered by us, but it *is* there, and this is the best possible world given natural laws. Most Stoics equated providence and fate, indicating that what is fated is for the best, but Cleanthes seems to have indicated that some things happen by fate that do not happen by providence, with the apparent intention that God does not intend or aim at every effect that occurs in the world, but rather accepts as inevitable some that he would avoid if he could, while still obtaining the goods which merit putting up with them. Thus everything is for the best, but some events do not contribute directly to the overall good of the world, but only indirectly, by

⁷²Plutarch, *On Stoic Self-contradictions* 1044D.

⁷³Porphyry, *On Abstinence* III 20.1, 3.

⁷⁴Cicero, *Nature of the Gods* III 76.

making other more positive events possible.⁷⁵

Zeno believed, for whatever reason, that eventually all things will return to fire, after which the universal conflagration will die down, air and then water will form, and a new world arise exactly like the old. This new world takes exactly the same course as the old because Providence guarantees that it is the best possible world that forms, and there can only be one such world.⁷⁶ Events are always determined, so that everything happens in accord with fate. The world expands as it is converted to pure fire, but outside the world sphere is an infinite void into which it can expand, even though there is no void within the sphere. Thus the world expands and contracts as it goes through the cycle. Apparently the Stoics distinguished between talk about the ‘whole,’ that is, the Cosmos, and the ‘all.’ The all includes not only the existing material world, which is finite, but also the infinite void outside it.⁷⁷

The idea of innumerable world cycles, all exactly the same, appears to have been present in Pythagorean thought. It is more likely that Zeno got it from there than from Heraclitus, though later Stoics laid claim to Heraclitus as the source to provide support for their view. Probably Zeno thought of the universal conflagration as a suitable endpoint for the world process, a point at which the world becomes perfectly rational, as it were, its soul being freed from its body. Chrysippus held that the sort of fire involved here was light, the most tenuous sort, which strengthens the connection to knowledge, and obviates the necessity of fuel to support the fire, a problem with Cleanthes’s view that the fire involved was flame. The doctrine is picturesque, but it is difficult to argue for it, and a number of Stoics after Chrysippus abandoned it, although it remained orthodox, and was accepted by Seneca and Marcus Aurelius.

The upshot of Stoic physics is that the world is alive, sentient, and intelligent, possessing a soul just as people do, and it aims at values human beings should be able to appreciate. The human soul, like that of the

⁷⁵Calcidius 204 (Long and Sedley (1987) Section 54U.

⁷⁶Long and Sedley (1987) Section 52. One interesting question here is whether the person indistinguishable from oneself in the next world cycle is identically the same person as oneself. Apparently some held that it was identically the same person, while others held that it was not, and even insisted that there would be some minor variation, such as a mole or small difference in coloration or height, which would distinguish the two. Chrysippus perhaps took the former view, and even regarded it as a kind of consolation in the face of death. If Chrysippus did take this view, then he might have held to a circularity rather than a linear time, since the very same objects doing the very same things reappear after a time. Marcus Aurelius remarks that there is no future life, or rather it is just like this one again, and the present is all anyone ever has. Thus it does not matter if one lives a long or a short life, for one loses the same thing in the end, the present. Moreover, of course, one must live in and accept the present, and one’s general situation. It is best that this be one’s situation, whatever the appearances.

⁷⁷Sextus Empiricus, *Against the Professors* IX 332.

world, is identified as fire, nourished by exhalations from the blood. We are kin to God. Thus we can understand the world. But the fact that the world can be understood as the best possible world, and so a rational construction, also entails that the world is governed by inexorable law, Fate, which determines every event, forbidding every alternative to it, in the very act of rendering it intelligible and good. Thus, pigs are placed here to provide human beings with food, and peacocks to provide beauty, which both we and Nature appreciate. Most Stoics argued that God had provided the means whereby the future, already determined, could be known, and so supported the possibility of prophecy through dreams and divination through oracles. It was profitable to know the future, even when it was inevitable, because one could prepare oneself psychologically for events, and not be thrown off balance emotionally when they occurred. The opposite argument, supporting the doctrine of Fate using successful instances of prophecy, was also made. Chrysippus had a special interest in collecting instances of prophecy. Posidonius worked out a theoretical basis for prophecy,⁷⁸ arguing that God could arrange for the entrails of the victim, or the flights of birds, to reveal future events without violating natural laws. Prophecy through dreams or trances would be due to the mind's clarity of vision when temporarily divorced from the body, or due to a direct communication from God or the souls of the dead.

6. LOGIC AND LANGUAGE

They [the Stoics] take dialectic itself to be necessary, and a virtue which incorporates specific virtues. Non-precipitancy is the science of when one should and should not assent. Uncarelessness is a strong rational principle against the plausible, so as not to give in to it. Irrefutability is strength in argument, so as not to be carried away by argument to the contradictory. Non-randomness is a *tonos* that refers impressions to the correct rational principle. And scientific knowledge itself, is either secure cognition or a *tonos* in the reception of impressions which is unchangeable by reason.

Diogenes Laertius 7.46–7.⁷⁹

⁷⁸Cicero, *On Divination* 1.64, 125 ff.; 2.35.

⁷⁹Translation, slightly modified, in Long and Sedley (1987) Section 31C.

Diogenes of Babylon defines speech as a vibration of the air that is an articulate product of thought,⁸⁰ and acts upon those who hear it and understand the language spoken by producing thoughts in them. Although speech is corporeal, since it has causal powers, it is speech only in virtue of saying something thinkable, that is, because of its meaning, and what is said, *to lekton* (which is a *pragma* – something said), is immaterial, a subsisting, not an existing, thing. The orthodox distinguished (1) the *lekton* said by a term both from (2) the term itself (*phone*), say the utterance of the word “cat,” a corporeal thing that is a sign in virtue of its meaning, that is, in virtue of its association with the *lekton*, and from (3) the denotation of a term (*to tygchanon*), which would also be a body, actual cats, identified as what causes the intellectual grasp of the *lekton*, so that one understands what a cat is through one’s contact with cats. The *lekton* is not a corporeal entity because it has no independent existence enabling it to act on other things or receive action from other things.⁸¹ In particular, it cannot cause itself to be recognized or known, but is rather constructed by reason in response to its contact with the things the *lekton* describes. (So it appears that the “actions” of a *lekton* reduce to actions of a rational being, which is, of course, physical.) The *lekton*’s only entry into being is that it is conceived, and even its being conceived is not a matter of its affecting or being affected by anything. It is the content of our conception, or, given that we ordinarily identify concepts with and distinguish them from one another entirely from their content, it is the concept. The cat causes the perception of itself as a cat, the perception that it is a cat, but “that it is a cat” is not conceived to cause this perception, nor is the “form of cat.” Moreover, to say that it is a cat is a very different thing from naming the cat. What is caused by the cat is a perception—that–this–is–a–cat, where that–this–is–a–cat is not a thing or a property of a thing, or a cause of anything, but simply the content of the perception caused by the cat. (So we can note that a perception and a concept can have the same content. Any number of different perceptions might be caused by a cat, of course, for instance, that this is a playful furry thing, that this is asleep, and so on, corresponding to different concepts.) This is what a barbarian does not understand when the Greek word for “cat” is spoken, though a Greek hearing the word (and understanding it to be a Greek word) would be caused to understand that the thing it is applied to is being said to be a cat, whether or not he assented to the notion that it is in fact a cat. A universal, something belonging to or

⁸⁰Diogenes Laertius 7.55, Long and Sedley (1987) Section 33H.

⁸¹Time has the same status. It does not exist, and only the present is real, but one must speak of the past and future to understand change, so it has a kind of reality parasitic on the causal order of existing things. It has being, like *lekta*, only because minds are able to apprehend it, and, indeed, must apprehend it to understand the world. Presumably, a *lekton* appears to have causal powers, and to change from true to false, over time, say, because of the causal interactions involving sounds that express the *lekton* and the bodies corresponding to it, though we don’t have anything that tries to work out the details of that suggestion.

predicable of several things at once, could only be a *lekton*, and so universals do not exist, even if they must be postulated to understand thought and language.⁸² Again, what is true or false is the *lekton*, not the sign (the utterance, a physical thing) nor whatever physical thing is indicated by the sign.⁸³ So if one says the cat is on the mat, and this is true, what is true is the *lekton* capturing the meaning of the utterance, it is true that-the-cat-is-on-the-mat. The utterance itself is not true, nor is any physical reality indicated by the utterance, such as the cat, the mat, or the two together in their physical relation to one another. It should be noted that one might identify, in addition to the sounds uttered, those sounds together with their meaning, which includes the *lekton* intended by them, in accord with the rules of the Greek language, and this object, which is a physical object, of course, might be identified with a linguistic entity, a sentence in Greek. If one were to make those sounds without intending to say that a cat is on a mat in accord with Greek semantics, then one would only have produced sounds physically similar to a Greek sentence, not a Greek sentence. Moreover, the possible contents that are different *lekta* are descriptive contents, that is, a *lekta* does not correspond to some particular given a ‘logically proper name,’ but rather to something that fits a description, something of which a given predicate is true.⁸⁴

This view of *lekta* could very well have been developed from reflection on Plato’s *Sophist*, where things are said to exist only in virtue of affecting things or being affected by them, so that Forms exist only in virtue of their relation to the intellect that understands them, since they do not enter causally into the world in any other way.⁸⁵ Even if the Forms are transmuted into mere conceptual content in the Stoic *lekta*, they are nonetheless peculiarly associated with *logos*, and God, being a body, might impose order on things in accord with his *logos* or understanding, which necessarily thinks *lekta*. Thus, the substance of Plato’s account of language is preserved in the Stoic view of things despite this “demotion” of the Forms. This same line of thought occurs in Middle Platonism, except that Platonists think causal activity originates in minds, not bodies, and

⁸²Of course, one reason to postulate the *lekton* is that one might say what is not true, and talk about non-existents, and so the *lekton* allows for a word or phrase to have a meaning even when it lacks reference. It also allows for talk about universals and ideal things such as triangles or perfect, pure fire, which might be conceived as essential to the sciences after Plato and Aristotle.

⁸³Sextus Empiricus, *Against the Professors* 8.11–12, Long and Sedley (1987) Section 33B.

⁸⁴Seneca, *Letters* 117.13 (Long and Sedley (1987) Section 33E), says that there’s a very great difference between naming a body and speaking about it.

⁸⁵Plato, *Sophist* 245e–249d, where it is argued that only what acts or is acted upon exists, and Plato replies that the Forms, although they in no other way act or are acted upon, are known by the soul.

these concepts achieve a causal activity by being the concepts of the Demiurge, who shapes matter in accord with his concepts, and so the demotion is avoided.⁸⁶ In Aristotle what corresponds to the *lekta* is “affections in the soul,”⁸⁷ which the Stoics took to indicate he disagreed with them, perhaps insisting that everything that is a particular thing or some affection of it, whereas the Stoics were happy to talk about what we might nowadays call ‘abstract entities,’ which do not exist, without insisting on identifying them with states of soul. The Stoic instinct seems the subtler one, for Aristotle’s view, and that of the Middle Platonists, would seem to imply that concepts (as we call them) are psychological entities, suggesting that an account of linguistic meaning in terms of psychology can be brought off. This, of course, led to the notion of private psychological states that somehow provide linguistic meaning, a notion that has perhaps run its course in the 20th century. Epicurus and Strato tried to do without concepts, making the connection between the word and the item in the world it corresponds to without such an intermediary, a notion that recurs in various forms of “nominalism.” But the attempt to derive linguistic meaning from utterance behaviors alone seems to have no more promise than the psychological approach. The non-existence of *lekta*, moreover, pulls the teeth of any effort to turn the account in terms of *lekta* into a scientific theory about the generation of meaning. This intermediate between words and their denotations provides an analysis of meaning, but not an account of it as a physical thing, or part of the causal order.⁸⁸

The Stoics, originally, probably, Diogenes of Babylon, seem to have rejected the Aristotelian notion that all words are conventional in their meaning, arguing that there are “primary” sounds, such as “whinney,” which naturally mean what they do by resemblance. The view seems to be drawn from Plato, again, this time from the *Cratylus*, which suggests that not every word can draw its meaning from convention. There had to be words with natural meaning in the beginning, so that people could communicate and establish the conventions for the meanings of other words. Chrysippus recognized that words as they exist in a developed language can

⁸⁶It should be noted that truth was conceived as a property primarily of complete *lekta*, namely, their saying what is in fact the case, and some assertibles, such as “it is day,” were conceived to change truth-value from time to time. Although this is a correspondence theory of truth, it was not imagined that a state of affairs or fact corresponded to a true *lekton*, but that existing material objects did so. (I do not know how Stoics would have handled the case of a *lekton* about a *lekton*.) A *phantasia* is said to be true (1) if an assertible accurately describing what it represents is true, and (2) its cause is what it appears to reveal. A true argument is a valid one. A human being is also sometimes said to be true, that is, good, and this indicates a state of his soul, though, of course, true assertibles or beliefs may be found in a false person.

⁸⁷*On Interpretation* 16a3–8.

⁸⁸Perhaps we should say it *would* do this if a proper account of identity conditions for *lekta* were to be provided, the sort of thing provided for concepts in Paul Horwich’s work. But no attempt is made to do this in Stoicism.

always be taken in different senses in different contexts, and challenged the sort of etymology that would trace meanings back to primary sounds (of which the *Cratylus* contains many comical examples) by pointing out that anomalous formations occur, in which like words have opposite senses and unlike words the same sense.

Lekta, and not sentences and words, that is, not those utterances, were held to be the subject of logic,⁸⁹ and so it was implied that logical structure and semantic structure are related, so that a perfectly unambiguous, literal language would follow the laws of logic perfectly. *Lekta* were divided into incomplete *lekta*, that is, the parts of a sentence, chiefly the predicate, and complete *lekta*, including assertables as well as questions and the like. Incomplete *lekta* were not taken to provide the sort of meaning found in nouns and adjectives standing alone or standing as subject in a sentence—the meanings of such words were provided by indicating the material things they signified or referred to, but a predicate does not refer—it describes. Such a predicate can be attached to a nominative case *lekton* to produce a sentence. Indeed, the Stoics took the case of a noun or adjective to be a clear indication that it was an incomplete thing, intended to be joined to other things of suitable case to form a complete sentence.⁹⁰ Aristotle used ‘case’ only for the oblique cases, apparently assimilating the nominative to a word standing alone, but the Stoics treated the nominative as a case as well, recognizing that a word serving as the subject of a sentence is playing a different role than the word standing alone.⁹¹

An assertable of one sort, then, is a complete *lekton* put together from an incomplete *lekton* serving as the predicate, indicating what we are saying, and a word in the nominative case serving as the subject, and indicating what physical thing(s) we are saying it about. It looks as if they were trying to account for the possibility of false sentences, which, in the case of an atomic sentence, will be talking about physical realities indicated by the nominative case noun serving as the subject, which, as it turns out, do not have the predicate

⁸⁹For Stoic logic our chief source is Diogenes Laertius VII 65–82. The chief secondary work to consult is Mates (1953).

⁹⁰Diogenes Laertius 7.64, Long and Sedley (1987) Section 33G.

⁹¹Ammonius, *On Aristotle's De Interpretatione* 43.9–15, Long and Sedley (1987) Section 33K. See Long (1986) 136–8, and Long and Sedley (1987) 200–201. The Stoics introduced a number of innovations into the study of grammar. By Chrysippus's day, they classified words into four parts of speech: nouns (including adjectives), which were divided into proper and common, verbs, conjunctions (including prepositions), and articles (including demonstrative pronouns and pronouns in general). Later, adverbs were recognized as a fifth part of speech. The Stoics are responsible for the recognition of and naming of the five cases and the tenses in Greek, and their names for these grammatical “accidents” are still used. Their grammar was done not, as later, as a third discipline supplementing Dialectic and Rhetoric, but rather as a study of the syntax of *lekta* within Dialectic. It was, then, a grammar of things said, universally applicable to every language, not a grammar of Greek. See Frede (1987) Ch. 16, “Principles of Stoic Grammar,” reprinted from Rist (1978), 27–75, for a thorough scholarly discussion.

true of them. In the *Sophist*, Plato had indicated that a universal might be indicated in the predicate of a false sentence, a universal which might be known by the mind, but failed to belong to the subject in question. But the Stoics did not admit the existence of universals. So they postulated a universal *lekton*, which is conceived by the mind, and serves as the signification of the predicate. What is signified by a whole sentence must, of course, be a *lekton* as well, for it might be false, and then nothing in the world will correspond to its meaning. Why didn't the Stoics postulate a *lekton* as the signification of the subject? It was at this point that they expected to make the connection between a sentence and the realities it talked about. If even the subject is a *lekton*, then the sentence would not be directly about the world at all. Perhaps one could take a sentence such as "raccoons wash their food" to have a subject signifying a *lekton*, since the subject is taken universally, but, as we have seen, this sort of sentence was interpreted as a conditional—"if it is a raccoon, it washes its food"—and both parts of the conditional can be interpreted as having a subject referring to an actual raccoon.

Assertables (assertable *lekta*, *lekta* that could provide the meaning of an assertions) were further subdivided into atomic assertables and molecular assertables, including conditional, disjunctive, and conjunctive assertables. Atomic assertables were divided into three kinds. The first is the definite assertable, such as "this man is dark," which is true just in case this man is in fact dark. The subject of a definite assertable refers without describing, by making use of a demonstrative pronoun, and what it refers to depends on the context in which it is uttered. Uttered in the presence of Socrates, it refers to Socrates, and uttered in the presence of Plato, it refers to Plato. The second is the indefinite assertable, such as "someone is dark," which will be true just in case the definite assertable of the form "this man is dark" is true in some circumstance in which it might be uttered. The third is the intermediate assertable, such as "Socrates is dark." Here the subject, it seems, was taken to be an existing thing so qualified that only one thing had the quality indicated, in this case, being Socrates. (In any case, it is specified that just one thing is referred to in the sentence, and this is not done by means of a demonstrative.)⁹² So, in effect, the Stoics took it that a proper name was (or involved) a description which could apply to only one thing.⁹³ If the subject of a simple assertable failed to refer to anything, the assertable

⁹²Sextus Empiricus, *Against the Professors* 8.93–98, Long and Sedley (1987) 34H. Also interesting here is Galen, *On Hippocrates' and Plato's Doctrines* 2.2.9–11, Long and Sedley (1987) 34J, which treats the word "I" as a token reflexive, a demonstrative pointing to the speaker.

⁹³One does not need to look far for the description. If one says that "Socrates is sitting," successfully referring to Socrates and Socrates alone in the subject, that is probably because there is only one thing in his and his auditors vicinity that has-the-name-"Socrates." It is also insisted that this one thing be distinguishable from all else in the vicinity by its sensory appearance, and so some further description of the sensory appearance of Socrates must be available to the speaker and auditor for communication to succeed, but surely this is simply common sense. It does not entail that just one description in terms of sensory appearance must do the trick

would be regarded as ill-formed, not an assertable at all, for every assertable is either true or false, and an assertable in which the subject does not refer could not be established as either.

These ‘assertables’ of the Stoics, then, are not quite what a modern logician would regard as a proposition, for they necessarily included tense, demonstratives and other token-reflexives, and so might change truth value from time to time, or in different utterances of the same assertable.⁹⁴ For instance, Socrates is dark in the summer, but may not be dark in winter, and so the assertable “Socrates is dark” may be true in the summer, false in the winter. Again, “it is dark here” is true uttered in a cave, but not when uttered in bright sunlight. “I am bearded” is true when uttered by myself, but not when uttered by my wife. Modern logicians handle all such cases in such a way that the truth value of a proposition does not change depending on the conditions in which it is uttered, and so would count “Socrates is dark” as ambiguous, expressing different propositions at different times, while “it is dark here,” and “I am bearded” express different propositions under different conditions.⁹⁵ The Stoic view was that one could not capture the meaning of a definite statement about a definite object without using some device that rendered the statement ‘ambiguous’ if one considers it being made in other situations. A modern logician gets around this by introducing logically proper names, but the Stoic would reasonably claim that such a proper name can only be assigned its referent, in the end, by one of the banned devices. One can only get at the world to talk about it by being in the world, and using one’s senses to pick out things in one’s actual environment to talk about. And one *can* do this.

In addition to this, the Stoics identified *lekta* corresponding to hypotheses (“suppose the earth is at the centre of the Sun’s sphere”), prayers, expositions (“let this be a straight line”), various kinds of questions distinguished by the sorts of answers they are to receive, commands, invocations (i.e. formal address, as in “great King Agamemnon, hear me”), exclamations (“how beautiful she is!”), and curses.⁹⁶ They supposed that various logical moves could be identified for all these cases. Chrysippus supposed, it seems, that an assertable may be part of one of the other types, of an oath, or command, for instance.

The negation of an atomic assertable occurred by prefixing the whole assertable with “It is not the case that...” Conjunctions and disjunctions were conceived truth-functionally, and in addition to these schemes,

in every situation, but only that there must be some such description in each situation in which Socrates can be referred to successfully.

⁹⁴Diogenes Laertius 7.65, Long and Sedley (1987) Section 34E.

⁹⁵For simple assertibles see Long and Sedley (1987) Section 34.

⁹⁶Diogenes Laertius, VII 66-68; Sextus Empiricus, *Against the Learned* VIII 71-73.

Chrysippus allowed “P because of Q,” and “P is more likely than Q” as schemes for forming molecular assertables that are not truth functional.⁹⁷ Conditionals had been conceived truth-functionally by Philo among the Megarians, and many Stoics seemed comfortable with approach, at first anyway.⁹⁸ Cleanthes developed a truth-functional logic of assertables using ordinal numbers as variables for assertables, and a logic of inference schemes. Chrysippus, however, following the Megarian Diodorus in his criticism of Philo’s truth-functional approach to conditionals, holding that “if P then Q” is true if and only if the denial of Q is incompatible with P, that is, it is known to conflict with P for some reason other than the known truth values of P and Q. The incompatibility would have to follow from the concepts rather than empirical observation, or from something known about P and $\sim Q$ in general terms, perhaps a causal connection of some kind. This seems to have led him to assert that when “if P then Q” is true Q is contained in P, so that there is some R such that P&R is equivalent in meaning to Q. An argument was held to be valid if and only if a conditional with the conjunction of the premisses as the antecedent and the conclusion as the consequent was necessarily true. All valid arguments were to be developed using five basic schemes, and four rules of derivation. The schemes are:

- (1) If P then Q, P; therefore Q.
- (2) Not both P and Q, P; therefore not Q.
- (3) P or Q, not P; therefore Q.
- (4) If P then Q, not Q. Therefore not P.
- (5) P or Q, P; therefore not Q.⁹⁹

(This uses an “exclusive or,” but Chrysippus was aware that “or” was sometimes used inclusively and gave rules for that, too.) Of the rules, unfortunately, only two are preserved: (1) If from two assertables a third is

⁹⁷A scheme for forming a molecular assertible from other assertibles is “truth-functional” just in case the truth or falsehood of the component assertibles determine the truth or falsehood of the resultant molecular assertible. So “P and Q” is true just in case P is, and Q is, but not otherwise. “P because of Q” could be either true or false when both P and Q are true, depending on whether a causal connection held between the two or not—so “she is sick because she ate the fish” may or may not be true, even if we are sure she ate the fish and is in fact sick. Similarly, P and Q could both be true, and that does not decide if one is more probable than the other—probabilities depend on the evidence available for P and for Q, nor merely on their truth.

⁹⁸“If P then Q” is a strict implication if it is false only in case P is true and Q is false. This leads to some oddities, since it does not match normal English usage, even if it does simplify the theoretical task of the logician. So “If Everest is in the Himalayas, then John’s cat is grey” turns out to be true on this truth-functional account of implication, as long as the cat is indeed grey.

⁹⁹These schemes use an “exclusive or,” that is, they interpret “P or Q” to be true only when P is true, or Q is true, but not both. An “inclusive or” would make “P or Q” true not only under these conditions, but also when both P and Q are true. So, when we say “either Bill or Pete will be there,” we may mean an exclusive “or,” that is, we may mean to rule out the possibility of their both being there, or we may mean to include this possibility, intending an inclusive “or.”

deduced, then either of the two together with the denial of the conclusion yields the denial of the other. (2) If from two assertables a third is deduced, and there are assertables from which one of the premisses may be deduced, then the other premise together with these assertables will yield the conclusion. Another rule probably covered the case in which further assertables might be introduced proving both premisses in the argument. The fourth seems to have specified that when a conclusion is deduced from a set of premisses, and from one or more of those premisses taken together with that conclusion a further conclusion can be deduced, then that further conclusion can be deduced from the original premisses. The last three rules were put into one, simpler rule by later Stoics.

The paradoxes, modal and otherwise, of the Megarian Eubulides were treated in Stoic logic. Chrysippus wrote six books on the Liar Paradox. The Academics used this paradox to challenge the Stoic doctrine that every assertable is true or false (in a given situation). “I am lying,” it seems, can be neither. Chrysippus apparently argued that it is not always the case that something cannot be both true and false, and suggested that a valid argument with true premisses may therefore have a false conclusion.¹⁰⁰ The first suggestion would mean that “I am lying” will be both true and false, and so the conclusion that it is neither true nor false is avoided. Perhaps from what is both truth and false everything follows, as everything follows from a contradiction, and so it can occur as the true premise of a valid argument with a false conclusion.

Chrysippus’s discussion of the Sorites or “Heap” seems to have suggested that one should not admit that “if n grains do not form a heap then $n+1$ grains do not form a heap.” To admit the conditional for a specific case would implicitly commit one to the general form, and it would be logically impossible then to draw any boundary between heap and non-heap, so that n grains would not make a heap, but $n+1$ grains would. Instead of admitting the conditional, he suggested, it seems, that one admit statements like “not both 6 grains do not form a heap and 7 grains do not.” This commits one only to the specific statements, and suggests no general principle. Thus, if we decide to deny the statement at some point, so that we deny that “not both 120 grains do not form a heap and 121 grains do not,” we can suggest that this particular statement is doubtful, and we are not committed to holding that it is logically necessary. This was apparently coupled with the recommendation that one refuse to accept such statements as certain well before the dividing point, playing it safe. The assumption seems to be that there *is* a dividing point, but we may not know precisely where it is.¹⁰¹

¹⁰⁰Plutarch, *On Common Conceptions* 1059d–e, translated in Long and Sedley (1987) 225 (37).

¹⁰¹Long and Sedley (1987) Section 37, passages C through H.

Stoic “demonstration” differs from the mathematical, Aristotelian variety in its form, though, like Aristotelian demonstration, it is intended that it arise from true and evident principles, and lead to a non-evident conclusion. Observations are allowed as premisses, since there are cognitive impressions, but they have to be supplemented by conditional premisses, which are understood to be necessary, and known in some way other than observation. So “If sweat flows through the skin, and no ducts are discoverable by cognitive impressions through which it flows, then there are such ducts to be discovered by thought. Sweat does flow through the skin. Therefore there are such ducts to be discovered by thought.” The argument seems to arise from the assumption that there is only one possible explanation for the observed facts, expressed in the conditional statement. The preconception that liquid cannot penetrate a solid object without pores underlies this assumption. Skeptical thinkers attacked the possibility of such demonstrations on the grounds that, first, there are no cognitive impressions (we cannot be certain that sweat flows through the skin), and second, that one can never be sure there is only one possible explanation (the preconception may be false, or some third way of accomplishing this without pores or liquid flowing through the solid skin might be imagined).

After Chrysippus little further work in logic was done. The Peripatetics mostly ignored hypothetical syllogism, holding that all the work done in such arguments could be explained through categorical syllogism—the relation of inclusion or exclusion between the extensions of terms should be sufficient to account for all inferences. The Stoics stuck to Chrysippus’s schemata, arguing that categorical syllogism could be reduced to hypothetical—this did not imply so much a sentence logic, as a predicate logic, so that relations of inclusion or exclusion between predicates should suffice for all inferences, and should account for all extensional relations. The truth seems to be that we need both, an extensional logic and a predicate logic, which need to work together, but no further progress was made in this area in the Ancient period. But by the second half of the first century BCE an eclectic trend made both sorts of logic generally available as part of the standard syllabus for a student philosopher. Boethus of Sidon (active ca. 25 BCE), a peripatetic and a student of Andronicus of Rhodes, argued that hypothetical syllogism is prior to categorical,¹⁰² presumably meaning that

¹⁰²Categorical syllogism is an argument constructed from categorical statements, which contain subject and predicate, but no other statements as parts. Aristotle’s theory of syllogism is a theory of categorical syllogism. Hypothetical syllogism is an inference of the sort we see treated by the Stoics, in which the structure of molecular assertibles, rather than the characteristics of such qualifiers as “all” and “some,” underlies the legitimacy of an inference.

Aristotelian categorical syllogisms could be expressed as Stoic hypothetical syllogisms¹⁰³—unfortunately we have no details about what he had in mind, but it seems likely to have been motivated by a desire to keep logic independent of the assumption of real universals. A syllogistic demonstration seems to take real universals as its subject, and to suppose that one can learn things about them through observation of the world. But once one sees that syllogism is properly regarded as an abbreviation of a prior, hypothetical argument that does not make any reference to universals, this error will be dissipated.

7. EPISTEMOLOGY

But you deny that anyone except a wise man knows anything. And indeed Zeno used to show this by gesture. Holding up his hand, open and with fingers outstretched, he would say “a representation is like that.” Then he contracted his fingers a little: “assent is like that.” then he closed his hand completely, making a fist of it, and said that that was apprehension: it was from this comparison that he gave the name *katalepsis* (firm grasp, apprehension), not used before, to the thing in question. But he he had brought up his left hand and grasped his fist with it tight and hard, he would say that knowledge was a thing of that sort, and possessed by none except the wise.

Cicero, *Academics* I 2.145¹⁰⁴

Zeno may have developed his epistemology under Stilpo the Megarian, but it is clear that it is inspired by the Epicureans, relying as it does on the notion that at least some perceptions are infallibly true, and that such perceptions lead to “anticipations,” which correspond to the sorts of things encountered in reality. Like Epicurus, Zeno claimed that all knowledge arises from sense perception, with no Aristotelian understanding of pure intelligibles or universals. That it is in fact possible to know, he thought followed from the providence

¹⁰³In fact, given that the Stoics could not grant the existence of the universal, human being, they were forced to read statements such as “the human being is mortal” as statements about the content of a universal concept, or, better, about particular human beings falling under the concept, and so the conversion of the universal statement to a hypothetical statement, “if something is a human being, then it is mortal,” was a natural move. To reduce a Peripatetic syllogism in Barbara to Stoic syllogism: “All men are mortal, every grammarian is a man, therefore every grammarian is mortal” requires that assumptions be filled in. Sufficient would be “If, if something is a man then it is mortal, then, if a grammarian is a man the grammarian is mortal, and if something is a man then it is mortal, *therefore* if a grammarian is a man the grammarian is mortal. If a grammarian is a man a grammarian is mortal, and if something is a grammarian it is a man, *therefore* if it is a grammarian it is mortal.” For a different take on this matter, see “Stoic vs. Aristotelian Syllogistic” in Michael Frede (1987).

¹⁰⁴Translation from Sandbach (1989) 87. For this section, see the texts in Long and Sedley (1987) Section 39 on impressions, Section 40 on the criterion of truth, Section 41 on knowledge, and Section 42 on scientific method.

of nature, for knowledge, that is, wisdom, is necessary for human happiness, and so nature would create the desire for happiness in vain if it did not provide a way to gain wisdom. Of course, in whatever way we can gain knowledge, we should be able to gain knowledge how it is possible to gain knowledge.

The first problem was to find the criterion for accurate sense perception, and the chief fault to be avoided was giving assent too hastily to apparent perception. On his view, a sense impression led directly to the experience of some fact which thought expresses in a *lekton*,¹⁰⁵ and the impression together with assent to the assertable thus entertained constituted belief. An impression that conveys what causes it accurately and reliably, that is, because it could not have occurred without its object as a cause, so that it reliably produces a correct belief concerning it constitutes a cognitive sense impression (*phantasia kataleptike*).¹⁰⁶ For instance, it may be that the impression I have of a book causes me to believe that the book is green, and moreover, the impression would not have occurred in such a way as to cause that belief, if the book had not been green. If this seems reasonably to be the case, then it is reasonable to treat my sensory grasp of the book as a cognitive impression. The Sceptics argued that a sense perception could always be variously interpreted, and so cannot ground knowledge, so the Stoics held a *phantasia kataleptike* is open to only one reasonable interpretation. Certainly it seems that such perceptions do occur—indeed, they seem to be the usual case. There is no alternative right at the moment to my interpreting my perceptions of my cat, Sylvia, as impressions of a cat, for instance.

Cleanthes took it that such a cognitive perception was produced when the impression made by the object on the soul was very forcible. Great force (due to the high tension in the communicating medium) might be supposed to produce both a clear image (as in striking a coin)¹⁰⁷ and assent. Chrysippus, however, objected that this manner of speaking was mere metaphor, and spoke instead of an “alteration” in the soul which makes evident both itself and whatever it is that produced it.¹⁰⁸ His point was perhaps that we should not speak of a

¹⁰⁵For “sense impression,” *phantasia*. A different word, *phantasma*, perhaps we should say a “figment,” was used for one sort of image not impressed on the soul by a real external thing, but which tends to give rise to assent anyway. Diogenes Laertius 7.49–51, Long and Sedley (1987) Section 39A. A mere image, produced by the imagination without tendency to assent, was called by Chrysippus a *phantastikon*, and the object producing an impression, the *phantaston*. Aetius 4.12.1, Long and Sedley (1987) Section 39B.

¹⁰⁶Translated as *comprehensio* or *perceptio* in Cicero. The word *katalepsis* with this meaning was apparently introduced by Zeno, and Cicero’s Latin translations are also coinages.

¹⁰⁷The image will be clear as regards its relevant details, it is not suggested that it will be a *perfect* image.

¹⁰⁸Aetius 4.12.1, Long and Sedley (1987) Section 39B.

similarity between the impression and what impresses it. The causal relation by which the thing that produces the impression makes itself evident is sufficient for epistemology, for the expression indicates what causes it. Perceptual psychology may require an account what the impression is and how it is produced, to fill out the account of the origins of perceptual knowledge, but such an account need not make the impression in any way like the thing impressing it, and epistemology can be pursued without the details of this account in hand. The vividness or force of sensory impressions seem to enforce our assent, and presumably the earlier Stoics would have held that a cognitive impression does so, but some later figures, in response to skeptical objections, held that one might sometimes enjoy a cognitive impression yet fail to assent to it, because of special conditions that led one to disbelieve one's senses. So, for instance, if one saw another person known to be dead, as Admetus viewed Alcestis returned from the dead, one might disbelieve a cognitive impression of that person.¹⁰⁹ But this case does *not* suggest that one would ever mistakenly suppose oneself to enjoy a cognitive impression when one did not, and cognitive impressions generally do enforce assent. It takes very special circumstances to lead one to mistake a firm perception for an hallucination. There is a natural, naive way to interpret our sense impressions, which everyone falls into due to human nature, and these are called 'anticipations' by the Stoics (following Epicurean terminology), and the claim is made that under normal conditions such interpretations are part of cognitive impressions. So, under ordinary circumstances anticipations correspond to the reality that produces the impressions associated with them. There are also mere 'conceptions', which are constructed from remembered impressions, and often culturally determined, and these, of course, may not correspond to any reality.

A difference was recognized between the impressions of a rational and those of a non-rational animal, those of the rational animal conveying more information due to the interpretive powers of reason, and a similar difference was recognized between the impressions of an expert and those of a non-expert. The information gained from a sense-impression depends on what one already knows because one's knowledge modifies and refines one's perceptual system.

A skeptic might object, of course, that even if there are cognitive impressions, reasonable certainty that we enjoy a cognitive impression is not to be had even when one is present, and knowledge could only be obtained if we had such rational certainty. Now the Stoics do not seem to have insisted that one can always tell a cognitive impression from more questionable images. Indeed, they distinguished knowledge, which belongs

¹⁰⁹Sextus Empiricus, *Against the Professors* 7.253–7, Long and Sedley (1987) Section 40K.

only to the wise, from cognitive impressions, which, even if they underlie knowledge, are often present in those who are not wise, and so lack knowledge. Like Socrates, they thought we may have true beliefs, even well-founded true beliefs, without knowledge. The wise person not only enjoys cognitive impressions, but is capable of telling when he has one and when he does not, and so can withhold his assent when there is no cognitive impression.¹¹⁰ Since there can be cognitive perceptions of truths concerning what is good or bad, or what one ought to do, we can understand wisdom here, perhaps, in something like the usual way.

A cognitive impression must represent things as they are and produce a true belief in us, but it is not required to enjoy a cognitive impression that we have any further reason for assuming it is a cognitive impression in the first place.¹¹¹ Zeno also insisted that the cognitive impression be such that it could not have arisen from anything other than what it seems to represent, but that does not mean that we need be able to provide a further justification for believing this, either.

The wise man of the Stoics withholds assent from every perception that is not certain, but unlike the Skeptic's version of the wise man, he has recourse to some perceptions that are certain and can be read but one way.¹¹² Ever since Socrates, the trick had been to become wise in the human fashion, not by knowing all, but by recognizing when one does and does not know. Thus the Stoic wise man never falls into error, and still assents to a great deal, indeed, he assents to enough to form a systematic picture of the world, for without a systematic picture of the world, he cannot ever be certain when it is he enjoys a cognitive impression. Let us consider for a moment the debate between the Stoics and the Sceptics, and this will become clear.

What guarantees the cognitive impression's accuracy, according to Zeno, is the fact that it is of such a kind that it could not have arisen from anything other than the reality it represents. The Academic Arcesilaus objected that one could not tell if a given impression met these requirements—it would always be possible that

¹¹⁰This is also the view of Descartes, who holds that knowledge is rooted in the practice of doubt, so that one doubts whenever a rational doubt is possible, and affirms only what cannot be rationally doubted. But Descartes thought that we needed a positive reason to trust the senses, which he rooted in a priori proof that God exists and does not deceive us, so that when we find doubt genuinely impossible, we can be sure we must be right.

¹¹¹And so the Stoics and Descartes part company, for the Stoics hold that as long as a person only trusts cognitive impressions, he is wise, whereas Descartes wants an explanation how this can happen, and is unwilling to say there is no reasonable doubt, in the absence of a good God, about cognitive impressions. The Stoics, perhaps, follow the Epicureans in their view that it is irrational not to believe one's senses when no impression contradicts them, and so do not see the need to answer the skeptical arguments that Descartes tries to reply to. This marks the Stoics as Empiricists, then, for they base knowledge at bottom on sense impressions, not on a priori knowledge of another sort that enables us to argue for the truth of sense impressions.

¹¹²Bevan (1913) 37 points this out.

some impression indistinguishable by its possessor from the impression in question would fail to meet them, if it were produced in other, less favorable circumstances, as, for instance, when dreaming or hallucinating, or when it happens that indistinguishable pairs of objects are about. He seems to have concluded that there are no cognitive impressions, for cognitive impressions cannot be indistinguishable from non-cognitive impressions.¹¹³ From what we have seen, it looks as if the Stoics win this round, for it is not necessary to its being a cognitive impression that it be justifiably believed to be cognitive. Arcesilaus mistakenly supposed the Stoics thought a cognitive impression always provides knowledge.

Carneades understood the Stoics better, and expressed what Arcesilaus was trying to get at more clearly. Unlike Arcesilaus, he granted that the cognitive impressions described by the Stoics did occur. He was only concerned to show that one could not tell when they occurred. Thus the wise man, though he might have many true beliefs and many cognitive impressions, would be unable to refrain from false beliefs unless he refrained from trusting the senses altogether, even his cognitive impressions. Thus he would, just like the Skeptic's wise man, turn out to hold no beliefs at all.¹¹⁴

The later Stoics made several counter-arguments. In the first place, what is at issue is whether a wise man with normally functioning cognitive faculties can know anything, and so it is irrelevant to point out how abnormal functioning could lead to error.¹¹⁵ So they specified for knowledge, in addition to Zeno's cognitive impressions, the addendum that certain disabling conditions could not be present when a cognitive impression was, one of these conditions being whatever might prevent normal cognitive functioning in the perceiver. The perceiver must be sane, for instance. The other conditions that must be right are the sense-organ, which must not be defective, the sense-object, the place, and the manner of perception.¹¹⁶

The last three of these conditions seem to make a second point, addressing a Skeptical rejoinder to the first, namely that even if we assume normal cognitive functioning, one could still never distinguish cognitive from non-cognitive perceptions with certainty. The Stoics replied that we might reasonably suppose that it was strictly impossible, after a close enough examination had been made on a particular occasion, for the impressions, say, of a pomegranate, to have been produced by anything except a pomegranate. Even if we

¹¹³Cicero, *Academica* 2.77-78, Long and Sedley (1987) 40D.

¹¹⁴It is Arcesilaus that Descartes intends to answer, and forces him to abandon Empiricism.

¹¹⁵The same point is made by Descartes in his first *Meditation*, when he considers the possibility that he might be mad.

¹¹⁶Sextus Empiricus, *Against the Professors* 7.424, Long and Sedley (1987) Section 40L.

imagined a powerful demon, bent on deceiving us, their view could still be defended as long as they allowed that our sensory systems need only be reliable within the environment they in fact operate in to produce cognitive impressions. As long as the demon is not present in that environment, we can have a cognitive perceptual impression of a pomegranate. When presented with the Academic argument that the wise man may not be able to discriminate two different eggs, the Platonist Antiochus, following the Stoics, granted this, and held that the wise man would withhold his assent on the question whether this is the same egg as long as it is possible that other eggs sufficiently similar to it are present in the environment.¹¹⁷ So not only is it the case that cognitive impressions occur only when the senses are operating correctly and their possessor is free of irrationality, but also, they occur only in those environments in which nothing else is present that might produce a precisely similar impression. Sometimes impressions do occur in such favorable environments, and so cognitive impressions are possible.

But the Skeptic has more to say. It would seem on this account of cognitive perceptions that a wise man would often withhold assent to them. There might well be no other egg around, and it is indeed the same egg he saw before that he now has in his hands, but if he does not know there are no other eggs around, he would wisely refrain from judging it to be the same egg, even though he has a cognitive impression that it is. This threatens once more to reduce the wise man to the status of the skeptic, for it is hard to envision how he could ever be certain that favorable conditions for the production of cognitive impressions were in fact present. Further, if a cognitive impression enforces assent from us, then a non-cognitive impression indistinguishable from a cognitive impression surely would also force assent, and the wise man would thus sometimes be deceived.

To this fully developed Skeptical position the Stoic answer was that in fact no non-cognitive impression is indistinguishable from a cognitive impression for the wise man, for the understanding of the wise man concerning what is possible forms part of the cognitive impression. Thus, the mere indistinguishability of the two eggs, and of the purely sensory part of the experience we might have of them, is not enough to establish that the impression of the one egg, when it is known that the other might be about, is indistinguishable from that impression when it is known that the other cannot be about.

Hence, there is a story that the Stoic Sphaerus, when interviewed by the King, Ptolemy Philopater, at Alexandria, was presented with some wax pomegranates, which he took to be real. When chided that he

¹¹⁷Cicero, *Academica* 2.57, Long and Sedley (1987) Section 40I.

had given assent to a false impression, he replied that he had assented to the impression that it was reasonable to believe that these were pomegranates, not to the impression that these were in fact pomegranates. A cognitive impression was to be distinguished, he claimed from a 'reasonable' impression.¹¹⁸ This seems slightly garbled, but the point is perhaps that he had a cognitive impression that it was reasonable to regard these as pomegranates, which it was, and in virtue of this, a 'reasonable impression' that they were pomegranates. It is not necessary that one establish infallibility to establish that belief is reasonable. But he might have gone on to say that an inspection close up, going so far as to split the fruit apart and taste it, for instance, would form a genuinely cognitive impression that they were pomegranates. There is, sometimes, at least, a point at which doubt is no longer possible, for one can be entirely sure that the experiences one has had could not, in this environment, have been produced in any way but one.

Again, it was argued that there were no two objects or situations that are entirely identical, and so one with sufficiently sharp senses or observational skills could always tell the difference, say, between two eggs or a wax pomegranate and real one. This does not rule out the possibility that one may be deceived by non-cognitive perceptions indistinguishable from cognitive perceptions, but it does suggest that everything true might be known to be true by *someone*, if circumstances are favorable, and that may have been what the Stoics wanted to imply when they pointed out, for instance, that the mother of identical twins is able to know which one she is dealing with at any given time, even if no one else can be sure. Consider the wise man's experience of a cognitive perception—in becoming wise, he would have gained a skill like that of the mother of the twins, except that his skill is applied to distinguishing those situations in which there is only one possible way that the impression could have been produced from those situations in which there are several. Once that skill is gained, one can avoid false belief while still assenting to cognitive impressions when they occur. On this line of argument, even the unwise has many cognitive perceptions, but they are often unable to distinguish their cognitive impressions from those that are not cognitive, and so find themselves compelled to belief not only when cognitive impressions are present, but when impressions they cannot distinguish from cognitive impressions are. The wise man's cognitive impressions, however, are superior to those of the unwise, for they cannot be confused with non-cognitive impressions, and so the wise man is never compelled to belief by non-cognitive impressions, but only, at worst, moved to accept the rationality of trusting such impressions when he perceives cognitively that it *is* rational to trust them.

¹¹⁸Diogenes Laertius 7.177, Long and Sedley (1987) 40F.

Cleanthes (probably following Zeno's conception of the matter) held the soul was empty of anticipations at birth, and compared the impressions of the senses on the soul to those on wax. Anticipations arise from comparisons of accumulated experience, experience from memory, memory from perceptions. Primary anticipations occur naturally without the use of logic, and certain anticipations always occur in the soul once it is mature, assuming normal experience. Secondary anticipations, which concern words, arguments, and the like, arise through the use of logic. Even our anticipations of good and evil arise through perception. Knowledge (as opposed to cognition) is a fixed and unchangeable conception within a system of anticipations, and is artificial, depending on logic. Later Stoics held that knowledge involves a grasp of truth, not merely of things that are true, by which they seem to mean that it involves a grasp of the causal structure of the world which produces the wise man's cognitive perception.¹¹⁹ The systematic *knowledge* of the wise man is thus distinguished from the cognitive impressions of those who are not wise. Systematic knowledge prevents the situation arising in which one rejects a cognitive impression for bad reasons, or accepts a non-cognitive impression, confusing it with cognitive impressions. Systematic knowledge forms a *part* of the wise man's perceptual apparatus, enabling cognitive impressions not possible to others. Thus, once the tissue of explanatory concepts becomes extensive enough, one can handle any merely plausible objections that might be raised against one's knowledge. It should be noted that this is very like Plato's account of knowledge in his later dialogues, and no doubt depends on it. It should be no surprise that Antiochus, in his conservative attempt to free Platonism from Academic Skepticism, should resort to the arguments developed by the Stoics.

Sensation, according to Cleanthes, does not give rise to judgments by itself. Rather, these arise by the combination of sensation with conceptions. Indeed, this combination does not arise automatically, either, but is due to the action of thought, which forms a judgment linguistically, depending on an innate ability to speak, upon the acquisition of sensation.¹²⁰ This formation of a judgment should be considered a matter of expressing that of which one is aware, not a matter of "interpretation," as though alternative interpretations were available. Nonetheless, an ability to speak is innate in rational individuals, and underlies our ability to understand and frame judgments, an ability that is not shared by animals, despite their perceptual awareness of the world. Moreover, this ability entails an innate understanding of meaning, that is, of the connection

¹¹⁹So Marcus Aurelius ix 2 refers to the truth as "the first cause of all that is true," and see Sextus Empiricus, *Against the Learned* VII 38 ff. Both passages are noted in Long (1986) 130.

¹²⁰Diogenes Laertius VII 49. This view, too, can probably be assigned to Zeno.

between a sign and what it signifies, so that the perception is of what produces the impression, and not merely of the impression itself.¹²¹ This linguistic (and logical) ability, of course, is precisely the *logos* within a human being, which not only receives the impression, but can judge it and understand it.

Despite the insistence that all knowledge arises from perception, we should distinguish the Stoics from more radical Empiricists of the stamp of David Hume, for they take Reason to do something with its sensory experiences that transcends the mechanical, something which the mere presence and juxtaposition of perception and concepts could not produce of itself. They seem to identify an irreducible, active intentionality in the mind, which draws from impressions judgments about what impresses them, and which cannot be understood in terms of the processes of physics or the machinery of sensation and memory. Furthermore, the underlying material from which reason constructs knowledge in the Stoics is not mere perceptual appearance, as in Hume, but rather cognitive impressions, which are guaranteed by nature to portray the world accurately, and so provide a naturalistic underpinning to human knowledge. Knowledge arises when a human being brings reason, with its argumentation and ability to form such basic anticipations as causation, to the perception available already to animals.

But like the British Empiricists, the Stoics had difficulty accounting for the full range of anticipations we enjoy through reason's manipulation of impressions.¹²² They spoke of forming concepts through similarity, by analogy, magnifying or diminishing the impression, so that we conceive of giants and pygmies from an acquaintance with normal person, or the center of the earth from an analogy with smaller spheres whose centers we can perceive, through transposition and combination, as when we form a anticipation of a centaur or an animal with eyes on its chest, and through opposition, as when we form a notion of death through our acquaintance with life. *Lekta*, place and other immaterial realities pose the deepest difficulty. For such anticipations the Stoics resorted to 'transition,' though we have no explanation what this amounted to. Probably it was closely connected to the actual reasoning which led the Stoics to assert that such things are, so that, for instance, we make a transition from the object we perceive to the place in which it must exist if it is to be there to be perceived. The necessity of the incorporeal if the corporeal is to be possible can surely be recognized only once one has formed a anticipation of the incorporeal, but perhaps the idea is that the

¹²¹Sextus Empiricus, *Against the Learned* VIII 275 ff., for the comparison to animals and the innate understanding of the sign relation..

¹²²Diogenes Laertius 7.53, Long and Sedley (1987) 39D.

incorporeal is rather like the corporeal stripped of its causal characteristics. Place is like a physical thing, but not impenetrable, for instance, and time is like an event or series of events, but with the content, the things happening due to causal interactions, removed. Even *lekta* are rather like the expressions we can form linguistically, and correspond to them, only the physical aspects of the linguistic expression and its source in our intellect are ignored. Thus a 'transition' is made by the mind from physical things to incorporeals to which they in some way correspond.

The Stoic response to the notion of a deductively organized science in Aristotle was to grant that there might be demonstrations, but to deny that a demonstration had to take on any particular form. An argument that is valid, and has true premisses evident beforehand, but a conclusion not yet known, would be a demonstration. An example is, "if sweat flows through the skin, then there are ducts through which it is conducted to the surface, but the former, therefore the latter." Here the conditional is made evident by an anticipation, namely that liquid cannot penetrate a solid body.¹²³ Following this out, one would expect a Stoic science, then, to be modeled on mathematics, with the anticipations taking the place of the axioms and postulates, it being assumed that, like cognitive impressions, they cannot be false. A skeptic might question the source of our anticipations, of course, and whether there is any reason to suppose that they must be true, and this is the starting point of Early Modern epistemology.

In addition to these anticipations, if any informative science about the natural world is to be available, one might think we must also rely on induction of some sort to produce a knowledge of causal connections and the natures of things. We see that an event of sort A is followed by sort B in the cases observed up to now, and so conclude that an A is always followed by a B. This form of argument is not in general valid, of course. Russell has noted that the factory whistle goes off while the sun is high in the sky, and swarms of people come out of the factory headed for home. This might happen four or five days running, but then Sunday comes, the factory is closed for the holiday, and the whistle goes off at four o'clock. . . One might seek out how such an argument can be strengthened, but that won't do for the Stoics any more than it satisfied David Hume, for the Stoics require that a demonstration be deductively valid. So they rejected the Epicurean use of induction to establish scientific knowledge. But, they pointed out, if we could claim that the connection between events was due to the presence of some essential nature, then we might claim a necessary connection and a valid argument, and so have a demonstration. So how do we acquire knowledge of essences? The Epicureans had held that it

¹²³Sextus Empiricus, *Outlines of Empiricism* 2.135-43, Long and Sedley (1987) Section 36B.

was through induction, but the Stoics did not see how that could work, and so they seem to have taken it that most statements about the essence of a thing could not be known. (Exceptions might be found in mathematical essences, and very basic things like space and body, in which preconceptions concerning essence have to be present to ground sensory cognition of the world. But, of course, a skeptic would question why we should trust such preconceptions, pointing out that we have no reason to believe it necessarily true that we indeed can have cognitive impressions that report the world to us accurately.) In the absence of such knowledge of essence, one might still draw inductive conclusions, but such conclusions will only establish rational belief, not knowledge. A wise man, it seems, makes a great deal of use of rational belief in the absence of certainty in everyday affairs.

The Stoic picture of the knowledge of a wise man, then, is rather close to common sense. The wise man will *know* the things that we might suppose we know through sense perception, though he would no doubt be more alive to possible problems and somewhat less trusting of his senses than most people. He would also know mathematical and logical truths, and whatever is contained in or follows from the preconceptions that underlie his sensory cognition. He would know to be true, it seems, whatever must be true if sensory cognition is to be possible. But there would be a great deal he could not know. Some of this would be the subject of rational beliefs which he would follow without certainty that they are true, and some would be things one could not ever come to know. The realm of scientific explanation, the details of biology and the causes of the motions in the heavens, and so on, would be largely unknowable. Might rational belief be formed in systematic, deductively structured theories in these areas? The long and the short of it seems to be that the Stoics did not much care. The knowledge and rational beliefs of the wise man were, after all, for the sake of living, and such knowledge, they no doubt thought, would not have been of much use in life. They certainly did not think it the task of a philosopher to discover it. Their interest in physics and the rest all focused on the philosophical uses of these sciences, to provide a rational foundation for our confidence in the possibility of knowledge of the world, and to give us an understanding of the nature of the good life and virtue.

8. ETHICS AND PSYCHOLOGY

The wise man will more rightly be called a king than was Tarquin, who could rule neither himself nor his people... more rightly rich than Crassus... All things will rightly be called his, for he alone knows how to use them; rightly too will he be called beautiful, for the features of the mind are more beautiful than those of the body, rightly the only free man, since he obeys no master and is servant of no greed, rightly invincible, for though his body may

be bound, no fetters can be put on his mind... If it is true that none but the wise are good, and all the good are blessed, is anything more to be studied than philosophy or anything more divine than virtue?

Cicero, *Concerning Ends* 3.75–6.

The centerpiece of Zeno's philosophy was his ethics, which hewed close to the views of Socrates. He held that we should live in accord with nature, that is, in accord with the *logos*, the soul and nature of the universe, which is reason itself and the foundation of logic and knowledge. For a human being, this means living in accord with reason, which is our nature, the expression of the universal nature in us.¹²⁴ If we don't, our lives will be full of internal conflict, which makes a happy life impossible. Reason enables us to resolve conflicts in our natural desires and impulses, and to live consistently, in accord with one harmonious plan.¹²⁵ Conflict is to be avoided between human beings, and, as far as possible, with other parts of the natural world as well, and so an interest in the welfare of one's fellows, as well as an acceptance of evils inevitable in the natural order, is rational, and natural to a mature human being. Following the Academy, Zeno held that primary animal impulses present before reason develops tend toward self-preservation and self-interest, but in an adult they should be subordinated to reason. Duty is only what our rational nature requires of us. Virtue is practical wisdom or prudence, *phronesis* (*prudentia* in Latin), and courage, justice, and self-control are only aspects of this, applications of it in different spheres of action, in consideration of what is to be endured, how goods and evils are to be distributed, and what is to be acquired. Zeno's disciple Ariston, and perhaps Zeno himself, even held to the Socratic assertion that there is only one virtue, knowledge of what is good and bad, given different names depending on how it manifests itself.¹²⁶

¹²⁴Diogenes Laertius 7.89. Chrysippus observed that observation of nature is necessary to live in accord with it.

¹²⁵Diogenes Laertius 7.87 reports this as something Zeno asserted in *On Human Nature*. Arius Didymus reports that Zeno thought the end of life was to live consistently, by one harmonious plan (*logos*), and he claims that Cleanthes added that one was to live according to nature. Probably this was only a matter of making Zeno's view explicit, not an alteration in his thought.

¹²⁶So Plutarch, *On Moral Virtue* 440E–441D, *On Stoic Self-Contradictions* 1034C–E (Long and Sedley (1987) 61B and C). Plutarch remarks that Zeno called prudence in matters requiring distribution justice, in matter regarding choice, moderation, in matters requiring endurance, courage. He makes Chrysippus the one who abandoned this approach, perhaps for Plato's reasons, for he says that the soul becomes irrational when impulse, which is not by its nature opposed to reason, comes to dominate reason unnaturally. In any case, he seems to identify the different virtues with different kinds of knowledge, that is, scientific knowledge with different subjects, which are, of course, different sciences, though he argues that if we have one of these sciences in our possession, then we must have the necessary principles to construct the others. So, to know what a moderate act is we must know that it is not cowardly, and that means the science of moderation includes the theorems of the science of courage. Long and Sedley (1987) 384.

From the later Stoics we gather that even the natures of non-rational beings produce not only impulses to self-preservation, and a natural knowledge of the uses of their own bodies, but the formation of communities appropriate to their species. So mothers care for their young, and deer form into herds. Moreover, animals do not seek pleasure first, but self-preservation and community, and only after that, if all other needs are met, is it natural for them to seek pleasure in play. Natural impulse should rule in animals, and the rule of reason in human beings, a kind of animal, does not conflict with natural impulses. Human impulses include, affection to kindred and children, the easy formation of friendships and a natural grouping together in communities. Indeed, by nature we have an impulse to benefit as many people as we can, and to protect and defend those we know. One thing reason should do is to address our natural tendency to have closer and more distant circles of community, always endeavoring to move those further out into closer relations to ourselves—thus the role of reason in Zeno in *introducing* altruism is converted to *fostering* it. We also have a natural impulse to claim things as property, and maintain our rights to them against others. All this, of course, reflects the order of nature, which is designed by intelligence, and aims for the good.¹²⁷

Zeno, again like Socrates, rejected the Platonic notion that wisdom is insufficient in itself for virtuous action, but requires that one master the irrational part of the soul in order to follow the dictates of wisdom. He identifies desire with opinions about the good, virtue as knowledge of the good, and vice as a false opinion about the good. Moreover, he was rather skeptical of the prospects of a human being becoming truly wise, and convinced that most people's lives were dominated by false opinion about the good, and even those who got it right almost never had unshakeable knowledge of the matter.

The good life¹²⁸ is that of the perfectly wise person who enjoys perfect virtue, then, and virtue is always within our power.¹²⁹ Zeno distinguished the intrinsically good and bad, that is, virtue and vice, from the

¹²⁷Diogenes Laertius 7.85-86; Seneca, *Letter* 121; Cicero, *On Ends* 3.62-68. See these and other sources in Long and Sedley (1987) Section 57.

¹²⁸The "happy" life, it is often translated, but *eudaimonia* is not so much happiness as good fortune, and in philosophy after Aristotle, it had come to mean something more like a life well lived. The English word "happy" smacks entirely too much of pleasantness to fit the Greek term.

¹²⁹The wise man was supposed to know everything pertaining to good or ill, and this was read by some Stoics to imply a kind of omniscience, but most took it to indicate only that a wise man knew his own limitations, and so knew the limits of his knowledge. Hence Seneca says (*On Services Rendered* 4.34) that a wise person never says that something will happen without adding "if nothing comes along to prevent it," and it is for this reason that nothing happens contrary to his expectations, he is too wise to have confident expectations where he is ignorant. Moreover, one need not know the future course of contingent events, for instance, to know what pertains to good and evil. One need only know that whatever happens, one should respond to it virtuously.

indifferent, which are not, strictly speaking, good or bad, though they are often worthy of choice or avoidance, depending on the circumstances. Death, wealth, reputation, good health, and the like are indifferent. In effect, he sets up two parallel scales for the choice worthy. On the higher scale lie the virtues and their opposites, which are under our control, and on the lower, those goods which are not under our control, or at least not entirely so. On no account should anything good be given over, or anything bad be chosen, to gain or avoid something indifferent, however worthy of choice or avoidance it may be. This view of the good life defined one as a Stoic—some rejected the most important points of Zeno’s cosmology, but were accounted faithful Stoics because they continued to adhere to his view of the good life.¹³⁰

The proposal here is extreme. Virtue is held to be entirely sufficient for a happy and worthwhile life, and indifferent things are held to add nothing to the happy life. This is often regarded as monstrously implausible—“never yet has there been philosopher who could endure the toothache patiently”—and Antiochus of Ascalon, for instance, insisted with apparent good sense that even if virtue is adequate for a good life, morally indifferent goods might make it better.¹³¹ But the Stoic view is in fact consistent with many people’s intuitions about the good. The first part of the view is that there are two incommensurate scales of value, the upper scale far better than the lower, so that every decision should be made with attention to the upper scale first of all. This captures neatly the attitude we often have toward ethical duty. “Let justice be done though the heavens fall!” announces the prophet, and it is not obviously absurd. The value of justice is somehow not merely greater, but of a different order, than the value of utility, and we may feel that it betrays a certain ethical insensitivity to compare the two at all. Moreover, once we set aside the notion that the good life must be a pleasant one, we might begin to see the point in the Stoic view that virtue and wisdom alone are relevant to the good life. Indeed, those who have a deeply ethical approach to life gain a certain peace of soul in knowing they have done their duty even when facing personal disaster, and set much greater store by what they are and what they do than by what they have. The notion that the good life is established by one’s will and understanding, not by one’s good fortune in obtaining things that can be lost, is not, to many, absurd at all. Such people may see a point in pursuing more mundane goods (those indifferent things that are in accord with nature, which we seek by a natural impulse) as long as their virtue is not compromised, but the morally indifferent good does not touch the moral good, which remains intact, neither increased nor decreased,

¹³⁰For relevant texts, see Long and Sedley (1987) Section 58.

¹³¹Cicero, *Concerning Ends* 5.71 ff., V 38.; 4.25–28 argues that the good ought to include the satisfaction of natural impulses.

whether morally indifferent goods come one's way or not. (Indifferent things to be chosen includes goods such as pleasure in moral action, self-approval, and the like. Chrysippus held that wisdom and virtue are to be pursued for their own sake, not for the sake of any pleasure or self-approval they may provide.) A pleasant life is to be pursued if one can come by it honestly, and one's natural needs should be met if no moral compromise is necessary to meet them, but one does not *live better* in virtue of meeting one's needs and enjoying pleasures, one only lives more pleasantly, with less pain, and living *well* (*eudaimonia*) is what counts.¹³²

One way of framing this would be to say that the Stoics hold, using Buddhist terms, that virtue and wisdom are rational objects of grasping desire. Indifferent goods (and Buddhists would hold that they are *all* indifferent, even virtue) are not reasonably grasped after, even if it is reasonable to seek them to the extent that one can, once more important affairs have been tended to. So Stoic wisdom involves a certain realization that *most* of the things grasped after in life are not rational objects of that grasping, and since the Stoics regarded emotions and valuations as beliefs, this would involve recognition of the illusory nature of the world we imagine ourselves to live in, a realization typical of Buddhist Enlightenment. Since the Buddhist holds that nothing is a rational object of grasping, not even wisdom and enlightenment itself, it would seem to be the Buddhist, and not the Stoic, that has a paradox to defend. But, of course, the Buddhist will take issue with the Stoic whether virtue is always available to everyone if they but choose it, which undermines Stoic arguments for the rationality of grasping after it.

The Buddhist might be pleased to see, at least, that Zeno, unlike Plato, is careful not to rely on the supernatural nature of the soul to support his claim about the rationality of grasping after virtue. His central argument for the claim is one that Plato never considered. He insists that nothing can be truly choice worthy as long as we can fail to have it due to no fault of our own. If it can be lost against our will it is not reasonable to desire it excessively, that is, as a fundamental good essential to happiness, without which life is not worth living, since such a desire simply sets us up for disappointment. One might desire such a thing rationally, but only as an indifferent thing, that is, something "nice to have," but inessential at bottom. To regard something as *essential* to the good life is reasonable only if one cannot lose it against one's will, and the only thing that fits this description is virtue. But the Buddhist might still object that a residuum of the supernatural soul remains in Zeno's account, for he holds that the soul has free will, entire control over its own choices and actions, which is not possible in the natural order, where choices, desires and actions have causes outside oneself. The

¹³²And living well is *eudaimonia*. For this treatment of the matter, see Sandbach (1989) 40–41.

Aristotelian view that it requires a certain kind of good luck to be in a position to be virtuous and wise, a view often directly opposed to the Stoic view in Ancient discussions of the Stoic position, would impress the Buddhist as much more reasonable.

This pragmatic assessment of the irrationality of grasping desire for what one might lose was extended to all the “passions.” It is often asserted that the Stoics considered all emotion to be irrational, but Stoic “passion” does not correspond very well at all to our word “emotion.” They considered many emotions, for instance, affection for one’s fellows, as perfectly reasonable, and so not as passions at all. Zeno identified four sorts of irrational “passion,” namely, irrationally intense mental pleasure (*hedone*), pain or anguish (*lupe*), which is an expansion or contraction of the soul due to the false opinion that one possesses some absolute good or evil, and fear (*phobe*) and lust (*epithumia*), impulses following upon a judgment that their objects were to be sought or avoided as absolute goods or evils.¹³³ Anguish includes pity—after all, if we should not feel excessive sorrow at our own misfortunes, since they do not touch our moral nature, how should sorrow at others’ misfortunes be reasonable? Affection for our fellows and friendliness, as in Buddhism, are held to involve doing what one can for others, and even the feeling of compassion for those who suffer, but not the view that our friends must be happy or virtuous if we are to lead a life worth living at all. Lust includes anger, an unreasonable desire for revenge. It is not entirely clear whether Zeno thought the judgment associated with a passion to be a false one, taking it that the indifferent is to be sought as though it were a good essential to happiness, for instance, or if he thought it was only the reaction of one’s non-rational nature was excessive, a reaction to a possibly correct judgment, but it is clear that later Stoics took the former view. Chrysippus and those after him identified the passion with the judgment itself.¹³⁴ In any case, these are impulses from which the wise, who know what is truly good, are free. The wise are not free from all emotional impulses, however, for some of these are reasonable. Indeed, many sources say that only the wise enjoy truly reasonable emotions. These include joy

¹³³Long and Sedley (1987) Section 65.

¹³⁴One objection to this view is that one seems to be capable of being subject to a passion, and at the same time fighting it by observing its irrationality, given the fact that its object is not something truly valuable or bad. This is easily handled on Zeno’s view, but presents a difficulty if the passion itself is a belief, for then it would be contrary to the belief that its object is not truly anything to be concerned about. Apparently some Stoics answered this objection by arguing that one does not hold two contrary beliefs in this case *at the same time*, but rather first one and then the other in rapid alternation (Plutarch, *Moralia* 446 ff.). Another objection was that children and animals, who do not hold suitable beliefs, seem subject to passions, but here it was replied that they were not genuinely subject to them, but only to states that resembled them, but were much less persistent, not being rooted in reason. A third objection pointed out that passions vary in intensity, and often abate with time. Here Chrysippus replied that such a change is not due to change in belief, but rather the psyche contracts in response to the belief less with the passage of time..

in the presence of the virtue (*chara*),¹³⁵ and an absolute aversion to immorality, a kind of enjoyment of indifferent things to be chosen (*eupatheai*), caution (as opposed to fear) (*eulabeia*), and reasonable wishing (as opposed to lust) (*boulesis*).¹³⁶ Responses to the morally indifferent which are not excessive form another class of rational emotions, and it is hard to see why such impulses should not sometimes occur even in those who are not wise.¹³⁷ Perhaps it was thought that the impulse toward the truly good and away from evil was always deficient (as it would be if one took the true good to be on a par with anything else), and responses to the morally indifferent always somewhat excessive, in those who are not wise.

Given the Intellectualism of the later Stoics, it is no surprise that they view logical acumen, dialectic, as a *virtue* necessary to the wise man.¹³⁸ Thus one learns from dialectic when to give assent and when to withhold it, and is freed from precipitancy, one forms a resistance against giving in to the merely plausible, learns to refer impressions to the correct rational principle, and becomes irrefutable in argument, so that one is not falsely carried into denying what one knows. All of these vices and their corresponding virtues extend far beyond skill in argumentation, for precipitancy, for instance, will lead one to judge too quickly that he has been harmed, and so to engage in rash actions or give way to damaging emotions.

Physical pleasures were not considered a good by the Stoics. In part this was a reaction against the Epicureans, in part an opinion arising from the observation that physical pleasure was commonly accompanied by an excessive mental pleasure—that is, that physical pleasure tended to lead us to grasping. Cleanthes argued that physical pleasures were never in accord with nature, since they are effects from the outside due to weak *tonos*, and that they had no value at all, but Chrysippus and the rest of the Stoics were less severe, holding some pleasure to be natural. Passions are false opinions about the good, but we assent to and dissent from passions voluntarily. The bodily goods with which they are associated should all be sought on their own behalf, not for the sake of the pleasure that accompanied them. It does not follow from this position that physical pleasure should be avoided, especially inasmuch as it inevitably accompanies some bodily goods, but we should not regard it even as a morally indifferent good.

¹³⁵One can be virtuous without such joy, and indeed, even without being aware that one has achieved virtue. Plutarch, *On Common Conceptions* 1062B (Long and Sedley (1987) 61U). So these reasonable emotions are not at all necessary for happiness.

¹³⁶So Andronicus, ca. 100 B.C.E. See Seneca's definition of joy in *Letter* 59.

¹³⁷So Plutarch, *Moralia* 449a; Cicero, *Tusculan Disputations* 4.12–14; Lactantius, *Divine Institutes* 6.15.

¹³⁸Diogenes Laertius 7.46–48, translated in Long and Sedley (1987) Section 31 B.

Excessive emotional impulses are unreasonable precisely because the world is ruled by reason, and so every evil has its point, what is needful for us will be provided, and that good things should always happen to us is not reasonably to be expected.¹³⁹ One who understands this should willingly approve whatever happens to him, for though it may be hostile to her own nature, it is in agreement with nature in the large, and one can only live well in the context of a nature in the large that proceeds as it will, looking after the welfare of every natural being, not just one self. Indeed, one cannot thwart providence and fate in the end, and whoever must suffer for the greatest good, will, willy nilly, so it is best to take it all in good spirit, and not kick against the goad.¹⁴⁰ For this reason, even though it was taken that we might rationally enjoy indifferent things, or be cautious of them, or wish for them, as long as we do not regard them as (absolute) goods, the Stoics did not allow that we might rationally suffer distress about how things were going at the moment, or, for that matter, how they might go in the future (the virtue of prudence does not involve such distress). Of course, it is always within our power to do exactly that, so that unhappiness is never forced on us, and the wise are happy even when luck seems to turn against them. Zeno did not, then, argue only pragmatically against excessive emotions, asserting that they are counter-productive, he also insisted on their inappropriateness to the way the world is, and this committed him to the enterprise of defending a definite cosmology.¹⁴¹

Passions were sometimes characterized as a fluttering of the soul. This refers to the physical basis of a passion, the weak *tonos* in the soul. If the tension is weak, or we tries to hold it too tight, it becomes unsteady. A wise soul maintains a smooth control of itself, with very little control flutter, like a steady hand. One can observe that the unwise are marked by an inability to hold on to the same view of things for any length of time,

¹³⁹Bevan (1913) 48 ff. argues that the Stoics, though they regarded the world as reasonable, so that it aims at some value which we, as reasonable beings, can appreciate, they never filled in the content of this rational aim. His point is somewhat weakened by the suggestion that Christian talk about love did fill in the content. The Stoics may not have talked about love, but it would not have helped to do so. To love others is perhaps to value a rational nature as such, but without an account of the life suitable to such a nature, this love has no content. Or perhaps to love others is to wish them well, but what is well in their case can only be known, once more, if we have some account of the life suited to a rational nature. The Stoics probably did well enough providing such an account, borrowing especially from the work of Aristotle in this area. If the rational end of the world process is to be something realized when all becomes fire, then it will have to be supposed that in that condition reason is able to live its life peculiarly well, because it contemplates the truth so effectively. To announce that this or that is “valuable” as though it had a value independent of its connection to a life lived, is of no help here. Content can only be provided for this rational aim by considering what sort of life is suited to a rational being. If Bevan thinks a suitable life for a rational being is necessarily one of (loving) interaction between rational beings engaged in solving practical problems, then the state of things at the end will not look good to him, but perhaps the Stoics agreed, since the “end” is not really the end, but the contemplation of Truth apparently leads inevitably to a universe in which individuals interact.

¹⁴⁰For this point, see especially Cleanthes’s *Hymn to Zeus*.

¹⁴¹So Bevan (1913) 28–31, 44.

a kind of distraction and wavering of opinion, and, of course, a physical shakiness.

Will and intention make an action just, and nothing else does, though an action is described as appropriate if it is the kind of thing a just person would do, even if it is done, this time, for the wrong reason. An appropriate action can be defended or justified. Someone who is not yet wise should choose appropriate actions as often as possible, and, though such actions will not be wise or just, by choosing them we make progress towards wisdom. Only the wise can truly receive benefits, and so be friends or feel true gratitude. A wise person is like Zeus in all except length of life, which is not relevant to happiness. Cleanthes took wisdom to be an absolute state that one could not relapse from. Chrysippus disagreed, but still took incomplete virtue or mere progress toward it as a secondary good, not a good in itself. Only perfect virtue is good in itself, and all the rest is good only as it contributes to this. Hence only the truly wise man is happy, and all the rest of us are, equally, miserable. A man a cubit below the water is drowning just as much as a man five hundred fathoms down, he suggests. Given that he seems to have taken perfect wisdom to be unattainable, such a view would seem to leave us without reason to seek virtue. People outside the Stoic school found it odd that someone like Aristides the Just should be accounted no better off than a common criminal, just because neither was perfect. Surely, even if there are no degrees of perfection, there are degrees of imperfection. Perhaps it was argued that an imperfect person generally leads a more pleasant life by being just, and so has some reason to do it (it is choice worthy) even if he does not achieve perfection in it. In effect, one would reasonably move as far up the lower scale as he could, and since doing this involves imitating virtue, it would prepare the way for the jump to the higher scale, and that would add to the reasons for progressing up the lower scale. In Buddhism, similarly, one might pursue rebirth in the heavens through morality, and morality prepares the way for enlightenment, even if enlightenment involves recognition that even morality is not something to be grasped.

The view that perfect virtue, that is, perfect wisdom, is unattainable was an inheritance from Socrates, of course, and there is a close parallel here between Stoic ethics and epistemology. Knowledge is like virtue, and the cognitive perceptions of those who do not have knowledge is like the accidentally correct actions and habits of the person who is not wise. Knowledge is all or nothing, as is virtue, but cognitive perceptions gradually build up into knowledge, so one can make progress, while remaining ignorant, just as one can progress while remaining unvirtuous, through good acts and habits.

Justice is subordination of oneself to the whole, and human beings exist for one another's sakes, sharing in one law and a common nature. Chrysippus followed Zeno in his views on the ideal world-state, but he

probably originated the orthodox Stoic view of the origin of our sense of justice and sympathy for others. He suggested that our first impulse is to self-preservation, and so to seek what is good for oneself (note that it is not an impulse to *pleasure*). Now this impulse only operates as long as one can identify oneself, and this self-identification works through *oikeosis*, a feeling of affinity, which is initially directed to one's own body and consciousness.¹⁴² Upon the accession of reason around the age of fourteen, a person naturally begins to feel an affinity for, to identify with, his rational faculty, and so perceives morality and wisdom as ideals pertaining to himself. Hierocles (a Stoic of the second century CE, see below) suggests that a young person should progressively come to identify with his parents and siblings, wife and children, more distant relations, then with members of his deme, his city, region and nation, until at last his *oikeosis* extends to the whole of the human race.¹⁴³ This may be an elaboration of a simpler doctrine in earlier Stoics, holding straightforwardly that reason leads directly to a recognition of one's affinity to all human beings. The doctrine is interesting inasmuch as it suggests a compromise with egoism, arguing that one who experiences altruistic concern is, in the end, concerned with what he has identified with and come to regard as his own. Altruism involves an extension of the sense of self to others.

Suicide was considered appropriate if life, a mere conditional good, ceased to be good (of course, the wise soul would survive the suicide). Suicide was not conceived to be justified by one's lack of wisdom or any wickedness by Chrysippus, though Seneca suggests that one may reasonably seek suicide because of one's faults, and Marcus Aurelius argues that a wicked man would carry out at least one good act by his suicide.¹⁴⁴

Stoicism has a distinctly unworldly flavor, but Stoics generally agreed that a human being could not be virtuous without *acting* virtuously, and for this it was necessary to play a normal human role in society. So Chrysippus: "What am I to begin from, and what am I to take as the foundation of proper function and the material of virtue if I pass over nature and what accords with nature?"¹⁴⁵ Proper functioning, in which virtue is exercised and revealed, is a matter of activity natural to human beings, and so a natural human life is necessary to virtuous people even if the naturally hoped for outcome of their natural efforts has no bearing on

¹⁴²Diogenes Laertius 7.85; Cicero, *On Ends* 3.16.

¹⁴³Stobaeus 4 (pp. 671–3, Hense). For earlier references, see Cicero, *On Ends* 3.63.

¹⁴⁴Seneca, *On Anger* 3.15. Marcus Aurelius, *Meditations* 9.2, 10.8, 10.32. This sort of thing seems restricted to the Roman Stoics, though, and is not found, for instance, in Epictetus. Marcus even suggests that one might commit suicide if some purpose is thwarted, thereby removing all point from one's life, at *Meditations* 8.47.

¹⁴⁵Plutarch, *On Common Conceptions* 1069E, as cited in Long and Sedley (1987) Section 59, concerning "proper function."

their happiness. Perhaps even more important, the only way for a human being to develop a moral *tonos* is to *behave* morally, and so moral action is essential to progress toward wisdom, and it is only by observation of actions that we develop the notion of the good and the bad.¹⁴⁶ The outcome is valuable, of course, but only at the second level, not at the moral level. At the moral level all that counts is that one do the thing as well as one can for the right reasons. Of course we care what the outcome is, and to act well is to aim honestly for an outcome, but the *important* thing is the doing, and a proper effort, even if it fails, is enough for happiness. Success is nice, and we must aim for success to act well, but it is not necessary.

Stoic political thought in Athens seems to carry an undercurrent of anti-Macedonian policy. For instance, Sphaيروس of Borysthenes (fl. 220's), active at the time of Chrysippus, aided Cleomenes III of Sparta in his reforms, and maintained links with Ptolemy III. The philosophers did not so much favor the Ptolemaic Kings, of course, as they desired to use them as a counterweight to their local monarchy, which, quite aside from natural Athenian yearnings for independence, supported the sort of unjust oligarchical arrangements so distasteful to the Cynics and early Stoics. The political ideal of the city-state was far from dead in Greece, however irrelevant it may have been elsewhere in the Hellenistic world. Its survival is attested to by the continual struggle of the Greek city-states to assert their independence against Macedon. Moreover, this ideal was part of the Cynic-Stoic picture of ideal, natural state, so that there was a natural alliance between Stoic and patriot in Greece. The antipathy to Macedonia led eventually to the Stoic admiration of Rome, perceived initially as a check on Macedonian dominance. This new connection ensured the influence and survival of the school, but it also shifted its political thought away from Cynicism, or perhaps we should say, redirected the Cynical impulse into a kind of forlorn acceptance of current customs, hoping that virtuous administrators, working within the existing polity, however unjust and unnatural it may be, might have some positive influence on events. One might recruit Romans such as Cicero and the Scipios to one's philosophy, but one does so only at the cost of giving it a much more conservative cast. The diatribes of the Cynics seemed to the Roman Stoics nothing more than a literary trope bewailing the evils of the time, so obvious it was that no actual reforms could be based on them. This subtle reinterpretation was sufficient to shift Stoic political thought from its championship of local autonomy and natural communism to a discouraged acceptance of the injustice and corruption of the status quo and advocacy only of virtuous action, to the extent that this was possible, within it. An insistence on free speech for philosophers was maintained, and the old diatribes seem to have continued

¹⁴⁶For the latter point, Seneca, *Letters* 120. 3–5, 8–11 (Long and Sedley (1987) 60E).

as part of the intellectual's literary diet, no doubt in part simply to maintain the right to criticize the societal arrangements one acquiesced in. In the end, it was a matter of what actions could be taken now to further the ideal arrangements, and under Rome, with the disappearance even of the uncertain and strife-torn independence of the city-states of Hellenistic times, one had to settle for less, the mere right to protest and advocate the ideal state, and to urge officials to act justly insofar as it was possible within existing arrangements. One might, by withdrawing from public life, exemplify in some sort the ideal situation in one's life, but this had in Hellenistic times been somewhat closer to a rehearsal for an actual performance, providing a nucleus of philosophical friends around which an ideal state might gradually coalesce. Now the Cynic's life was seen to be of value to the one living it, and he might draw others to the natural life, but it no longer seemed to provide the seed from which an ideal state might grow. In Christian hands it evolved into the life of the monk, a model for an ideal state which would only come by miraculous means at the end of time. The *Republic* of Zeno came to be seen as a youthful work by Roman Stoics, not to be taken seriously—indeed, some denied his authorship entirely.¹⁴⁷

9. FREE WILL AND DETERMINISM

Chrysippus argued that uncaused events, such as creation out of nothing, are impossible, and was, like the Atomists, a causal determinist. Every change is the result of some action or cause, and every change leads to further changes. He identified four sorts of cause, (1) operative cause, which occurs at same time as its effect, (2) antecedent cause, which occurs before the effect, (3) intensifying causes, which are not sufficient of themselves to produce the effect but increase it, (4) and joint causes, which are necessary but insufficient parts of a group of causes sufficient in itself to produce the effect. Human actions have both external and internal causes, the latter being “in our power,” even if they are determined. They arise from our will and character, which determine our response to events, and so our actions from internal sources are free and we are morally responsible. Chrysippus apparently was interested in establishing moral responsibility on the ground that it was oneself that caused one's action, not on the possibility that one could have acted otherwise than he did, but he did claim there was a sense, sometimes, in which one could have acted otherwise, that is to say, it may be that nothing prevented one from doing so other than, say, one's own beliefs and character ,

¹⁴⁷See Erskine, A. (1990), *The Hellenistic Stoa: Political Thought and Action*. London: Duckworth.

which led to the action one in fact performed.¹⁴⁸

Sometimes it is argued that if the future is already determined, then no action of ours can make any difference to it, that is, fatalism is deduced from determinism. Chrysippus replied that many things are fated only on the condition of one's taking or omitting to take certain actions. It does not follow from the fact that you are fated to recover from your illness that you will recover *whether you call a doctor or not*, for your recovery is predicated on your calling the doctor, which is something you are responsible for doing, and consistent with your character, even though it is also fated.

Now the Stoics accepted that if an event was necessary, then one could not be held responsible for its occurrence, and that one could be held responsible for anything done freely, and so argued that something is necessary only if one cannot prevent it due to his own intrinsic lack of power, or due to something external that prevents him from applying his power. So, if someone can smash a jewel, that is, he is strong enough to do so and knows how to direct the blow, and nothing external prevents him, that is, the jewel is not a thousand miles away or locked away in a vault or any such thing, and one does not smash the jewel, then it is not necessary that one does not smash the jewel, and he can be held responsible for not smashing it. Of course, it is causally determined that the jewel will not be smashed on this occasion, but part of the cause for this is one's own causally determined decision not to smash it, given that one could do it and nothing prevented one from doing it. With this much in place, they went on to define possibility, impossibility, and non-necessity.¹⁴⁹ This means that logical or causal necessity is not what concerns the Stoics, but rather that necessity an event has which prevents one from doing anything about it. That all one's actions are determined by Fate, then, is quite consistent, on their view, with the view that many events are not necessary, and that many things that are possible do not in fact occur. In particular, every human choice is non-necessary, for one could always have made other choices, given one's nature, and the choice that one does not make is possible whenever nothing external prevents one from making that choice.

One argument against the Stoic view here would hold that whatever follows from a necessary proposition is necessary. So, given that the past is necessary (we can't do anything about it), and given that sufficient causes for every future event are to be found in the past, and given that the Stoics deny that

¹⁴⁸Alexander of Aphrodisias, *On Fate* 26.

¹⁴⁹Diogenes Laertius 7.75. See Long and Sedley (1987) Section 38. On the basis of these definitions the Stoics approached the Master Argument of Diodorus, and so they treated necessity and possibility, not as logical notions, but as notions bearing on action. If one could not do anything about it, it was necessary.

statements about the future lack truth value, it seems to follow that every future event follows from necessary propositions about the past, and so every future event is necessary. Chrysippus responded to this argument by pointing out that there is no *logical* connection between future and past, only a causal, and so logically contingent connection. Whenever that is the case with two propositions, the connection is to be formulated not as a conditional, but as a negated conjunction. So it is not that “if the (past) cause, then the (future) effect,” but rather “not both the (past) cause, and not the (future) effect.” Now necessity will be transmitted in a conditional, which is intended to express a necessary truth, but not in such a negated conjunction, which is not meant to. So assume a past cause, finding a coin on the ground, that has the future effect that one freely chooses to buy a pomegranate. The past cause is necessary, for it is not in the agent’s power to make it otherwise. He found the coin, and that is it. If the future effect were logically contained in the past cause, then the same things could be said of the future effect, the man’s free choice to buy the pomegranate, and so it would be necessary, and not under the man’s control after all. But the man’s choice is not logically contained therein, but rather is causally connected to the past event. Thus we should say not, “if the coin is found, then the man buys the pomegranate,” but rather, “not both the finding of the coin, and the man’s not buying the pomegranate,” which is not necessarily true. Why not? Well it is in the man’s power (though he will not do it) to refuse the pomegranate and keep the coin, despite the past cause. So this is true only because of the man’s choice, arising from his nature. So it is quite possible that even though the past cause is not something the man has the power to change, his current decision *is*, despite the fact that it will be caused by the past event. Of course, the past cause will cause him to choose not to choose any other way, but that does not mean he is necessitated to choose, for it is due to his nature, beliefs, etc. (his passion for pomegranates, for instance) that the past event causes the decision.¹⁵⁰ Were he a different person, he would not respond in the way he does to the cause.

Diodorus, it will be recalled, had proposed an inconsistent triad, consisting of the propositions that “every past event is necessary,” “something impossible does not follow from something possible,” and “something possible neither is nor ever will be true,” and challenged people to define their theory of necessity by choosing which of the three statements to reject. Cleanthes denied that past events are necessary, but Chrysippus, connecting the possible as he does with what we are capable of bringing about, accepted the necessity of past events, since we cannot change them. He accepts the second statement, however, only as long as logical implication is at issue, and rejected the third, as we have seen, since it may well be possible for one

¹⁵⁰Cicero, *On Fate* 12–15, for which see Long and Sedley (1987) Section 38.

to do something, say, to eat meat, even though she never in fact does do it, and remains a consistent vegetarian all her life.¹⁵¹

10. AFTER CHRYSIPPUS

Chrysippus was succeeded by **Zeno of Tarsus** and **Diogenes of Seleucia (of Babylon)**. The latter visited Rome in his old age, in 156/155 as part of an embassy, with Carneades and the Peripatetic Critolaus, and the story is that Cato advised the Senate to get rid of him as quickly as possible when he saw how impressed the youth were. He denied that astrology could foretell events, though he granted that it might provide information about a person's character and abilities. About 152 Diogenes was succeeded by **Antipater of Tarsus**, a contemporary of Carneades. Antipater wrote a great deal defending established Stoic doctrine, which survived alongside the work of Chrysippus for some hundreds of years, and was also the first Stoic from whom we have a booklet of practical advice. The pamphlet is addressed to a man looking for a wife, and recommends that the candidate's character be valued above all, and ascertained both from the characters of her parents and a careful examination of any familiar of hers one can get to talk. Antipater praises marriage, commends it as a duty, and urges that it be viewed as the closest sort of friendship, one in which one's wife becomes a second self. In reaction to Critolaus's opinion that bodily, mental and external goods were all necessary for happiness, he claimed that Plato had held that only the fine (*kalon*), not the useful, is a genuine good, and supported this view himself, taking it that only virtue is fine. A little later, Antiochus was to hold that Stoicism was simply an offshoot of Platonism.

Antipater died about 129, and his successor was **Panaetius of Rhodes (190/180–ca. 109 BCE)** a wealthy man who studied in Pergamum with Crates the Stoic, head of the library there.¹⁵² He then went to Athens, and studied under Diogenes of Seleucia, who had represented Stoicism in the embassy of philosophers to Rome in 155. Some time before 140 Panaetius visited Rome himself and became a close friend of Scipio the Younger. The most gifted Roman thinkers gathered around these two, until Scipio died in 129, at which time Panaetius became head of the school at Athens.

¹⁵¹Epictetus, *Discourses* II 19.1–5.

¹⁵²With Panaetius we enter the period of association between the Stoics and the upper classes of the Roman Empire. Panaetius is often considered the first of the Stoic thinkers in the Middle School, which often modifies the "orthodoxy" of the Old School established in the work of Chrysippus.

Strongly influenced by Carneades, he rejected the Stoic cosmology. In particular, he would not grant the end of the world in *ekpyrosis*, since if all the world were fire there would be no fuel to maintain it. This may mean that he also rejected the notion of a perpetual reoccurrence of events in successive world cycles. He also denied that the world was an animal of which God is the soul, rejected astrology (the stars are too far away to influence events on earth), and suspended judgment on the possibility of divination,¹⁵³ which most Stoics thought required by Providence. To all appearances he moved from the old conception of a world controlled by a rational soul to that of a purely natural world like Aristotle's, continuing always unchanged in its basic structures. An assimilation of the part of the soul responsible for speech to that which produces deliberate bodily movements, and the ascription of sexual activity to nature (like nutrition and growth) rather than soul, may both be connected with this "naturalization" of the Stoic world view. Perhaps Panaetius was suspicious of the tendency of the *lekton* to become something immaterial, as though part of a special world of the rational soul that stands above and rules the physical world, and bothered by accounts of the origin of individual human beings that would suggest that such a world of rational soul somehow fabricates us after the fashion recounted in Plato's *Timaeus*. We seem to be dealing with someone who wishes to eliminate the Platonic cosmology entirely from his thought, and it is not surprising to find it said that he admired Aristotle.

The first two books of Cicero's *On Duties* are apparently an adaptation of Panaetius's *On Appropriate Actions*, with examples and emphases adapted to a public life in the Roman style. Panaetius's ethics is orthodox, and he makes virtue knowledge, but he softens the old tenets, admitting health, riches and fame as having some good in themselves as well as being aids to virtue. He held that reason only harmonizes the phenomena into intelligible wholes, and denied that it could grasp real natures in themselves.

Human beings, Panaetius argues,¹⁵⁴ are distinguished from animals by reason, which leads them to take a longer view of things than animals do in seeking self-preservation, to love their children more, and to pursue cooperation with other human beings. Due to reason, human beings desire to know the truth, to rule, at least in their own lives, so that they are unwilling to follow orders if it is not for their own good, and to love order, thus appreciating beauty as well as an orderly life. On this basis, one can identify four cardinal virtues. (1) Wisdom is a theoretical virtue (the others are practical), which is obtained when one avoids hasty acceptance of notions that are not yet proved true, and devotes one's efforts to learning things of importance. Cicero does

¹⁵³Cicero, *On Divination* 2.85–97.

¹⁵⁴For this discussion of Panaetius as revealed in Cicero's *On Duties*, I use especially Sandbach (1989) 123 ff.

not develop the account of wisdom very far, being a man of action himself, but one can note here a negative and a positive aspect of the virtue, corresponding to two faults, a pattern preserved in the accounts of the other virtues as well. On the positive side, it seems that wisdom is intended to be knowledge of the correct world view, on which one can base a life properly led, not of just any piece of useless speculative, or detailed technical knowledge. On the negative side, the source of error is identified as a haste to arrive at firm belief before one is justified in doing so, an unwillingness to let a question ride until more is learned. (2) Justice is a practical virtue that arises from our social nature. Negatively, it is a reluctance to hurt others, or to take from them their property, or to lay hold of the property of the community for oneself. Positively it is an active benevolence towards others. Cicero develops this at length, and from his account we can conclude with probability that Panaetius thought benevolence must be exercised with prudence, so that it does not strain the benefactor's means over much, and befits the merits of the one benefitted. A number of communities were identified, to which one owed differing degrees of benevolence (but not differing degrees of restraint from injustice?), but the community to which we owe the most was not taken to be the family or those closest to the individual, but the community of good people, so that the highest desert was moral desert. (3) Courage arises from the desire to rule. On its negative side it is a refusal to submit. On its positive side it is a desire to accomplish great deeds, that is, things that are most useful, but difficult to accomplish or dangerous to undertake. This virtue involves not only freedom from fear, but a certain magnanimous freedom from petty and selfish aims, so that one is unmoved by pain or pleasure, anger or cupidity. It has been suggested that Panaetius even preferred to call this virtue 'greatness of spirit' (the Aristotelian magnanimity), and the use of that word in places where one might expect a reference to bravery became commonplace after Cicero in Roman writing. (4) Self-restraint (*sophrosyne*) was related closely to propriety (in Latin, *decorum*), the control of the appetites by reason. The idea is that it is proper *to*, and so *for*, human beings to behave rationally, since rationality is that which distinguishes human beings from the other animals. Self-restraint requires us to take note of our individual characters as well as our character as human beings, and so it is not proper to overreach oneself, attempting what one's station, background and abilities renders impossible. Cicero develops the details of this virtue at great length.

In rooting the virtues in natural desires, shaped by reason, Panaetius seems to exhibit a concern for making his ethics naturalistic. No reference to the soul as a portion of God, reflecting God's concerns for the governance of the whole world to the benefit of all, is needed to motivate his discussion, and given Panaetius's cosmological views, none is possible. Perhaps connected with this, Panaetius lets the ideal of the perfectly wise person fall out of view for the most part, motivating his recommendations by a consideration of the situation

of those, who, like ourselves, are only on their way to becoming wise. He seems to think that each person should shape his behavior to his own ideal, suited to his capacities, though these ideals may all derive from the higher ideal of the perfectly wise man.

Diogenes Laertius claimed that Panaetius and Posidonius both held that virtue was insufficient for a good life, requiring supplementation in the way of health, money, strength and the like.¹⁵⁵ We get no hint of this in Cicero, and it seems to contradict his account of courage or greatness of soul, so it seems unlikely that Panaetius had gone over to the Aristotelian position on this matter. Diogenes may be drawing on the fact that the positive side of justice and courage would require these “indifferent” items if suitably virtuous actions are to be performed. One cannot aid others or perform great actions if one has no resources to do so.

Aside from the book on appropriate actions, Panaetius is credited with books on cheerfulness, on Providence, and on political action.¹⁵⁶

Panaetius was succeeded in Athens by Dardanus and Mnesarchus, both native Athenians,. Another pupil of his, Apollodorus, became known as a literary critic. Archedemus of Tarsus was a contemporary of Panaetius, who, after studying at Athens, established a school in Babylon (or perhaps the sister-city of Seleucia).

Another of Panaetius’s pupils, **Hecato of Rhodes**, wrote a good deal on appropriate action, concerning himself especially with the resolution of particular cases. **Diogenes of Babylon** had done so, too, considering the case of a man who brought a cargo of wheat to a famine-struck town, with knowledge that several more ships laden with food were close behind him. Should he sell it at the best price he can get, concealing his knowledge of further relief on the way? Diogenes thought there was no duty of full disclosure here, and Antipater objected that there was. Similarly, Diogenes held that one could pass a false coin, or sell a slave known to be a thief, without violating the requirements of justice, at least as long as one did not have to lie deliberately to do this. Hecato advances the case of a wise man in a shipwreck—would he take a plank from one inferior to him? No, because in that situation the first to reach the plank gains ownership and such an action would violate the requirements of justice. Say one knew that his father was tunneling into the public treasury, and could not persuade him to desist. He should not denounce him, though he might do so if his

¹⁵⁵Diogenes Laertius 7.128, 7.103.

¹⁵⁶His influence is variously traced by various authors in the works of Cicero, in particular, *Talks at Tusculum 2*, *On the Nature of the Gods*, and *On Friendship* 26–32, but all this is quite speculative.

father was trying to seize autocratic power. Should one allow one's slaves to starve in a famine if food could be obtained for them at a very high price? That would be all right, but one is not allowed to throw them overboard to lighten ship in a storm, in order to preserve horses more valuable than they. The horses have to go first. Casuistry, as the examination of such difficult cases is called, seems a reasonable pursuit if one views one's ethical doctrines as a genuine guide to life, and perhaps the validity of one's ethical principles may be tested by the results they yield in special cases. But many doubt that an ethicist, even if he has a good justification for ethical behavior, is going to be any better at resolving such cases than an ordinary, intelligent person. It may be that one can justify ethical behavior without providing a theory that would clarify difficult questions concerning what behavior is actually required to be ethical.

Boethus of Sidon wrote a commentary on the Weather Lore of the 3rd-century poet, Aratus, in which he traced the connection between signs of future weather and the weather they indicated to a common cause for the two. Like Panaetius, and before him, He rejected the notion that the world would be destroyed by fire, arguing that no internal cause in the universe could produce such an effect, and there was nothing external to the world that could destroy it. Things can be destroyed by being broken apart, through the removal of some predominant quality, or through recompounding into a new thing, but none of these three can happen to the universe. He seems, unlike Panaetius, to have allowed providence and a God, for he argued also that God would be left idle if all things became fire, and would not permit himself to fall into such idleness when the good could be advanced. On the other hand, he identified God with the aither, placing him in heavens, perhaps following Aristotle, but not so far as to abandon Stoic materialism. Perhaps the idea was to guarantee that God is everlasting and unchanged. Thus, he claimed that if there were a destruction of the universe in *ekpyrosis*, God would be destroyed with it, and that if all things were fire, then there would be nothing to feed the fire, and it too would die out, rather than beginning a new world.

Boethus is also reported to have set up four criteria, or, we might say, reliable faculties of cognition, reason (*nous*), desire (*orexis*), perception (*aesthesis*), and science (*episteme*). Desire would be the criterion of the good, of course, and the other three would presumably all provide criteria of the truth. The doctrine would seem to be, then, that truth is known through *nous*, as in the case of first principles, perception, presumably underlying *nous*, as it does in Aristotle, and a presumably Aristotelian scientific knowledge arising from first principles. This seems to represent an abandonment of the Stoic theory of knowledge for Aristotelian views.¹⁵⁷

¹⁵⁷Zeller (1885), Ch. 3: *Eclecticism* 35–39.

11. POSIDONIUS

Posidonius of Apamea (ca. 135–ca 51 BCE) was born in Apamea in Syria. He studied under an aged Panaetius in Athens, but eventually he made his home in Rhodes, where he obtained citizenship. Being wealthy, he became a leading citizen, holding office, and traveling to Rome on an embassy in 87/86 BCE. There he taught Pompey and Cicero, and wrote a history of Pompey's wars, though he refused Cicero's request that he write a history of his consulship. He visited Rome a second time in the year of his death. He was known as an astronomer and mathematician, but in general, his thought represents a return to orthodoxy after Panaetius, with an interest especially in the interconnectedness of things, and God as reason found in all things. He was an excellent writer, and his books enjoyed wide circulation, though only fragments now survive.¹⁵⁸

The career of Posidonius marks the decline of the formal school in Athens. The school had rapidly become a kind of academy for post-graduate studies, as eclectic schools, Platonic in metaphysics and Aristotelian in logic, took over the business of educating young men destined for the civil service. Although there was some respect given to the faithfulness of those who stuck by the orthodoxy of their schools, and the return to the original teachings became something of a theme in later Ancient philosophy, the initially eclectic training even of those going on to become professional philosophers took its toll over time, the outcome being the establishment of an eclectic Neoplatonism as the only generally recognized school by the 2nd century CE. By the 6th century most of the writings of the founders of Stoicism had become unavailable from lack of use, and the 'disputes with the Stoics' amounted to nothing more than the rehearsal of old commonplaces, there being no living Stoic to carry on such a dispute. But before that happened Stoicism lived an afterlife in the work of talented upper-class amateurs, many of them at least as notable for their political careers as their philosophy. Posidonius is perhaps the first of these talented amateurs.

He divides philosophy into physics, logic and ethics, but insists that the three hang together and cannot be understood in separation from each other.¹⁵⁹ It is perhaps noteworthy that he puts Physics first. In Physics

¹⁵⁸This creates a difficult situation with the evidence for the author. It seems unduly careful to restrict oneself to testimonia where Posidonius is explicitly identified, but one wants to avoid attributing everything in later antiquity to the man. Sandbach (1989) 130 ff. is conservative on the matter, and identifies as "Posidonian" Diodorus Siculus, *History* 5 and 34; many places in Strabo; Cleomedes, *On Circular Motion*. Vitruvius, *On Architecture* VIII; Cicero, *On the Nature of the Gods* II 23–32, 49–56, 115–153; and some places in Seneca. For Posidonius I depend especially on Edelstein (1936), and Dobson (1918).

¹⁵⁹They are not like the plants, fruit and walls of a garden, but rather like the flesh, bones and nerves, and soul of a human being, each of which cannot exist without the others, though perhaps the former two exist for the sake of the last. Sextus Empiricus, *Against the Logicians* 1.19.

he identifies two substances, the active God or Reason, and the passive matter, the active being in the passive. “The matter and substance of all things is without quality and form as far as it has no distinct form of its own or quality in itself. But always it is in a certain form and quality. And as far as reality is concerned, the existing substance is different from the matter only in our thought.”¹⁶⁰ The elements are not matter, for they have essential form. Other Stoics often had God create elements from matter, as in the *Timaeus*, but Posidonius insists that matter never exists nakedly on its own, following Aristotle.

God, an intellectual spirit like fire extending through and governing the whole substance of the world, has no form of its own. The soul is warm breath holding the body together and moving it, and the soul causes the body to be unified as in Chrysippus. Posidonius accepted the traditional division of things into animal, vegetable, and mineral, ruled by *psyche*, *physis* and *hexis*, but held that the divisions were not sharp, animals, for instance, often showing signs of reason, and human souls possessing vegetative and irrational parts.¹⁶¹ He said that Plato held the world soul to be immortal, and that was probably his opinion as well. The whole world is God. Probably God, being coeternal with the world, was not viewed its creator, but rather as the source of the nature of each thing found in the world. Posidonius distinguishes God from nature and fate, claiming that Zeus is first, nature second, and fate third, each depending on the earlier.¹⁶² The sense is that God is responsible for the natures of things (by becoming the nature or soul of each thing), and the natures of things are responsible for fate. There is only one world, a spherical, rational animal directed by providence, with the ruling power, corresponding to human reason, in the heavens.

Opposing Panaetius, who denied the survival of the soul, Posidonius claimed that it survived the death of the body, and would continue as an organized mass of fire in the atmosphere, surrounded by other *daimones* like itself.¹⁶³ He rejected the notion of a Hades, or any place of punishment beneath the Earth, for the Earth

¹⁶⁰*Doxographi Graeci* p. 458, 8–11, translated in Edelstein (1936) 290. Cf. Diogenes Laertius 7.134.

¹⁶¹Posidonius was apparently accustomed to call souls “ideas,” and he may have held that the two-dimensional limits of a body, which he regarded as real, were to be equated with the soul. (Note that the soul held the body together in orthodox Stoicism.) This may be following Plato’s notion that bodies are put together from two-dimensional shapes. See Edelstein (1936) 302–303. God would have one dimension on this scheme. Perhaps it amounts to no more than this: God is form undifferentiated, whereas soul is what gives shape and limit to a particular thing, whereas the thing itself is the resultant solid.

¹⁶²*Doxographi Graeci*, 324a 4. Posidonius identified three sorts of cause: “The cause of a thing is that through which it exists, or the prime active power, or the principle of activity. And cause is real and bodily; that of which it is the cause is not real and bodily, but accidental and a predicate.” (Arius Didymus, frag. 18) The first cause is perhaps God, nature the third, the particular agent the second.

¹⁶³Sextus Empiricus, *Against the Learned* 9.86–87. The stars, and the heaven, are rational animals, and gods.

was solid. Nor did he allow that guilty souls might be punished while dwelling in the air, a view reflected in *Aeneid* VI. All suffering arises, in fact, from the soul's union with the body. Rather, the soul rises until it reaches a level where the atmosphere is like itself, so that a pure soul unacquainted with irrational passions would fly immediately to the sphere of the fixed stars,¹⁶⁴ while souls weighted down with their prior contact with the body would rise only to a certain level, and remain there until their substance was cleansed and they could rise higher. Many souls are so heavy and dense that they hover very near the surface of the Earth, and are eventually united to bodies once more. Thus the Earth becomes the place of punishment, from which the wise soul escapes. The soul in the heavens take their joy in observing the movements of the stars, and sometimes provide advice to those souls that are experiencing the greatest difficulty in attaining to the heavens.¹⁶⁵

There is no real destruction or coming to be, all change being from being to being. The four sorts of change are separation, alteration, mixing and dissolution from the whole. Posidonius postulates a golden age in the past, but presumably no *ekpyrosis*. He denied that space was infinite, but allowed an infinite past and future. Motion never ceases, since time never does, and it is measured by motion.

Like is grasped by like, the eye taking the form of light when one sees. The form of the apprehended object is reproduced in the one who apprehends. Since reason can understand the world, it must be ruled by reason. Right reason gives the criterion of truth.

Posidonius took an interest in the details of the causal order of which more orthodox Stoics sometimes disapproved. He was dissatisfied with simply ascribing all things to God, and wanted to understand how God had arranged intermediate causes so that all things work together for the good. He took at least one journey to the West, probably in the 90's, and in Gaul he observed the natives' barbarous and cruel customs, but also the respect they paid to the bards and the Druids, so that even here "pride and passion give way to wisdom, and Ares stands in awe of the Muses."¹⁶⁶ In Spain he observed the tides and Gades, and noted their connection with the phases of the moon, but wrongly reported that the highest tides were at the solstices, the lowest at the equinoxes, the reverse of the truth, as Seneca and Pliny knew a century later.¹⁶⁷ The connection between the moons and the tides he took as a sign of the interconnections between all things in the world, and so

¹⁶⁴Sextus Empiricus, *Against the Learned* 9.71–74.

¹⁶⁵For all of this, Bevan (1913)103–114.

¹⁶⁶Diodorus Siculus 5.31.

¹⁶⁷Strabo 3.5.8. Posidonius no doubt misunderstood his informants.

evidence of the unifying spirit in things, and that became the standard use of the fact in later thought.

The best known of Posidonius's works is his *History*, a continuation of Polybius in 52 volumes. Unlike the cool and factual Polybius, Posidonius took a keen interest in the revelation of human psychology in events. He is concerned about moral decay, though he accepts that an aristocratic government is best for men. Probably typical of his work is the account of the slave rebellion in Sicily in 135–132 BCE,¹⁶⁸ which opens with a vivid picture of the multitudes of slaves and their brutal treatment, then moves to the individual actions that put the spark to this tinder, attending to the messianic pretensions of the leader of the revolt and the hopes and illusions of the slaves. He notes that the cruel behavior of the slaves resulted from a depravity fostered in them by the continuous harsh treatment of their masters, relating the tale of one young woman who was left unharmed because she had been accustomed to intercede with her parents and lend aid to their victims.

In astronomy, he argued that the equatorial "torrid" zone was not uninhabitable, suggesting various reasons why it might be cooler than usually supposed, but probably relying on travelers' reports of sub-Saharan Africa. He thought the Sun much larger than the Earth, and found evidence in volcanic action that the Earth too contained a vital force within it.

In ethics, he identified three parts of the soul on Platonic lines. Retreating from the Stoic intellectualist theory of the true self unified in reason, he denied Chrysippus's view that emotions are judgments, treating them instead as movements of the non-rational part of the soul, rooted in the inborn desires for pleasure and power. So, he notes, passions often die down, whether due to their satisfaction or sheer weariness, while the associated judgment persists.¹⁶⁹ He still insists, of course, that passions often get out of hand, and must be controlled by reason, and is happy to accept that passions lead to (rather than being produced by or identical to) false judgments, reason being pulled off course by emotion. Since the passions are not judgments, they cannot be removed by reasoning, but little is reported in our sources of Posidonius's methods of treatment, except that he took Plato's suggestions concerning exercise and music seriously, and may have resorted to modifications of one's diet. He held wealth and health to be goods in themselves, though wealth can be an antecedent cause of evil. The aim of life is "to live in contemplation of the truth and order of the universe,

¹⁶⁸This is reported in Photius's summary of Diodorus Siculus's lost Book 34.

¹⁶⁹Or, again, if, as every Stoic admits, there are excessive emotions, emotions must have an origin independent of reason, for reason never produces excess, and so there must be an irrational part of the soul. The reply to Posidonius's argument would have to be that wrong opinion can be produced by reason, and wrong opinion can lead to excess. This seems an adequate response.

cooperating as far as possible in bringing it about, and in no way led by the irrational element in the soul.”¹⁷⁰ Humanity lies between the ethereal and earthly sphere, and has a duty to bring the lower world as far as possible into conformity with reason. There are *daimones* between God and human beings. “There are never any occasions when you need think yourself safe because you fight with the weapons of fortune. Fight with your own! Fortune furnishes no weapons against herself.”¹⁷¹

Seneca reports that Posidonius believed there had been a golden age, when wise men ruled, and the first laws were given by philosophers. These wise men were responsible for the discovery of the arts of civilization, something Seneca cannot accept. The practical arts are not now the province of philosophers, and for good reason, he thought, for they lead to luxury and decay as often as not.¹⁷² For Seneca the Golden Age was an age of innocence, before the corruptions of civilization, but Posidonius thought material civilization necessary for the good life, something a wise man would promote if he could,¹⁷³ and, of course, Posidonius had an un-Stoic interest in the details of the world, holding that the wise man would apply himself in every arena open to the intellect. (Despite this view, Posidonius was not much of a scientist. He cannot hold a candle, for instance, to Eratosthenes.)

The scientific interests of Posidonius did not catch on, and later Stoics simply ignored his revision of Stoic ethics in recognition of the non-rational nature of the passions. Seneca’s *Problems of Nature* might be supposed to follow Posidonius, but it is noteworthy that every book of that work ends with a spate of usually irrelevant moralizing. In the end, later Stoics, like the earlier, took little interest in the details of science except when they seemed to support some Stoic theme such as the providence of God.

With Posidonius we have arrived at the end of the Hellenistic period, and we will pick up the story of Stoicism under the Roman Empire in a later chapter.

A debate known to Posidonius, occurs, it seems, at the very end of the period, concerns the status of logic. Is it itself a part of philosophy, or only an instrument of philosophy, standing outside it? [this might come to the question whether logic is itself part of our world view, and involves beliefs justified in the field of logic,

¹⁷⁰Clement, *Miscellanies* 2.129.

¹⁷¹Seneca, *Letter* 113.28.

¹⁷²Seneca, *Letter* 90.

¹⁷³Nonetheless, Seneca argues that people were happy in the golden age due to ignorance, not wisdom.

or only a set of reliable habits defined in the field of logic] The Stoics took the former view, and Peripatetics the latter, after the revival of Aristotelianism in the first century CE.

[Texts in Hülser, K.-H. (1987–8) *Die Fragmente zur Dialektik der Stoiker*. 4 vols. (Stuttgart/Bad Cannstatt), 22–39 (Barnes notes we can add Elias *APr.* 134.4–138.13); discussion in Lee, Tae-Soo (1984) *Die Griechische Tradition der Aristotelischen Syllogistik in der Spätantike: eine Untersuchung über die Kommentare zu den Analytica Prioravon Alexander Aphrodisiensis, Ammonius und Philoponus*, *Hypomnemata* 79 (Göttingen), 44–54; see also Barnes, J., Bobzien, S., Flannery, K. & Ierodiakonou, K. (1991) *Alexander of Aphrodisias, On Aristotle Prior Analytics* 1.1–7 (London), 41–8; Barnes, J. (1993d) ‘Galen and the utility of logic’, in Kollesch & Nickel (1993) 33–52. ----- Sen. *Ep.* 138.21–9 (on which see Kidd, I. G. (1978b) ‘Posidonius and logic’, in Brunschwig, J., ed. (1978a) *Les Stoïciens et leur logique*. Actes du colloque de Chantilly, 18–22 septembre 1976, Bibliothèque d’histoire de la philosophie (Paris), 273–83) shows that this sort of issue was known to Posidonius; but the debate itself probably presupposes the resurgence of Aristotelianism at the end of the first century BC. (Barnes ch. 4 “Logic and Language: Introduction,” in Algra et al. (1999))