THE RATIONAL STRUCTURES of Plato and Aristotle, whatever their weaknesses, were cemented by the mortar of logical consistency. Where they failed, all rationalism must fail. The breaking point comes when the rationalist tries to deduce existence from essence, or, in more ordinary language, when the philosopher tries to show that the world of perception is as rational as that of logic. The premises of a mathematical system can include an axiom or postulate to the effect that its inferences are exemplified in experience, but even then one is bound to discover that the exemplifications are imperfect. Where numbers are involved as exemplified in quantities, the arithmetical operations are never found to be perfectly incorporated, and where it is a question of geometric forms, these two fall short of what mathematics demands of them. Both Plato and Aristotle nevertheless accepted the material, or empirical world, as an integral part of their philosophic architecture, and if they put the blame on matter itself, what else was there to take it? Reason can-
not operate without generalities. The tantalizing approximations of experience to perfection had to be interpreted as a block to man's intelligence, but they were a block upon which one could rise to an ideal world, the world of Ideas in Plato, the Order of Nature in Aristotle.

There were at least two ways of escape from this situation, if one wanted to escape. One, which was taken by Plato's successors in the Academy, was refusing to admit the need of studying so haphazard a set of beings as those found on earth. The other was just the reverse, that of denying the ideas altogether and of taking matter and its behavior as ultimate. This was the escape attempted by the early Stoics and Epicureans. Neither escape was successful. The conflict between essence and existence could not be resolved with the means available in the fourth and third centuries. A possible third way out lay in the simple denial of any hope of success and it was not long before the skeptic way was followed even by the later members of the Platonic Academy. It should be admitted that the writings of the early Academics and those of the first Stoics and Epicureans exist only in quotations found in such writers as Diogenes Laertius, Stobaeus, Philo Judaeus, Sextus Empiricus, Eusebius, and the Romans, Cicero and Seneca, all of whom wrote several centuries later than the men whom they were quoting and all of whom quoted them for their own purposes. One can use one's imagination to guess why they said the things they are quoted as saying but after all one can only guess. Thus one can see the seeds of skepticism in Plato and imagine why they flowered in the Middle Academy. It is also possible to guess that some of the details of Stoic and Epicurean cosmology were invented to serve as a foundation for an ethics, though one approaches dangerously near to mind reading in saying so. Where several of the later writers agree on what they attribute to an earlier thinker, one has some evidence that what they report is reliable, though their agreement may simply be due to their using a common source. Let me then frankly admit that what is said in this chapter is often taken from secondhand sources, as it must be,
and that, even when a direct quotation is used to prove the authen-
ticity of a man's doctrines, the quotation is out of context. We are
in short back in the position in which we found ourselves when
speaking of the pre-Socratics.¹

I

1. The disciples of Plato seem to have continued the school
named after the estate of their master, the Academy. The first
director of the Academy was Plato's nephew, Speusippus, and
since his one surviving work is on the Pythagorean theory of
numbers, it has become customary to think of him as rebellious to
his master's teaching, rejecting the theory of ideas and modifying
his epistemology. Yet like all philosophers, except those who re­
fuse to budge out of a very limited field, he must have made the
usual distinction between the world as it seems and the world as it
really is. If it be true that for Plato's idea of the good he substi­
tuted a unit, the One from which the archai or first principles of
each other type of thing arose, then it may be inferred that he
introduced into Platonism a form of Pythagoreanism which was to
be developed later by the Neoplatonists.² This would look as if he
tried to fuse all the ideas into the One. Yet he is reported by
Aëtius to have denied that the divine nous emerged from the One
or from the Good, but to have said that it was sui generis (fr. 38).
There is clearly a confusion of two basic metaphors here, the first
being explanation on the basis of the source from which things

¹ For the reliability of our sources for this period, see E. Zeller, Stoics,
Epicureans, and Sceptics, trans. by Oswald J. Reichel (London: Longmans,
1870), chap. 4. Zeller still remains the most critical of the historians of Greek
philosophy and, because of his copious footnotes, one of the most helpful.
One must always be grateful to the compilers of fragments, but in the long
run these compilations are anthologies of scattered quotations and the inter­
stitial tissue has been fabricated by the compilers themselves. Could one
reconstruct the works of Shakespeare out of quotations in Bartlett?
² Fr. 33a, from Aristotle's Metaphysics 1028b. All fragments of Speusippus
are quoted from and numbered with the numbers of P. Lang, De Speusippi
Academici scriptis (Bonn: Georg, 1911)
come into being and the other the end toward which they tend. Plato's idea of the good was the end and goal of all things, not their supernatural origin. The relevant fragments do not help us clarify this matter and the most that one can say is that they show us a philosopher who did not shrink from a pluralism of kinds, the sort of pluralism which is found in Aristotle's theory of the categories.

Now by starting with the idea of unity, on the ground that everything of which we can predicate any attribute is a unit of thought, we would not inevitably draw good and rationality, magnitude or mentality, out of it. Whatever the interrelations of such ideas, they were set up for psychological or historical reasons, not for logical. The idea of the good in Plato was as the sun, that which illuminated and gave life to everything. But when the figure of speech is examined, it turns out to mean concretely that the best way to understand things is to discover their purpose. This we saw above in discussing Socrates' criticism of Anaxagoras. This way of thinking by Aristotle's time was traditional and remained so until the Italian Renaissance. Hence one might question the position of the Good in the cosmos, that is, its primacy over all the other ideas, but one could never deny its ultimate importance as a clue to explanation. But when the order of things was reversed and a philosopher tried to explain the origin of things as coming out of a source, then the details of the genetic process became a problem. One can understand that any process is regular by looking at it, and if purpose is equated with the constant attainment of a goal, then purposiveness could be read into all processes which were regular. But why anything should give rise to anything else is more mysterious. We can observe sequences but we cannot observe the details of genesis. To explain the world as the product or the creation of a single source is to revert to mythology, the mythology of the primal egg or of the creative god. The nature of Speusippus' idea of genesis was a puzzle to Aristotle (fr. 48c). It becomes a greater puzzle when we read that Proclus, who, it must be admitted, is not the soundest authority, said that
Speusippus made a distinction between the genesis of ideas in thinking and the actual creation of things (fr. 46). For this would seem to imply that the two orders, that of thoughts and that of things, were distinct not only in existence but also in origin, which would make it impossible for all things to have emerged from the One. Whether Speusippus himself was aware of the puzzles he had introduced into philosophy, one cannot say, but that one of his contemporaries felt them, is undeniable.

2. Next in line in the Academy was Xenocrates, who was a bit more faithful to the teachings of Plato. He apparently accepted the theory of ideas, but derived them all from the One and the Indefinite Dyad. His use of such numerical terms for his ultimate principles repeats the Pythagorean strain and presumably his two worlds were the world of mathematics and the world of numbered things. This may simply mean that if we are to understand the world of observation, we must have recourse to mathematics, that the world is fundamentally a mathematical world. The two terms, the One and the Indefinite Dyad, would then be names for the assumed fact that plurality is as real as unity and that, if we start with a monism of source or origin, we shall never be able to explain why it should have become diversified. To call the One the source or origin of the world is dubious poetry and ambiguous science. As poetry it stirs one into feeling that above or beyond or within the clearly perceptible variety of experience is some sort of homogeneity. But homogeneity may be of substance, as when one maintains that all things are material, or again it may suggest that all events are describable in one sort of law, whether mechanical or teleological, or in the third place that all things were produced out of a common source, as in the Hesiodic myths, or that all things have some common quality, such as beauty or goodness. But the efficacy of such a word as Unity depends upon the freedom it gives one to imagine the various possibilities it permits.

3 Fr. 26 (from Theophrastus) in Richard Heinze, Xenocrates (Leipzig: Teubner, 1892). I shall use Heinze's numbering throughout.
THE FIRST BREAK IN THE SYSTEM

But if one is a philosopher as well as a poet, one will naturally ask for more precision or at a minimum put certain questions to oneself about how any uniform origin could produce such multiplicity. And if one is certain, as Xenocrates seems to have been, that the process is one which is intelligible, that is to say, rational, one will immediately suspect that a unit existing by itself alone would never change. The ancients took it for granted that change, not immutability, was a problem. If then the One became somehow or other diversified, there must have been some cause of the diversification. That cause was presumably the Indefinite Dyad. But there is also the possibility that by the Indefinite Dyad was meant indefiniteness or plurality. If that interpretation is correct, then Xenocrates may simply have thrown up the sponge and consented to a duality of archai, the interplay between which was responsible for the existence of the things which exist. In view, however, of some of his other reported opinions, it seems more likely that he thought of duality as a numerical principle which could actually be divided by an “active” force, the One. This is of course metaphysical mythology, but not unusual in this and subsequent periods. If Xenocrates could say that the soul was a self-moving number (fr. 60), he would not stop at other expressions the sense of which is mysterious. There is, for instance, a passage in Stobaeus quoting Aëtius to the effect that Xenocrates made the One and the Indefinite Dyad gods, the former being male and the latter female (fr. 15). If he actually believed this, then the union of the two would be thought of as sexual and out of it would come the world of things.

This fusion of mythology and metaphysics was destined to great fortunes, for not only did Paganism turn its gods into philosophic principles, but Judaism in the work of Philo, and Christianity in that of the early Fathers did the same. To call Plato’s Demiurge or Aristotle’s Unmoved Mover by the name of Zeus

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* See Heinze, op. cit., p. 11.
was not merely a literary device, but may have arisen from the feeling that the ancestors of the race or the early poets, such as Homer and Hesiod, were philosophers talking mythological language. As eighteenth-century poets personified all sorts of abstractions, so did the ancient philosophers and it is no more strange to find the One or the Dyad transmogrified into gods than it is to find pictures of Truth as a naked woman holding aloft a mirror, or Hope as another clinging to an anchor. This tendency was recognized even by Cicero, who was far from being the keenest mind in antiquity, when he said⁶ that people call that which comes from a god by the name of that god, wherefore Terence said,

\[ \ldots \text{sine Cerere et Libero friget Venus.} \]

Does this mean only that Love grows cold without food and drink? One's answer will depend on what one means by "meaning." But Cicero also notes the reverse process, the deification of abstractions. He points out that on the Capitoline Hill stand temples to Faith, to Mind, to Virtue. Should one be inclined to scoff at this, one might think of our own deification of the Logos, of Sophia, of Providence, of the Way, the Truth, and the Life, and even of Eternity ("I saw Eternity the other night \ldots"). One bleeds the life out of a god by identifying him with a metaphysical abstraction; one vivifies an abstraction by deifying it.

The One and the Dyad then may well have been divine to Xenocrates, and the Cosmos as a whole possessed of soul. But to this Xenocrates seems to have added one more detail which was developed, though not because of him, some centuries later, the detail that the souls of things could be arranged in a scale of perfection, running from the upper heavens down to earth. According to Aëtius and Plutarch, Xenocrates believed that Zeus is the supreme god situated in the heavens, whereas Hera is in the air, Poseidon in the water, and Demeter in the earth (frs. 15, 24). But

⁶De natura deorum ii. 23, 60-61. Cf. De legibus ii. 11, 28. The quotation is from Terence's Eunuchus (iv. 5. 6).
since the same author attributes to Plato, Pythagoras, and Chrysippus, along with Xenocrates, the notion that Typhon, Osiris, and Isis are great *daimones* surpassing us in power, but not having a pure—unmixed—nature, since they feel pleasure and pain, it may be well not to give too much credit to his exegesis.\(^7\) It would be interesting to know where Plutarch got his information, for so far as Plato is concerned there is no justification for it in the extant dialogues. Since we have no writings of Pythagoras, we cannot say whether Plutarch is right or wrong, and as for Chrysippus, we shall come to him later. Meanwhile we may profitably keep in mind the remark of Zeller, that “historians did not hesitate to attribute to the founder of the [Stoic] school all that was known to them as belonging to its later members, just as everything Pythagorean was directly attributed to Pythagoras, and everything Platonic to Plato.”\(^8\)

3. Meanwhile the philosophic atmosphere was thickened by the appearance of early Stoicism, the founder of which was Zeno of Citium. Whatever he may have written was completely lost by the sixth century A.D.,\(^9\) and historians usually base their accounts of his life and works on Cicero, Seneca, Diogenes Laertius, and Plutarch. Whereas the Academics made their distinction between reality and appearance on the basis of epistemology, Zeno seems to have made his on the basis of causal power. The earliest testimony to this is found in Cicero (*Academica* i. r r. 39), who says that according to Zeno there was causal efficacy only in material objects. This is a flat denial of the earlier principle that matter was inert and incapable of acting. For Zeno and the Stoics in general causation was the kind of thing which we observe when material things come in contact with one another and a dynamic disturbance occurs. Their basic image then is drawn from crude experience—and I am not using “crude” in a disparaging manner. We no longer know why they laid down this revolutionary prin-

\(^7\) *De Iside et Osiride* xxv. 360e.

\(^8\) *Op. cit.*, pp. 53 f.

\(^9\) See Simplicius in *Cat. schol. in Arist.* 49a 16.
ciple, but in view of the dominance of Platonistic and Aristotelian antimaterialism, it must have taken daring to do so. For by matter they meant, as Diogenes Laertius tells us (vii. 135), that which occupies space in three dimensions, a view which he attributes to Apollodorus, but which there is no reason to suppose was held exclusively by him. They were so confirmed in their materialism that they maintained that even things which do not seem to be material, like the virtues, were nevertheless made of matter. Seneca, a late authority to be sure, but one sympathetic to Stoicism, goes so far as to say (Epistle cxvii. 2), “We believe that which is a good is corporeal, because the good does something; whatever does something is a body.” Thus, he continues, wisdom is corporeal. The soul too and God are bodies and there is nothing which is immaterial.

The fact that they had to argue to the materiality of certain things is evidence that such things did not appear to be material. The realms of appearance and reality were thus reversed by them and what had been real in previous philosophies were now only apparent. But, like all substantialistic monists, they should have faced the problem of why reality disguises itself. Yet, again like their fellow monists, they did nothing of the sort. Instead they endowed matter with precisely those properties which observable matter does not seem to have. And hence whatever benefit they might have derived from choosing an empirically knowable substance as their reality, they lost. For they ended up with three-dimensional matter on the one hand and metaphorical or metaphysical matter on the other. It surely could not have been believed that the matter which was day and night and the seasons was the same as the matter which was sticks and stones. It is therefore more likely that the early Stoics meant to say that the causes of all such things, including the virtues and vices, were corporeal.11 To identify reality with the cause and appearance with its effect is common practice. But even if our virtues and vices

10 Plutarch De communibus notitiis xlv. 1084a–d.
11 Cf. Zeller, op. cit., p. 120.
are conditioned, for instance, by our endocrine glands, they are not identical with them, any more than a bottle of whisky is identical with a headache.

If there is one property of matter more noticeable than others, it is that it exists in masses cut off from other masses. This had been utilized by Democritus and was to be noticed again and utilized by the Epicureans. But the Stoics were not atomists and, if they were thinking in terms of macroscopic objects, some means must be provided for making more than a collection of them into a universe. These men were not unaware that things hang together and that the cosmic story is not simply a story of random collisions and reboundings. To explain this they introduced into their system a substance called the *pneuma*, translated into Latin as spiritus, the history of which is an interesting case of inversion of meaning. The *pneuma* in Stoicism was definitely material, for it pervaded all space and accounted for that unity which they believed to exist throughout the cosmos. At the same time they spoke of it as divine. Hippolytus reports both Zeno and Chrysippus as saying that God was the *arche*, the source and origin of all things, and "that he was the purest of all bodies." Just what he was pure of is not told us, but no doubt he was thought of as a very thin substance capable of penetrating everything.

If the question is raised of just why the Stoics felt that they had to have a single material substance omnipresent, why they could not simply have deduced or otherwise justified their belief in the concurrence of all natural laws without attributing it to any agent, the answer must be that everyone continued to think that acts must have agents, just as transitive verbs must have subjects and objects. It is of course true that no one to this day has ever succeeded in logically demonstrating such a concurrence, either in the form of a series of deductions from a single self-evident premise or in the form of showing that all laws are mechanical or teleological or electromagnetic or whatever other forms of law there may be. The kind of unity of which such philosophers write

is a dream which evaporates when examined. But dreaming such
dreams did not cease with the extinction of classical philosophy. It
must also be remembered that human beings have little to go on
beyond the solar system and in the classical period of our history
the solar system was the universe. For all the fixed stars were
studded in the same sphere and there was nothing beyond them.
This formed a cosmos with observable boundaries and also with
observably demonstrated laws. Moreover, as one can easily see, the
inhabited world was the Mediterranean basin edged with the
wilderness and the river of Oceanus. Such facts have no logical
significance, if one will, but they do have great psychological in­
fluence. One cannot find premises beyond the range of one’s po­
tential experience. If that experience gives us a world with the
earth at its center, with planets circling round it at regular rates of
speed, if added to that is a ring of cities and states located on the
shores of an inland sea, then it is reasonable to think in terms of a
few simple laws governing this limited and easily imagined world.
Moreover everything was done by man power. Men not only
wielded axes and hammers, but they piloted ships, built houses,
and, what is more, felt the expenditure of energy in their muscles.
It was not extraordinary that they should have thought all work
to be done by a workman and that if there was a single task
which was the government of all things in an orderly fashion,
there must be a single director of the task, a director everywhere
present and everywhere efficacious. The Pneuma or Spirit was
that director, and when one felt religiously inclined, one called it
God; when scientifically inclined, one called it Pneuma.

One could consequently pile up the synonyms for the Spirit,
calling it not only God, but also Law, Mind, Soul, Nature, hexis.13
The world as a whole, says Cicero (Academica ii. 37. 119), is wise,
has a mind which changes all things, moves all things, and rules
over all. It did not take long, but how long we do not know,14 for

13 See Themistius De anima 72b.
14 For a good synopsis of the Stoic conception of the cosmos as a whole,
see Diels, Doxographi graeci, Arius Didymus, 29, p. 464.
the Stoics to speak of the cosmos as a Great Animal, the macro-
cosm which we reduplicate in our own make-up. But an animal
was supposed to have that kind of unity celebrated as \textit{organic}, the
unity of a complicated machine contrived to accomplish a given
purpose and for the accomplishment of which all its parts are as
they are. In a fabricated machine, it is the wisdom and foresight
of the inventor which determine its character. In the human body,
it is the soul which in its turn is governed by the Reason. In the
cosmic animal the \textit{Pneuma} is the ruler, not located in any single
part of the universe, analogous to our brain, but permeating it
throughout. Since the \textit{Pneuma} is not identical with that which it
governs, but is present within it, the Stoic metaphysics should not
be called a pantheism. All things are not God, but God is in all
things. Thus, in spite of themselves, the Stoics had to retain a
dualism between agent and patient, between God and the world,
between soul and body. What the Spirit accomplished was some­
thing which "ordinary" matter could not accomplish and, as the
attributes and properties of it were multiplied, it became more and
more unlike ordinary matter. When, for instance, they identified
it with Fire, they recognized that it was not like the fire with
which we are acquainted on the hearth, for that destroys things,
whereas the divine fire preserves them.\textsuperscript{15}

The ambivalence of the early Stoics toward their Spirit comes
out very clearly in the famous \textit{Hymn to Zeus} of Cleanthes, which,
since it is not too long, we quote.

\begin{quote}
Most glorious of immortals, you of many names, ever omnipotent, 
\textit{Zeus}, ruler of nature, governing all by law,
Hail! For it is man's duty to address himself to you,
For we are your children, being, as it chances, the sole image of
one,
Whatsoever mortals live and move about the earth,
Wherefore to you shall I sing hymns and your power shall I for­
ever celebrate.
\end{quote} 

\textsuperscript{15} According to Arius Didymus (\textit{Diels, Doxographi graeci}, 33, p. 467),
\textit{Zeno} said this; according to Cicero (\textit{De natura deorum} ii. 15. 40), Cleanthes
did too. If they are right, it was part of early Stoicism.
You and none other does the cosmos, circling round this earth, obey
Whithersoever you lead, and willingly is it led by you.
These have you as servants in your invincible hands,
The forked lightning, fiery, everliving;
When it strikes, all nature trembles.
By it you guide the universal Logos, which pervades all things,
Mingling with both the greater and the lesser stars;
As you have been and are supreme ruler of them all.
Nor is any deed done on earth against your will, O Lord,
Either in the high and divine heaven or on the sea,
Save that which evilmongers do in their madness.
But you know how also to render the even odd,
And to bring order into the unordered, and the displeasing is pleasing in your sight.
For so have you brought all things into unity, good with evil,
That the universal Logos, ever-being, has become one.
When the evil flee from it, they become miserable, and those of good men who always yearn for the possession of wealth
Neither see the common law of God, nor listen to it;
But evildoers again and again strive indecently for something else,
Some possessed by passionate zeal for fame,
Some turned to craftiness in complete disorder,
And others to the shameless and voluptuous deeds of the body,
Fastening in all ways to become the opposite of the good.
But Zeus, giver of all gifts, shrouded with dark clouds, you of the bright lightning,
Free men from endless misery,
Which you, Father, may expel from their souls, and give us the power
to be governed by your mind, trusting in which you govern all things with justice,
To the end that honoring you, we may share in your honor,
Hymning your works continually, as it is fitting
For a mortal, since there is no better prize for men
Or for gods, than ever to celebrate the universal law in justice.

In this poem Zeus is anthropomorphic, governing the universe as a lawgiver; his omnipotence is limited only by the deeds of ignorant and evil men. No one reading this Hymn would ever think
that Zeus was simply a kind of very thin matter, uniform in nature, something like a gas so rarefied that it had spread into all the crevices of macroscopic objects. Since he is immutable, his government never changes.\(^{16}\) Why he has no power over the deeds of evil men is not clear, but it may be that this foreshadowed the idea that evil was not really real. In general the Stoics identified the regularity of God's rule with Fate. As early as Chrysippus the world-reason was asserted to be that "according to which all things which will come to be in the future will come to be, and those which are coming to be, come to be."\(^{17}\) Every event is strictly determined and Aristotle's admission of chance into the world is flatly denied. This would seem to imply man's impotence and indeed the Stoics made a great deal of the necessity of bowing to fate, accepting the will of God as irresistible, playing the part given to one in the cosmic drama. It does not follow that, because general laws can be formulated, describing the behavior of a class of things, the individual members of the class contribute nothing to the events in which they participate. For the very fact that such laws are general prevents their including in their formulation the individual traits of the members of the class being described, and no individual thing or event is characterized exclusively by the general traits of the class in which it happened to be located by a scientist. Yet what the thing or event actually does may be determined by just those traits which are not included in the general law in question. Hence when Cleanthes excludes from God's competence the maleficence of the ignorant, he could justify this by saying that ignorance may extend to any field and that in the field of which a man is ignorant, he will act blindly, as determined by one of his individual and peculiar traits. So a man ignorant of the Law of Gravity might jump off a cliff

\(^{16}\) The thoughts expressed in the *Hymn to Zeus* could profitably be contrasted with what Cicero reports of Cleanthes' theology in *De natura deorum* i. 14. 37: *Cleanthes ... tum ipsum mundum deum dicit esse, tum totius naturae menti atque animo tribuit hoc nomen, tum ultimum et altissimum atque indique circumfusum et extremum omnia cingentem atque complexum ardorem, qui aether nominetur, certissimum deum iudicat.*

\(^{17}\) Diels, *Doxographi graeci*, p. 323.
with evil results. There is no evidence that Cleanthes did argue in this fashion. But there was no logical paradox in the Stoics' preaching both universal determinism and free will, free will to the extent of resignation to the universal order. The decision to be resigned is an act of will and is determined by the individual himself; otherwise it would be irrelevant to ethics. But of that more below.

The history of the cosmos, as conceived by the Stoics, is of little interest to us here, for it had practically no influence in subsequent philosophies. Yet it may be worth while to point out that the fire which was God and which was therefore preservative was also at one epoch in cosmic history destructive. That epoch was the time of the universal conflagration, called by the school the *ekpyrosis*. This conflagration reduced all things to their elemental stuff which is, as far as is discernible, the primordial fire or God. The length of the period between one conflagration and another was called the Great Year, the length of which varied according to the calculations of various writers. But that there was a Great Year and that after the *ekpyrosis* a new cycle began, were integral parts of the doctrine. Some Stoics even went so far as to say that exactly the same individual things and events would recur in each cycle. But this led to detailed debates which need not be introduced here. However bizarre the notion may seem, there are two arguments in its favor. First, if matter is indestructible and there is to be a universal conflagration, then there is no reason why anything other than what has happened in the past should occur after the conflagration. If, as Leibniz was to say, this is the best of all possible worlds and God is good, then if the world is to be destroyed, its reconstitution is the only possible thing that can happen. Second, as Nietzsche was to argue, if the number of things—or possibilities—in the universe is finite, then sooner or

18 The best-known modern version of the Great Year is of course Shelley's chorus from *Hellas* beginning, "The world's great age begins anew." A less well-known but very clear account is in George Moore's "My Mother's Funeral," in Memoirs of my Dead Life. Vergil's Fourth Eclogue is perhaps the best-known ancient poem based on the theme.
later the combination of things out of which the present universe arose will recur. Both arguments may have flaws, but they are rational arguments nevertheless.

The real world then, as opposed to the world of appearance, was a world without beginning or end, undergoing indefinitely repeated cycles of birth and decay. It was a world infused with a fiery substance which, though material, nevertheless was divine and had all the characteristics of a wise and providential God. Its main resemblance to the world of appearance was the absolute determinism which controlled the events happening in it.

4. Like the Stoics, the Epicureans set up a world vastly different from the world of appearance. But whereas no one can be sure of the source of the Stoic theory, since it has but faint resemblance to anything that went before, one knows that Epicurus got his idea of reality from Democritus. In one of the famous Democritean fragments, we are told that sensory qualities exist by convention and that in reality there are only atoms and the void. It was his form of atomism which was taken over with certain modifications by Epicurus. Like the Stoics, the early Epicureans maintained that only matter was real, but unlike them they did not endow matter with the properties of the soul. On the contrary, they argued, if all is matter, then purposiveness must be ruled out of real existence as appearance. One can explain all events as motions of the atoms in the void. And the atoms themselves have only the properties of shape, size, and weight. The number of atoms is indefinite and empty space is unbounded.

We are then to picture what one might call the scientific cosmos as a great snowfall of atoms moving downward through infinite space. But since Epicurus also seems to have held that all atoms would normally fall in straight lines and with equal velocity and therefore never meet, he introduced the postulate that there occurred a fortuitous swerving in their fall from the straight.

19 Strange though this may seem to us, it should not be forgotten that even a zealous, if "erroneous," Christian, Tertullian, believed that both the human soul and God were material.
Because of this swerving, the atoms formed larger conglomerates and eventually macroscopic objects. By a counter-process conglomerates of atoms might disintegrate, and the cosmos becomes the scene of continual and endless birth and decay.

The swerving of the atoms is usually thought of as a blemish on a theory of beautiful simplicity. But it will be observed that the introduction of the swerve had as its logical source the fact that conglomerates of atoms actually existed. Since they would not exist if all the atoms fell in straight lines and with equal speed, something must occur to explain their existence. Epicurus could have argued that some atoms fall faster than others and that the faster ones would overtake and link themselves to the slower. But deceleration of fall in the opinion of Epicurus was a problem and had itself a cause, namely, resistance to or by other material objects. Similarly, following Galileo, we are taught that a moving body would continue to move in a straight line indefinitely if it did not meet with the resistance of the air or some other medium producing friction. He could, to be sure, have invested each atom with an inherent velocity running from the very slow to the very fast, or with inherent paths running from the straight line to, let us say, the circle. But each of these hypotheses would have created difficulties of its own and he posited the swerve perhaps as the simplest assumption. It was of course an element of chance, but chance had been made legitimate by Aristotle, whatever the Stoics may have believed, and it made little difference whether one introduced it into the order of nature or the world of observation. If chance events happen, as they did in Aristotle, on the level of experience, why not proceed further and permit them to enter into the world of reality?  

Like the Stoics, the Epicureans had to face the problem created by the existence of an apparently immaterial being, the soul. Epicurus assumed that he had but to explain psychical phenomena

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21 Ibid.
as the behavior of very subtle atoms, the lightest and swiftest of all bodies. Both schools held to the concept of the soul as something contained within the body, a substantial not a functional soul. This psychic substance escapes from the body at death and, like a gas, is dispersed into the surrounding atmosphere. Thus any hope or fear of immortality is eliminated. And just as there is no reason to believe in immortality, so there is no reason to believe in a divine providence, no use for prayer, and, though the gods exist, they have neither creative power nor power of interfering in human affairs. They are made of ethereal matter, are perfectly happy, and therefore unconcerned with human history. The Epicurean gods are exemplars of what men would be if men were perfectly happy and perfectly beautiful. Moreover, the gods have no more reality than men or than the other physical objects which surround us. They exist indeed, but they are composed of atoms as every other existent thing is and have no privileged ontological status.

The beauty of Epicurean metaphysics is the beauty of any materialism. It is the simplest account of the things that are, employing the fewest assumptions. In temper it is very similar to the metaphysics of a man like Hobbes, in that Hobbes too had to grant so much difference to the mind and whatever is in it that to all intents and purposes it became a different kind of matter. The smooth subtle atoms which compose the human mind and the bodies of the gods are of course material particles. But since they can do things which other material conglomerations cannot do, it has to be admitted that at least new activities, vastly different from those exhibited by ordinary physical objects, are their portion. I refer obviously to knowing and feeling and wishing. I am not saying that Epicurus was condemned to a substantialistic dualism. I am simply saying that he held a functionalistic dualism. If he could have stated the conditions under which psychic phenomena would occur, and if those conditions were velocities and atomic shapes, or whatever other properties atoms might be said to have, then he would have given a materialistic explanation of
the rise of such peculiar behavior. But since the peculiar behavior was found only in gods and men, he would have had to conclude that there existed two radically different kinds of being, one which was subject to the laws of physics in its gross behavior and one which was subject to the laws of psychology.

5. The one school of philosophy which showed little if any development was that of Aristotle. The Peripatetics showed an amazing fidelity to the doctrines of their master, and until we come to Alexander of Aphrodisias, who lived in the third century of our own era, we see no important change. Aristotle's immediate successor in the Lyceum, Theophrastus, wrote copiously and we are indebted to him for most of our knowledge about the early philosophers. His book on plants is a valuable contribution to botany and his *Characters*, which we shall mention below, influential in the history of literature. But otherwise there is little to report on the contributions of the Peripatetics to the rationalistic tradition. It was perhaps enough if they kept alive the teachings of the school's founder.

II

We turn now to the method used by the various philosophers whom we have been discussing in the establishment of their metaphysical views. These methods were, to be sure, inherited for the most part, since by the fourth and third centuries philosophical inquiry had been pretty well ritualized. There are, however, certain methodological details which it may be worth while pointing out.

1. Little is known about Speusippus, but there is one fragment which, though tantalizing in its brevity, suggests a doctrine which was revived by Hegel in the nineteenth century. Eudemus, presumably the pupil of Aristotle, is reported as saying that Speusippus maintained the impossibility of defining anything unless one knows everything (fr. 31b). This is corroborated by
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another fragment, from Philoponus (fr. 31c), in which Speusippus says that nothing can be defined or divided unless one knows everything, since he who would know the nature of a man or a horse or anything else, must know all things which are not men or horses or whatsoever may be in question, so as to know how they differ from them. In other words, every term contains within it the negation of all its contraries. To know what man is requires knowing what not-man is. In the Middle Ages this principle was phrased as the famous *Omnis determinatio est negatio*—all determination is negation—the acceptance of which bound one to the conclusion that any term which denoted the whole of things, any universal predicate, would be meaningless. We have no evidence that Speusippus made anything of this principle, but it may well have been the reason why he denied that the divine *Nous* is identical with the One and the Good but said it had its own nature (fr. 38). For if his ultimate principles had been fused into one, there would have been no knowing them. The knowledge—or definition—of the good can be acquired only by contrasting the good with the not-good, of the one only by contrasting it with the not-one, of the *nous* only by contrasting it with the not-*nous*. But once again, is he talking about contraries or opposites? Do we contrast the good with evil or with everything that is not-good, the red, the sweet, the tall, the salty, and so on? If he did mean this, which seems absurd, then he would have set himself an impossible task, for not only is the number of such qualities much too large for any human mind to survey them, but also, though red is not-good, some red things are good.

In view of this it may be possible to interpret a fragment of his (fr. 32a) which discusses homonyms and synonyms. Here we find him distinguishing between words which express "the *logos* of the essence" of something and those which are simply names. Synonyms are words which express a common essence; homonyms do not. But what is the *logos* of an essence? If we call both a sea lion and a lion animals, the word "animal" expresses an essence which the two beasts have in common, but the word "lion" does not. Yet
to comprehend the common nature expressed in the word “animal” is to know much more than the word “animal.” It is to know the not-animal thoroughly in order to explain just what constitutes animality. If this is so, then we see also that the sum­num genus is inexplicable, since there is nothing with which to contrast it, and so is the individual, since the individual has too many properties and qualities to make definition possible.

It may have been because of such difficulties that Speusippus wrote the book that is referred to by Athenaeus as the Book on Similarities. This seems to have been, as far as one can judge from the references which are made to it, a kind of taxonomy. Just what the principle of division was I have not been able to determine, for one has simply the information of what plants and animals were classified together. To learn (fr. 19) that “Speusippus in the second book of his Similarities placed the kestra [the garfish] and the saura [lizard?] together as of one kind,” is not very illuminating, since we do not know what he thought was similar in them. But it is at least reasonable to infer that by his exhaustive classifications he hoped to provide differentiae for all classes of things and thus to provide a sufficient basis of the kind of knowledge which he required. He is quoted (fr. 94) as having said that philosophy is the desire for knowledge of the things which are everlasting, a state of contemplating the true as true, the truly rational care of the soul—a description which was far from novel but which marked him as still in some way a Platonist. But we have no fragment which tells us much of anything about the nature of contemplation, whether it is a purification of perception, a recollection of prenatal experiences, or direct apprehension of Platonic ideas. In one fragment (fr. 29) from Sextus Empiricus he is quoted as saying that “some things are sensible, others noetic, and of the noetic the criterion is the scientific reason, but of the sensible it is scientific perception.” But we have no fragment which tells us much of anything about the nature of contemplation, whether it is a purification of perception, a recollection of prenatal experiences, or direct apprehension of Platonic ideas. In one fragment (fr. 29) from Sextus Empiricus he is quoted as saying that “some things are sensible, others noetic, and of the noetic the criterion is the scientific reason, but of the sensible it is scientific perception.”
previously, but perfected through practice according to rational methods, and as musical sense has a power of apprehending the harmonious and the discordant, not as self-creative but the result of rationality, so too scientific perception, though by nature non-rational, takes over through scientific practice the function of accurately penetrating to the underlying substance."\textsuperscript{22} This would give to perception powers which Plato was unwilling to grant it, and if we are to take seriously the power of sense to penetrate to the underlying substance, sense has more than an access to right opinion. It has also the power of attaining knowledge. This comes from practice; but it comes. Therefore it would look as if perception could reach reality, surely a startling enough conclusion to find in a Platonist. But if Plato's nephew and successor could hold so revolutionary a point of view, it was not strange that the Academy should later diverge even farther from the tenets of the dialogues.

2. Though testimonies to the philosophy of Xenocrates are found as early as Aristotle, one has but the barest evidence of his method of discovery. He had maintained, as we have seen, that the soul was a self-moving number, and in Aristotle's \textit{De anima} (404a) we come upon the statement that those who thought of the soul as self-moving, "all seem to have assumed the initiation of motion to be a peculiarity of the soul, and that all other things are moved by the soul, and the soul is moved by itself, because they see nothing moving which is not also moved." The source of motion was apparently much discussed and Aristotle in his \textit{De motu animalium} (698a 8) lays it down as an axiom that the source of motion in self-moving living beings must be itself unmoved or at rest. If the soul moves, it must be moved either by something else or by itself. Why choose the second of the alternatives? The probable answer is that Xenocrates agreed with many of his contemporaries and successors that only material things could be acted upon. The soul, being immaterial, must be active, and, if it moves, must have the source of its motion in it-

\textsuperscript{22} Sextus Empiricus \textit{Adv. math.} vii. 145–146.
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self. But why should he have called it a number? Alexander of Aphrodisias, thinking about this, asked whether it was odd or even, whether it was four or six, if even, or five or seven, if odd, which may show that by his time the idea seemed absurd. Aëtius attributes to Pythagoras the idea that number moves itself and says that Xenocrates agreed with him (fr. 60). The self-motion of number may very well be the productivity of numbers in creating new numbers “out of themselves” as spiders seem to reel out their gossamer. When the first nine numbers “flow” out of the Monad, the Monad is pictured as creating them out of itself. Similarly in our own time we hear of ideas arising “by the sheer force of logic,” as if logic were a power resident in a proposition which could propel or ejaculate new ideas from its own being. Neither number nor the soul is material, and both could be taken as good examples of the activity of the incorporeal. This is a fairly wild guess, but the terms of the discourse are so foreign to our ways of thinking that only wild guesses will make sense out of them. When one is dealing with philosophers who say that the One is male and the Dyad female, that there are invisible genii below the moon, that the equilateral triangle is akin to the divine, the scalene to the mortal, and the isosceles to the daimonic (because the daimonic has at one and the same time the nature and passion of a mortal and the power of a god) (fr. 23), that there are lucky and unlucky days (fr. 25), one uses the raison du cœur to explain what they are driving at or abandons the puzzle. The one method which seems safely attributable to Xenocrates is that of uncritical analogy.

In his argument that all being could not be identifiable with the One, his argument is clearer. If Being were the One, it would be an individual. But it is not an individual, since all things are. This means that being as a predicate is distributed among all things and thus is fractured and cannot be one. It will occur to the most naïve mind that there is a distinction to be made between dis-

23 See Mullach, fr. 41.
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tributing a quality among a number of subjects and distributing pieces of a material substance. But apparently this distinction did not strike Xenocrates as very forceful, if it occurred to him at all. For, according to Porphyry, he also says that being could not be divided \textit{ad infinitum}, but sooner or later one would reach atomic particles of being (fr. 45). Because of this difficulty, which would leave some things that are without any being, he turned to another hypothesis which appears to have interested the commentators, the hypothesis of "atomic lines" out of which planes and solids could be constructed. Planes can be thought of as classes of lines and solids as classes of planes, or, if one prefers, a plane could be thought of as a line of which all points are moving in the same direction and solids as generated by planes similarly moving.\textsuperscript{24} This idea could at most suggest a way of defining the plane and the solid; it could not create them in space or give them existence.

It would look as if by "being" Xenocrates meant "existence" and that in the back of his mind was the further notion that existence was the occupancy of space. It is always dangerous for a historian to attempt the exploration of mental hinterlands; it is wiser to limit oneself to the foreground. But in \textit{Timaeus} Plato had shown the Demiurge constructing the world out of geometric solids, but he was building an ideal, not a material, world, and Plato was careful to posit at the outset as irreducibles both the Same (Identity) and the Other (Difference). These would correspond to unity and multiplicity. Xenocrates may have been doing the same, for we have only comments made by men discussing Aristotle's physical theories to guide us and the opinions of Xenocrates are introduced into the discussion only because Aristotle objected to them. Simplicius, for instance, commenting on Aristotle's \textit{De caelo} (139b), brings in Xenocrates' theory of atomic lines and distinguishes between geometric and physical

\textsuperscript{24} It may be asked whether the second hypothesis does not beg the question, for how would one identify the directions required? But Xenocrates should not be blamed for this. The suggestion does not come from him.
lines, a wise distinction. He points out that the latter are not only length, as they would be in geometry, but also that they have breadth and some height. Surely Xenocrates must have known this. Granting him as much good sense as his opponents, one interprets him as trying to give a purely logical account of existence, saying in effect that if to exist means to occupy space, then the smallest unit of existence would be an atomic line, out of which planes and solids could be built by geometric devices. In our own time no less an intellect than Einstein distinguished between axiomatic and applied geometry, and by the latter he meant a geometry exemplified in physical phenomena. Thus one might say that the top of a table corresponds physically to a geometric plane, though it is not a geometric plane, but at the same time it is treated by us as if it were one. I attribute a similar point of view to Xenocrates, largely on the basis of a comment by Philoponus (fr. 44) to the effect that Xenocrates agreed that an actual division of anything into infinitesimal parts was impossible—"he says that the cutting up of magnitudes to infinity is possible potentially, but not actually"—also an opinion of Aristotle. On the other hand, we do not know whether Xenocrates agreed with Aristotle that all potentialities need not be actualized, or with Timaeus in the dialogue named after him that they must be.

All then that we can say about the method of Xenocrates is that it was dialectical and not empirical. He tried by pure deduction to give an account of the natural world. He apparently first laid down the most abstract ideas which he could reach and then proceeded to infer from them the nature of everything implied in their nature. In making this attempt he ran counter to the direction of his most eminent contemporaries, the early Stoics and Epicureans, for they seem to have begun with the evidence of perception and worked backward to generalities.

3. The viewpoint of common sense as shown in the early Stoics is illustrated by their basic axiom that everything is material. By the material they meant that which could act and also
This axiom denied the equally popular notion that only the immaterial could act and that the material was passive. Action and passion to the Stoics were motions and motions were observable only in material objects. If then a cause is that which is responsible for all change, all change will be reduced to motion, and it logically follows that matter, the only thing which moves, is also the universal cause. This in turn reduces the number of kinds of change, which in Aristotle were four in number, to one, locomotion. Consequently the Stoics had to find a method which would permit them to explain all changes in the world as caused by something material which was mobile and which could produce motion in other things. That something was, as we have seen, the Pneuma. The logic in this is simple: develop the characteristics of a material body such that it can penetrate everywhere and be a universal cause; attribute to this material body properties which are adequate to the effects for which it is to be made responsible. Solutions of this problem were restricted by the assumption that causal relations could subsist only between similars.

But the Stoics seem also to have realized that the simple assertion that the Pneuma was the universal cause would not work unless it could also be asserted that it actually had the power to do what was required of it. Since it was what we would call a gas, it could move about like the wind, though the wind is not self-moving. But it also could be seen to have varying degrees of strength, and the concept of tonos, which we retain in the phrase “muscle tone,” was helpful in explaining its behavior. Cleanthes is said by Plutarch to have maintained that “the impact of fire is the tonos, and if it should be sufficient in the soul to accomplish its appropriate task, it is called force (τόξος) and strength (κόκκαλος).” It gets into the nerves—or possibly sinews—and determines whether a man should act or not and also how he should

26 De Stoicorum repugnantiiit vii. 1034d.
judge.\textsuperscript{27} Here the \textit{Pneuma} takes on the role which the animal spirits were to play in physiology down into the nineteenth century. If we overlook the picturesque details of Stoic physiology and psychology, it is clear that the school accepted the consequences of their materialism. Once they had laid down their basic premise, they were prepared to follow through and, as we know, they ended up by making the soul, the ideas, the qualities, even truth and God, all material.

But what they meant was that the causes of everything were material and the one gap in their reasoning was the proof that an effect is substantially what its cause is. That there was always similarity between cause and effect was, as we have said, common knowledge, but obviously if the similarity was not limited, it would amount to identity. One does not prove the substantial identity of two things by saying that one is the cause of the other. But one consequence of Stoic materialism was clearly seen and accepted. That was universal determinism. The idea of causation was itself obscure and has remained so, but the Stoic did not doubt that no accidents occurred in this world, no miracles, nothing logically absurd. There was never a break in the causal chain. But then if this is so, and there are a finite number of possibilities, it would seem likely that we have a model for the universe as a whole in the objects which surround us. These objects form units, cohering together, whether they are inanimate or animate. The tension and distention which are exhibited by the \textit{Pneuma} must be reduplicated in all things, and the cosmos becomes a unit similar to human beings, but on a grander scale. The notion of the Great Animal is seen to follow, if not with rigid logic, at least with psychological plausibility, from the notion of universal determinism. For why should the determinism in larger things be any different from that in small? We have learned that this does not follow and that it is risky to extrapolate the type of events which we find in limited areas into more extensive areas without manipulation. The analogical method is too apt to break down—

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witness theology. Nevertheless it requires an admirable boldness of imagination to project the limited experience of mankind into the world as a whole. In fact, there seems to be no reason to believe that the world is a whole at all, in the sense that things about us are wholes. Such doubts, however, do not seem to have occurred to the Stoics.

In view of their axiom of universal determinism, it was to be expected that the Stoics would explain the rise of knowledge as an effect produced in us by external causes, rather than as an exfoliation of innate ideas. Zeno thought of perception as a sort of imprint made upon the soul by material forces and Cleanthes is said by Sextus Empiricus (Adv. math. vii. 228) to have likened it to an impression made upon wax, one of the most lasting similes in the history of epistemology. Once the impressions were made, they could linger on, as in Hobbes, and become memories, and, in accordance with a principle laid down by Aristotle (Posterior Analytics, end) then turn into “experience.” But this could permit the possibility of every man’s having his own set of truths and truth ought to be interpersonal. To avoid the complete individuality of truth, they first posited a kind of irresistible impression (the cataleptic datum) which cannot but be true. We have only to be aware of one to apprehend its truth. Such data are analogous to self-evident propositions. That men have such experience cannot be denied, but on the other hand there is no evidence that the Stoics provided any reason why some impressions should be cataleptic and others not. For if both the cataleptic and the non-cataleptic are produced in us by the same causes, why should some be truer than others? The Stoic here was faced with the same problem which confronted David Hume when he made the distinction between impressions and ideas and then simply said that ideas were faint copies of impressions. But Hume at least believed that all impressions were true.

28 The simile is used to describe memory by Aristotle (De memoria 450a 23). Cf. Theaetetus 191d.
29 See Plutarch Placita iv. 11. 900b.
The Stoics with more logic also turned to the *consensus gentium* as a criterion of truth. I say with more logic since if everyone has the same impressions, everyone will agree, and if impressions are in any way a test of truth, uniformity of impressions will give one at least an interpersonal set of ideas. If all people believe in God, then God must exist, for it would be unlikely that everyone would have a set of false impressions. Cicero in his *De natura deorum* (ii. 2. 5) uses the argument in the following way: “Unless we had an idea understood by us and grasped in our minds,” says Lucilius, “so unwavering an opinion”—as the belief in God—“would not remain in them or be confirmed year after year, nor could it remain fixed in men over so many centuries and ages. Surely we see other opinions fade away as fictions and vain fantasies during a lapse of time. Who would believe that Hippocentaurs and the Chimæra ever existed? What old woman could be found so senseless as to fear those portents which were once believed to exist in the lower regions? As the days go by the inventions of fancy disappear, but the judgments of nature are confirmed.” This is to be sure Cicero speaking, not an early Stoic, but it gives a reason for accepting the *consensus* which does not contradict anything which we know of the early Stoics. If beliefs come from cataleptic impressions, and some beliefs are repeatedly expressed over the years, it would look as if the same cataleptic impressions were experienced by the great mass of people. Foolish and superstitious ideas then are identified with those which only a few people believe in. The same argument in different words is repeated by Seneca in his *De beneficiis* (iv. 4. 2): “He who says [that the gods do not exist] pays no attention to the voices of those who pray or to those all about him who with hands raised to the heavens call for blessings on individuals and the state. Surely this would not be so, nor would all mankind have joined in this madness of addressing the dumb and ineffectual deities, unless we knew of

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30 In fact, an examination of the sources of the fragments which von Arnim has collected in his *Stoicorum veterum fragmenta* (Leipzig: Teubner, 1903–1905) shows that he relied heavily on Cicero.
their benefactions, sometimes given without being asked for them, sometimes in response to prayer, great and timely help which obliterates by divine intervention threats of great size.” This begs the question, to be sure, but forgetting that, we can see that the argument is based on common belief. People would not continue praying if they did not believe that their prayers were effective; they do continue praying; therefore they do believe that their prayers are effective. Then comes the leap: therefore their prayers are effective.

Now Cleanthes himself is represented by Cicero (De natura deorum ii. 5. 13–15) as using four proofs for men’s belief in gods: (1) our foreknowledge of the future, (2) the benefits which accrue to man from a temperate climate, the fertility of the soil, and so on, (3) the awe inspired by lightning, storms, rain, snow, and the like, and (4) the uniform motion of the heavens. The first three are the psychological causes of the belief and may be that which establishes the consensus, but the fourth is used to establish a familiar argument: where there is regularity, there is a cause and the only reasonable cause for the regularity of the heavenly motions is a god. Chrysippus, however, used, if we may trust Cicero once more (ii. 6), another argument. “If there is anything in nature,” he says, “which the human mind, man’s reason, his force, his power could not produce, surely that which brings this about must be better than man. But the things of heaven and all those things the order of which is everlasting cannot be brought about by man. Therefore that by which these things are brought about is better than man. But what would you call it other than God? In fact, if gods do not exist, what could there be in nature superior to man? In man alone is reason, than which nothing is more excellent. But that there be a man who thinks that there is nothing in the world better than he is, is foolish arrogance. Therefore there is something better. Therefore God exists.”

A diligent search through the remains of the Stoics will show that the argument from the consensus gentium is not frequently found and that no Stoic ever hesitated to criticize views which were
very widely held. For instance, probably no idea was ever more
general than that goodness is pleasure. And yet the Stoics vigor­
ously combated hedonism. How many people would have agreed
that overcoming the emotions was essential to the good life? But
though their appeal to the consensus was not usual, it could easily
be made harmonious with their theory of knowledge.

The use of the cosmological argument is less understand­able. In
the phenomenon of adaptation they saw added proof of the exist­
ence of God. They seem to have believed that everything what­
soever was made for the use of something else, which gave them
a well-knit cosmos. The gods existed for the sake of one another,
the animals for our sake, witness horses and hunting dogs. Cicero
goes so far as to say (De natura deorum ii. 14. 37) that according
to Chrysippus, “just as the shield’s cover is made for the sake of
the shield, the sheath for the sword, so throughout the world all
things are made for the sake of others, for example, the fruits and
grains which earth produces for the sake of animals, animals for
men, the horse to pull our wagons, the ox to plow, the dog to
hunt and guard us.” The particular things which are in the world
need not be perfect, but the whole is perfect (ii. 14. 38–39). There
is nothing antimaterialistic in such beliefs but they are not justi­
fied by an appeal either to the traits of a universal Pneuma or to
universal determinism.

The Stoics also were given to allegorical interpretation of myths
and legends. In this they followed common practice, a practice
which is also found in Plato and Aristotle. When the philosop­
thers wanted to quote Homer or Hesiod, as we quote the Bible or
Shakespeare, they did as we do, and gave their texts a meaning
which they put into them themselves.31 One uses allegorical inter­
pretations when for one reason or another one wants to retain a
text which on the surface does not make sense. Such texts are
usually sacred. In the case of the ancient myths, one could either
discard them or try to show that they “really” meant what one

31 Cicero ridicules this practice among the Stoics in De natura deorum i.
15–16.
believes to be the truth. The truth is naturally one's own philosophy. What value lies in proving that other people agree with one is dubious. But I suppose that we all like to imagine that we are mouthpieces for the wisdom of the race even when the expression of that wisdom sounds foolish. There runs through European thought the barely concealed feeling that human nature as a whole is not wrong, and if one believes in a *consensus gentium*, one finds it in the hidden meanings of myths and folklore. Allegorical interpretation eliminates the disagreements among men whom one respects for one reason or another. Philo Judaeus was to rely on it for his interpretation of the Pentateuch, the early Fathers for their interpretation of the Bible as a whole, and in our own day the psychologist, Jung, used it when he wished to call the Collective Unconscious to the witness stand.

To make an allegorical interpretation one must first possess the key. And the key must be the literal translation of the symbols in the supposed allegory. If Seneca says that the ancients did not believe that Jupiter hurled thunderbolts but meant by the name “Jupiter” simply the ruler and guardian of the universe, the “mind and spirit of the world,” it is because he does not believe in a thundering Jupiter, does believe in a ruler and guardian of the universe, and wants to believe that he has the backing of tradition. By etymologies which are usually false, Zeus can be turned into the cause of all things, Hera into air, Hephaestus into fire, and Poseidon into water. It would have been much simpler to maintain that we moderns are more intelligent than our ancestors, but that would display *hybris*. The difficulty appears when one asks why, if all knowledge is a sublimation of sensory impressions, the sublimation does not express itself in uniform symbols, why Homer and the mythographers had to conceal—or were even able to conceal—their meanings in symbols which were so obscure.

4. The Epicureans agreed with the Stoics in basing their method on sensory observation and also in their use of the dictum

32 *Quaestiones naturales* ii. 45. 1.
ex nihilo nihil. We have already (Chapter I, II. 6) pointed out the various interpretations of the dictum and shall not repeat them here. But deriving all knowledge from sensory experience also could be interpreted in at least three ways: (1) that every sensory perception is equally reliable, which no one took seriously; (2) that all ideas have their roots in sensory perception; (3) that all knowledge must be checked for its correspondence with sensory experience. In Epicurus the two possible sources of knowledge were reason and sensation. But pure reasoning had to be about something; it must operate on propositions which are furnished to it by some other faculty, intuition, revelation, perception, imagination, memory. Sensation itself is always true in so far as sensory qualities are whatever they happen to be when experienced. That is, we cannot doubt that we see red when we see red, though we may not know whether it is caused by an external source or is a hallucination. The negative afterimage of green is red and we cannot fail to see the red when we are seeing it. But we can err in saying that the background on which we see it is actually painted with a dab of red pigment. Epicurus was not an adherent of the theory that the senses as such are always trustworthy; in short, he was not what modern classifiers of doctrines call a phenomenalist. Bailey points out in his study of the atomists and Epicurus that even the cardinal principle, ex nihilo nihil, was tested by sensory observation, and yet sensory observation was also tested by rational or dialectical argument. If the dictum were not true, then anything could happen. If existent things could be destroyed, then everything would have disappeared. (It might have disappeared to be sure, but why would it have?) Yet we see things coming into being with no apparent source of their existence and we see things being dissolved into apparent nothingness. As Bailey points out, behind this lies the assumption that "the

33 See Bailey, op. cit., p. 21. Though Lucretius credits Epicurus with the discovery of this principle, it had long been in use, as we have said above. One of its clearest statements is in Aristotle's De caelo 302a 3.

sum of things always was such as it is now and always will be the same.” Thus, though Epicurus was capable of saying flatly that “all sensa are true and existent, for there is no difference in saying that something is true or existent,” at the same time he was not talking about sensory qualities but about things. Perception will tell us what exists and what does not exist, but it must submit to rational criticism. To say that a certain kind of knowledge is always true does not imply that there are no other kinds of knowledge which are true also. And Epicurus did admit that “anticipations”—of which more below—are feelings and are true. But on the other hand, no sensation could give us the principle itself of the validity of sensations. Our trust in perceptual knowledge is simply there; we all do trust it—until it plays us false. If we wish to know what the weather is like, we look. And if we wish to know whether a given substance is sugar or salt, we taste it. Perceptions are the source of all our images and, even in the atomic theory, Epicurus derived his ideas of what the atoms are like from perceptible shapes. But he did not hesitate to correct the impressions of the senses when reason demanded this.

The atoms, for instance, are imperceptible because they are too small to be seen. Though Epicurus was convinced that all reason owes its validity to sensation, he did not conclude that imperceptibles were nonexistent. A deduction or inference to be true must be corroborated by observation; that much will be accepted by anyone. If a theory, in other words, implies something on the perceptual level which is not found, then the implication may be consistently deduced but it will not be factually true. On the other hand, we know that any number of premises may be fabricated which will lead to conclusions which can be perceptually corroborated. Observation is a check on deductions since it can disprove them. But strictly speaking it cannot prove them. It can strengthen inference, make it more plausible, but that is all. The theory of the *eidola*, which Epicurus took over from Democritus,

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was consistent with the facts of observation. If a visual object
was throwing off little replicas of itself and they entered the eye,
we could actually see the eidola. And we do see them. But the
fact that I look into the garden and see a rose in bloom is
not proof of the theory that little eidola are being sloughed off by
the rose and entering my eye. If they were supposed to enter my
eye and I did not see the rose, I should probably conclude that
the theory was false, though, if my Epicurean opponent was pig­
headed enough, he might retort that there was something the
matter with my eye. But I am simply trying to point out that an
"empirical" theory of this type does not limit one to the data
of sense. Nor was Epicureanism so limited.

The method was helped by the introduction of "anticipations"
(prolepses). This is of peculiar interest historically, for it is an
early version of a contemporary theory of knowledge elaborated
in opposition to the stimulus-response theory of perception.30
Prolepses remain in our minds after we have had several similar
perceptions and they lead us to anticipate the kind of experience
which we are about to have. They explain the difference between
looking and seeing, listening and hearing, and guide us in our
interpretations of the data before us. For those data are highly
ambiguous. The naked color blue in itself, not seen anywhere in
particular nor as the color of any special object, may be the sky,
a flower, mold, a symbol, cloth, and any number of other things.
When we see a blue flower, we do not think that we are looking
at the sky, for we do not anticipate finding the sky at the end
of a stalk. The theory of the origin of prolepses as an accumula­
tion of sensory data may well be false, and probably is false, but
the use of the concept was helpful because something of the sort
was needed. I have of course gone well beyond the Epicurean
documents in expounding Epicurus' theory. Modern historians
for that matter are not in entire agreement on what the theory
entailed, nor are they on anything else in our intellectual past, but

30 I refer to the various works of the Transactionalists. See G. Boas, The
Inquiring Mind (La Salle: Open Court, 1959), chap. 1, for an account which
tried to be sympathetic to their views.
I have merely tried to make it as plausible as I could. It is backed up by certain passages of Lucretius (v. 181–6 and 1046–9) in which prolepsis is treated as a plan of action. For the interpretation of a sensory datum may well be a plan of action, unless perception is simply the passive reception of imprints made upon us without our doing anything whatsoever.

That Epicurus paid so little attention to the application of rules of reasoning is perhaps not so astonishing as it might seem to the modern reader. Such a rule as the Law of Contradiction was accepted by everyone without criticism, for no philosopher was interested in simply listing the data of the five senses. Philosophy has as one of its major tasks the synthesis of what we know, its organization into some sort of system. There were plenty of skeptics in antiquity for whom such syntheses were dubious and indeed a waste of time. But Epicurus was not one of them. He knew that one had to go well beyond sensation if one were to form general propositions, and he had no hesitation in doing so. The strict application of the canon of perceptual validity would have led (1) to the acceptance of hallucinations and optical illusions as true, (2) to the rejection of any causal linkage between events for, as the skeptic said, we can observe contact but not causation, (3) to the rejection of such theories as those of the planetary bodies, for all that we can see are points of light at different positions in the sky, (4) to the denial of the existence of everything too small or too big to be perceived. Perception, in short, gives us the data and the checks on our reasoning, but it cannot furnish explanations of those problems which puzzle us. It may furnish us with models in terms of which we shall solve our problems. For instance, we are to explain all occurrences as far as possible in terms of colliding atoms. But if the simple laws of collision will not answer our questions, and if they entail conclusions which are observably false, then we are at liberty to introduce a new hypothesis to supplement them.\(^\text{37}\) The swerving

\(^{37}\) See Bailey, *The Greek Atomists and Epicurus*, p. 529, for examples of Epicurus’ introduction of extra hypotheses.
of the atoms would be one case in point. If the atoms did not swerve, they would not form macroscopic objects. But they do form macroscopic objects. Therefore they must swerve.

Again, he objected very strongly to teleological explanations. If Lucretius is accurately reporting his master's views (i. 1021-8), Epicurus insisted that no purpose created the world; it was created by the collisions of atoms and by nothing else. The eye, says Lucretius (iv. 823-42), was not given us in order that we might see, nor was any organ of the body created for our use. The instrument creates its function; the function does not produce the instrument. This was in entire disagreement with the leading explanatory technique of Aristotle and obviously a denial of that part of Timaeus which dealt with the anatomy of the human body. It was clearly an attempt at rebutting the Stoics. Aristotle and indeed any kind of teleological explanation were much too useful to the early Fathers to be discarded and hence this part of Epicureanism, like its materialism, was doomed to extinction.

Neither the early Stoics nor Epicurus were, strictly speaking, rationalists if we mean that adjective to name men who were mainly interested in deduction. Both groups, while using the reason to criticize sensory perception, nevertheless admitted the use of nonrational sources of knowledge, such as the consensus gentium, allegory, perceptual data, and prolepses. One of the common weaknesses resided in their desire to prove ethical theses which are logically, if not psychologically, independent of natural science. It is true that we do not have their complete works, though as far as Epicureanism is concerned we have the great poem of Lucretius. But if the aim which he set himself of using his knowledge to alleviate our fear of death and of the gods is an integral part of the doctrine as a whole, then clearly the doctrine must be so oriented that it will accomplish that aim. The steady drift of philosophy toward a philosophy of life, religion, and ethics is an indication of how the rationalistic fiber was weakening. We shall see, I hope, how it weakened still further in the years that were to come.
III

1. If the earlier Academics had anything to say about the value of life, the remaining fragments do not show it. The so-called Definitions of Speusippus are simply commonplaces which exhibit about as much critical insight as the definitions of Alcuin in the ninth century and, moreover, they are probably spurious.\(^{38}\) To learn that “virtue is the best condition, a state of a mortal creature praiseworthy in itself, a state in which one can be said to have achieved goodness, a just participation in the laws in accordance with which one’s way of life is called serious, a state productive of good order,” is not to learn much about the problems of fourth-century life as a philosopher might see them. One reads these platitudes with impatience, wondering how a close associate of Plato could have been so uncritical. They are, as a matter of fact, moral proverbs excerpted from or paraphrased from certain passages in the Platonic dialogues, edifying perhaps, but not very enlightening. Socrates would have torn them all to shreds.

The literary remains of Xenocrates are even poorer. His moralizing fragments (frs. 58–60) are the usual pronouncements about the identity of happiness and virtue, of wisdom and the knowledge of first causes and “intelligible being,” of the distinction between theoretical and practical prudence, none of which are of much interest since they give us none of their author’s reasons for believing in them.

When we come to the third member of the early Academics, Crantor, we find a few remarks which carry on a tradition which we have seen in the poets. It is the old comment on the misery of life which appeared as early as Homer (Odyssey xviii. 130): “Earth bears nothing more feeble than a human being.” Quoted by Plutarch in his Consolatio ad Apollonium (vi. 104c), and therefore perhaps little more than a ritualistic thought to comfort one in grief, a passage supposedly written on the death of one Hippocles is nevertheless worth quoting if only to illustrate the

\(^{38}\) See Lang, op. cit., pp. 22 f.
strain of melancholy which goes through Greek literary history. It runs: “Of all the things which ancient philosophy says and prescribes, if we cannot prove anything else, this at least is certain, that life is often troublesome and painful. For if it is not of such a turn by nature, it is directed toward corruption at least by us. And hidden chance itself from afar and from the very beginning of life sees to it that we pass not one day in health. As soon as we are born, some evil fate is mixed with all. For your seed, being mortal, shares at once in the cause by which dullness of soul, diseases, cares, and death descend upon us from yonder. To what end do we turn to this point? That we may know that nothing novel happens to a man, but all of us suffer in the same way.” This is a topos which became a favorite in later times, both in such pagan writings as the Pseudo-Platonic Axiochus and in the Contemptus mundi of the Christians. But as the theme is very well known, we shall not overburden these pages with more quotations, for they would all sound the same note: the heaviness of life and its futility.\(^{39}\) We shall end simply by referring to a passage from Sextus Empiricus (Adv. math. xi. 51–9) purporting to repeat a parable by Crantor. If we imagine, he says (Mullach, fr. 13), a large theater on the stage of which the various goods appear, as if in an Elizabethan masque, to claim first rank, Wealth will present herself first. “I,” she will say, “since I furnish adornment for all, both clothes for the body and shoes for the feet, and all utilities both for the sick and the well, all pleasant things in peace and the sinews of war, I deserve the primacy.” And the Greeks with universal consent will award the prize to her. But then Pleasure will appear and say that she is friendship to one, love to another, good conversation, eloquence which steals away the intelligence even of the most prudent, and she will add that wealth is uncertain, ephemeral, and disappears in a flash. It is not riches, she will say, which are good but the pleasures which they bring. And the Greeks will shout that it is she who should have the crown.

\(^{39}\) For references to numerous other writers repeating this topos, see Mullach’s notes on this fragment, p. 147.
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Then Health will come and in her turn be acclaimed, only to be followed by Virtue, who will point out that in her absence all goods melt away. "Hearing this, the Greeks will bestow the primacy to Virtue, second place to Health, the third to Pleasure, and the last place to Wealth." How much of a reflection on actual Greek life this is, we leave to others to decide.

2. One of the most revealing documents of the period immediately following that of Aristotle (middle fourth century) is the *Characters* of Theophrastus. For in the first place it recognizes that there is no such thing as a Greek type to which all Greeks should attempt to conform, and in the second that, though all Greeks speak the same language and have about the same education, they differ from one another markedly. These differences, expressed by the same word as that used originally to denote the marks made by an engraver, were not so finely differentiated as to distinguish individual from individual, but nevertheless did set up subclasses of human beings. These classes are the Ironical Man, the Flatterer, the Garrulous Man, the Boor (or Insensible Man), the Shameless Man, and so on. How the characters were determined, Theophrastus does not tell us, whether they were innate, caused by peculiar education, or associated with certain bodily peculiarities, as might be suggested by physiognomical treatises. But apparently once they were established, they were ineradicable. There is a certain likelihood that the characters were believed to be caused or at any rate to accompany physiological peculiarities, for there was after all in circulation at that time the theory of the four humors which determined the four temperaments. That theory plus the theory of physiognomy might have been the explanation of this interesting work. We have in Plato men like the young Theaetetus, Charmides, Laches, Lysis, and Thrasy machus who seem to incarnate moral and intellectual traits. We have also his views as given in the *Republic* that men were born appetitive,

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irascible, or rational. We have the long description in the *Nicomachean Ethics* of the Great-Souled Man. But I can think of no collection of character sketches so vivid and detailed in Greek literature before the *Characters*. The book is not a scientific treatise in any sense of the word and it would not do to take it too seriously. Each character represents an extreme, like the vices in the *Nicomachean Ethics*, and no virtuous character is described. But the introduction, though Jebb calls its opening "fatuous," does present a problem to anyone believing in the homogeneity of classes, national characters, or even *Zeitgeist*.

If the characters were ineradicable, there was little sense in trying to make men better than they were. The courageous man would be courageous, the coward cowardly, whatever instruction they might receive. The fate which drove Oedipus or Antigone to their doom would be replaced by character. If this work were a serious psychological treatise, Theophrastus could have reasonably argued that each type of evil person should be put where he could do least harm and each type of good man where he would do most good. So far as I know there is no work in which the consequences of the theory of characters were inferred with the interesting exception of literary theory. Writers of fiction try to make their personages intelligible. And the only way in which this can be done is by an imitation of the scientific technique of generalization. One can understand the Slanderer, the Hypocrite, the Hypochondriac, the Miser, the Misanthrope, but one cannot understand Napoleon, Talleyrand, Benedict Arnold, Cesare Borgia, or Woodrow Wilson—the list is purely fortuitous—until one has classified them. During the Middle Ages certain personages of religious history, St. Joseph, Herod, Judas, Mary Magdalene, took on fixed characters and were always presented as "true to character." Similarly a given individual, whether in history or in literature, turns into a type of character, and though Hitler was probably not a monster in his relations with Eva Braun,

41 See his note to l. 1 of the Proem, *op. cit.*, p. 36. The Proem is probably unauthentic.
a monster he remains in our thoughts about him and a monster he will always be. The most consistent characters are in our mental hospitals, or ought to be there, for the exigencies of life demand a flexibility and plasticity of character which is the very opposite of consistency. Yet we still speak of men of character as men to be admired.

What the immediate effect of Theophrastus' *Characters* was, we do not know. But a reading of it gives one the impression of a clear-sighted man who could spot telling details of behavior and who could enliven for posterity the manner of his time. Of authors who remain, he was unique in avoiding the vague generalities of his contemporaries. We have to turn to Lucian and Plautus before we find anything comparable. He saw men neither as hopeless nor as generally happy, though in view of the type of men whom he depicted, he was far from being an admirer of the human race. For our purposes his importance lies in whatever effect he may have had in weakening the idea that men must be judged as members of a homogeneous class of beings, their lives to be appraised by their conformity to the class concept.

3. Though neither the Stoics nor the Epicureans were so gloomy as Crantor, neither had much liking for human life as it was being lived. Both sought an escape from the troubles of life in peace of mind, their main difference lying in the path which they laid out to their respective goals. Both were philosophers of escape, preaching, in brief, definite withdrawal into oneself, cutting off all ties of responsibility to others.

The Stoics were perhaps as contemptuous of their fellow men as the Epicureans. Chrysippus is reported by Plutarch to have found no one in history deserving of the name of Sage. The opinion of Chrysippus is echoed in Seneca's saying that a really good man is as rare as the Phoenix (*Epistle* xlii. 1). When they are less contemptuous, they are equally skeptical. They had no illusions

42 *De Stoicorum repugnantiis* xxxi. 1048 e. Cf. Cicero *Academica* ii. 47. 145 f.
about the ease with which a man could attain a virtuous life. Cleanthes\textsuperscript{43} pictures man as “walking in evil” most of his life. If he ever becomes virtuous, it is late and as his life draws to a close. By teaching men could be made better, but the progress is slow, painful, and may never reach its goal. In fact, the Stoic insistence on the need for moral instruction would have been senseless if the founders of the school had had a high estimation of the value of life.\textsuperscript{44} All ethical teaching is obviously based on the feeling that life as it is usually lived should be improved. No ethicist accepts life as it is; if he did, his teaching would be reduced to one command, “Do as you please.” \textit{Fais ce que vouldras} was all very well for the Thelemites, but it would have revolted Zeno and Epicurus.

This dissatisfaction with life was also shared by such a religious leader as Gautama Buddha or St. Paul. The first step toward regeneration was the great enlightenment which came to Gautama under the Bo Tree, that all life is suffering.\textsuperscript{45} To St. Paul came the revelation of man’s inherent sinfulness and the possibility of regeneration through Christ. Their solutions were clearly different, but they both agreed that terrestrial life as it was being lived was in desperate need of radical change. In contrast to these two religious leaders, the philosophers, both Stoic and Epicurean, were able to find a solution for life’s miseries without supernatural assistance. They underwent no trance and obtained no revelation. Once a man knew what reality was, he could by giving it assent lift himself above the confusion and unhappiness of the mass of human beings.

The demand for peace of mind or for self-dependence may

\textsuperscript{43} Fr. 529 (von Arnim, \textit{op. cit.}, Vol. I, p. 120).

\textsuperscript{44} Cf. Zeller, \textit{Stoics, Epicureans, and Sceptics}, p. 255.

\textsuperscript{45} See T. W. Rhys Davids, \textit{Buddhism} (London and New York: Society for Promoting Christian Knowledge, 1890), p. 48, for the Four Truths: suffering or sorrow, the cause of suffering, the cessation of sorrow, the path leading to cessation of sorrow. The withdrawal of the Buddha from civic life is analogous to that preached by Epictetus. It will be noticed that “the Buddha declared that he had arrived at these convictions, not by study of the Vedas, nor from the teachings of others, but by the light of reason and intuition alone.”
well be a sign that both schools thought mental perturbation and dependence on others were all too common. The period during which the early members of both schools were living was one in which the small city-state had to all intents and purposes lost sovereignty. How intensely the individual Greek felt this loss is problematic, for it goes without saying that what we know of the feelings of people comes from what has been written by them, and the only popular literature we have is folk songs, ballads, jokes, street-corner conversations, and letters to the editors of newspapers. But this type of thing in Greek is lost. The surviving literature, moreover, was bound to have been written by a few men living in cities and representative of no one but themselves. In a hundred years or so no one will know whether T. S. Eliot expressed the thoughts of the majority of his contemporaries or whether Norman Vincent Peale and the Reverend Fulton Sheen expressed them. Similarly, though we do know that both the Stoics and Epicureans formed schools, indeed philosophic sects, we have no way of knowing whether the mass of men paid them any heed whatsoever. Regardless of that, it is safe to say that the way preached by the Stoic was the way which he thought had been either abandoned by his fellow men or untried by them, and that this was the reason of their unhappiness. He never asked any of them whether indeed they were unhappy; he took that for granted. They should have been unhappy.

The main cause of man's supposed unhappiness is his unnaturalness. To follow Nature, as we have said frequently in this book, was a slogan which had been in vogue at least as early as the *Clouds* of Aristophanes (1078), and the two phrases, "according to nature" and "contrary to nature," were stock terms of praise and blame. Just what constituted the unnatural was always something of a puzzle, for after all in one sense of the word "natural" everything is natural. But there were at least two usual ways of determining the unnatural: by pointing to that which was abnormal in the sense of rare, and by first discovering the purposes of acts and things and then pointing to deviations from the attain-
ment of that purpose. Thus pederasty in Greece at certain times was common enough to be made the butt of satirists and the target of criticism; so were love of fame and of money, ambition, love of possessions, and so on, in short, every form of “worldliness.” The former could be called unnatural in that sexual relations were said to exist for the sake of procreation and obviously pederasty could not result in the begetting and bearing of children. Money, ambition, and so on could be called unnatural, since life could go on without them and the rational life might be frustrated by them. If man then was a rational animal, which no one seemed to doubt, then anything which might impede the exercise of reason was unnatural. But then nature took on an added meaning: the natural was to be found in the life of savages and beasts. If savages and beasts did not follow certain customs and seek possessions and found cities, those customs were contrary to nature. The most extreme form of this argument is seen in the legends associated with the Cynic Diogenes. The animals did not drink from cups, had no houses, wore no clothes, had no money. The philosopher therefore drank out of his cupped hands or knelt down and lapped up his water from pools and streams, lived in an abandoned wine jar, and wrapped a few rags about his nakedness to protect him from the cold. Men were consequently, in this form of naturalism, criticized for seeking superfluities. The simple life was enough. Moreover, by getting rid of superfluities, one also got rid of worry about retaining them. In the case of Diogenes, one also got rid of consideration for others and ordinary decencies. That the irrational animals were no standard for rational animals seems not to have occurred to the Cynics. And similarly there was no reason why the savage, who had according to theory no civilization, should be a standard for civilized man.46

The Stoic seldom went so far as the Cynic. But he too rejected many of the goods which other men cherished. Some of these they maintained were neither good nor bad, but indifferent. Ac-

cording to Sextus Empiricus (Adv. math. xi. 73), pleasure itself was held to be indifferent, Cleanthes maintaining that it was no more natural than decoration and therefore valueless. Pleasure may be attached to certain virtuous acts, but their virtue does not lie in the pleasure which they bring one. The value of an act is to be determined rationally. If the act achieves the purpose for which it was designed by nature, then it is good whether pleasurable or not. There could be no compromise with this principle. "Such teaching," says R. D. Hicks, "whether Christian or Stoic, is bound to divide the world of existing men into two opposing classes, saints and sinners, the wise and the foolish." And the Stoics located most men among the sinners and fools.

The life according to nature would be a life according to reason, but to discover what such a life might be requires the preliminary discovery of how reason operates. If there are certain self-evident premises from which the reasoning process starts, then the problem is not too hard. But every school of moralists had its own self-evident premises. They might all agree that the fundamental trouble with the human race is lack of independence (autarky). But that is surely far from being self-evident. If life itself cannot go on without the co-operation of others, then one must conclude that life is downright bad and death is the one good, or that autarky, being an impossibility, is not the goal. Should one ask a Stoic why independence of all desires except those which can be satisfied by oneself is the end, no answer would be given. But how strange is a conception of human life which cannot be exemplified! The basic difficulty in it lay in the Stoic's individualism. Unlike the Platonists, the Aristotelians, the Epicureans, they emphasized the City of God, the cosmos in which every individual was a citizen and in which he must play his assigned role. This role he must freely accept, though in the long run he could not do otherwise. But to play a role in a drama, to fulfill one's obligations to a society whether natural or supernatural, is to recognize the demands of others. Yet the Stoic, as if

he held that the drama was played on an invisible stage and in a private theater, addressed himself exclusively to the individual. Each man was to achieve his own salvation, his own peace of mind, his own independence of external goods. Surely to point out a conflict here is not to exaggerate. With appropriate emendations one of the clearest expressions of this conflict is found in the words of St. Paul (Acts 17:24-28) to the Stoics and Epicureans on the Areopagus:

The God that made the world and all things therein, he being Lord of heaven and earth . . . neither is he served by men's hands, as though he needed anything, seeing he himself giveth to all life, and breath, and all things; and he made of one every nation of men for to dwell on all the face of the earth, having determined their appointed seasons, and the bounds of their habitation; that they should seek God, if haply they might feel after him, though he is not far from each of us: for in him we live, and move, and have our being.

The God of whom Paul was speaking is of course not the divine Pneuma of the Stoics, but, that aside, the tenor of the sentence is Stoic and the conflict of which we have made mention is clear. For if we live and move and have our being in God, then there is no way in which we can live and move and have our being in something else, God being all-inclusive. And if God gives us all things, then he gives us our way of life. Happily our purpose is not to provide an exegesis of Pauline theology and, for all I know, he may have made use of Stoic terminology for forensic purposes only. The sinner might have replied to St. Paul, I am what God made me, as he might have replied to Cleanthes, If I spurn the law of Zeus, that law is not universal, and if it is universal, then my behavior is conditioned by it. St. Augustine and Calvin were perhaps better Stoics than they knew. The Stoics might well have argued that even the City of God contains evil men, for all possibilities must be realized in a perfect world, but they had little cause to look down on them.

Another test of the rational is the discovery of the indispensable. If one is to live in accordance with reason, then one must discover
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the reason why one does anything whatsoever. And if there is no reason for doing it, one rejects it. The indispensable is relative to life itself, or to a happy life, or to an economic life, or some other sort of life. But in the Cynics it was that which could not be dispensed with if one was going to continue living. Pleasantness of life, living with one's fellows, living so as to meet with the approval of society, none of these or similar things counted. Diogenes was the great exemplar of the simple life of course; and to him if the animals could sustain life without drinking vessels, clothes, houses, that was proof that such things were superfluities and could be dispensed with. Crates, describing his "happy city," Pera, says that it has a fertile soil but is "squalid in every way," but "into it never sails a fool, nor a parasite, nor those who lust for harlots' bodies. But thyme it yields and garlic, figs and wheaten loaves; for such things men do not wage wars, nor take up arms for money or for fame." The notion that only the indispensable was the rational continued from Cynicism into Stoicism until in Epictetus, as we shall see, to live rationally required the rejection of almost everything, including family and the state.

4. The attitude of Epicurus toward his fellow men was not much more friendly than that of the early Stoics. "I was never anxious to please the mob," he wrote, "for what pleased them I did not know, and what I did know was far from their comprehension." His hatred of other philosophers was notorious and he would not even admit his debt to Democritus. Yet his purpose in writing was to free men from two fears, the fear of divine intervention in terrestrial life and the fear of death. The theory of atoms accomplished both, or was supposed to. But why did he or his disciple, Lucretius, care whether the mob was freed from fear or not? If pleasure was to be the end of life and was to be found by oneself unaided by one's fellows, why worry about their fears? One had only to revert to the state of the "untaught

48 See Primitivism in Antiquity, chap. 4, for Cynic primitivism in general.
50 Ibid., p. 226; but see 9.
and natural animal” (Sextus Empiricus *Adv. math.* xi. 96) and follow instinct. Pleasure is the end because it is what all creatures seek until they are perverted by culture, from which he urges his pupil, Pythocles, to flee.51 But again, if all men naturally and instinctively seek pleasure and if the good is what all men seek, then (1) why do they need any instruction on how to find it, and (2) why is it that so many men do not seek it? If he can say, as he does, “The source and root of all good is the pleasure of the stomach, and both wisdom and subtlety have their rise therein,”52 this may be a bit of practical advice to men who turn away from the pleasures of eating or it may be a generalization of fact. In both cases it would be superfluous as a moral precept. It looks like a happy acceptance of human life as it exists. But unfortunately, no sooner had this been laid down as a basic principle than a distinction was introduced. The distinction was that between pleasures which are lasting, pleasures which are followed by pains, and pleasures which are greater than other pleasures. But once this is introduced, the attempt to found an ethics on observation fails.

Epicurus, moreover, himself realized that man in a state of nature required certain things which instinct would not provide. In the *Letter to Herodotus*,53 he suggests an outline of cultural history which was to be filled in later by Lucretius (v. 780–1457). Just as Aristotle had pointed out that sometimes nature needs the help of art, so Epicurus says that after the beginning of human history our reasoning powers elaborated the hints given by nature, at times slowly and at others quickly. Thus language was first developed haltingly and only later did the various peoples consolidate their linguistic efforts and form national languages. This was done to avoid ambiguity and to clarify meanings. It may be presumed that this was an improvement of man’s instinctive or untaught ways of communication and that Epicurus did

not disapprove of clear thinking. Furthermore, knowledge itself, he held, is a source of happiness, but not that knowledge which is likely to cause alarm or fear. These may arise from accepting folklore and from the irrational fear of death, both of which are common. Such a program is far from being a reversion to a primitive condition; it does not urge reliance on instinct or the ideals of the untutored mind. He insists (Letter to Menoeceus) that even in the pursuit of pleasure prudence is the first and greatest good, "for from prudence are sprung all the other virtues." But then oddly enough, the virtues are justified for the simple reason that they are the greatest source of pleasure. This is a far cry from the sensationalism with which he started, for after all if we have primary feelings of pleasure, such as the pleasures of the stomach, on which to build an ethics, why do we need any rational control of our appetites? The only answer that seems reasonable is that "the unexamined life is not worth living," an answer which, as we know, went back to Socrates. But the need for examination would never arise if one did not think that life as it is lived by the Many is unsatisfactory.

At times Epicurus emphasized the need for protecting oneself against one's fellows. In the list of his Principal Doctrines one reads that to secure protection from men, anything is a natural good. But at the same time this is useless if "things above and things beneath the earth and indeed all in the boundless universe remain matters of suspicion." One must retire from the society of the Many into quietude. And yet he also preaches the desirability of living with others who "possess the power to procure complete immunity from their neighbors." What such a community would be like is difficult, if possible, to imagine, for the mere fact of living with others would involve at a minimum con-

54 Ibid., p. 51.
55 Ibid., p. 91.
56 Ibid., p. 95, 6.
57 Ibid., p. 97, 13.
58 Ibid., 14.
59 Ibid., 40.
versation with them and that would mean dependence on them intellectually and, in all probability, disputes. In fact elsewhere he recognizes that friendship has its source in the need for help. And in spite of this, he says that for the sake of friendship we must run risks. He was himself, if his letters to his various friends are genuine, a devoted and enthusiastic friend. Apparently friendship need not be a hindrance to autarky, "the greatest of all riches," the fruit of which is freedom.

Epicurus then may be said to have assumed the same attitude toward life as his philosophic predecessors. He did not go so far as some of the poets, who thought it better never to have been born, and he did try to find a standard of goodness in the sensible world. But he could not bring himself to use that standard without qualification. His depreciation of life was based on social living; it is clear that like so many of his fellows he wanted as much freedom from dependence on others as possible. What there was in the loosely organized society which made it so burdensome, I do not know. But that it was burdensome is clear from the writings of all the moralists. The outcome was to be seen in early Christianity, which refused to admit any obligations to the society in which it developed, encouraged in early monasticism a flight from all worldly occupations, and then built up new social units which were more tightly bound together and disciplined than any that paganism had ever seen.

60 Ibid., p. 109, fr. 23.
61 Ibid., p. 111, fr. 28. Such fragmentary sayings are often mutually contradictory, for when they are genuine, they are quoted out of context. Thus fr. 8, from the Symposium, runs, "Sexual intercourse has never done a man good, and he is lucky if it has not harmed him," while fr. 10, from On the End of Life, reads, "I know not how I can conceive the good, if I withdraw the pleasures of taste and withdraw the pleasures of love . . . and the pleasurable emotions caused to sight by beautiful form." (Bailey, Epicurus, p. 123.)
62 Bailey, Epicurus, p. 127 ff.
63 Ibid., p. 137, fr. 70, and p. 139, fr. 77.
Accompanying any appraisal of life, there is likely to be a system of ethics. Just what the causal relation between the two may be we shall not attempt to ascertain, for there is no longer any way, so far as the ancients are concerned, of ascertaining it. We can see from the texts that autarky was what the ethicists wanted; their ethical theories tell us how they proposed to get it. But similarly it has been pointed out in many histories of philosophy, especially in those which follow Hegel’s outline, that this period was peculiarly ethical and that the metaphysical speculations of Stoic and Epicurean were formed in order to justify their ethical teachings. There is, to be sure, a certain harmony between the two, but every philosopher who writes on more than one subject will strive to be consistent. Such consistency, however, is no evidence of either logical or psychological priority in the views which have been made consistent.

1. If one wishes to discover the ethical views of Speusippus, one must go to the Definitions, a work which can hardly be considered authentic, as we have pointed out above, though it is listed among his works by Diogenes Laertius (iv. 5). It thus was supposed to be genuine in the third century A.D. or thereabouts. To learn that “virtue is the best disposition [of mind]; a condition of the mortal animal praiseworthy in itself; a condition in accordance with which conduct is called good; a just community of laws; a disposition in accordance with which one’s state of mind is called perfectly earnest; a condition creative of good order and obedience to the law” (fr. 21),64 is not to gain much information about virtue’s sources and the problems which men face in trying to be virtuous. There are over one hundred and fifty such definitions, of prudence, of justice, of temperance, of courage, and so on, of all the virtues which so many of Plato’s dialogues attempted to define without succeeding. In fact the list

64 I am using the text and numbering of Mullach here, since Lang does not quote the Definitions.
might well serve as the starting point for a Socratic interrogation. Justice, which the ten books of the *Republic* tried to define, is disposed of as "the harmony of the soul within itself, and good order of the parts of the soul in their interrelations; a condition which apportions to each according to its worth; a condition in accordance with which he who possesses it is inclined toward choosing those things which are right for him; a condition of life obedient to law; communal equality; a condition obedient to right laws" (fr. 23). These might well be the various answers given by some young interlocutor of Socrates as he strove to find one which would withstand his master's criticism.

Aristotle in the *Metaphysics* (1072b) attributes to both the Pythagoreans and Speusippus the idea that neither the best nor the most beautiful is in the *arche* or first principle, because the *archai* of both plants and animals are causes, and it cannot be truly said that the beautiful and the perfect are in them (fr. 34a, Lang). The reason is that the best and perfect are in the final causes of things and not in their seeds. This gives us Aristotle's reason for rejecting the theory that the good is in the beginning, not Speusippus' reason for believing it to be there. Speusippus might as well have replied that the perfect could not come from the imperfect nor the good from evil. Moreover, if all change is from opposites to opposites, from below to above, from genesis to destruction, from good to bad, and so on, which happens to be Aristotle's own belief (*Categories* 15a), one would imagine that he would have welcomed what he thought was the inference to be drawn from Speusippus' theory, though to do so would have involved the denial of his own axiom.

According to Sextus Empiricus (*Adv. math.* xi. 4–6, fr. 76), Xenocrates agreed with the early Stoics in dividing things into three kinds, the good, the bad, and those which are neither. Whereas, says Sextus, most philosophers take this for granted, Xenocrates tried to prove it. "For if there is something distinct from the good and evil and that which is neither good nor evil,

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65 See Lang, frs. 35a ff.
then it would be either good or not-good. And if it is good, then it will be one of the three; and if it is not good, still it is evil or neither good nor evil. But if it is evil, again it will be one of the three. All existence then is either good or evil or neither good nor evil.” This tells us nothing except that Xenocrates used a dialectical method in making his preliminary distinctions, whereas his contemporaries were satisfied to take them as self-evident. But he seems to have been addicted to such demonstrations. Aristotle (Topics 152a) refers to him as arguing that the happy life and the morally earnest life are the same, “since the lives most desired [or perhaps, desirable] and the greatest are one.” This might be the start of an empirical ethics in which the desires of mankind would determine what would be taken as the good. But Aristotle continues by saying that this is no proof, since one kind of life might well come from the other, in his own system happiness demanding seriousness. I say this since there is another passage of Aristotle (Topics 112a) upon which Alexander of Aphrodisias (fr. 81) comments, “If the daimon of each man is his soul, as Xenocrates teaches, he would be happy who had a good soul. But the serious—or earnest—man has a good soul. Hence the serious man is happy.” Apparently Xenocrates was also somewhat given to etymological arguments, a vice whichoften accompanies pure dialectic, for he says that just as to be happy (eudaimon) is to have a good daimon (fr. 81, l. 14), and to be unhappy is to have an evil daimon, we call the wicked kakodaimones (fr. 67). But there is no need to cite such passages, for they are more revealing of a type of mind than of a chain of reasoning. If taken seriously, then both virtue and vice would be laid at the thresholds of our daimones, which would help us to evade our responsibilities. But we have no reason to believe that he ever went so far as that. For the moral maxims which are assigned to him show no logical relation to any principle of determinism or indeterminism.66

2. In both the Stoics and the Epicureans on the contrary we

66 Anyone sufficiently interested may find such fragments as 101 ff. worth reading.
have well-developed ethical systems. The Stoics' attainment of peace of mind could be both justified by their metaphysics and derived from it.

If the cosmos is an organic being, all of whose parts have their proper places and their specific roles to play, then mankind as a whole and each individual man as well must have theirs. What these roles are is determined by the whole and it is therefore foolish for any man to rebel. The universal determinism is responsible for whatever happens to an individual; he can only recognize its inevitability and submit. Thus if a man first accepted the Stoic metaphysics, he could be induced to resign himself to his fate. If on the other hand he looked for consolation, he could find it in the metaphysics. A kind of quietism would be the natural result of a belief in fate as the guiding principle of history, much like the quietism of Molinos. To accept the will of God and bow one's head before divine decisions is not an unreasonable program, however difficult it may turn out to be. It is not a program by which one could conquer the hostile forces of flood and drought, but nevertheless it is one by which one might win greater victories, those over oneself.

Stoicism, even in its earlier manifestations, contained the following main ideas: (1) the idea of the Great Animal, the Cosmopolis, or the organic universe; (2) thoroughgoing determinism, resulting in a series of events endlessly repeated in cycles; (3) the search for peace of mind as the greatest good; (4) the possibility of liberation from the emotions.

The idea of the Great Animal meant not merely that the whole cosmos was an organic unit, but that it had a soul as well as a body: it was alive. Its soul was the Pneuma, identified with God, and our individual souls were duplications of the universal soul on a smaller scale. Just as the Pneuma fitted means to ends, saw that all things served a purpose, however purposeless they might seem to men, so the individual souls had a guiding principle, rational in nature, in their make-up. Now whether the Stoics meant that things operated as units and the name for their unitary be-
behavior was the *logos*, a name given because their behavior was rational, or whether they thought that the *logoi* were separate beings lodged within the human body, the bodies of all things that grew, and the cosmos as a whole, we cannot say with certainty. But the probability is that they cut off the *logos* existentially from that which it governed, for the notion that all change was caused by an agent acting upon a patient was too generally accepted for them to have rejected it. In any event, the individual soul, though part and parcel of the Great Animal, nevertheless contributed its share to the cosmic economy. When the Stoic urged men to be resigned to their fate, he was not involved in the controversy about determinism and free will, since he never asserted that anything was entirely passive. There is theoretically a kind of determinism which maintains that nothing causes anything within the whole of things, but the whole is somehow or other controlled by a power beyond it. But cosmic passivity was not a tenet of the Stoics. Since they did not believe in the reality of universals, each individual man was a reality, no matter how much he might resemble others. Therefore each man was a cause which acted not without motive or with wild caprice, but nevertheless he was responsible for what he did to a certain degree. “A certain degree” is vague and the early Stoics’ remains do not tell us to what exact degree an individual was responsible. He would naturally be limited by his experience, for all ideas were derivative from perceptions. But he was certainly free to decide whether he would submit to the universal order or rebel against it, just as he was free to liberate himself from the enslavement of passion.

It may be worth making a slight digression here to clarify as far as we can this problem of determinism and free will. It may be laid down as an axiom that every item in an event contributes something to the outcome of the event. We recognize this in daily speech when we speak about the influence of the weather, the therapeutic effect of drugs, the need of nitrogen in the soil if plants are to grow, the effect of overcrowded slums on crime.
There is therefore no a priori reason why human beings alone should prove ineffectual. If I marry a woman because I love her, that love is a relation between her and me, not something apart from us which drives us into marriage. If I were different, or if she were different, regardless of the climate, sunspots, economic conditions, other people's opinions, the marriage would not take place. Such things would of course have some influence on making us what we are, but, given those influences, we exist as we are and are not zeros. Second, if I choose to read *Hamlet* instead of *Twelfth Night* and am asked why, I shall probably give some reason for my choice. This reason will not be the psychological cause of my choice, for in all likelihood that will be concealed from me. Nor will that reason be physiological causes, glandular secretions, sexual impotence, low metabolic rate, or what you will, even though such causes are perhaps present. They may be operative and determinative of my choice of play, but they belong to me, are an integral part of my psychophysical character, unless I turn out to be some sort of creature cut off from all else, a soul, psyche, consciousness, behavior pattern, call it what you will, which can miraculously act in entire independence of everything else in the universe. Such a being has never yet been discovered and has little chance of being discovered. There may be a conflict of motivations and purposes within me, but again they are part of me. If in part or as a whole they determine what I do, it is I who am doing it. No will could ever be so free as not to have to handle certain materials and work within their limitations. But again none could be so determined as to be utterly ineffectual. In short, universal determinism is the only hypothesis which makes it possible for a man to believe in the power of his decisions. It would be only in a world of lawlessness, of completely random occurrences in all areas, that a man could not count on carrying out his desires. Hence I confess to seeing no inner contradiction in the Stoic theory of the Great Animal and the commandment to reform.

The theory of cycles follows from the theory of universal de-
terminism, unless there are infinite possibilities of change. But if these possibilities of change are finite in number, then sooner or later a given state of the cosmos is bound to recur.\textsuperscript{67} The number of possibilities was thought of as much more limited than we would believe today, since in the first place the world seemed more limited in extent, second the kinds of causes seemed less numerous, and third the metaphor of the Great Animal induced men to think in terms of birth, growth, senescence, and death. The psychological effect of this was not only quietistic but sedative. What was the use of thrashing about in wild efforts to conquer other nations, to make great inventions, to plan sweeping reforms, if everything a man did was only a series of incidents in an endlessly repeated masque? The City of Zeus would go through its history in a determined, if not predetermined, fashion, and emperors and slaves, Greek and Barbarian, would all play their appointed parts in that masque. The interlocking events in the great cosmic biography would lead to each man's realizing that no one was inherently more important than another and might be expected to make men more sympathetic with one another. We have one thing in common, the \textit{logos}, and our rational nature, which leads us to a common understanding of our citizenship in the cosmopolis, might also lead us to benevolence toward our fellow citizens. This appears more clearly stated in the works of the Roman Stoics, but it is inherent in Stoicism as a whole.

Once we have comprehended the vanity of most of our acts, we shall relax and peace of mind will be ours. Our perturbation comes from the emotions—anger, lust, ambition, and the like—and we can subdue them if we wish. They weaken our reason and cause us to see things in a false light. Once we have dominated them, we have, in the words of that later Stoic, Spinoza, clear and distinct ideas.\textsuperscript{68} One of Zeno's pupils, Herillus, accord-

\textsuperscript{67} This form of the argument was not that of the early Stoics, so far as I know. It was that of Nietzsche.

\textsuperscript{68} Though the phrase was invented by Descartes, his Christianity got in the way of his becoming a Stoic.
ing to Diogenes Laertius (vii. 165), said that the end of life was knowledge. And since knowledge cannot be acquired if we are in the grip of passion, it is obvious that, according to his way of thinking, we must rise above our emotions in order to attain the highest good. The state of impassivity, *apathy*, may be called, and has been, a cold priggish attitude. Priggish it certainly was, for that was the inevitable fate of any purely individualistic ethics. A man who is out to save his own soul, and thinks he is succeeding, will, one imagines, feel himself holier than his fellows and look at them with only the mildest curiosity, somewhat as the gods of Lucretius looked down on struggling mortals. But it is not for one who has spent his life in teaching and studying to take the temperature of the scholar and depreciate it.

But the emotions not only enslave the reason, they are in themselves degrading. The Stoics never lost sight of the supposed fact that man was a rational animal, but they overlooked the animal part of his nature. The beast could not reason; he followed his sensations and images. Pleasure and pain are attributes of sensation, not of ideas, except in so far as we have ideas which cause us to feel happy. The Sage will feel a kind of agreeableness in his peace of mind, but that is not pleasure in the sense that eating and drinking are pleasant. Moreover, when one seeks knowledge, one seeks it not for the agreeableness of knowing something, but for the truth, whether agreeable or not. This complicates the theory. In Epicureanism pleasure and pain were sought and avoided, respectively, by all and could be thought of as natural signs of good and evil. But then the Epicurean had to distinguish between pleasures the enjoyment of which entailed subsequent pain and those which did not, between temporary and lasting pleasures, between the primary pleasures of the flesh and the higher pleasures of understanding. In Stoicism one never seeks pleasure at all, for at best it is simply a by-product of sensations which, as far as Stoics are concerned, are but inchoate knowledge.

The fact that emotions should be overcome is no ground for

*See Epicurus Letter to Menoeceus 129 ff. (Bailey, *Epicurus*, pp. 87 ff.).*
thinking that they can be overcome. The emotions which are connected with social ties can be overcome by cutting the ties, and the Stoic seems to have thought that a good thing to do. That technique can be extended to all experiences with which emotions might be allied. In fact, since one might become enthusiastic or angry or depressed by almost anything, it might look as if most of life would have to be suppressed in order to become a Sage. And indeed at times it looks as if that was precisely the end of the Stoic program. Aristotle had laid down the life of contemplation as man's goal, contemplation of philosophic truths. The Stoic too could urge a man to spend his life in thinking about Providence, God, the *Pneuma*, the eternal recurrence, the cosmopolis, but actually how could one do this without a household full of slaves or servants who would carry on the ancillary work? Aristotle at least understood that happiness can only be attained by a man who enjoys leisure. The Stoics were inclined to believe that the attainment of wisdom is rare but, so far as I know, they never faced the fact of why it is rare. It is always easy to castigate human folly and ignorance; it is more difficult to propose a goal which all human beings can reach.

Before leaving the matter of Stoic ethics, it would be well to jot down, if only summarily, its resemblance to some forms of Christian ethics. Both Stoics and Christians believed that the City of God was more important than the City of Man, though the Christian was more willing to pay its due to the latter. Both believed that man was in need of salvation, but the Christian did not usually satisfy the need by rational discourse and contemplation. Both believed in the brotherhood of man, the triviality of national and social differences, the equality of all before the law, but the Christian lost little time in organizing an ecclesiastic hierarchy in which brotherhood counted for less than rank. The law became a mystery which only a few could understand, and one man finally became its interpreter. It has been pointed out by others that as the pagans had no orthodoxy, they could have no heresy; their diversity of beliefs was deplored perhaps, but never
annihilated by sword or flame. The Stoics and Epicureans are the last pagan ethicists to give a rational account of moral values.

3. The ethics of Epicurus is even simpler than that of the early Stoics. Pleasure and pain are known to all and furthermore, as a standard of good and evil, are immediate sensations. They are, moreover, actually used by people as such standards: no one has to be persuaded to seek pleasure and avoid pain. If they exist, and of course they do, no theory of atoms, of a cosmic order, of determinism or indeterminism, of Platonic ideas, of lower and higher psychic faculties, is required to justify them. This form of hedonism is straightforward empiricism. Similarly it could be argued that the distinction between lasting pleasures which bring no pain in their suite, and pleasures which are followed by pain, is legitimate and in accordance with common sense. Men could easily understand that they lived for more than the passing moment and that they ought to consider the future as well as the present. It is true that if pleasure is the criterion of goodness, then a pleasure is a pleasure regardless of date, but it is also true that if pain is evil, a future pain is no less evil than one present. The trouble arose when one tried to find a pleasure which would not be followed by pain, for the mere cessation of a pleasure could be painful and there are none which last forever. Considerations of this sort would suffice to turn the Epicurean toward the alleviation of pain rather than the pursuit of pleasure.

The metaphysics of Epicurus was devised so as to relieve men of their two greatest sources of pain, fear of death and fear of the gods, as we have said above. This is now a commonplace of all histories of philosophy, but its significance as a historical influence has been underestimated. Though neither Epicurus nor Zeno nor Cleanthes could have known anything of the coming of Christianity, their philosophies were as useful as a preparation for its reception into the general body of opinion as could have been desired. We have already mentioned the similarities between Stoicism and early Christianity. But Epicurus was no less influential in changing men's minds about just those beliefs
which had to be eliminated if Christianity was to be accepted. If he was right in thinking that "the ruling disturbance of men's souls" is the belief that the heavenly bodies are blessed and immortal and "nevertheless have wills and actions and causal influences" (Letter to Herodotus 81; Bailey, p. 52), combined with the fear of life after death, then Christianity also could profit by his argument that such fears were groundless. Belief in the gods was not eliminated by the Epicureans, and in fact Christianity, like other great religions, took over popular beliefs in a different and more acceptable form. But belief in gods who were interested in human affairs was eliminated at least among the thinking classes. God and the angels in Christianity, along with a host of evil powers, were very actively concerned with human life, and the fear of death was increased by that religion rather than diminished. Post mortem rewards and punishments must have been a potent argument used by Christian missionaries in inducing men to change their way of life. And that tradition has of course never died out. But the Christian, though fearing death and divine vengeance, was given a way of softening his fears. He had only to have faith and live a Christian life. There was nothing rational about the primary act of acceptance; it was justified by its pragmatic effects. Epicurus taught men to reason about the absurdity of such fears. His arguments were the last efforts of reasonable men to eliminate terrors arising from causes about which the human mind was ignorant.70

From today's point of view there seems to have been something naïve in such efforts. We have learned that human behavior is less influenced by argument than by superstition. To have learned that after death we cease to exist, since we are atoms which will be dispersed in our dying, and that nonexistent beings can feel neither pain nor pleasure, was rationally sound, once the premises were

70 Why classical rationalism failed to triumph over what in its origins was superstition as great as that of any of the pagan rites and myths, is still an unsolved problem. People who are inclined to snap judgments about this would do well to read E. R. Dodds, The Greeks and the Irrational (Berkeley: University of California Press, 1951), esp. pp. 248 ff.
accepted. One could no more be punished or rewarded after death than one could enjoy or dislike an experience which one had never had. Similarly, if the gods are, like everything else, conglomerations of atoms which are "blessed and immortal" (Letter to Menoeceus 123; Bailey, p. 82), we should believe nothing said about them which is inconsistent with a blessed and immortal life. Such beings are untroubled themselves and cause no trouble for anyone else, "for all such behavior is in the weak" (Principal Doctrines 1; Bailey, p. 94). To think that God, who of all beings must be free of wants, autarkic, could be pleased by anything men do or could wish to harm them, is to believe in a God who has the worst traits of His creatures. If the Sage on earth is the man who has peace of mind, then surely those ideal beings who are the gods must have so superior a peace of mind that nothing could move them. They are as good as nonexistent, as far as human destiny is concerned, except that they serve as models of a happy life. The Sage will live "like a god among men" (Letter to Menoeceus 135; Bailey, p. 92), the gods being perfect examples of happy beings.

So far, so good. But if down within the lower reaches of the human soul there is a real fear of dying, of ceasing to be, the fear may be a form of wishing to continue to live as long as possible. What used to be called the instinct of self-preservation is strong enough to account for man's dread of extinction. We see this expressing itself in all our pathetic attempts to defeat the passage of time, in our last wills and testaments which strive to impose the decisions of the present upon the future, in memorials of one sort or another which may at least preserve a name, if nothing more, in written constitutions which are believed to retain a permanent meaning, in our praise of works of art as immortal masterpieces which last as masterpieces but a few years, in fact, in so many and such childish devices that one needs only a few examples to prove the point. But if this desire is real and as widely disseminated as one thinks, then it would be futile to try to eliminate it by argument. For the effectiveness of premises is in part psychologi-
They cannot in the nature of logic be proved, but must be accepted because of the plausibility of their implications. Though for centuries men have believed in the principle *ex nihilo nihil*, which would imply that the material universe had no beginning and will have no end, they have continued to believe in the story of creation. Similarly, since there was no proof that everything was a conglomeration of atoms and that only atoms and the void really existed, men might and, as it turned out, did reject that hypothesis in favor of one which would gratify their hearts' desire more fully. The Epicurean materialism was a beautifully simple theory and, what is more, in harmony with observation. It may well have led to peace of mind by removing the two main sources of mental disturbance. But if along with the fear of death went the hope of immortality, and with the fear of the gods the desire for a supernatural father, then it seemed to destroy as much good as evil. It was not the least intelligent of the Fathers who said, *Credo ut intelligam*. And one has only to contemplate the history of Catholic dogma to see that philosophy was bound to be vanquished in the battle with faith.

V

The main contributions to logic during this period were made by the Stoics, though, if we had more Academic writings, it is likely that the disciples of Plato would also be seen to have continued the logical tradition of their master. Speusippus' distinctions between homonyms and synonyms (Aristotle *Categories* 1a), his interest in definitions, his work in taxonomy, may all show that he was a logician as well as a metaphysician and ethicist, but since we have so little on which to base an opinion, we may as well pass over him lightly. The same may be said of Xenocrates and Crantor.

1. Epicurus, we are told, had little use for logic in any form. There is no fragment which attests this, but in the *Life* by
Diogenes Laertius (x. 31 ff.) we read that the Epicureans rejected logic and dialectic as misleading. Students of Nature have only to let things speak for themselves. The tests of truth are sensation and concepts (prolepses) and feelings and, to use the translation of Bailey, "intuitive apprehensions of the mind." These require no further substantiation. They are true. They are the foundation of all knowledge and when we have to pursue knowledge of that which cannot be perceived, we must base our interpretations on phenomena (Diogenes Laertius, x. 32). Yet Epicurus admits that reason contributes something to knowledge and says that "all thoughts arise from sensations through coincidence, analogy, similarity, and synthesis" (x. 32). Just what reason contributes is no clearer than the difference between analogy and similarity. But it should not be forgotten that we are basing this on the writings of a very confused and frequently unreliable reporter.

We see an example of Epicurus' use of reason in the Letter to Herodotus (39). First of all he lays it down as an axiom that nothing is created out of nothing, for, if it were, then anything could be created out of anything indifferently. This is a rule of scientific methodology and preserves one from attributing effects to random causes. He had previously said that, in Bailey's words (Epicurus, p. 21), "we must keep all our investigations in accord with our sensations, and in particular with the immediate apprehensions whether of the mind or of any one of the instruments of judgment, and likewise in accord with the feelings existing in us, in order that we may have indications whereby we may judge both the problem of sense perception and the unseen." The use of the ex nihilo is to be applied to problems of the "unseen." But it seems clear that Epicurus thought it was justified by sensation or at least by some sort of experience, since all our ideas are based eventually on sensation. But no such principle could possibly be based on sensation, immediate apprehensions, or feelings, since by

71 See his Appendix to Epicurus, pp. 259 ff., and Appendix III to The Greek Atomists and Epicurus, pp. 559 ff., for the meaning of this phrase.
their very nature these experiences are those of an individual person definitely dated and localized. Uncriticized experience moreover shows us daily things which seem to be created out of nothing, chickens coming out of eggs where previously there had been nothing but a gelatinous mass of albumen and yolk, plants coming out of hard seeds which have neither leaves nor flowers, compounds coming out of elements, and the only reason why we do not accept the judgments made on the basis of such experiences is that we have accepted the principle ex nihilo before we have enjoyed the experiences in question. The person who has not already accepted the principle believes wholeheartedly in creation ex nihilo, and the reason why Epicurus had to formulate it was precisely because such people existed. They base their judgments on what they see, not upon a critical investigation of what is obvious to any eye. If the principle, moreover, were actually “in accord with” sensation or the other forms of immediate experience, there would be no reason to announce it with such solemnity, for all such experience, he says, is equally true. On the other hand, in his Principal Doctrines (23 and 24; Bailey, p. 100) he grants that some sensations are false.

His second principle is that nothing is destroyed into nothing, and his argument here is, again in the translation of Bailey (p. 21), “if that which disappears were destroyed into that which did not exist, all things would have perished, since that into which they were dissolved would not exist.” Regardless of the possibility that the consequence might not follow, unless one accepted a further axiom that all possibilities must be realized, it is again clear that Epicurus is utilizing a purely dialectical argument. No possibility of that sort could be corroborated by any experience, for there is no experience so sweeping that it encompasses all possibilities. One can argue to a probable consequence of the present situation; we are used to doing it in practical matters. We can say that in the past we have found certain causes followed by certain effects and that, in order to eliminate the effects, we must eliminate their causes. As a common-sense rule of thumb, nothing could work
better, but the rule itself is no part of immediate experience, but at most a crude generalization from the experiences of many similar sequences. To what degree and in what respect they must be similar in order to be a sound foundation for induction is another matter into which we need not go here. But we do not seize upon any kind or degree of similarity as a basis for induction. Some similarities seem relevant to our problem and some do not. One of the similarities between certain animals is the "element" in which they live, but we no longer find it wise to classify them according to their habitat into terrestrial, aqueous, aerial, and perhaps even igneous animals, though in popular speech we still speak of birds, beasts, and fishes. Be this as it may, the principle which unexamined experience shows us continually is destruction, and it has taken centuries of criticism to convince the naïve person that when a piece of paper is burned, its substance is not destroyed. For, say what one will, the visual paper is destroyed and, if there was printing upon it, that is destroyed too, and all the argument in the world to the effect that the carbon which was in the cellulose of the paper still remains cannot convince one that nothing has been destroyed. This principle is as a priori as any other rule of methodology.

His third principle echoes an argument of none other than Parmenides, surely one of the least empirical of philosophers. It runs (Bailey, p. 21), "The universe always was such as it is now, and always will be the same." So far this might be interpreted as an antique version of the nineteenth-century principle of the Uniformity of Nature. But the Uniformity of Nature in its usual presentation was equivalent to the belief that the same causes always produce the same effects. But this is not exactly what Epicurus meant, for in another place (Letter to Pythocles 87; Bailey, p. 59) he admits that sometimes there are several theories which harmonize with phenomena. He is talking about "the
whole” and argues that “there is nothing into which it changes: for outside the universe”—i.e., the whole of things—“there is nothing which could come into it and bring about the change.” So the Eleatic reasoned that the universe could not move, for there was no place into which it could move. It could not change, for it would have to change either into itself, which would not be a change, or into something else, and there is nothing else. Epicurus’ argument is equally dialectical, in fact, verbal. For if the universe is the whole, clearly there is nothing leftover. The question is what meaning one could give to the term, the whole. As a matter of fact, the parts of the whole might move about in the empty space between them and thus produce all sorts of changes which had never existed before. The meteors which hit the earth are within the whole, and when they change the earth by their impact, they change the whole. But we are simply indicating the limits of Epicurean empiricism and what we have said suffices for our purpose.

Regardless of whether one thinks highly of logic or not, a philosopher is bound to do some reasoning and Epicurus cannot be censured for using the tools of his trade. He can, however, be criticized adversely for not having seen how far he was departing from his first principles. What logic he had resembled Dewey’s logic of inquiry, perhaps more fittingly called epistemology. Here he introduced some new ideas which, though they were not of much influence in the classical period, are of interest today. The main idea of this sort is that of the prolepsis or anticipation. It is his reply to the problem of Meno. A prolepsis seems to be an anticipation on the part of a man of the nature of what he is looking at or for. It is, Diogenes Laertius reports Epicurus as saying

as well with the phenomenon, it is obvious that he altogether leaves the path of scientific inquiry and has recourse to myth.” Why? If a second hypothesis harmonizes just as well as a first with phenomena and the harmony with phenomena is the standard for the acceptance of a hypothesis, then on that basis alone we have as good a right to accept one as the other. Bailey’s commentary on this passage, though detailed as far as textual problems are concerned, does not appear to me to discuss this particular point.
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(x. 33), "a memory of what has frequently appeared before one." We say, for instance, "Such and such is a man." When the word "man" is spoken, this memory image or concept arises before one and one recognizes what is meant. "And we could not seek that which we are seeking unless we had previously known it" (x. 33). If we are asked, Is that object a cow or a horse? we have to know what each looks like before we answer. But similarly, when we want to know what something is, we first have to have an anticipation of what we ought to find, a hypothesis of what the object will look like. The prolepsis thus takes the place of the Platonic idea recollected from prenatal existence.

If Epicurus had other views about dialectic or logic or methodology, his literary remains give us no evidence of what they were. He probably assumed the usual methods of reasoning to be valid, simplified them, refused to discuss their subtleties, or the problems internal to their structure, and let it go at that. What we are told of the Stoics is somewhat different.

2. Zeller concludes his estimate of Stoic logic with the words, "The whole activity of the Stoics in the field of logic was simply devoted to clothing the logic of the Peripatetics in new terms, and to developing certain parts of it with painful minuteness, whilst other parts were neglected."73 Every student of the history of ancient philosophy is indebted to Zeller not only because of his exhaustive research, but also because of his extraordinary ability to organize the ideas which his research had revealed. At the same time it must be remembered that what seemed important to a man writing in the middle of the nineteenth century does not always seem so to us and that what seems unimportant to him may take on new importance to us.

In the first place their distinction between the logos unexpressed and the logos which is expressed, the meaning of a term and the term itself, seems at least to me of a certain value. It is true that Aristotle in the Posterior Analytics (i. 10. 76) had distinguished between the outer word and the word "within the

73 Stoics, Epicureans, and Sceptics, p. 118.
soul," and he may have meant by that distinction exactly what
the Stoics meant by the λόγος προφορικός and the λόγος ἐνδιάθετος.
If so, let the credit be his. The importance of the distinction is
that it does away with the belief that logic has to do only with
little black marks on a piece of paper, the outward sign of the
meaning, and is not concerned with thoughts. The old-fashioned
notion of logic as the art of correct thinking seems to be rooted
in this conception and, instead of dealing with assertions the only
interest of which is their form, the logician is forced to turn his
attention to judgments made by human beings on specific oc­
casions. When this distinction is grasped, then it becomes under­
standable that the logician should also be busied with criteria for
factual truth and not merely with formal consistency. In the words
of Sextus Empiricus, quoted by Zeller (p. 72, n. 1), it is the pos­
session of the inner word which differentiates man from the lower
animals. The beasts too have sounds which they utter for certain
signals, but they do not think.

It is the meaning of the outward signs which is interpersonal
and uniquely incorporeal. It makes it possible for two people to
mean the same thing when using different sounds to express it.
And though I have found no text to justify this, it follows that
the overindividuality of meaning is what makes the consensus
gentium a court of appeal. For if the meaning of terms and judg­
ments were corporeal and individual, no two men could ever
agree except by accident and the possibility of all men having
common notions would be very slight. Now the mere fact that
all men do share certain beliefs is no proof of their being right,
but the Stoics saw in the irresistibility of ideas a criterion of their
truth. If all men, one might argue, feel the irresistibility of the
same ideas, that must be because the individual differences of lan­
guage, sensation, images, and whatever else might differentiate
one man's experience from another's, have been canceled out.
These differences would be corporeal or rooted in matter. The
residue, being immaterial and the same in all minds, would turn
out to be that which was universally believed. But if the force of
conviction is a test of truth, such beliefs would have to be true. The difficulty does not lie so much in our doubts concerning universally held beliefs as in the process by which highly individual experiences could at last eventuate in highly similar beliefs. For the Stoic maintained that all ideas arose from sensations, just as the Epicurean did. Out of sensations arose images, according to Zeno (fr. 55; von Arnim, Vol. I, p. 17), which were impressions made upon the soul (fr. 58). But in order to impress itself upon the soul, a thing must exist, and the forceful, the cataleptic, impression or image is the impression of an existent thing and hence true. To such images we give assent (fr. 61). The difference then between opinion and knowledge is simply the degree of firmness or strength. Opinion in the doctrine of the Stoics, says Sextus Empiricus (fr. 67), is the weak and false assent given by us, whereas knowledge (fr. 68, from Stobaeus) is "the steadfast and strong and unalterable catalepsis" of the reason (logos). A catalepsis carries along with it the suggestion of a seizure. The soul which has a cataleptic image is seized by it, cannot resist it, is vanquished by it. There are unfortunately no fragments which give in any detail the process by which meanings are distilled out of sensory material, for not only must they lose their personal character, but they must in some sense of the word be the active judgment of the mind which makes them. The activity of the mind may be an illusion, to be sure, and perhaps the most reasonable interpretation of the doctrine is that when the interpersonal residue of sensory material has been produced in the mind, we have the illusion of activity. We think that we are making a judgment, expressing meanings of our own, but in reality the judgment is making itself in us.

In the second place, their doctrine of the categories included an item which was to have great influence in the early years of the Christian period. That item is the subordination of the categories in a definite series. The ten categories of Aristotle were independent of one another and no logical hierarchy could be set up among them. The Stoics' most general category was that of
Being, undifferentiated into kinds, later called Something, equally undifferentiated. This was then differentiated into Underlying Substance, Quality, Manner, and Relation. These would appear to answer the questions, What is the material? What sort of thing is it? What kind of thing is it? To what is it related? If then I say, This substance is square in respect to shape when seen from in front and is to the left of that object, I have successively refined my description and made it as a consequence more definite. Moreover the subordination of the categories appears when I realize that I cannot talk about a substance without giving it some quality, and that the quality will be of a certain kind and that the object in question will not be cut off from everything else but will be related to other things. It will also be noticed that one can begin with Relation and work backward, for if A is to the right of B, it will be because it is a spatial object, and if spatial, it will be of a certain kind, and if of any kind, it will be a substance. This ties in with the Stoic conception of the organic universe in which everything is tied to everything else. The conception is not yet that of a hierarchy of existence; it is rather that of a reticulated universe. But nevertheless the belief in the possibility of subordinating the categories was of great help to those later philosophers who, for one reason or another, believed in a cosmic hierarchy.

These two features of Stoic logic would alone make it of historical importance, though they are not the only elements in the doctrine which have interested historians of logic. We shall rest content with pointing them out since they became integrated into the tradition with which we are concerned. But meanwhile doubts were being developed about each of the ideas which we have been describing, and we shall now turn to the rise of skepticism.74

74 For a thorough study of Stoic logic and its innovations, see Benson Mates, “Stoic Logic,” *University of California Publications in Philosophy*, XXVI (1953), which not only points out its differences from Aristotelian logic, but gives detailed outlines of its formal structure, accompanied by comparisons with modern theories.