

# THE BOOK OF DOUBT

3<sup>rd</sup> edition

by

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# Introduction

*Doubt grows with knowledge.*  
Goethe (1749-1832)

I came to Stoicism because I needed to know what was wrong with my own life. Although I had read *The Discourses* several times over a period of about 30 years, I didn't really go any further or deeper into Stoic thought until I was in my late forties. At that time, I had experienced a succession of career failures, what I considered failures then, and came back to the Stoa for sustenance and encouragement. That was when I decided I needed to know more about the nuts and bolts of this philosophy than Epictetus offered.

After a couple of years of focused research that provided the background for my first book, *The Path of the Sage*, one day, for no apparent reason, I stopped and asked myself how I knew any of this was true. How did I know whether the Stoics just made it all up, that Stoicism was anything other than a rational and internally consistent version of a religion? That thought bothered me considerably, and I puzzled over it at length.

As fortune would have it, I had some time earlier established an e-mail correspondence with Professor Keith Campbell, who was then the Chairman of the Philosophy Department at the University of Sydney. I considered him my mentor in philosophical matters and had pestered him many times with questions he must have considered amusing or annoying. Not knowing a finer way to phrase it, I came right out and directly asked Dr. Campbell the question that was troubling me: how can I know any of the things about Stoicism I had studied were true? He answered as directly as I asked and said that we can't, then recommended I read George Santayana's work, *Scepticism and Animal Faith* (Dover, 1955).

I read it, twice, and understood some of it. When I complained about my difficulty with comprehension and gave Professor Campbell a passage to explain, he said he had forgotten about Santayana's "turgid prose" and to forget it. "Life is too short," he said. I wasn't satisfied and could not be turned aside that easily. I began reading other philosophers that Santayana's work referenced and gradually traced my new obsession, skeptical philosophy, back to its origins. Only then did I begin to understand philosophy in general and Stoic philosophy in particular. For Dr. Campbell's patience and encouragement I am deeply grateful.

# The Origins of Doubt

## **Xenophanes** (570-478 BCE)

The darkest night of Pyrrhonian doubt settled on Aenesidemus, but the first prophet of uncertainty began nearly five centuries earlier with Xenophanes, a wandering poet-philosopher from Ionia born in the town of Colophon who lived in a number of Greek city states during his exceedingly long life. He was often claimed by the ancients to be the first true skeptic based especially upon one preserved fragment of his work, a comment he purportedly made about knowledge:

*...and of course the clear and certain truth no man has seen nor will there be anyone who knows about the gods and what I say about all things. For even if, in the best case, one happened to speak just of what has been brought, still he himself would not know. But opinion is allotted to all.*

Contemporary academic philosophers argue over the exact interpretation of this text, but the gist of it is that there never has been and never will be anyone who has or will achieve certain knowledge.

## **Heraclitus** (c. 535-475 BCE) and **Parmenides** (early 5<sup>th</sup> century BCE)

Heraclitus disagreed with Xenophanes and believed it was possible to provide an explanation of the world by the relationship of the Logos, the word, the divine intelligence, to the human psyche, the seat of human knowledge whereby we come to know such intelligence. This is thought to be the origins of epistemology, the study of the nature of knowledge, in Western philosophy. Then, Heraclitus went on to describe the processes of Nature as emanation from God, the One, into the many parts of our familiar world and back again in a continuous state of change, flux.

Existence as we know it is in such a state of flux that at any given moment one could not describe the nature of any object, because, by the time it was described, it would have changed again and become slightly different. Heraclitus maintained that all objects in our world were in a state of becoming, from birth and growth to deterioration and death, from the life of planets to the aging of our own physical constitution.

Parmenides disagreed with Heraclitus and thought it was impossible for God, the One, to become all the many parts of our familiar world. In fact, if the One were perfect, why would it extend itself into a state of imperfection? No,

the One was an immovable being, the world was in a state of being, not in a state of becoming, as Heraclitus maintained, and the changes we see in life as we know it were an illusion. In his work, *The Way of Truth*, Parmenides states that the One is "whole, immobile, eternal, all together, one and continuous." There were two kinds of knowledge: true knowledge and common knowledge, and what most of us see with our senses and believe with our minds is of the common sort, mere opinion.

**Democritus** (?460-357 BCE)

If rain falling on the just and unjust alike implies unconditional love, does an earthquake swallowing up the righteous and wicked alike imply unconditional loathing? Neither. Such statements imply only that those who make them are anthropomorphizing Nature in the most primitive way possible. Zeus is NOT responsible for thunder and lightning, Eros is NOT responsible for love, and all the finest rituals and sacrifices to the gods of Olympus will NOT guarantee a good harvest.

Not long after Xenophanes' death, Democritus of Abdera and Miletus, became renowned as one of the two founders of ancient atomic theory, and it was he who came up with this amazing deduction:

*Since nothing can come from nothing,  
and change really occurs,  
and motion requires a void,  
reality must consist of atoms moving in a void.*

Democritus presents such a liberating point of view, and, by accepting the notion that there are no gods or spirits, but only atoms moving in a void, one is suddenly freed from the burden of otherworldly accountability. Unfortunately, after the party is over, after the celebration of liberation recedes into silence, comes the realization that if reality is only indivisible atoms moving in a void, then life itself has no meaning or purpose, and death is our only goal. More on that later.

Democritus was a contemporary of Socrates but apparently unknown by him – although Diogenes Laertius says that Plato (?427-347 BCE) considered this "prince of philosophers" his chief intellectual rival and refused to mention him so as not to have to refute him. Democritus systematized the work of the other founder of atomism, his teacher Leucippus, and as a materialist he believed that even the soul was comprised of atoms, fire atoms in this case, and proposed that thought was itself caused by the movement of atoms.

However, because atoms were not directly perceptible, there would always be doubt as to their true nature. In addition, it was Democritus who coined the phrase *ou mallon* (literally, 'no more'), frequently used by Pyrrhoneans to describe conflicting evidence of the senses that tell us *no more this than that*.

### **Protagoras** (481-411 BCE)

The doubt that was accumulating incrementally towards a real philosophy was carried even further by Protagoras, a pupil of Democritus, who is credited with the first realization that there were two sides to every question, that each has its opposite. Protagoras is also the author of the famous quotation used throughout history: "Man is the measure of all things." The quote in its entirety: "Man is the measure of all things that are that they are, and of things that are not that they are not."

One of his most startling statements was that everything is true. In the introduction to his book, *On the Gods*, he wrote, "As to the gods, I have no means of knowing that they exist or that they do not exist." For this, he was expelled from Athens, and a herald was sent throughout the city to collect and burn every copy of that book.

### **Socrates** (469-399 BCE) and **Plato** (427-347 BCE)

Finally, two more philosophers added their voices to the doubt about knowing anything, Socrates and Plato. Just as Protagoras incurred the wrath of the Athenians for his lack of piety, so did Socrates who was accused of corrupting the youth of Athens and forced to drink hemlock for his philosophy. It was his commonly heard assertion that he knew that he knew nothing (despite the obvious internal conflict of such a statement) that was most sympathetic with the claims of later philosophers with skeptical minds. "All I know is that I know nothing," Socrates said.

Plato immortalized Socrates, who left no writings, by introducing the world to that sage's life and dialectic method of questioning. Plato also attempted a reconciliation between Heraclitus' flux and Parmenides' rejection of the senses in the proposition of his own Doctrine of Ideas. In short, the Doctrine of Ideas states that behind the surface reality of our familiar world lie *ideas*, universal laws and ideals, perfect idealizations of reality, *more* real than what we actually perceive with our senses.

For example, we see many different kinds of dogs in our lifetime, each of which is a mere representation of the *idea* of dog. The idea of some thing, then, is universal and permanent and, therefore, more real than the many

variations of that idea represented in the world. This is not meant to be an exhaustive explanation of Plato's doctrine, barely an introduction, and it should also be remembered that such a doctrine was only one of many early influences on the development of skeptical thought.

## Pyrrho (?360-270 BCE)

Skepticism comes from the Greek word *skepsis* which means investigation, the work of the philosopher, which commonly begins with finding a criterion that distinguishes the true from the false. The Sceptics were unable to find a satisfactory criterion of truth.

The fullness of skeptical thought didn't arrive until the first century BCE when Aenesidemus and later philosophers of this persuasion, such as Sextus Empiricus, developed skepticism to an advanced level of sophistication built upon the foundations of earlier work done by a number of great thinkers, including those mentioned above. However, it was Pyrrho to whom Aenesidemus returned to in the establishment of his school, because he apparently believed that the life and work of Pyrrho marked the true beginnings of this most pure branch of ancient skeptical thought, which was known thereafter as Pyrrhonism.

### **Early Pyrrho**

Little of Pyrrho's early life is known except that he appears to have been born in Elis and was an older contemporary of Epicurus and Zeno the Stoic. He was an obscure painter by trade, and he may have studied philosophy with the Megarians and the Cynics. We also know that Pyrrho traveled to India with Anaxarchus who was court philosopher to Alexander the Great.

Little is known of Anaxarchus or his philosophy except that it was reputed he had disposed of the notion there was a criterion of truth, indicating he had a skeptical orientation. According to Diogenes Laertius (D.L. 9.67), he admired Democritus above all others. Whether Pyrrho accompanied Alexander on his eastern campaign as a court painter or as a second philosopher is unknown, but such a journey was not that unusual. By the time Pyrrho made his trip to India, there was already a tradition of Greek intellectuals traveling to that remote extremity of Alexander's expanding empire.

### **Pyrrho and the *Gymnosophists***

Pyrrho traveled with Alexander to Persia (Iran), where he studied with the Magi, a class of Zoroastrian priests who lived in Media and Persia and who

were reputed to have supernatural powers. He continued on with the Army to the Indus Valley, where he studied with the *gymnosophists*, naked philosophers, who may have been early Buddhists. Although the majority of scholars tend to gloss over this period in Pyrrho's life and education, work has been done suggests that the descriptions of Pyrrho after his travels to the Indus Valley are those of a Buddhist *arhat*, one who has attained nirvana. Some scholars suggest he wasn't a skeptic at all, but lived and taught as an ascetic and quietist. However, scholarly research of the evidence is so fragmentary as to yield only the vaguest speculation.

The best evidence we have for the *gymnosophist's* influence on Pyrrho's philosophy comes from Flintoff (see Bibliography), who compares his thought with early Buddhist teachings. By the time of the earliest sutras and onward, polarities and antinomies (a contradiction between two statements, both apparently obtained by correct reasoning) are common. The so-called agnosticism of the Buddha comes from his use of antinomial argument in answering questions that he considered unsolvable.

The Buddha considered all speculation as dogma and refused to commit himself to an answer. By doing so, he taught that he was delivering the human mind from unnecessary entanglement and that this freedom of the mind was a necessary stage in the process of enlightenment. As Flintoff says, "...it is integral to Pyrrhonism and to Buddhist, and other Indian, thought to formulate the antinomies in order to make them disappear, the consequence and aim of the process being so that a certain tranquility can supervene."

Flintoff goes on to describe an Indian mode of thinking called the quadrilemma (four dilemmas) and states that this form of thought was unprecedented in Greek philosophy. In Buddhism, the quadrilemma called the *Avyakṛta* (literally, "the inexpressibles") is central to their philosophy and takes the following form:

1. Whether the world is eternal or not, or both, or neither.
2. Whether the world is finite, or infinite, or both, or neither.
3. Whether the *Tathagata* (the Buddha) exists after death or not, or both, or neither.
4. Whether the soul is identical with the body or different from it.

In both Pyrrhonism and Buddhism the antinomial argument is used to alter our way of thinking about our familiar world to show that it is, in fact, an illusion, unreal – what Indians called *Maya*. The goal or end of both philosophies is tranquility (*ataraxia*). The achievement of tranquility is a



process, which is as follows:

1. Cessation of all conceptualization takes place, leading to...
2. Cessation of all speech, leading to...
3. Cessation of all troubling thought (*ataraxia*), nirvana, *moksa*, leading to... "A state of beatitude at the end of the philosophical quest!"

The striking similarity between early Buddhism and Pyrrho's thought also continued in his personal life and practice. As was the case with all ancients, unlike modern philosophers, practice was expected to complete a philosopher's theory. It's clear from the numerous and various reports that Pyrrho practiced what he taught and that his practice was similar to that of an *arhat*.

As is common among advanced Hatha yogis, Pyrrho was said to be able to withstand the most extreme pain without even an involuntary frown; he was said to spend a lot of time wandering the fields and living on grasses and herbs, as is common practice in the third and fourth stages of asceticism; and, finally, it was said that he lived as a vagrant, often leaving home without any attachments to travel with anyone for as long as it interested him.

### **Teachings of Pyrrho**

Remnants of Pyrrho's teachings are scarce and fragmentary and therefore difficult to appraise both in terms of content and inspiration for later skeptics. What little we do know comes down to us from his student and follower, Timon of Phlius (c.320-230 BCE), as brief thoughts and ideas referenced by other writers in antiquity. Although an admirer of Democritus, Timon took skepticism further than the atomists, which meant rejecting atomism itself, as well as all common opinions. By so doing, he is said to have given up on philosophy and on any attempts to establish a criterion of truth (D.L. 9.69.65; Sextus, *PH* 1.28-29 & *AM* 11.1 from Groarke).

Also from Diogenes Laertius we learn that Pyrrho denied there was any such thing as the morally good or morally bad and said that all such labels were a matter of convention. He also denied knowledge of the external world and was especially critical of the Stoic and Epicurean Epistemology (theories of knowledge), although there is no evidence that he attacked either school personally. Pyrrho's greatest innovation as a Greek philosopher was the idea that freedom from mental disturbance by the suspension of judgment (*ataraxia*) could be an ethical goal.

One of the most useful of these fragments is found in Aristocles' work, *On Philosophy*, that ascribes the following essential teaching of Pyrrho as reported by Timon:

*His pupil Timon says that the man who means to be happy must consider these three questions: 1.) what things are really like; 2.) what attitude we should adopt towards them; 3.) what the consequence of such an attitude will be. According to Timon, Pyrrho declared that things are equally indistinguishable, unmeasurable and indeterminable. For this reason neither our acts of perception are true or false. Therefore we should not rely upon them but be without judgments, inclining neither this way nor that, but be steadfast saying concerning each individual thing that it no more is than is not, or that it both is and is not, or that it neither is nor is not. For those who adopt this attitude the consequence will be first a refusal to make assertions and second, freedom from disturbance. (Eusebius, Prep. Ev. 14.18.2-5, Long)*

As seen from the above, Pyrrho's answer to the basic question of Greek philosophy, 'what things are really like,' must be rejected because things are 'indistinguishable, unmeasurable, and indeterminable.' In other words, unknowable. Such an assertion flew in the face of Greek philosophers who *assumed* that Nature could be studied, analyzed, and drawn upon as a resource for knowledge. Pyrrho is saying reason as well as sense perception is unreliable and cannot be a criterion of truth. We only have our senses to perceive the external world. Since we don't know if our sense perception portrays the world as it really is, we cannot know what things are really like. Since our perceptions cannot determine if things really are what they appear to be, we should not make judgments about them. We should suspend judgment. Later, the common Pyrrhonist phrase for this suspension of judgment, which they borrowed from Democritus, became *ou mallon*, no more this than that.

The Aristocles passage above is currently debated in academia according to two interpretations: epistemological or metaphysical. According to the epistemological interpretation, and one that is most in keeping with later skepticism, Pyrrho contends that things equally *appear* to be and not to be. That is, we are incapable of determining the true nature of things.

According to the metaphysical explanation, and one that is most in keeping with the mystical philosopher Heraclitus, things *actually* are and are not. They *both* are and are not, and *neither* are *nor* are not. That is, things in themselves are indefinite or indeterminate. Those who prefer the

metaphysical explanation believe the Aristocles passage is correctly reported and translated as written; those who prefer the epistemological explanation believe the passage should be emended.

Regardless of what Pyrrho actually said or Aristocles thought he said, later Pyrrhonism adopted the epistemological version and distinguished between the relationship of the sensory perception to the thing being perceived and between the actual properties of the thing being perceived. As Diogenes Laertius says (ix 103), speaking for the Pyrrhonean: *We admit the fact that we do see, we recognize the fact that we do have this particular thought; but we do not know how we see or how we think. We say by way of description that 'this appears white,' without confirming that it really is white.*

What a Pyrrhonean doesn't deny is that a thing appears white; what he does deny is any knowledge of the real property of the thing in itself. Right now, for example, my feet are resting on what appears to me to be a brown and fluffy pillow. That, I do not deny. What I as a Pyrrhonean do deny is that I have any certain knowledge of this brown and fluffy thing apart from my perception of it. Later it will be shown in Aenesidemus' modes of argument that to another creature, say a housefly, this thing may not be perceived as brown and fluffy at all. If hundreds or thousands of different creatures all perceive this thing differently, what is the thing in itself? A Pyrrhonean does not claim to know.

### **Pyrrho and Timon**

As mentioned earlier, what we know of the teachings of Pyrrho come to us in fragments from Timon. While Pyrrho was described by all as gentle and serene, his follower and publicist Timon was witty, restless, and scathing in his attacks on dogmatists. He said that Plato and Aristotle were arrogant and argumentative pedagogues who fooled people with dogma that could never be proved. He wrote voluminously and became renowned for his satires and lampoons. When it was suggested that the senses and reason may not be reliable witnesses but that both working together may find the truth he said, "Birds of a feather flock together."

He went on to say that all the dogmatists were doing is accumulating illusions, piling one speculation on top of another. (Religious myths do this routinely. For example, do angels have gender? If so, why? Do they have children, baby angels? This whole line of questioning follows from silly to absurd without ever proving the existence of angels in the first place.)

Timon appeared to detest the pretentious, contentious reasoning of the philosophers, but didn't appear to have any difficulty with the ordinary experiences of life. In fact, his primary and essential contribution to Pyrrhonism was how one deals with the apparent, the phenomena (*to phainomenon*) of life. He believed that living with the appearances of our familiar world was what really mattered and most deserved our interest, not because they told us anything about the inner constitution of things, which he considered unknowable, and therefore a matter of indifference. He said, "The apparent is omnipotent wherever it goes." He practiced what he said and gave up philosophy to find happiness among the phenomena of appearances, becoming very wealthy in his later life.

### **Pyrrhonism and Skepticism**

There is no known relationship between Pyrrho and the skepticism of the Academy, and, until Aenesidemus, the only acknowledgment of members of the Academy to forerunners or founders of skeptical thought were to Socrates and Plato. However, it is essential to understand something of the nature of skepticism as it evolved in the Academy in order to see how it eventually came about that a member of the Academy itself established the purest form of skepticism both as a completion of and contrast to all that had gone before all the way back to Pyrrho himself. In addition, the arguments of the Academics with the Stoics is instructive as a way of contrasting skeptical thought with the leading dogma of the Hellenistic period.

## **Skepticism in the Academy**

The Hellenistic period spans almost 300 years, beginning with the death of Alexander the Great (323 BCE) and ending with the death of Mark Antony at the battle of Actium (31 BCE). This period saw the birth and development of Epicurean and Stoic philosophies, as well as fundamental change in the Old Academy founded by Plato in 369 BCE. The changes in the Academy were initiated by the scholarch Arcesilaus, the head of the school, heralding the birth of skepticism in that institution. Schools of philosophy were now institutions of higher education, mostly for the sons of the elite, and philosophers were regarded as eminent members of their community. As such, they were often employed as counselors to the most powerful as well as ambassadors to the world at large. From among these worldly philosophers, the Stoics were preeminent and the most influential.

### **Arcesilaus** (?315-240 BCE)

Skepticism was not a term that the Academics used themselves but was given to them by later writers to describe the new philosophy initiated by Arcesilaus when he became the scholarch. Arcesilaus was head of the Academy for about 25 years, and it was during his administration that the Old Academy of Plato became known as the Middle Academy. Arcesilaus taught that Socrates was right to claim that he knew nothing, but unlike Socrates he took this claim a step further by saying that he was certain of nothing, even that he was certain of nothing. This complete denial of the possibility of knowledge brought him closer to the position of Pyrrho than any other, and some accused him of being an Academic in name only.

Arcesilaus modeled his philosophical arguments on the dialectic method of Socrates: taking the belief of the opponent and showing that his argument contradicts itself. According to Diogenes Laertius, he was the first philosopher to argue both sides of any question. Again, like Socrates he wrote nothing, and, because he had no doctrine of his own, the chief activity of the Middle Academy under his leadership consisted of verbally attacking those dogmatists that did, chiefly the Stoics. Before we indignantly take Arcesilaus to task for challenging the Stoics, it's important to remember that by such challenges he restored the critical function of philosophy begun by Socrates, who sharply prodded leading Athenians by showing them the inconsistencies in their beliefs.

### **Arcesilaus and the Stoics**

Some of the material in the next few pages may require a couple of readings to be clear, but it is useful information and worth the effort of comprehension. The Stoic (Zeno's) theory of knowledge was a new kind of epistemology, empirically-based and derived by sense experience and observation. The Stoic position was that information we get about the external world comes through our senses. There are three epistemological states – belief, apprehension, and knowledge – based upon three kinds of sensory data:

1. *Uncertain information* lacking clear evidence which requires BELIEF to maintain (e.g., religion, ghosts, UFOs) and is acceptable only to fools. Stoics say the wise should suspend judgment on sense impressions that are uncertain.
2. *Accurate information* we APPREHEND (*katalepsis*) or grasp as a true perception of the real world (e.g., the sun is shining, therefore it is day). Both FOOLS and the WISE can apprehend such accurate information, and this was **Zeno's criterion of truth**.

3. *Certain information* which is KNOWLEDGE because it is secure against all argument but is the apprehension only of the sage, the WISE.

Arcesilaus objected. Apprehension cannot be the criterion of truth, because the sensory information we receive is either certain or uncertain. There is no middle ground. When we apprehend something, we either have knowledge or we don't. Arcesilaus disagreed with Zeno's definition of apprehension, assent to a cognitive impression, for two reasons:

1. We are assenting to a proposition, not an impression. That is, what we are assenting to is an *offer* of information, which may or may not be true and accurate.
2. There is nothing in the sensory information we receive that *guarantees* that it could not be false.

By accepting the Stoic distinction between the wise and the foolish, Arcesilaus was using their own argument against them, showing that it is self-contradictory for the wise to suspend judgment on sense impressions that are uncertain, because s/he can never know with objective certainty that any perception is true. Thus, the wise will always suspend judgment. If the wise always suspends judgment, then s/he cannot have true knowledge. If s/he cannot have true knowledge, then there can be no such thing as the wise, the Stoic sage.

### **Carneades** (214-129/8 BCE)

In antiquity, it was said that if there had been no Chrysippus, there would have been no Stoa. That statement apparently recognized Chrysippus for saving the Stoa from the devastating attacks of Arcesilaus and other members of the Middle Academy. The disputations continued. Carneades was the next academic to challenge the Stoics, and he often stated of himself that had there been no Chrysippus there would have been no Carneades.

Like Arcesilaus before him, Carneades wrote nothing, and was accused by some of having created nothing original other than the construction of his philosophical arguments against Chrysippus. When Carneades became scholarch, sometime before 155 BCE, the changes he initiated in the modification of their skeptical arguments heralded another stage in its development prompting later scholars to name this period the Third or New Academy.

### **Carneades & the Skeptical Argument**

By taking both sides of any argument, by successfully arguing for and

against any idea or concept, even one as highly regarded as justice, Carneades made a very strong case for the suspension of judgment. On the first day he was an Athenian ambassador to Rome, Carneades told his audience just what they probably expected to hear about justice. That is, it benefits all by giving each one his due in a fair and equitable manner. Justice is a form of practical wisdom characteristic of a good state and a good man.

The very next day, we are told by Cicero who preserved this argument in *De Republica*, Carneades argued against holding a good opinion of this virtue. He refuted the virtue of justice by attacking the notion that it is always a benefit and good practice of the wise. He first pointed out that justice as formulated in the laws of the Roman empire worked only to the benefit of Rome – to the detriment of all other states. As such, these laws were not justice; they were nothing more than utilitarian self-interest. He then explored the concept of justice as it applies to individual cases by employing the following example:

*Suppose that a good man has a run-away slave or an unhealthy and plague-ridden horse; that he alone knows these faults and puts the things up for sale accordingly. Will he admit the faults or will he conceal them from the buyer? If he admits them, he is certainly a good man, since he does not cheat; but he will be judged a fool since he will be selling for a song or not selling at all. If he conceals the facts, he will be a wise man because he will consult his own interests but also bad, because he cheats. (Rep. iii 21 [Lact. Inst. 5, 16, 2-4] Long)*

Unlike the dogmatist, the skeptic shows that justice and prudence or practical wisdom are not necessarily one and the same thing. If you make a bad bargain, you're working against self-interest and therefore not being prudent. Prudence is practical wisdom. So, what is the seller to do, be just or wise? Even if the Stoics objected to Carneades' use of such a loose definition of prudence, he would put them in the position of having to defend themselves with the obscure language of the philosopher and doubt has been raised.

### **Carneades' Leadership**

Under Carneades' leadership, the Academy expanded Arcesilaus' singular interest in epistemology to include logic, ethics, theology, and natural philosophy. At the same time, he still maintained a steady assault on the Stoic's doctrine of cognitive impressions and the criterion of truth. The Stoics (viz., Chrysippus) rejected the attack of the academy and pointed out to them that as a practical matter, without cognitive impressions human beings

would be incapable of any action or rational investigation whatsoever. In addition, Stoic doctrines were the best available understanding of truth, and that the Academy was providing no alternative, let alone a superior alternative to Stoic Dogma.

Carneades' answer to the Stoic counterargument significantly modified and softened the radical skepticism that Arcesilaus previously introduced. Carneades argued that a basis for action and inquiry is not dependent upon cognitive impressions but could be found in *probable* impressions. That is, human beings do have a rational basis for action and inquiry without cognitive impressions when they use probable impressions. When a sensory impression we receive is repeated, our confidence in that impression is either increased or decreased according to the consistent accuracy of the information it gives to us. Although no amount of investigation can guarantee 100% certainty, there is a degree of probable certainty we can obtain depending on how much or how little we have checked the consistency of this impression.

In fact, Carneades provided not one but two alternatives for the Stoics. Sometimes he argued that the wise man will always suspend judgment but will follow probable impressions without holding an opinion on anything. Sometimes he argued that the wise man will form opinions on the basis of probable impressions but will be ready to admit that this opinion may be wrong. In short, then Carneades' two alternatives to the Stoic's cognitive impressions asserted (1) the wise can live without opinions but will follow probable impressions; or, (2) the wise can live with opinions that are tentative and ready to be revised as needed with new information.

#### Other Attacks on the Stoics

1. **Stoic Theology.** Zeno said that because belief in God is universal there must be a God. Carneades said that all the Stoics may have proved is that there is a universal *belief* in God, not that there was a God.
2. **Natural Philosophy.** Stoics claim the universe is wise and rational without first proving that it is even a living thing. Further, Stoics assert that human reason comes from and is a part of universal reason without first proving human reason cannot be a separate and spontaneous creation of Nature.
3. **Reason.** Stoics point to human reason as evidence for divine providence. But, most people use their reason to either degrade themselves or others, so it would appear that our reason is more of a detriment than a benefit to our well-being.



4. **Heap Argument.** The heap argument got its name from the inherent difficulty in determining where one boundary is distinguished from another on a continuum. If there are 100 widgets thrown together in a heap and you remove one widget at a time, at what point or number does the heap of widgets cease to be a heap? Carneades used the Heap Argument to show the Stoics they were incapable of distinguishing a boundary between what is and what is not divine. The same argument can be used to question the hope of immortality. If the soul is immortal and lives after the death of the physical body, what souls qualify for immortality? Only human? What about the more intelligent animals, such as dolphins, chimpanzees, and dogs? At what point on the intelligence scale does one acquire a soul fit for eternal life?

### **Carneades (Free Will) versus Chrysippus (Determinism)**

*Stoic Position:* Chrysippus stated that the Stoic's determinism follows logically from every movement or event having an antecedent cause. That is, there is always a necessary connection between cause and effect. He said, "If there is an uncaused movement not every proposition...will be true or false; for that which will not have efficient causes will be neither true nor false; but every proposition is either true or false; therefore there is no uncaused movement. But if this is so, then everything that happens happens as a result of antecedent causes; and if this is the case, then everything happens as a result of destiny; it follows therefore that whatever happens happens as the result of destiny (fat x 20-1)." Chrysippus equated the link of cause to effect with destiny, which he logically proves with the premise, 'Every proposition is either true or false.'

*Carneades Objects:* Carneades had two objections. First, he objected to the statement, 'There is no uncaused movement.' The mind may voluntarily move if its movement is designed by Nature to be in our power. The cause of such voluntary movement is the power we have to move our minds. The power we have to move our minds grants us freedom of will. Secondly, Carneades didn't think Chrysippus was right to infer determinism from the premise, 'Every proposition is true or false.'

Just because a prediction comes true doesn't mean the future event is determined by an antecedent cause. It only means that when there is a predicted event it was true before it happened. He rightly accused the Stoics of taking logical facts about truth and mistakenly constructing beliefs about causality. He agreed that some events had causes but that it was improper to ascribe such causes and events to be inextricably linked into a universal

destiny.

Carneades' modified skepticism in the New Academy held steadily through to the scholar Philo of Larissa (148-77 BCE). But under the leadership of Philo, two of his students, Antiochus and Aenesidemus, changed the arguments completely. Antiochus became scholar and put an end to skepticism in the Academy altogether, while Aenesidemus left the Academy and founded the purist form of skepticism, Pyrrhonism.

**Antiochus** (died c.68 BCE).

In the 2<sup>nd</sup> century BCE, Antiochus of Ascalon (located in present day Israel) moved to Athens where he became a member of the Academy and student of Philo. At some point he broke with his teacher and the skeptic tradition of the Academy to become a dogmatist. There is some disagreement whether Philo or Antiochus was the last scholar of the Academy, because there is some doubt whether the Academy was still intact when Antiochus turned to dogmatism. However, he did have an able following, including Cicero, who studied with him in the winter of 79/8, and Brutus, the assassin of Caesar, and a number of prominent Roman citizens of that period.

Antiochus broke with Philo and the skeptic position over the uncertainty of knowledge and decried the contradiction that comes about whenever one asserts that nothing is knowable, pointing out that to make such an assertion involves the assertion of knowledge that nothing is knowable. He decided the Stoics were right, that knowledge *was* possible, and that Plato and the Old Academy would agree with him. In fact, he claimed to be reviving the teachings of the Old Academy, and that the Academics from Arcesilaus to Philo had betrayed their intellectual heritage. He also taught Stoic epistemology and shamelessly asserted that Zeno's teachings were merely a copy of what he learned from the Academy when he was a student there.

He also agreed with the practical side of the Stoics that the criterion of truth and the goal of human life were philosophy's most important pursuits. However, he did not completely agree that virtue was sufficient for happiness. In the most unique concept of his ethical system he combined the Stoa and the Peripatetics. He thought the Stoics were right that virtue was sufficient for happiness, but not for *complete* happiness. For that he turned to Aristotle and claimed that complete happiness required the addition of external wealth and good health. Such an eclectic approach was typical of his attempts to show that the Academics, Stoics, and Peripatetics

were in essential agreement.

**Aenesidemus** (after Philo but before Sextus Empiricus of 2<sup>nd</sup> c.)

“The Academics,” Aenesidemus said, “especially the ones now, sometimes agree with Stoic opinions and, to tell the truth, appear to be just Stoics in conflict with Stoics (Photius, *Bibl.* 212, Inwood & Gerson).” So, he left the Academy and founded a school of radical skepticism which he named after Pyrrho, the obscure philosopher, long dead, who had never been associated with the Academy. The Pyrrhoneans, as they became known, to this day have had one of the greatest influences on philosophy in history. And although Aenesidemus is credited with writing eight books of Pyrrhonian discourses, the *Pyrrhoneia*, none of them have survived except in the extraordinary memory of a Byzantine patriarch by the name of Photius, who didn’t think very highly of them because they undermined Christian dogma. However, he does give a good account of the essence of Aenesidemus’ work:

*The whole purpose of the work is to establish securely that nothing can be securely grasped, neither by means of the senses nor even by means of thought. Therefore, neither the Pyrrhonists nor the others know the truth in things; and those philosophizing according to another system, besides being ignorant of other things, are also unaware that they weary themselves and spend their time in continual agonies for nothing; they are ignorant of this very fact, that they have actually grasped nothing of what they believe they have grasped.*

*As for him who philosophizes according to Pyrrho, besides being happy in other respects, he is wise in knowing above all that nothing has been grasped securely by himself. And as to whatever he does know, he is clever enough to assent no more to the affirmation [of these things] than to their denial....Generally, the Pyrrhonist determines nothing, not even this, namely, that he determines nothing (Photius, *Bibl.* 212, 169b, Inwood & Gerson).*

According to dogmatists things are either self-evident or non evident. Things that are self-evident come to our knowledge of themselves (e.g., that it is day). Of the things that are non evident there are three kinds. The first is absolutely non evident (e.g., all of the stars add up to an even or odd number), but these are not considered, because nothing can be said of them. The other two are the temporarily non evident and the naturally non evident. The temporarily non evident are things that are visible but not visible at the moment due to temporary circumstances, such as knowing that I have a bag of apples in the refrigerator even though I can’t see them at the moment. The naturally non evident are things that are not visible but

are apprehended by signs, such as knowing that because sweat appears on the surface of the skin the body must have pores.

Aenesidemus altered the argument of evidence by the dogmatists to be of only two kinds: recollective or indicative. A recollective sign is based upon those experiences which can be associated with another experience, such as a scar that reminds us of a wound we received or smoke that reminds us of fire. The indicative sign is what the dogmatist would call a naturally non evident sign and is an experience that is associated with something never experienced, such as the movement of life as indication of a soul. Aenesidemus thought we can have reasonably firm beliefs regarding recollective signs, because any error can be checked and eliminated if the sign or experience was remembered incorrectly.

**Here's the important point:** the Pyrrhonian accepts recollective signs as essential for negotiating through life in our familiar world, but does not accept indicative signs because they require speculation and deal with things that are by their very nature unknown and perpetually in doubt. The only way to approach the indicative sign is with *epoche*, suspension of judgment.

### **Aenesidemus and Heraclitus.**

Sextus Empiricus criticized Aenesidemus for saying, "All roads lead to Heraclitus." Academicians today take three positions on Aenesidemus' statement: 1) it is meaningless and irrelevant (Stough), 2) it was made while he was in the process of converting from the Academy to Pyrrhonism (Rist), and 3) Aenesidemus left Pyrrhonism in the end and became a Heraclitean (Groarke). It does seem odd that he would become a Heraclitean after the pure form of skepticism he endorsed and taught, and Rist may be right.

Rist thinks the criticism of Sextus may have been referring to a period between Aenesidemus' skepticism at the Academy and breaking away to found the school of Pyrrhonism. His thesis begins by noting that skeptics assert the *appearance* of opposite attributes while Heracliteans assert the *reality* of opposite attributes, which leads him to suggest the following possible conclusions:

1. Aenesidemus broke with the Academy because of Philo and Antiochus' move towards Stoic dogma.
2. Aenesidemus first aligned himself with his teacher Philo in searching for the true reality of objects behind the information we get from our senses.
3. His skeptical education led him to embrace the Heraclitean notion of a

continuum of opposites in every object. This was the Heraclitean period to which Sextus was referring.

4. Finally, he comes to reject the possibility of ever knowing the real object lying behind our sensory impressions, and just by knowing that it has opposite characteristics doesn't give us any certainty about its underlying nature. So, *epoche*, we must suspend judgment.

In an attempt to attain some certainty on the matter, I wrote an e-mail to Professor Groarke, Dean of the Brantford Campus of Wilfrid Laurier University in Canada. He had referenced his assertion that Aenesidemus ended his philosophical career as a Heraclitean with the usual Sextus material, plus a couple of passages from the early Christian apologist, Tertullian (*De Anima* 9.5, 14.5).

Professor Groarke answered, "From my point of view, I don't find the Heraclitean/Pyrrhonian parts of Aenesidemus' career all that strange. If you believe, as I do, that the essence of scepticism is its emphasis on equal but opposing points of view, then it is not so surprising that someone would jump from this to the conclusion that opposites are the essence of the world (i.e. Heraclitus!)."

And so it goes. If Aenesidemus created Pyrrhonism, then abandoned his creation and became a Heraclitean, as the only ancient references to this fact suggest, a good explanation of his reasons have not been found. However, there is one ancient writer who never left matters unclear, Sextus Empiricus, the great codifier of skepticism, whose works were preserved and became the cornerstone and primary resource for all subsequent knowledge we have of skeptical thought that predated him in the Hellenistic period.

## Pyrrho Codified

**Sextus Empiricus** (2nd-3rd century, CE)

According to Sextus, we come to Pyrrhonism by accident, looking for answers in philosophy and finding only arguments. This profoundly valuable insight he stated in this quote: "Men of natural ability are disturbed because of the inconsistency in things, and being doubtful which of the alternatives they should assent to, they came to inquire into what is true and what is false in things in order that from a resolution of their doubts they would attain freedom from disturbance. The main principle of the skeptical system is that for every argument another argument of equal [weight] is opposed.

As a result of this we seem to arrive at a cessation of dogmatism (*PH* I 12, Inwood & Gerson)."

We know very little about Sextus Empiricus except that he was a Greek physician who appears to have been the head of a Skeptic school in Athens, Rome, or Alexandria and who wrote his first book, the *Outlines of Pyrrhonism*, as a detailed account of Greek skepticism based chiefly on the teachings of Aenesidemus. He next wrote a series of books attacking the various schools of the dogmatists from the skeptical perspective. Because so much of his work argued in detail against philosophies of the Epicureans, Stoics, Peripatetics, and other dogmatists, much of what we know of these schools comes to us from Sextus.

According to him, there are three kinds of philosophers: the dogmatists (e.g. Stoics) who believe they know the truth, the negative dogmatists (the Academics) who believe that the truth cannot be known, and the skeptics who believe the truth has not been discovered but continue to investigate anyway because they believe it may become known.

Sextus asserts that the Pyrrhonists are the true skeptics because only they are free from dogma. "When we say that the skeptic does not dogmatize we are using the term 'dogma' in the sense according to which, as some say, dogma is the assent to something non-evident investigated by the sciences, for a Pyrrhonist never assents to anything non-evident (*ibid.* I 13)." He later explains the goal of one who does not dogmatize as one who acquires the Zen-like state of freedom from disturbance by giving up the struggle:

*We say most definitely that the goal of the skeptic is the freedom from disturbance with respect to matters of belief and also moderate states with respect to things that are matters of compulsion. For the skeptic, having begun to philosophize in order to judge presentations and to try to grasp certain things as true or false so that he could attain freedom from disturbance, tripped up on the equal weight of incompatible [claims]; thereupon, not being able to make a judgment, he suspended judgment.... Being in this suspensive state, freedom from disturbance followed fortuitously, as a shadow follows a body. (*ibid.* I 25, 26, 29)*

Sextus defines a skeptic as one who has the ability to place any appearance of the senses or judgment of reason into antithesis. Then, because the thesis and antithesis are equally balanced the skeptic must suspend judgment (*epoche*), and this suspension of judgment is followed by freedom from disturbance (*ataraxia*) "as a shadow follows a body." The following

modes are attributed to Aenesidemus by Sextus as ways of argument by which the skeptic may place any appearance or judgment in antithesis.

### **The Ten Modes of Aenesidemus**

1. Differences among species. There are great differences in the feelings and perceptions between all living species. What does the world look like to an eagle, a honey bee, a shark? What does touch feel like to the shell of a crab, the feather of a bird, or the flesh of a worm? Why do dogs eat cat excrement with relish while humans find it repulsive? Which perception of the world among the many species is the true perception?
2. Differences within species. Speaking for the human species, not only are there vast differences in intellect between one person and another, but even among those of approximately the same level of intellect, high or low, there is a long history of disagreement about the nature of the world. Just one of hundreds or thousands of examples: Plato thought time was generated, or came into existence; Aristotle thought time was not generated and did not come into existence. Who is right and how can we know which of the two great intellects of antiquity perceive the true nature of our world?
3. Differences in the sense. Even the senses of the same person differ. One sense gives one perception, while another sense gives entirely different information about objects in our environment. Two examples: perfume smells sweet to the nose but tastes bitter to the tongue; fire is hypnotically beautiful to the eye but burns the body when touched.
4. Differences among states, either natural or unnatural. The physical, emotional, or mental state of an individual makes different impressions. While suffering from fever even light clothing can feel uncomfortable; to an angry person an act of vengeance can bring great satisfaction, while to a happy person the same act can be repulsive and sad; people who are delirious or hallucinating can see and hear things that don't exist to a person in a so-called normal state.
5. Positions, distances, places. The moon appears much larger on the horizon than when it is high in the sky, and yet it is exactly the same size; a light that is dim in the daytime is bright at night; an oar in water appears bent; and, a ball appears flat far away, while up close it appears round.
6. Admixture. No object ever appears alone but is perceived together with some other object or objects; a noise emitted in a swamp will sound different from the same sound at a high altitude; air feels hotter or colder depending on the humidity and the amount of wind that

carries it. Nothing is ever perceived by itself alone, so we are unable to know what a thing is in and of itself.

7. Quantity and proportion. Our perception of a thing can be dependent upon its quantity or proportion. A little wine is strengthening while a lot of wine is weakening; a grain of sand can appear rough while a heap of sand can appear smooth. Wine of itself is neither weakening nor strengthening, and sand of itself is neither rough nor smooth.
8. Relativity of all things. There is always a relationship between the perceiver and what is being perceived. A blow struck from the front is less dangerous than one struck from behind; a waterbird may be lovely and charming to our sight but frightening and monstrous to the sight of a minnow swimming between its legs; one who kills many in battle is a hero while killing even one person in peacetime makes the killer a villain.
9. Frequency of occurrence. A thing that is rare may appear more valuable and beautiful, and therefore more desirable than a thing that is common. A clear blue sky will be more remarkable to an Englishman than to an Arab, just as a rain shower will be more remarkable to an Arab than to an Englishman. If only a rich man has lots of gold, then it is rare and precious; if everyone has lots of gold then it is deemed of little value.
10. Cultural differences. Customs, laws, and dogmatic beliefs make one practice acceptable in one country and scandalous, even horrible in another, suggesting that such practices in and of themselves are neither right or wrong.

### **The Five Modes of Agrippa**

Nothing is known about the life of Agrippa other than he followed Aenesidemus and lived before Sextus Empiricus. Sextus includes these five modes attributed to Agrippa which more clearly focus on the epistemological issues of the ten modes of Aenesidemus listed above. According to Sextus, Agrippa's five modes of argument are:

1. Disagreement. There is endless disagreement on all subjects among philosophers and non-philosophers alike, which is as true today as it has been throughout history.
2. Regress ad infinitum. Whenever a proof is requested for any claim that is made, one must then request proof for the validity of that proof, the proof for the proof of the proof – ad infinitum.
3. Relativity. All things are relative to the subjective nature of the one who is judging and to the mental constructs and concepts he, she, or it is using to make such a judgment.
4. Hypothesis. There is no such thing as an acceptable hypothesis to the



- skeptic, because nothing is assumed or taken for granted.
5. Circular reasoning. When the senses are used to prove the veracity of sense impressions, the skeptic must reject such arguments as circular and therefore invalid.

### **The Two Modes of Sextus Empiricus**

All of the modes above are reduced even further by Sextus to two basic modes in his *Outlines of Pyrrhonism* (1.178-9) where he argues that everything that can be apprehended as true must be either be:

1. Apprehended through itself, in which case there is interminable disagreement among the philosophers; or,
2. Apprehended by a proof, in which case there is an infinite regress of searching for proofs to prove the proof of the proof of the proof, and so on to infinity.

### **The Pyrrhonian motto: *ou mallon***

*Ou mallon* literally means "no more." The motto of the Pyrrhonian skeptic was, according to Timon, used by Pyrrho himself to determine no more this than that, and thereby achieve peace of mind. In modern usage it means that things no more seem one way than another. In the beginning, a person comes to philosophy because s/he is disturbed by inconsistencies and contradictions discovered in our familiar world. These inconsistencies and contradictions causing the disturbance are, according to skeptic philosophers, the chief cause of unhappiness. When, in the course of investigating philosophical systems to alleviate the unhappy disturbance, if this person comes to skepticism, the modes above will show that there is a ready argument by which any appearance of the senses or judgment of reason can be placed into antithesis.

When this is accomplished it becomes apparent that every appearance or judgment is poised between two equally plausible beliefs, *ou mallon*: no more is than is not. In this state of equilibrium, which is one of epistemic neutrality, the person realizes that s/he is unable to resolve any differences, and in such a state s/he must acquiesce to a suspension of judgment (*epoche*). When one has achieved *epoche*, then freedom from disturbance (*ataraxia*) follows as the shadow follows a body. With the achievement of *ataraxia* one has achieved the highest human goal: happiness, *eudaimonia*.

### **The Skeptic's Criteria**

The dogmatists accused skeptics of being incapable of any action or inquiry if all their judgments were suspended. To this, the skeptics had ready their own criteria, not of truth, but of how one can live in the tranquility of

*ataraxia* and still make one's way in the world.

1. Appearance. Timon was the first to say that appearance is king wherever it goes. Skeptics do not deny the sensory perception of appearances and will act accordingly. What they do deny is any certain knowledge of things in themselves, or what the phenomena represents beneath its appearance.
2. Recollective and Indicative Signs. Aenesidemus was the first to point out the difference between recollective and indicative signs and which one the skeptic would chose to honor. The recollective sign is *temporarily non evident*, a sign which has been associated in our observation with the thing signified which remains hidden (e.g., smoke is a recollection of fire). The indicative sign is *naturally non evident*, a sign which signifies its subject by its own nature and constitution (e.g., bodily movements as indication of a soul). Aenesidemus said that recollective *not* indicative sign is the proper subject of philosophy.

### **The Four Guides of Life**

With suspension of judgment towards any appearance of the senses or judgment of reason, one needn't be inactive but may follow Timon's example and find happiness and success among the phenomena of appearances. While engaged in the action of our world, a Pyrrhonian is guided by four realms of life.

1. Guidance of Nature. Nature gives us our primary guidance by the sensory apparatus and rational thought peculiar to our species.
2. Compulsion of Feeling. We are compelled by feelings of hunger and thirst and needs of safety to procure food and drink and defend ourselves, et cetera.
3. Tradition and Custom. Sextus accepts piety as good and impiety as evil, which does not require one to believe in God or go to church in order to take responsibility for the care of your children and parents according to the tradition and custom of your culture.
4. Vocational Arts. One fills one's time by learning the arts and crafts of a profession or activity that develops our interests according to our innate talent(s).

### **The Final Argument**

Although Pyrrhonian skeptics make a point of being open to the consideration of any argument, one may be allowed some doubt when considering the ultimate or final argument of Sextus Empiricus. He said that a skeptic would not be required to agree to an argument even if he could find no fault with it. "When someone propounds to us a theory which we are unable to refute, we say to him in reply 'Just as, before the birth of the

founder of the School to which you belong, the theory it holds was not as yet apparent as a sound theory...so likewise it is possible that the opposite theory to that which you now propound is...not yet apparent to us, so that we ought not as yet yield assent to this theory which at the moment seems to be valid' (PH 1.33-34, Bury)."

## Modern Pyrrhoneans

### **Michel de Montaigne** (1533-1592)

At about the age of forty, the great French essayist and good Catholic Michael Montaigne went through a personal crisis of belief after reading the recently translated works of Sextus Empiricus. He went so far as to carve skeptical concepts on the rafters of his study to preserve and display constant reminders of his newly found reasons for doubt. Montaigne was convinced that the rational thought of humans was nothing special and that the behavior our species, when compared to the natural instincts of other animals, often proved to be inferior. Our use of the so-called rational faculties results in so many cultivated desires that we almost entirely lose track of the natural ones. Misanthropic at moments, Montaigne decried the folly of our species with comments such as: "we are the only animal that covers himself – or has reason to; we are the only animal that is offended at the defects of our fellow creatures; and, if we really wish to be wise we should look to the other animals and know that compared to them we are vain, immoral, pretentious, and stupid."

He also concluded that Pyrrhonian skepticism was instructive for the religions of the world. In the first place, the only reason we are ready to fight and die for our religious beliefs is purely an accident of birth. Christians are Christians because they were born into a Christian home. The same is true for Muslims and Hindus. There are no reasons of the rational mind that can prove one religion is superior to another. Only by emptying the mind, by creating a *tabula rasa* (blank slate) towards our beliefs can we practice our faith properly. Fideism. With the empty mind of the Pyrrhonian, God can imprint anything he chooses, if he chooses to do so. If the mind is cluttered with a lot of dogma, one can neither prove nor disprove the true principles of divinity even if they were made known. Until then, we should do as the Pyrrhoneans advise: follow the guidance of Nature, the compulsion of feeling, honor the traditions and laws, and the arts and crafts of our vocations. With such practices pursued without dogma, we can live in peace with ourselves and our fellow creatures.

Montaigne's skepticism is taken from classical Pyrrhonism, which he believed was the state of rational achievement most compatible with religion. Historically, the term *fideism* designates the Christian doctrine of an exclusive reliance on faith with a rejection of the so-called proofs of science or reason. Fideism undermined the intellectual efforts the Catholic church had been building for centuries by completely separating knowledge and faith. As a movement within the church its origins can be found in pre-scholasticism and renewed again and again by later scholastics such as Duns Scotus, et al. It was commonly found in humanistic writings in an alignment with classical skepticism by the mid-16th century. When Montaigne incorporated it into his life and works is unclear, but he may have begun as the college student of a Paduan fideist. Montaigne's version of fideism is clearly that of the piety of a philosopher, not that of the theologian, and the object of his belief was closer to a reverence for Nature than obedient subservience to an Old Testament God.

Montaigne's essays were and still are of considerable interest in the literate world. His Pyrrhonian skepticism was known to be of great influence to later philosophers, such as Francis Bacon, Descartes, and Pascal. In the *Apology for Raimond Sebond* (p. 501), Montaigne said, "If we can imagine a perpetual confession of ignorance, a judgment without bias or leaning, upon any occasion whatever, we can have a conception of Pyrrhonism." For more than 400 years, scholars have argued whether his Pyrrhonism was used to bolster the cause of Catholicism in the bloody wars of the Protestant Reformation (e.g., if one has no certainty, then follow tradition), or if his intent was to undermine all religious belief in general. There are also those who suggest neither, and that all he really wanted was to point out the folly of our violent wars of dogma when we should be living in peace. Regarding fideism, the Papal Bull, *Unigenitus* of 1713, expressly rejected it.

### **David Hume** (1711-1776)

Despite a strict Calvinist Protestant upbringing, the Scottish philosopher David Hume would live to become widely regarded as the "new Pyrrho" of his day. As a young man, his reputation as a skeptic and antagonist towards religious authority dashed his efforts to get a teaching position at the University of Edinburgh, but fortunately he had an inheritance that allowed him to continue to study, travel, and write.

Before he was thirty he published his first major work, *A Treatise of Human Nature* (1739-40), largely ignored until the 20<sup>th</sup> century when it was finally recognized as a masterpiece. Later, the first book of the *Treatise* became the

more popular work *An Inquiry Concerning Human Understanding*. In it, according to Hume, there are essentially two objects of human reason, only two, and all our reasoning falls into one of the two following categories:

1. Relation of Ideas, which include all relationships of one thing to another in the realm of numbers, such as arithmetic, geometry, and algebra. These relations are certain and take such forms as  $2+3=5$ .
2. Matters of Fact, which includes everything else. All reasoning based upon the relation between cause and effect are matters of fact and arise not from reason itself, but from experience and custom, the foundation of belief.

Hume has little to say about relation of ideas. It's easy to confuse the two categories, because we often intuitively think of the realm of numbers as matters of fact. But all humans think about when not thinking about numbers are matters of fact, and these matters are only beliefs. This is Hume's primary and considerable contribution to the world of philosophy. Again, *matters of fact arise not from reason itself but from experience and custom, the foundation of belief.*

Hume defines perception as whatever is in the mind – as provided by senses, emotions, or thought. He further divides perception into two types: (1) Impressions, which are any perceptions that are *present*; and (2) Ideas, which are any perceptions that are *not present*. When perceptions are present (impressions), they are strongly felt. All perceptions that are ideas are *derived* from impressions and are weakly felt.

Then, in *An Inquiry*, we come to Hume's famous example of what he considers the perfect illustration of cause and effect: "Here is a billiard ball lying on the table, and another ball moving toward it with rapidity. They strike; and the ball which was formerly at rest now acquires a motion. This is as perfect an instance of the relation of cause and effect as any we know either by sensation or reflection."

He then identifies three circumstances for cause and effect to take place:

1. *Contiguity* in time and place of cause to effect.
2. *Priority* in time for a cause to the effect
3. *Constant conjunction* between the cause and the effect in that some object of the cause (motion in the first ball) produces that same object in the effect (motion in the second ball).

What we know, then, is that the cause and the effect must be together in the same place and at the same time, the cause must occur in time prior to

the effect, and there is a continuation of some object of the cause *into* the effect. In the case of billiard balls, motion is the *object* that continues from the first ball, the moving ball, into the second ball, the stationary ball, causing the stationary ball to continue the movement.

At this point, Hume has the insight for which his contribution as a philosopher is secured. The human mind does not *reason* what takes place in the relationship of cause to effect; it is based entirely upon *experience* or custom. If normally functioning persons see the cause and effect of moving billiard balls, or any other example one can imagine, reason does not tell them what effect a moving ball has on a stationary ball. We only know that the stationary ball is going to move after it is struck by the moving ball, *because we have seen or experienced this event happening time and again*. Based on this experience, or experiences similar to this, we *expect* the second ball to move when struck. We can even see it happening in our mind's eye. And, in our anticipation of movement in the second ball, we even come to *believe* it will happen as soon as it is struck:

*It is not anything that reason sees in the cause which makes us infer the effect....all reasoning concerning cause and effect are founded on experience, and that all reasonings from experience are founded on the supposition that the course of nature will continue uniformly the same. We conclude that like causes, in like circumstances, will always produce like effects....It is not, therefore, reason which is the guide of life, but custom. That alone determines the mind in all instances to suppose the future conformable to the past.*

This, then, is Hume's origin of belief: When we see a moving ball about to strike a stationary ball the mind anticipates the customary effect. In our mind's eye we can see the motion of the second ball even before it is struck by the first. We *believe* in the motion of that second ball even before it begins to move, and the experiences we have had with cause and effect is the guide of life and the source of all our beliefs. What he has shown is all objects of the mind, other than Relations of Ideas, are not based upon reason but upon experience leading to belief. We don't have truth; we have belief.

Hume also inspired a continuation of the tradition of Christian skepticism or fideism popularized by Montaigne, Charron, Pascal, and Bayle. Scholars still argue about why he made fideistic comments throughout his writings. Some believe he was attempting to deflect criticism from the Protestant clergy, others believe he was attempting to show his disdain for the foolishness of

religious belief, while still others, such as the philosopher Kierkegaard, were inspired in their religious orientation by the "Great Infidel."

However, he may have intended his skeptical fideism to be understood, as Popkins points out in his introduction to *Dialogues Concerning Natural Religion*. Hume ends his essay, "Of the Immortality of the Soul," by noting because we cannot rely on the ability of reason or the senses we must look to Divine revelation for understanding on such matters as immortality. It should be noted that despite such comments, Boswell confronted Hume on his deathbed and found him to be a Pyrrhonian skeptic to the end.

### **Ludwig Wittgenstein (1889-1951)**

Arguably the greatest philosopher of the twentieth century, Wittgenstein was born into a Viennese family of great wealth and social influence. While studying to be an aeronautical engineer, young Ludwig became attracted to philosophy in a class on the philosophy of pure mathematics. So outstanding was his scholarship that he was encouraged to go to Cambridge where he could study logic with Bertrand Russell. While at Cambridge, he developed close friendships with Russell, as well as Moore, Keynes, and Ramsey, and was clearly destined to rise to their intellectual stature. He had considerable powers of concentration and would leave Cambridge for months at a time to work out solutions to philosophical problems while in splendid isolation in Norway.

There are two primary stages in Wittgenstein's philosophical life, which are marked by his greatest publications, *Tractatus logico-philosophicus* and *Philosophical Investigations*. The logical thoughts of early Wittgenstein are recorded in *Tractatus* (published in 1921), in which he developed a system of logical calculus that purports to find the limits of world, thought, and language. He finished the manuscript in 1920 and believed he had solved all philosophical problems. In *Tractatus* 6.54 he wrote, "My propositions serve as elucidations in the following way: anyone who understands me eventually recognizes them as nonsensical, when he has used them – as steps – to climb up beyond them. (He must, so to speak, throw away the ladder after he has climbed upon it)."

With all problems solved, and having nothing else to do with philosophy, he gave away a considerable part of his personal fortune and became employed at various times as an architect, teacher, and gardener.

After nine years of this life away from philosophy, he was drawn back to Cambridge as the result of discussions with a group of intellectuals known as

the Viennese Circle in their explorations of the philosophy of mathematics and science. While teaching at Cambridge, he wrote his second great work, *Philosophical Investigations* (published posthumously), wherein he turned from the formal logic of *Tractatus* to ordinary language. In this period he rejects dogmatic philosophies, *which included his own earlier work*, and embraced a skeptical attitude towards all pretensions of philosophy.

He believed that dogma existed whenever there was any gap between questions and answers, such that the answers to the questions could only be supplied by further investigations. Instead, he conceived of philosophy not as doctrines but as therapy. *Investigations* proposed looking at language where "the meaning of the word is its use in the language (*PI* 43)." He wrote, "Don't think, look! (*PI* 66)," which does away with investigating the meaning of words in favor of looking to see the context in how the word is used. With such analysis, philosophical problems disappear. And when that happens, the philosopher can stop doing philosophy.

\* \* \* \*



### ***ou mallon***

And with that recommendation from Wittgenstein, we will stop doing philosophy for a time and simply enjoy the following quotations. After consideration of where we have been, where we are, and where we are going, it should not be difficult for the enquirer after philosophy to either embrace the skeptical motto of *ou mallon* and stop, or go back to the tried and true dogma of the Stoa. Read slowly. Meditation upon these quotations of the famous as well as the obscure will likely inspire another level of wisdom you can claim as your own.

It's not the real world; it's a world we made up.  
Oppenheimer (1904-1967)

Man was faced with a universe that was a complete mystery to him. . . . The only way open to him to bring this mysterious universe within his range of understanding and possible manipulation was to explain, as far as it was possible, every natural event in anthropomorphic terms. That is why we find that anthropomorphism is a common trait for all early religions.  
Chennakesavan, p. 4.

[Biblical] Scripture does not explain things by their secondary causes, but only narrates in the order and style which has most power to move men, and especially uneducated men, to devotion. . . . Its object is not to convince reason, but to attract and lay hold of the imagination.  
Spinoza, Ch. 5.

No doubt, myths play an important part in the transmission of religious ideas all over the world. But, due to extraneous considerations and pragmatic advantages if the myth is treated as real . . . therein lies the danger for any religion. That's what has happened to Hinduism.  
Chennakesavan, p. vii.

India and Pakistan . . . are now poised to exterminate one another with nuclear weapons simply because they disagree about 'facts' that are every

bit as fanciful as the names of Santa's reindeer.  
Harris, p. 26.

To reach paradise . . . the [Taoist] adept must pass through three heavenly passes, which are the three gates of the Nine Heavens. Each of these gates is guarded by flying dragons, poisonous beasts, and three thousand giants.  
Kohn, p. 209.

If you are born in the Reviving Hell [one of many Tibetan Buddhist "Hot Hells"], you are harmed only by the other beings born there. These hell beings all have weapons in their hands and are attacking and wounding one another. After being wounded, you swoon; it is as though you were killed, but then, from the sky, a voice says, "Revive," and, as before, all the beings begin attacking and wounding one another again. . . . How many years does a being stay in such a place? If fifty human years were a day, and thirty of these were a month, and twelve of those were a year, five hundred of those years would be a day in this hell, and one would live there 500 years of such days. [My calculation comes to roughly 4,562,500,000 years. EW]  
Zahler and Hopkins, p. 26.

Even fundamentalists live by reason except where his faith is concerned. Tell him that eating yogurt will make you invisible and he will ask for evidence. Tell him the Bible is the infallible word of God and he requires none. . . . the Bible and the Koran both contain mountains of life-destroying gibberish.  
Harris, pp. 19, 23, 65.

The absolutism of religion has been revealed especially in the notion of cosmic war. . . . A satanic enemy cannot be transformed; it can only be destroyed.  
Juergensmeyer, p. 217.

The Lord is a warrior.  
Exodus 15:3.

To me the opinions of mankind....What strange religions, what ferocious moralities, what slavish fashions, what sham interests! I can explain it all

only by saying to myself that intelligence is naturally forthright; it forges ahead; it piles fiction on fiction; and the fact that the dogmatic structure, for the time being, stands and grows, passes for a proof of its rightness.

Santayana, p. 7.

The opinions that are held with passion are always those for which no good ground exist; indeed, the passion is the measure of the holder's lack of rational conviction.

Bertrand Russell, p. 10.

There are men [Academy skeptics], said Epictetus, who will oppose very evident truths, and yet it is not easy to find an argument which may persuade them to alter their opinions. The cause of this is neither the man's own strength nor the weakness of his teacher; but when a man becomes obstinate in error, reason cannot always reach him. . . . Are you certain that you are awake? 'I am not,' replies such a person, 'for neither am I certain when in a dream I seem to myself to be awake.' " Is there no difference, then, between these two appearances?" 'None.' " Shall I argue with this man any longer? What steel or caustic can I apply to make him aware of his paralysis? If he is aware of it, and pretends not to be so, he is even worse than dead.

Epictetus from Arrian, p. 16.

How can you select which philosopher has discovered truth? To know whether or not a philosopher knows the truth, you would have to know the truth. If you don't claim to know the truth, how can you decide? They are all intelligent and industrious, and each one claims to have the truth. You can't rely on a majority of mankind to supply the answer, because as soon as you select one philosopher, then you are rejecting all the others. When you combine all the others that you rejected they become the majority, the majority who say that the one you have chosen is false.

(Paraphrasing Sextus from Hallie, pp. 142-45).

...look at the amount of useless and superfluous matter to be found in the philosophers....They come to envy the philologist and the mathematician, and they have taken over all the inessential elements in those studies – with result that they know more about devoting care and attention to their speech than about devoting such attention to their lives....The Pyrrhonean,

Megarian, Eretrian and Academic schools pursue more or less similar lines; the last named have introduced a new branch of knowledge, non-knowledge....One side offers me no guiding light to direct my vision towards the truth, while the other just gouges out my eyes."

Seneca, pp. 160-61.

It was the fear of illusion that originally disquieted the honest mind, congenitally dogmatic, and drove it in the direction of scepticism...

Santayana, p. 72.

[Sextus Empiricus' challenge to the dogmatist:] "Where is the [universally acceptable] criterion that will help us to make a decisive, conclusive choice between conflicting claims? Bring it forth, or do not speak as if you have made a conclusive choice for all of us.

Hallie, p. 116 fn. 4.

The laws of nature are not eternal, abstract truths...they are patterns that prevail in some chosen content.

Ian Stewart, from Cole, p. 201.

The question whether seeing a color is properly called a sensation or not is relevant to, and has a powerful bearing upon, the problem whether the universe is ultimately governed by an over-ruling Mind or is entirely controlled by blind physical forces....the history of the modern period is the history of the struggle between these two points of view.

Stace, pp. 137, 145.

When systematic knowledge becomes secure to the point that we are confident that it is knowledge as opposed to mere opinion, we are more inclined to call it 'science' and less inclined to call it 'philosophy'. . . . These relations between philosophy and science explain why science is always right and philosophy is always wrong, and why there is never any progress in philosophy. . . . most of the philosophical problems that worried the Greek philosophers – problems about truth, justice, virtue, and the good life, for example – are still with us.

Searle, pp. 157-58.

There are no necessary truths about empirical objects, and David Hume was probably right to argue that no sufficient reasons can be given for inferring the nature of physical objects from sense-perception. Most philosophers today are probably content to concede that the world as perceived may not be the world as it exists in some other relation. If that lands us in dualism it is not perhaps the philosopher's task to resolve the problem. We employ physicists to tell us about the structure of matter.

A. A. Long, p. 87.

You can more or less conclusively settle...[a scientific] theory, but you can't in that way settle the issue about the existence of the real world, because any such settling presupposes the existence of the real world.

Searle, p. 32.

...to this day [Kant's] question how we know that  $7+5=12$  is debated in philosophy lecture rooms. Practically never is its original connection with God, freedom, and immortality pointed out or remembered. The professor treats it as an interesting puzzle....a maze of logical refinements, semantics, and....each separate maze becomes a new puzzle....It is one of the causes why, philosophy, once regarded as the crown of knowledge, gains few students in the universities, and is practically ignored by the general public.

Stace, p. 140.

The opposite of a correct statement is an incorrect one, but the opposite of a profound truth is another profound truth.

Niels Bore from Heisenberg, p. 102.

...the relation between mind and body is similar to that between an ant colony and ants, or between the plot of a novel and the letters of the alphabet. Mind and body are not two components of a duality, but two entirely different concepts drawn from different levels in a hierarchy of descriptions.

Davies, p. 83.

This is typical of philosophical problems that seem insoluble. We are presented with two inconsistent alternatives neither of which it seems

possible to abandon. But, we are told, we must choose one. The history of the subject then becomes a battleground between the two sides....I believe the correct way to solve this problem is to reject both alternatives. Both dualism and materialism rest on a series of false assumptions.

Searle, pp. 49-50.

...the universe is a mind: a self-observing as well as self-organizing, system. Our own minds could then be viewed as localized "islands" of consciousness in a sea of mind, an idea that is reminiscent of the Oriental conception of mysticism, where God is then regarded as the unifying consciousness of all things into which the human mind will be absorbed, losing its individual identity, when it achieves an appropriate level of spiritual advancement.

Davies, p. 210.

The crucial feature of atomic physics is that the human observer is not only necessary to observe the properties of an object, but is necessary even to define these properties....In the words of Heisenberg, 'What we observe is not nature itself, but nature exposed to our method of questioning.'

Capra, p. 140.

The fundamental knowledge attained by Montaigne's skepticism is that what is known...is transformed into an unknown as soon as it becomes an object of reflective contemplation.

from Friedrich, p. 132.

It implies, ultimately that the structures and phenomena we observe in nature are nothing but creations of our measuring and categorizing mind. That this is so is one of the fundamental tenets of Eastern philosophy. The Eastern mystics tell us again and again that all things and events we perceive are creations of the mind, arising from a particular state of consciousness and dissolving again if this state is transcended.

Capra, p. 277.

Heisenberg's remarkable discovery was that there are limits beyond which we cannot measure accurately, at the same time, the processes of nature. These limits are not imposed by the clumsy nature of our measuring devices or the extremely small size of the entities that we attempt to measure, but

rather by the very way that nature presents itself to us. In other words, there exists an ambiguity barrier beyond which we never can pass without venturing into the realm of uncertainty. For this reason, Heisenberg's discovery became known as the 'uncertainty principle.'

Zukav, p. 111.

...quantum theory has prompted many physicists to declare that there is no "objective" reality at all. The only reality is that revealed through our observations. Adopting this view, it is not possible to pronounce a particular theory "right" or "wrong", merely that it is useful or less useful....Such a view, then is diametrically opposite to that of religion, in which the adherent believes in an ultimate truth. A religious proposition is usually regarded as either right or wrong, not as some sort of model of our experiences....As Robert Merton once wrote: 'Most institutions demand unqualified faith, but the institution of science makes scepticism a virtue.'

Davies, p. 219.

It seems evident that the dispute between the skeptics and dogmatists is entirely verbal....No philosophical dogmatist denies that there are difficulties both with regard to the senses and to all science, and that these difficulties are, in a regular, logical method, absolutely insolvable. No skeptic denies that we lie under an absolute necessity, notwithstanding these difficulties, of thinking, and believing, and reasoning, with regard to all kinds of subjects, and even of frequently assenting with confidence and security. The only difference, then, between these sects, if they merit that name, is that the skeptic, from habit, caprice, or inclination, insists most on the difficulties; the dogmatist, for like reasons, on the necessity.

David Hume, from *Dialogues*, pp. 81-82 fn 27.

[Regarding death]. . . if the existent does not perish while remaining in existence, but first passes over into non-existence and then perishes in that state, it is no longer the existent that perishes but the non-existent. This. . . is impossible. And so if neither the existent nor the non-existent perishes, and there is nothing besides these, nothing perishes at all.

Sextus Empiricus from Hallie, p. 119.

^^^

## Addendum

### **Two Kinds of Skeptics**

There are what I call *true* skeptics and there are modern skeptics. The true skeptic is the original skeptic, Pyrrhonian, the open-minded skeptic; whereas, the modern skeptic is the, close-minded skeptic who will not entertain any possibility other than what can be demonstrably “proved” in a laboratory or by the scientific method. There is a considerable difference between the two.

The Pyrrhonian or true skeptic doesn't believe that any phenomena of existence is an accurate or reliable representation of reality, or maybe it is. They don't know or claim to know. However, such a one is willing to experiment, explore, investigate, and continue searching. The modern, or closed skeptic accepts one and only one representation of reality as being true and accurate. That is, whatever current mainstream science says is true. Those scientists who work on the periphery investigating ideas that may not be traditional, tried, and readily verifiable with the scientific method are often discounted and discredited until the new idea gains enough adherents to replace the old.

The Pyrrhonian skeptic is open to any and all possibilities. This could and in my opinion should be the lodestar of all science. The modern skeptic is open to only one possibility: current mainstream scientific dogma. The position of the modern skeptic is exactly the point of view which gave rise to skepticism in the first place: dogma. The modern skeptic is the antithesis of true skeptic.



## Specific References

1. **The Origins of Doubt:** Berryman, pp. 1-6; Cornford, pp. 114, 216-7; Diogenes Laertius; Durant, pp. 26-7; Leshner, pp. 1, 6-7; Long, pp. 34, 78; McEvilley, pp. 37, 158-62; Robinson, p. 96; Wilcox, p. v.
2. **Pyrrho:** Bett (1), pp. 1-12, (2), pp. 1-8; Burnett, pp. 228-231; Flintoff, pp. 88-108; Groarke, pp. 4-8; Hallie, pp. 15-17; Inwood, pp. 285-297; Diogenes Laertius, pp. 475-519; Long, pp. 76-88.
3. **Skepticism in the Academy:** Long, pp. 13, Arcesilaus: Brittain, pp. 3-5; Coplestone, p. 414; Gould, pp. 9, 26; Long, pp. 89-93. Carneades: Allen, pp. 1-6; Coplestone, pp. 414-17; Gould, p. 9; Hallie, pp. 164-64; Long, pp. 94-106; McEvilley, pp. 499-505.
4. **Pyrrho Codified:** Coplestone, pp. ; DL, pp. 493-501; Groarke, pp. 13-20; Hallie, pp. 42-75, 79-127; Thorsrud, pp. 13-18
5. **Modern Pyrrhoneans:** Montaigne: *The Essays of Montaigne*, vol. 1, "Apology for Raimond Sebond," trans. E. J. Trechmann, pp. 455-561; Routledge Encyclopedia of Philosophy, pp. 485-489; Hume: from *An Inquiry Concerning Human Understanding*, ed. By Charles W. Hendel, The Library of Liberal Arts, Bobbs- Merrill Company, Inc., Indianapolis, 1955., pp. 40-41, 185-98; & *Dialogues Concerning Natural Religion*, Hackett Publishing, Indianapolis, 1988., pp. Vi-xviii; Wittgenstein: *Tractatus logico-philosophicus*, pp. ; Biletzki, Anat: *Ludwig Wittgenstein*, Stanford Encyclopedia of Philosophy, 2002.
6. **ou mallon:**

Arrian, *Discourses of Epictetus*, trans. T. Higginson, Walter J. Black, Inc., New York, 1944.

Capra, Fritjof, *The Tao of Physics*, Shambhala, Boston, 1991.

Chennakesavan, Sarasvati, *A Critical Study of Hinduism*, Motilal Banarsidass, 1980.

Cole, K. C., *The Universe and the Teacup: The Mathematics of Truth and Beauty*, Harcourt, Brace, & Co., NY, 1998.

Davies, Paul, *God and the New Physics*, Simon & Schuster, New York, 1983.

God, *The New English Bible*, Oxford University Press, 1970.

Hadot, P., *The Inner Citadel*, trans. M. Chase (Harvard, 1998) p. 308

Hallie, P., *Sextus Empiricus, Scepticism, Man, and God*, ed., notes, and intro. by P. Hallie, trans. S. Etheridge, Wesleyan University Press, 1964.

Harris, Sam, *The End of Faith*,

Heisenberg, Werner, *Physics and Beyond: Encounters and Conversations*,

- Harper & Row, New York, 1971, p. 102. Hume, David, *Dialogues Concerning Natural Religion*, Hackett Publishing, Indianapolis, 1988.
- Juergensmeyer, Mark, *Terror in the Mind of God*, University of California Press, Berkeley, 2000.
- Kohn, Livia, *The Taoist Mystical Philosophy*, SUNY Press, NY, 1991.
- Long, A. A., *Hellenistic Philosophy*, 2<sup>nd</sup> ed., University of California Press, Berkeley, 1986.
- McTaggart, Lynne, *The Field*, HarperCollins Publishers, New York, NY, 2002.
- Russell, Bertrand, *Sceptical Essays*.
- Santayana, George, *Scepticism and Animal Faith*, Dover Publications, Inc., New York, 1955.
- Searle, John R., *Mind, Language, and Society*, Basic Books, New York, 1999.
- Seneca, *Letters from a Stoic*, Penguin Classics, Middlesex, England, 1977.
- Spinoza, Benedictus, *Tractatus Theologico-Politicus*,
- Stace, Walter T., *Religion and the Modern Mind*, J. B. Lippincott, Philadelphia and NY, 1952.
- Talbot, Michael, *The Holographic Universe*, HarperCollins Publishers, New York, NY, 1991.
- Wittgenstein, Ludwig, *Tractatus logico-philosophicus* , transl. By Pears and McGuinness, Routledge, London and NY, 1995.
- Zalor and Hopkins, *Meditative Studies in Tibetan Buddhism*, Wisdom Publications, London, 1983.
- Zukav, Gary, *The Dancing Wu Li Masters*, Bantam Books, New York, 1980.

\* \*

## General Bibliography

- Arrian, *Discourses of Epictetus*, trans. T. Higginson, Walter J. Black, Inc., New York, 1944.
- Berryman, Sylvia, *Democritus*, Stanford Encyclopedia of Philosophy, 2004.
- Bett, Richard, 1. *Pyrrho*, Stanford Encyclopedia of Philosophy, 2002.
- Bett, Richard, 2. *Timon of Phlius*, Stanford Encyclopedia of Philosophy, 2002.
- Biletzki, Anat, *Ludwig Wittgenstein*, Stanford Encyclopedia of Philosophy, 2002.
- Burnet, John, *Skeptics*, Encyclopedia of Religion and Ethics, vol. 11.
- Capra, Fritjof, *The Tao of Physics*, Shambhala, Boston, 1991.
- Cicero, Marcus Tullius, *Academia, Book I*, trans. H. Rackham, Harvard University Press, Cambridge, MA, 1967.
- Chennakesavan, S., *A Critical Study of Hinduism* Shri Jainendra Press, 1980.

- Cole, K. C., *The Universe and the Teacup: The Mathematics of Truth and Beauty*, Harcourt, Brace, & Co., New York, 1998.
- Coplestone, Frederick, *A History of Philosophy*, Vol. 1, Image Books, Doubleday Dell Publishing Group, Inc., New York, 1962-63.
- Davies, Paul, *God and the New Physics*, Simon & Schuster, New York, 1983.
- Diogenes Laertius, *Lives of Eminent Philosophers*, trans. By R. Hicks, Loeb Classical Library, Harvard University Press, Cambridge, MA, 1991.
- Durant, Will, *The Story of Philosophy*, Simon and Schuster, New York, 1953.
- Flintoff, Everard, *Pyrrho and India*, *Phronesis* #25, pp. 88-108.
- Friedrich, Hugo, *Montaigne*, trans. By Dawn Eng, ed. By Philippe Desan, University of California Press, Berkeley, 1991.
- Groarke, Leo, *Ancient Skepticism*, *Stanford Encyclopedia of Philosophy*, 2003.
- Hallie, P., *Sextus Empiricus, Scepticism, Man, and God*, ed., notes, and intro. By P Hallie, trans. S. Etheridge, Wesleyan University Press, Conn., 1964.
- Harris, E., *Cosmos and Anthropos* (Humanities Press International, 1991).
- Heisenberg, Werner, *Physics and Beyond: Encounters and Conversations*, Harper & Row, New York, 1971, p. 102.
- Hume, David, *An Inquiry Concerning Human Understanding*, ed. By Charles W. Hendel, The Library of Liberal Arts, Bobbs- Merrill Company, Inc., Indianapolis, 1955.
- Hume, David, *An Inquiry Concerning the Principles of Morals*, ed. By Charles W. Hendel, The Library of Liberal Arts, Bobbs- Merrill Company, Inc., Indianapolis, 1957.
- Hume, David, *Dialogues Concerning Natural Religion*, Hackett Publishing, Indianapolis, 1988.
- Inwood, B., and Gerson, L., *Hellenistic Philosophy*, 2<sup>nd</sup> ed., Indianapolis, 1997.
- Leshner, James, *Xenophanes*, *Stanford Encyclopedia of Philosophy*, 2002.
- Long, A. A., *Hellenistic Philosophy*, 2<sup>nd</sup> ed., University of California Press, Berkeley, 1986.
- McEvilley, Thomas, *The Shape of Ancient Thought*, Allworth Press, New York, NY, 2002.
- Montaigne, Michael, *The Essays of Montaigne*, vol. 1, "Apology for Raimond Sebond," trans. E. J. Trechmann, pp.- 455-561.
- Klein, Peter, *Skepticism*, *Stanford Encyclopedia of Philosophy*, 2001.
- Peirce, Charles S., *Values in a Universe of Chance*, ed. By Phillip Wiener, Doubleday Anchor Books, New York, 1958.
- Rist, John M., "The Heracliteanism of Aenesidemus," *Phoenix* XXIV (1970), pp. 309-319.
- Routledge Encyclopedia of Philosophy, Montaigne, Skepticism, Hume,*

*Pyrrhonism.*

- Santayana, George, *Scepticism and Animal Faith*, Dover Publications, Inc., New York, 1955.
- Searle, John R., *Mind, Language, and Society*, Basic Books, New York, 1999.
- Seneca, *Letters from a Stoic*, Penguin Classics, Middlesex, England, 1977.
- Shlain, Leonard, *Art & Physics: Parallel Visions in Space, Time, & Light*, William Morrow and Company, Inc., New York, 1991.
- Spinoza, B., *The Road to Inner Freedom*, "The Ethics of Spinoza," Ed., D. Runes, (Citadel, 1957).
- Thornton, Stephan, *Solipsism and the Problem of Other Minds*, Internet Encyclopedia of Philosophy, 2001.
- Thorsrud, Harold, *Ancient Greek Skepticism*, Internet Encyclopedia of Philosophy, 2004.
- Wilcox, J., *The Origins of Epistemology in Early Greek Thought: a Study of Psyche and Logos in Heraclitus*, Edwin Mellon Press, Lewiston, NY, 1994.
- Wittgenstein, Ludwig, *Tractatus logico-philosophicus*, transl. By Pears and McGuinness, Routledge, London and NY, 1995.
- Zukav, Gary, *The Dancing Wu Li Masters*, Bantam Books, New York, 1980.

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