



VI. Heraclitus and the Metaphysical Tradition (1967)

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Recording of May 10, 1967

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HERACLITUS AND THE METAPHYSICAL TRADITION

Today, I wish to speak about Heraclitus of Ephesus and I am trembling. Because he is such a forbidding figure. He wrote one book, and what we have left of this book are fragments, pieces taken out of other people's texts; and we are forced to ask the question, how come so little is left¹. Heraclitus was a strange Greek. He did not believe in freedom, which was very rare in Greece. He was a tyrant himself -- a tyrannical nature. We cannot approach him with love, there is nothing in him that is lovable, nothing at all. He was a hard, cold, forbidding figure, and that was how he conducted his life. He made himself hated by everyone and he hated everyone. Why was he forced to do that? He had a vision of the world, a metaphysical vision, which became, much later, very fruitful for the whole development of science and philosophy in Europe. The Greeks -- his co-citizens in Ephesus -- not only killed him; they drove him into the temple of Diana, where he had to starve to death. No one could kill him in that district, but no one could bring him food. And there he finally ended his life the way he had begun it, detached from everyone and everything. On the world, and on the things of the world, he had thrown a cold eye; and on his fellow human beings as well.

It is natural enough that very few Greek philosophers followed him. They called him the dark one, the obscure one, but we have seen since he was resurrected in the nineteenth century that he is by no means dark, that he is by no means obscure. He created, like the philosophers that preceded him, a view of the cosmos as a well ordered universe, but he did it in such a way that there was not a bit of consistency in it, and the Greeks just hated that view. They were afraid of him, and that is why they neglected him, and by this neglect the tremendous house that he had built disintegrated, and we are left only with these few pieces. We could perhaps say that

¹ As to the nature of this book, Diogenes Laertius writes "it is a concise treatise On Nature, but is divided into three discourses, one on the universe, another on politics, and a third on theology. This book he deposited in the temple of Artemis and, according to some, he deliberately made it the more obscure in order that none but adepts should approach it, and lest familiarity should breed contempt." Diogenes Laertius, Lives Of The Eminent Philosophers, Loeb Classical Library, Harvard, pp. 413.

Anaxagoras was really the only one who followed him, but he had to replace Heraclitus' principle of "the logos," with his own principle of "the nous". All of the others were his enemies. The philosophic and poetic situation in Greece at this time was ruled by Homer. Poetry had created the first world view of the cosmos for the Greeks. It was a very optimistic worldview. And then this man turns up who offends everyone, who claims to hate, not only Homer: I said, he hated all men. He hated Homer especially. Xenophanes, and later Plato, attack Homer because of his theological views. They didn't want the gods to be as immoral as Homer had portrayed them. But Heraclitus speaks of Homer in terms that would have insulted him. Homer was the God of the Greeks, everyone was educated by Homer and they loved him. Much later, old philosophers like Socrates will still say

"The youth love lyric poetry and when they grow into men they love dramatic poetry and tragedy, but we old men still turn back to Hesiod and Homer, because there is so much more in them."

Heraclitus rejected that absolutely. He speaks mockingly about Hesiod and Homer. He asks us to look at them, those heroes of the Greeks, they did not even know that "All is One" and yet they call themselves wise². What he did was to create in opposition to Homer the first great work of Greek prose. Poetry confronted by prose.

He was such a sober man. From where we stand today, we would say that he wanted to look at the world scientifically, and so he had to hate poetry. He not only hated myths, he was one of the greatest smashers of mythical thinking that ever lived. Listen to him, as he speaks of the Greeks as drunkards,

"vainly purifying themselves by defiling themselves with blood just as if one had stepped into the mud, and then were to wash his feet in mud. Any man who marked him doing thus would deem him mad."³

and,

"They pray to these images, as if one were to talk with a man's house, knowing not what gods or heroes are, but Hades is the same as Dionysus in whose honour they go mad and rave."⁴

He invented a kind of prose that is greater, even in the leftovers than the other great Greek prose written by Thucydides. It is so hard, so cold, it could almost be called, although he was not a Spartan, laconic. Statement after statement apparently well-joined in the original, and yet cold like Greek marble, a wonderful and masterful prose. In this sense, these few pieces are like

² In connection with the poets Heraclitus writes "for what thought or wisdom have they(citizens of Ephesus). They follow the poets and take the crowd as their teacher, knowing not that there are many bad and few good. For even the best of them choose one thing above others, immortal glory among mortals, while most of them are gluttoned like beasts." from, John Burnett, Early Greek Philosophy, pp.140

³ *ibid*, pp. 141.

⁴ *ibid*, pp. 141.

a Greek temple that has fallen down and been completely destroyed, and in these fragments we still can find the image of the whole. Then we see the internal style, and we can reconstruct him to a certain degree, because all of the main elements are still there.

Not only did he hate myths, he hated those he considered to be the contrivers of myths, namely poets.⁵ For him, these are old wives' tales they told to each other and to the people; he wanted the truth, and nothing but the truth, and for that only did he lead his life. It is a model of utter detachment--from human beings, from gods, from everything. If we consider a modern scientist, who tries to be objective and who lives an objective and detached life because he has to, he is nothing compared to Heraclitus. The phantasm [sic] of detachment becomes visible, metaphysically paving the way for this great capability of man, and for the existence of the whole line of scientists. Only, in science it is but a partial capability, and this is as it should be. Heraclitus was this capability completely. He was, so to speak, a victim of his vision. The capability of scientific thinking requires that we do, although we cannot succeed completely, our utmost to be as objective and as detached from the object of knowledge as is humanly possible. Heraclitus was almost superhuman in that he achieved this perfectly.

For an idea.

He has a vision of the cosmos and he has to present that vision, and then he leaves this book and dies. Arrogant! He is the most intellectually arrogant figure that I have ever seen in all of world history. He is also the bravest, because he had a new world vision and he denied everyone and everything the right to talk down to him, He wrote,

"fools when they do not hear, are like the deaf; of them does the saying bear witness that they are absent when present."⁶

I hear an echo, in the nineteenth century, Nietzsche. Zarathustra says,

"I do not write for idiots; those who cannot try to understand me shall better be blinded by my wisdom."⁷

An aristocratic, a haughty Position. It stems from Heraclitus. Although we have only a few political sayings left, we can very well conclude that his original conflict with his co-citizens was

⁵ Diogenes speaks of Heraclitus as having become "a hater of his kind" (pp.411), and in one of the fragments he says "Homer should be turned out of the lists and whipped, and Archilochos likewise." (in Burnett, pp. 141). [*This footnote is not placed in the text, but is included at the bottom of the page. I have assumed that it was written in reference to this sentence. -Ed.*]

⁶ Quoted in Burnett, p. 133.

⁷ The Kaufmann translation of the entire passage from Zarathustra is "my wisdom has long gathered like a cloud; it is becoming stiller and darker. Thus does every wisdom that is yet to give birth to lightning bolts. For these men of today I do not wish to be "light", or to be called light. These I wish to blind. Lightning of my wisdom! put out their eyes." The Portable Nietzsche, translated and edited by Walter Kaufmann, Viking Press, 1954, 68, pp. 401.

that he was logically obliged to erect a tyranny.⁸ He was anti-democratic as we have never seen anyone in Greece being an anti-democrat, out of principle.⁹ Because he only knew he was right, he only knew the truth, and nobody else. He was not a politician, but he was mixed up in politics, and that is the root of the hatred against him. He withdrew from politics, because he had more things to say.

The cosmos of Homer and of all the other Greek thinkers, however it is explained, whatever principle they find, whether it be Anaxagoras' nous, or Aristotle's Unmoved Mover, they all move away from the principle Heraclitus presented, and that was the principle of the logos. We know today what we owe to him. We owe to him the invention of a principle that makes scientific work and the scientific mind possible. There wasn't any such principle before him. Earlier, Thales is credited with starting science by a hypothesis, saying "All is water." Then Anaximenes said "All is air." They were looking at the world without any beliefs, and they wanted to find out its basic material. Then comes Heraclitus, and he says "fire." And he doesn't mean the whole world "is" fire, he doesn't mean the element, because he tells us that fire will change into water, and water will change into fire, and the earth will change into both fire and water. Here we see for the first time a vision of the possibility of interchanging elements. We have today discovered many more elements since that time. The alchemists used Heraclitus for many centuries because they wanted to make gold. Today we can make gold, only it is too costly. Since we have atomic science, we can indeed change every element that exists in matter into another element. We have only to rearrange the atoms. That was a far look ahead, when he talked about the interchangeability of the elements.

What did he mean by fire? Fire was a symbol for him; the symbol of process. Something is going on, something is changing, which is especially visible in fire. The "essence" of this change is what he was after. He paints a world that is in constant, permanent change. A world which is eternally torn apart by strife, and in which the "unity of opposites" that are created, are once more torn apart; a very wild cosmos indeed. (And it is through the apprehension of the logos that one comes to understand the "essence" of this change)* [* We have paraphrased this and included it at this point since we felt it necessary as a point of clarification.], for his main principle is still the logos.

It will be a long time until finally, in Christianity, there will appear the incarnation of the logos, which is supposed to be Christ. The logos of Heraclitus has nothing whatsoever to do with Christ. It isn't Jehovah either. He speaks only cold-bloodedly about what we would call today, the growing "God" consciousness of man. He is only concerned with the growing world consciousness of man. Here he follows Homer without knowing it, because for Homer the

⁸ According to Diogenes the Ephesians requested Heraclitus to make laws for them, but he "scorned their request, because the state was already in the grip of a bad constitution" See Lives Of Eminent Philosophers, pp. 411.

⁹ Compare to the quotation "To god all things are beautiful and good and just, but men have supposed some things to be just, and others unjust" and similar fragments. The Pre-Socratic Philosophers, G.S. Kirk and J.E. Raven, Cambridge, 1966, pp. 193. This contains a fairly complete translation and analysis of the existing fragments.

cosmos "was" God. The "gods" were only "in" the cosmos; the cosmos itself, and its laws, namely "moyra", fate, and necessity, were the real "God". Heraclitus, although he would have hated the idea, followed Homer in this respect, because his logos is a principle which is beyond the world, and yet which works into the world. This principle is, for us, a symbol of the irresistibility of the human intellect. If he says logos, I would say intellect, because he describes to us as logos only the intellect and nothing else. There is no other world but the "intellectual" world that can be conceived of by a man who applies no other laws and has no other concerns than the strict necessity of happenings. Here this ancient metaphysician really paves the way for science. For if the scientist cannot pause, nor be interested in anything but the how, "how" it happens, can neglect the what, and does not answer the why, then he can indeed proceed to "investigate" nature, and directly.

Heraclitus established this. When he had said "Listen not to me, but to the logos," he meant to tell us that there is nothing in the world that happens accidentally. All things are necessary. The world can be understood completely if we understand its law. It is the first great idea of the possibilities of natural law, and every scientist must accept the metaphysical assumption that we come to know the world only by the logical organization of natural laws and human laws. Heraclitus paved the way for them, even though in the strict sense he is not a scientist himself since he neglects direct knowledge. He wants to make knowledge possible, and nothing but knowledge. He isn't talking about wisdom either, because that doesn't exist for him. He wants just one ironclad law of necessity, by which we can explain everything, and so the dream of science starts here. We can explain everything with the help of the logos; the logos, so to speak is his God. He said,

"the wise (logos) is only one. It is unwilling and willing to be called by the name of Zeus."¹⁰

In other words, it does not matter what you call this principle. You can call it Zeus, or logos, "it" doesn't care. Of all the Greek gods, he recognizes only Zeus, and he uses it as a sort of pseudonym for logos. Pantheistically speaking, this can only mean that he really believes the world is full of "the spirit of intellect." Everything is ruled by the "absolute intellect", which we cannot achieve, but within which our own intellects infinitely expand. It can expand itself, it is self-increasing. Here he draws a sharp line. The unity of (All "as" One) which is given in the idea of the absolute logos that rules within the world but is outside of the world; who as Zeus, rules the world "as" a thunderbolt, sending lightning into the world, and creates mixtures out of the elements; this logos is both One and Many, therefore the world itself partakes "of" the logos to different degrees. The degrees are important. If we think of the logos which rules nature in the form of intellect, as "spirit", "geist", then that would mean that the world is spiritual through and through. Spirit works in everything, even in the lowest thing let alone in man, and it is absolute in God, or what he would call God. This is a dualistic world view which has been made monistic by putting matter and spirit together. He sees them as One, spirit working through matter and ruling matter (matter, the vessel of spirit, being infinitely shaped and molded by it).

¹⁰ In Burnet, pp. 138.

Where did we hear that? I heard it last in the nineteenth century when Hegel wrote his philosophy, and Hegel called his God, whom he wanted to view as a Hebrew and Christian God, the World Spirit. According to Hegel, the World Spirit works in the world and through the world; he learned all that from Heraclitus. Because the idea of the logos, as Heraclitus presents it to us, is already the idea of the World Spirit and the World Spirit in permanent action. It might be that the Greeks in their inability to follow Heraclitus did not like a permanently disturbed cosmos. He was the only Greek who ever said in a very modern way that the cosmos is nothing but a round phenomenon of infinite action. It is a dynamic cosmos, a bundle of "energies" that from a strict logical continuity change into each other, closed and yet infinite.¹¹ But the universe is different from the cosmos. The universe is just a phenomenon, while the cosmos is a "well ordered" phenomenon, and if you have a well ordered cosmos, then you must give account of the order in it. That was the idea of Heraclitus, to give account of the order. Nothing happens accidentally; you only have to understand the one law from which everything is derived, and that is the law of the unity of opposites. The world is an eternal fire, ruled by movement, by dynamics, and the law of dynamics is that there shall never be an end to strife. "War makes kings, makes Gods" he says mockingly. Gods are made by wars? He is only too right. The unity of opposites is indicated in every phenomenon he observes, and it was this discovery of the unity "in" all things that he thought he could teach us. That unity is founded upon the logicity of every happening in the world; Spirit (logos) is in everything and therefore nothing can be accidental, nothing can be taken out of context, everything is in eternal flux. And in the final analysis, that means process. Ever since Hegel in the nineteenth century all of our scientists and philosophers have started to think in terms of process. It all originated with Heraclitus. We can envision a world of constant logical change, because he tells us that we "are" logos, and yet as logos we are different from the logos of other things; for of all phenomena in the universe the intellect, or soul of man is the most difficult to comprehend. He says,

"You would not find out the boundaries of the soul, even by traveling every path: so deep a measure does it have."¹²

We will never understand the logos of the human soul, so deep are these logos, for it is infinite and permanently growing. And if we look at the development of the sciences, where every day something new is added and almost every four weeks a new science is made possible, then we must conclude that indeed, he was right, our knowledge of man is permanently growing.

¹¹ The apparent contradiction between the notions of a closed, and yet infinite universe is resolved by the fact that what is meant here by "infinity" is not spatial, ie, (geometric) infinity, which was a notion quite foreign to the Greeks in so far as their entire mathematics was grounded in perceptual (Euclidean) space, but rather infinite "knowledge", ie, our "knowledge" is self-increasing in an infinite sense, as distinct from a "finite space". The most seminal minds of antiquity were terrified by the notion of spatial infinity, and if we are to believe the parable of the Pythagoreans concerning the discovery of incommensurable magnitudes, which is a problem that can only be solved with the introduction of irrational numbers, or Plato's recounting of Zeno's paradoxes in the Paramenides, we see the negation of their universe.

¹² Quoted from Presocratic Philosophers, pp. 205.

Unfortunately, the other parts of our mind are not growing as fast as science. The intellect has outrun us, and science has been triumphant, because of, or thanks to, Heraclitus.

I have said the Greeks never followed him. His words were preserved for many centuries in the writings of other men, and then, in the seventeenth century, something very strange happened. If you read the whole system of Spinoza, it is nothing but the changed system of Heraclitus. Only in Spinoza's "Substance", Spirit and matter are united, whereas in Heraclitus they "act" through one another. In Spinoza's system "Natura naturans" means, according to the theologians, that he is an atheist. He means "Natura"; nature "is" God. He did not separate God from either nature or the world, and that made for the strange and strict logicity of his system. Nothing can be said against it, once you have accepted his initial assumptions. Even in Descartes, and then much later in Leibnitz, one sees the use of this method, and then suddenly in the nineteenth century, Heraclitus is resurrected and Hegel, Marx, and Nietzsche all become fanatical Heracliteans. It is wondrous, almost mystical, how these few fragments could be neglected for so long and then become so modern. They all needed process thinking, Hegel especially needed process thinking, and who could be better to go back to in order to learn to think by process.

Of course, they meant by process of "evolution", which is quite another thing. Heraclitus would never have agreed to that, because he did not have any idea of "evolution", or even of a (spatially) infinite universe for that matter. They took his notion of process, and applied it in their own way, and they wanted to give this process a name, so they called it "evolution". That means that the whole process leads to something. In Heraclitus the whole process of the cosmos leads to absolutely nothing. Except more development of energy, more quarrel, more strife, and that seems to have been his greatest joy.

Strangely enough, a non-scientific philosopher will draw the same conclusion, and that is Friedrich Nietzsche, for when he speaks about Dionysus who is the world, then he is a strict Heraclitean. To Heraclitus, the growing consciousness of the world, the growing world itself, is the only aim. There is no other aim that makes the whole thing finally, a bit grotesque. Doesn't it?

If we were to buttonhole him as Socrates surely would have, and said to him "Heraclitus, you say you know what truth is; will you please explain it to me? You have claimed to grasp an absolute principle, and wish to create a system of deduction from a principle which you in fact do not have, which is only in your dreams." And in his spirit, which today is our own, we might ask of him further, "Yes Heraclitus, that is all very nice. You have paved the way for science, have answered the question what and the question how, but what about the question why? You did not answer the question why, and you have cursed all science and all of the scientific striving of man in that we will never be able to answer the question "why"; what is the meaning of it?" The world can be full of "sense", what Heraclitus describes makes perfect "sense", but there is no meaning to it. It leads nowhere; it leads only to the enlargement of itself. In order to answer the question "why" we must be able to put more "into" the world than logic. Logic makes

only sense; logic has no meaning.¹³ Logic is nothing but the capacity of man to relate facts to one another in a deductive chain. It was this that Heraclitus was primarily interested in. The cosmos must be ordered, and once this has been achieved the principle of order must be found, and that is the logos. But what about human beings? Are we to think of ourselves as mere objects that have a self increasing logos, or are some of us sometimes irrational? This type of speculation enables us to make a living. It does not enable us to make a life. Heraclitus's thought is, in that sense, a strict metaphysics of science. He is interested in nothing but the "rays", the infinite "rays" of knowledge, as far as he can go. When he speaks to us of his principle, and he tells us we can call it logos, or we can call it Zeus, he is making only agnostic statements, but when he tries to speak of the logos as God, then he answers the question "why." Why is all of this going on, Heraclitus, why all of this movement, all of this endless change? He says,

"time (Zeus) is like the world child."¹⁴

World child! We hear it again with Friedrich Nietzsche,

"Dionysus is like the world child"

Or perhaps as Hegel might have said, "he" is like the World Spirit. Zeus is like the world child.

He is playing!

And that is the answer to the question "why". He is playing, for his own amusement, and no other reason, or account, or meaning is required, because according to Heraclitus we are supposed to enjoy this permanent increase of knowledge, and therein lies his greatness. We are even supposed to enjoy strife. Nietzsche, who repaid his debt to Heraclitus only by honoring him as a great philosopher, did not really "recognize" him for the very simple reason that he was stealing from him.¹⁵ That is very often the case with philosophers, they are unreliable. They have perhaps read something by someone else, and they present it in another form, and then say it is "my idea". A scientist is never permitted to do that; he would be recognized immediately as a charlatan, but apparently, philosophers can afford that.

Nietzsche said, as if he wanted to perfect Heraclitus, that the meaning of existence, of life, of all things, (the true giver of the "law")* was the "will to power". The idea that various actions have various effects, that what is strong must overcome what is weak, that we must measure the

¹³ "We feel that even when all possible scientific questions have been answered, the problems of life remain untouched", Ludwig Wittgenstein, Tractatus Logico-Philosophicus, pp. 149. However when Wittgenstein adds, "Of course there are then no questions left (that make only "sense"), and this itself is the answer." We do not think Heinrich would have agreed.

¹⁴ The actual fragment in Burnet reads "Time is a child playing draughts, the kingly power is a child's", pp. 139.

¹⁵ In Kaufmann's translation of Genealogy Of Morals, second essay, Nietzsche says "From now on, man is included among the most unexpected and exciting lucky throws in the dice game of Heraclitus, "great child", be he called Zeus or chance", pp. 85, Vintage Books, 1967.

effects of all actions in terms of quantities of power, is merely an objective observation of what really takes place in the modern world. Nietzsche was not a scientist. He was only the prophet of modern science. All the philosophers that came after him, the pragmatists, the "neo-empiricists", all the functionalists who describe "how" things work, and who are interested primarily in operational modes of thought; all of this Nietzsche prophesied. It is all scientific talk, and all very good, step by step knowledge enlarges itself, and metaphysically, the last philosopher who encouraged them as much as Heraclitus encouraged his contemporaries, was Nietzsche. The will to power for him is the God of the world, and this he symbolizes with Dionysus. He is the last and most consequential Heraclitean we have ever seen.

With Heraclitus then, began one of the two metaphysical trends which have from antiquity ruled the mind of western man. The first trend, a religious one, begins with the Hebrew prophets, and continues, via Christianity, through scholasticism, through the Reformation, and finally is transformed into the strictest rational theology where it holds claim to the belief that man is evolving toward an ever-increasing knowledge about God. The second trend, starting with Heraclitus, passes through Descartes, Spinoza, Leibnitz, up to Hegel, where both trends cross, and finally to Nietzsche and Marx. Both have a strange ideal, and it is really the ideal of the scientist. The theologians say they want to know God, and that is acceptable insofar as it is an expression of a belief that is revealing itself. (But they do not stop there.)* They say they want to know his will, and they want to follow his will, that is, they want to know an absolute. And the scientific metaphysicians also want to know an absolute, and that absolute is called Being.¹⁶ All that "is", the whole of "Being" can be studied metaphysically as ontology so in a way theology and ontology are sisters under the skin. They both claim that it is possible to know an absolute principle, either "Being" from a scientific point of view, or from a theological point of view, the living God, as Pascal was to emphasize. The God of the philosophers, of Spinoza, is not a "living" God, any more than the God of Heraclitus is. One cannot establish any sympathy, or

¹⁶ This is perhaps the most important point made in the entire lecture, for it is by no means obvious that the "project", or "intent" of science, is the ascertainment of the whole of Being as such. Most scientific philosophers especially contemporary scientific philosophers would flatly deny this, but the fact remains that science is "conducted and practiced" as if "Being" was being revealed, and one need only speak with a few scientists in any field to see the extent to which they believe in the ontological reality, and significance of their mission. No amount of "philosophical skepticism" can shake this belief, indeed the method itself, explicitly prevents any such skepticism from disrupting the normal routine of scientific inquiry. This is amply demonstrated by the one branch of modern physics that has hitherto failed to provide a consistent and unassailable picture of reality free from contradictions. We are speaking about the quantum theory, where paradoxes still exist. That such paradoxes arise, the moment we must distinguish between a "system" as such, and our "knowledge of the system", means that such a distinction weakens, and can even be used to justify arguments that deny the ontological reality of Being or the belief that science is actually "isomorphic" with, a kind of "ding an sich". It is such a dissatisfaction that has stimulated some contemporary physicists to seek a kind of "ontological proof" where the "being", or "reality" of all quantum mechanical systems is guaranteed against any form of subjectivism (see the work of Everett and Wheeler at Princeton in the last two decades). That such subjectivism actually owes its origin to Kant further explains the great hostility to any form of Kantianism or neo Kantianism in modern scientific philosophy.

human relationship, with such a God. One could not pray to the logos, because it would be of no use. One can only follow the logos. It was the Hebrews who established the principle of an absolute transcendent God, whom with Aristotle, would become the Unmoved Mover. Here the two metaphysical tendencies cross, then for centuries they will part again allowing a clear development of religious and scientific metaphysics, and then finally, today, we see once again an attempt to reconcile them. Theologians will say today that scientists are so useful and that they must learn to live with them in society, because everything has become functionalized. They do not even talk about God any more. They talk about a great many things but not about God. If you talk to any of them, even a serious one like Paul Tillich, and say "But Paul, don't make competition for me. You talk about symbols and ideas and you tell me how everything is symbolic and an idea of something, and in all of this I am competent, but you, I expect that you should believe in God!" And so in a way the scientists and theologians are trying to unite their methods. As to metaphysics, I see a strange similarity of method in deducing the divinity of God in a theological way, and in the deductive methods of the scientist. That such a similarity exists is no accident. When the scientists came to maturity in the Renaissance, and wanted to create a real method of scientific inquiry, the first such attempt since the Greeks, they claimed to represent an absolutely new phenomenon based on a new approach to the world, the scientific approach. No theologian countered them by pointing out that the methods they used had been created by the theologians, that "they" were the first rationalists, and it was "they" who developed logic and mathematics up to that time. Descartes, who claimed to be in opposition to the medieval philosophers without knowing how many of their arguments he used, had even studied theology first. Theology is an abstract science with only one assumption: the existence of God. It is like mathematics¹⁷; if one accepts an initial few assumptions, one can, by deduction, create a mathematical system. If one accepts another few initial assumptions, one can have another mathematical system¹⁸, closed in itself, completely logical, and indestructible. Theology created the model of this method of deduction. If one assumes the "assumption" of God, then everything else follows deductively as a matter of course. What we have shown is that scientific and theological "metaphysics" have something in common, however "science" itself is quite another matter, where every science "must" refrain from making assumptions of an absolute nature. Scientists, like Karl Marx, who claim to know an absolute and begin to make deductions from that absolute have only contributed to the superstition of our time, just as

¹⁷ Actually it is more like formal logic where such propositions as "if Kant is virtuous, then the sea is salt" are dealt with all the time.

¹⁸ This is not entirely correct, for there are transformation rules that allow us to get from one mathematical system to another, and in fact, the main problem of modern mathematics as outlined by Felix Klein in his famous "Erlanger Programm" is to show that various mathematical structures, ie, "groups" are invariant (possess uniform properties) when such transformations are applied. For instance it is possible to show that $2+4=1$ by applying the Gauss transformation to the integers, to obtain the congruence integers modulo 5, whereby we define two integers to be congruent modulo five if their difference is divisible by 5. Since the operations of addition and multiplication are "invariant" with respect to the above operation, clearly $2+4=1$ (modulo 5). This does not of course mean that $2+4=1$ is "always" true, but rather, when certain transformations are applied to the real number system, the various algebraic operations that can be performed on the resulting "set" yield different values. See in this respect, Hermann Weyl, Philosophy Of Mathematics And Natural Science, pgs. 3-29.

theologians have contributed to the superstition of our time, and of our life situation. So we really have two twins here, and they 're almost Siamese twins, despite their quarrels. There were big quarrels between science and religion; they almost killed each other by using the same kind of argumentation for different purposes. And we know science survived, and theology is very much on the defensive now, so we must help it a little, because it has suffered such a fall.

In order to do that we must find a unity of methods, and so we have to turn to that "not" overall, or highest human capacity, but to a kind of clearing house between all of the faculties we have been talking about: art, science, religion, and we can include politics. There is a small clearing house between them which is called philosophy. It is very small, because it is based on man's freedom, and man's freedom is unfortunately, very small, but it is there and it is the most important precondition of its existence. To turn to philosophy proper is not to turn to any single metaphysics of science or religion. The true philosopher has one obligation, and true philosophers are very rare. He has to forfeit every right to claim that he knows an absolute. The scientist perhaps can do that, because he substitutes hypotheses for absolute principles, and if it does not give him the results he needs then he can change it. But an absolute metaphysical assumption is a different thing, except perhaps in art, where metaphysical assumptions are beautiful, and there is only one remedy that can cure people of such generalizations and assumptions; a strict and critical philosophy by which we can de-mask those who dream that they know when they do not know.

So lastly we turn to Socrates. In the development of the philosophy of the west during different historical periods different men have been called "the philosopher". Some called Plato "the philosopher." During the middle ages Thomas Aquinas called Aristotle "the philosopher", and later* (Hegel was known as "the philosopher").

I have taken Socrates as "the philosopher". There is no one in agreement with me any longer, except one man, and that is Plato. Plato also thought Socrates was "the philosopher" and by that he meant the model of a philosopher, and I can trust Plato here. He was still cleverer than we are, although I heard that Dewey before he died said that he had been cleverer than Plato. No one is cleverer than Plato. Plato is one of the most astonishing minds that ever appeared on earth, He is like Shakespeare, like Homer, he is inexhaustible. He is almost a monster, and I mean a beautiful monster. He has scientific gifts, poetic gifts, philosophic gifts, and metaphysical gifts. He was all of these in one man, and we learn about Socrates from him, because he is the only man that really has knowledge of him. Socrates was very different from Plato. He did not have such a rich mind. He could not do everything, but only one thing, and that was to turn away from every kind of occupation except one, and stay in the City, to inquire into human beings and into himself. From him stems pure philosophy, according to the inscription on the temple of Delphi, "know thyself." It is this that is the occupation of philosophy, which also tries to answer the question why, and what for, the theological question, which no one but true philosophers can try to answer, and no other method can explain.