

YFW:th

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What is metaphysics?

Well you know, it's not all that easy to get the definition. My acquaintances are scientists rather than philosophers and I know that for the most part of them the term 'metaphysics' and even the word 'philosophy' stands for the sort of vague speculation they most dislike. They also know, however, that when they're told by philosophers that there may well be a metaphysical component in their own scientific work they usually don't know at all what to answer and in their hearts suspect that the accusation may be true.

In philosophy, on the other hand, the so-called metaphysicians are at present lined up against the so-called scientific or positivist philosophers, so if you're pro metaphysics you're anti logical-analysis and probably even anti science. If you're pro science or pro logical-analysis then you're a fortiori anti metaphysics. And this line-up prevents any discussion of metaphysics from ever becoming at all profound because it prevents those too few philosophers who've studied both the philosophy of science and that of metaphysics and who keep on pointing out the analogy between the two from ever being listened to at all.

I think you've got to be careful about assuming that people will agree with you in seeing an analogy which in argument is metaphysics an argument in abstract science. Not that I think such an analogy doesn't exist - I should say both that it does exist and that it would be odd if it didn't. But is this generally held?

Well, in my scientific field, which is theoretical physics, I've never noticed any real distinction between them. They are also scientists. Would you agree with that?

Well, I can agree to at least some extent. I feel, you see, that a fresh approach has got to be made to this question of what metaphysics is, and that this new approach has got to be made by people who are concerned with questions of fact - that is by scientists rather than professional philosophers. What we've got to do is to <sup>try to</sup> get the feel of metaphysics not merely to define it. But how can you get the feel of metaphysics when there are so many different notions of what metaphysics is? The feel might be different according to which one of them you select.

Well, the only way to find out what metaphysics is is by doing it: that is by applying metaphysical methods in a limited field. Queer as it may sound my view is that metaphysics is the traditional way of finding out about fact.

Yes, and doing metaphysics is an inescapable activity. It's not just an art which was considered highly important and esoteric before modern science began.

In any age the metaphysical method of thinking only seems acceptable when it's done about a subject matter which is agreed to exist and which is thought to be fundamental and important. In the time of Aquinas and Spinoza this subject matter was God. But now, in scientific and philosophical circles, it would be thought highly disputable to say that God exists at all. It's a great fundamental fact, however, today, that language exists. And so it seems quite natural to think metaphysically about language, or as Newton did in his Principia about matter and thought. Western metaphysics hasn't changed its method, what it's changed is its subject matter.

Look here, I'm sure there's more to it than that. If you say that metaphysics is just a method that can be applied to any subject matter you are ignoring the western tradition in which metaphysics is concerned with being as the fundamental subject matter. I need hardly say how

important this conception of metaphysics has been to Christian thinkers.

Since the first physicists (?) actually, since we've been appealing to different metaphysical traditions in considering just what metaphysics is. I referred on purpose just now to the western metaphysical tradition because I think that when you wish to place metaphysics in its traditional background the first thing you want to do is to distinguish the metaphysics of the east from that of the west.

I entirely agree. I'm very interested in <sup>the</sup> eastern metaphysical tradition. More so than in the western. After all, eastern metaphysical tradition is much older than that of the west.

Well, I agree, but I think that most - even most western philosophers have felt that it's almost impossible to discover the nature of eastern metaphysics.

Oh, nonsense. It's just as easy to give a general impression of the metaphysics of the east as it is that of the west. In fact it's easier because the eastern tradition is much more uniform than the western one. In fact, it has even been said by a modern French philosopher, Rene that fundamentally there is only one eastern tradition.

Well if there's only one, suppose you have a try - a go at trying to tell us what it is?

All right. I think that the first characteristic of eastern metaphysics is its claim to authority on universality. You see it makes no sense in terms of Hindu or Chinese thinking to talk about X's metaphysics, or Y's metaphysics, so fundamentally, as I've said, there's only one metaphysics which is agreed by everyone to be universal and eternal and which, in the minds of different thinkers, has different aspects. The kind of unquestioned authority which eastern thinkers give to metaphysics is much more like the kind of authority which we in the west now give to science. Then the kind of authority which could be gained by anyone - philosophy - to the easterners in the tradition metaphysics is true, to the westerners in the

tradition science is true.

Yes, wouldn't you say though that the claim to infallible authority made by eastern metaphysics resembled much more that made in the west by the Roman Catholic Church?

In some ways but definitely not in others. For instance the claim to infallibility of the Catholic Church places a constraint upon Catholics - it's a claim, not a self-evident or agreed fact. But the unquestioned authority of eastern metaphysics for those in the tradition imposes no consciously felt constraint. It does not require of them for instance to watch their step or to condemn other people as unorthodox or to use any set form of words in their thinking. Any such fixity for easterns resides in the performance of ritual which is only one of the many special systems generated by eastern metaphysics. This brings me to my second point which is that eastern metaphysics, unlike western, is not a system-making activity. On the contrary it is the progressive realisation that ultimate reality - as it were the ultimate ultimate reality - cannot be systematically described which is at the very heart of eastern metaphysics. The eastern idea is that by the very act of creating a system - any system - you destroy your own capacity for apprehending or describing ultimateness, because any system, once you've created it, will have a subject matter and once it has a subject matter - any subject matter - in some respect or other that subject matter will be limited, that is there will be something which you are not talking about. Once this has happened you will be pursuing a special subject of research, you will no longer be talking about ultimate reality.

This all seems to me very true.

Well, both true and profound. The attractiveness and the relevance for contemporary thinking of the ancient eastern metaphysics lies in the fact that it makes of metaphysics not a set of systematically ordered and highly disputable assertions but a principle - the principle that there

can't be any wholly ultimate system. And its second strength is that it creates no field with a specifically religious subject matter. The most general and therefore the most profound system is not that of theology but that of mathematics, then that of philology - philology of a very ancient and yet in a way of a very modern kind, and thirdly cosmology - which for the ancients of course was astrological prophesy. Specifically religious systems such as liturgical systems come quite low down on the list, not as being untrue but as being in many respects lacking in generality.

Of course, this would be highly unacceptable to Christian thinking.

Well, I don't know, you know. Eastern - the ancient eastern view of the nature of a systematic study such as mathematics is not at all like the usual modern positivist western view and the principle that there can't be any ultimate system had empirical effects in that it affected and governed the eastern's idea of what the whole activity of system-making was. I think it is all rather like the Christian conception of the via negativa according to which God isn't anything that you can ever talk about since by naming him you're already limiting Him and so it isn't God that you're talking about any more.

Look, is it something like this? We're all agreed that metaphysics comprises generalisations of some kind. I would say there were two main kinds of generality: one exemplified in the classical course of development of scientific theories which starts by covering narrow fields, like electricity or optics, and later becomes fused with the wider theories of which the earlier ones can be regarded as special cases or approximations. The classical case of this is Clarke Maxwell's electro-magnetic theories which were general enough to cover light as well as electricity and magnetism. The other kind of generality consists in continuing to use familiar words and established logical rules but widening and loosening the meaning of the terms so that the field of application of what is said is enlarged. This is

a standard practice in mathematics. We start with the simple notion of whole numbers, one, two, three etc. which apply to groups of objects, and step by step widen the meaning of number so that we have fractions and then negative numbers and still later bring in the idea of irrationals and what mathematicians call real numbers which have no direct application when they're only counting or measuring things. Yet, as we proceed in this way, are concepts get more useful, not less because each stage presupposes the stage before and still covers a much wider field. Is the kind of metaphysics which here we have been labelling eastern anything like the second kind of generality? On this eastern way of thinking you aim at reaching the last stage of the process of emptying the terms used in the specialised disciplines of their original meanings. The ultimate generality is inexpressible and yet it is claimed that this does not mean that it is useless. Eastern metaphysics seems to me to be in this sense a sort of principle.

That's not dealing with something inexpressible - how can you formulate a principle to deal with it? And how could such a principle have any use?

Well, look. Can I say what I should mean by this kind of principle? If we were talking in Indian terms I might quote the Hindu formula 'absolute being exists'. But now, one's reaction to this is meant to be that as soon as one has stated it one realises that the very act of applying the notion of absoluteness to the notion of being limits being and applying existence to the compound notions of absolute limiting being, limits the whole string of notions yet further. Thus each application of a notion is seen by the Hindus to be a limiting restriction. The total reality being completely unrestricted cannot be described in language as I said for the very act of naming it puts a restriction on it. Thus the slogan 'absolute being exists' is used in order to be discarded... It's

like description of the propositions in his Tractatus Logico Philosophicus. A ladder which one throws away as soon as one has used it. Well then, Buddhists, in the Chinese form of the tradition, try to convey this same feeling for unlimitedness by talking exclusively in paradox and nonsense. What was the prime motive of our founder? Answer: Have a cup of tea. Reply: I see you have the perfect knowledge.

Very interesting.

any principle.

Well, I'll quote what I think is a fair version of a Chinese form of the principle. The Chinese tradition always seems to be more intelligible than that of the Hindu. It is First Principle of Reasoning in his Minor Illustrations: 'That which is limited is no longer universal.' I propose to produce an analogue of this - the more fundamental a concept the more unlimited its meaning. Now this already looks a good deal more like what they want a principle to be. Now, suppose this was pushed to a limit? Of course mathematicians would never so push it because this completely derestricted concept wouldn't be any use in mathematics. But let us imagine a process like the mathematically derestricting process you were describing just now and lets imagine this process being pushed right to its limit. This was what these eastern metaphysicians did imagine and it was this effort of imagination which made them say that absolutely complete generality would be inexpressible.

You are suggesting then that the contemporary inability to understand what metaphysics is bound up with the inability to understand mathematical insight?

Yes, indeed I am. The first step in understanding metaphysics seems to me to lie not in understanding religion but in understanding mathematics.

Many mathematicians wouldn't agree.

It remains a fact however that it's been the mathematically-minded philosophers much more than the literary ones who have been the great metaphysicians.

Yes, but let's get back to this principle of yours. It seems to me to be related to the fact that the creative moment in mathematical thought is liable to be reached by a moment of insight - of sudden illumination - of realisation. And this, the easterners clearly think, can be generalised one step further. Total unlimitedness might be realised by a hyper-mathematical intuition, then, having reached it the metaphysician can go back to the specific realising that it is his limitation upon unlimitedness and proceed again to his special studies with a deeper insight into the direction of his progress.

I think I see in a general way how an advance in understanding in any subject might come through an intuition of unlimitedness but I'm not clear how your principle can have <sup>any</sup> definite consequences as in mathematics.

Well now, what would it be like to have the opposite principle? The opposite principle would be the more fundamental a concept the narrower, more restricted and exact its meaning.

Yes, and this is the principle of a kind of atomism some people hold. And the result of holding it would be that mathematics and with it all mathematical science would have developed in the opposite direction. That's to say towards particularity. Mathematics would end up by being like primitive arithmetic where you have one, two, three, many, and so on and this applies only to sheep...

Yes, and along with this would go a wrong conception of language in which language would be falsely thought to consist of exact concepts instead of an activity of imposing progressive restrictions on a fundamental unlimited vagueness - restrictions which can always be derestricted again.

But isn't there a simpler route to a similar conclusion? I don't want to quarrel with the argument but science does point to metaphysical principles. But there are hundreds of people who have thought metaphysically



who have not been acquainted with any kind of developed science.

Cannot metaphysical principles come out of an examination of ordinary materials as well as out of problems arising in advance science?

Oh yes, I suppose they can provided you first say what you mean by experience. I should want to start from experience as we all have it. I don't want to speak vaguely of experience with a capital 'E' yet I do not believe that individual experiences can be completely isolated from one another. Let us suppose however that we do have relatively isolated experiences - for example, I see a window; any such bit of experience is not to be thought of simply as something happening outside the person who has it. Dividing the experience into what is subjective and what is objective is part of the analysis we make in a process of getting to know it. Another part of this analysis is to isolate the window from the total visual field and another part is the isolation of a specious present from the instants which come before and will come after it.

I see how this shows that the metaphysical principle already arises when we attempt to make an analysis of our ordinary experience. But you've got to show that the metaphysical principle makes a difference to the way we interpret our ordinary experience which would be at all analagous to the way general fundamental principles affect science.

Well let's come back to reflecting on the apparently trivial facts that ordinary experiences are not completely isolable from one another: that perceiver and percept are completely distinguishable, that one is perception and can't be completely separated from instants that come before and after. We find that we have had to consider <sup>but</sup> the possibility/in order to account for all this we have to turn upside down our whole description of how apparently isolated objects are really perceived. There's nothing original so far in what I've had to say. Other philosophers, these that is who have usually been considered as being in the idealist

tradition have said have said this before. But I want to propose a change in our account of how we come to form isolated experience which is more fundamental than that given by the idealists. What I want to propose is much more like that given in different ways by Bergson and by Whitehead. I suggest that we start by taking a given, a total undifferentiated unlimitedness before the multisensory blur in which the perceiver will be also included. We can compare this blur to a piece of countryside seen by a painter intending to paint it when he deliberately screws up his eyes so that he sees neither boundaries nor any differentiation within it. Then, remembering his earlier view he begins to paint in his mind by putting successively a set of limitations upon what he conceives of but no longer sees as being the original landscape. This gives him the design, but it's important to notice that he does not get the design all at once. It's not true that a fully-formed pattern suddenly imposes itself upon the blur; what happens is that he introduces an ordered set of limitations upon a continuum upon its total unlimitedness, upon its blur. He may, for example, paint the whole background in first. The whole universe of his canvas is thus limited by being made blue or grey. Then he may superimpose a shape in flat colour on this background, then a second shape related to this by position and thus affecting our view of it. And so on and so on. But a time will come when having seen the design as a whole he feels the need to put in some object in detail so he puts in a tree - green or a tree and a stream and a boy in a red coat beside it. This object or group can be called an isolate. It is the focussing point of the whole picture, the rest of which is given in much less detail. I want to put forward this view that when I perceive an object, for example a window, a table, a chair, a noise I go through a process not less complex than that which the painter goes through painting his picture. This is why the object which is the end product of perception is never completely isolated either from the general design of which it is a part or from the total blur.

There was an antecedent unlimitedness from which it has been abstracted or, as Whitehead called it, concreted, by ordered stages of limitation.

Yes, I know, but why must we be so complicated? I don't find that I see things initially in a sort of unlimited blur and then proceed to construct isolates. I see things quite clearly outlined from the beginning.

You do of course, for years - because for years you've become accustomed to seeing them like that. The painter I described who deliberately screws up his eyes so as he doesn't see the accustomed boundaries and then begins to find a fresh pattern taking shape in the blur, may be doing something like the metaphysician, who takes away the ordinary common-sense boundaries, which we accept in the meanings of our words. This of course is just what the philosophers of ordinary language accuse him of doing. I suggest there is a point in his doing it. He stretches the meanings of words more and more until he comes to a meaning which seems so general as to be totally unlimited, so that he is on the edge of what is inexpressible. But then he must proceed to impose new limitations just as the painter does, who gradually builds up a new definite bounded pattern after he's broken down the patterns of his everyday vision.

Well, that may be true enough of the painter. But does all this apply to - to what the scientist is doing?

I think we get an example of it in what Freud did, a good example because he used ordinary language. In his use of certain common words, notably sex, he had to extend their customary meanings. He made the word sex mean something so general that it is on the point of becoming quite indeterminate. He didn't just add a concept to an existing language, but created a new area of/determinacy where people had the fore-thought they knew what was meant. This indeterminate area had to be limited again and the way he limited the concept of sex has made it more scientifically useful that it was before.

what you've been saying does seem to me quite plausible. I - I believe that a process like this occurs in scientific thinking.

If you agree to that, the realization of unlimitedness would seem to have a place, not only in ordinary perception but also in the process of scientific discovery.

Ah, now if I get your meaning rightly, I can suggest perhaps another example. This comes from a History of Botany. I'm thinking of the morphological views associated with Goethe. Although he didn't have before him the metaphysics we've been talking about, nor of course any idea of the modern notion of harmony, Goethe hit upon the idea that the semantic content of the term "leaf", already wide enough to embrace such different objects as a pine needle and a rhubarb leaf, could be widened still further so as to include, as special cases, such structures as are separately called - bracts, sepals, stamens, carpels, and so forth. And he then conceived of particular objects of this kind as expressions of this widened leaf idea, limited, not only by what species of plant bore them, but also by whereabouts on the plant they grew. However, it was really no more than a guess and in no sense a scientific hypothesis. This was because Goethe failed to suggest what material process there might be underlining the various limitations which his metaphysical "Urbild", primordial leaf, had to undergo before it became a particular, say, buttercup leaf. That is to say, he didn't tell us how we might prove his assertions about leaves, nor how they might fit in with the whole body of scientific knowledge. Nowadays we can fill these gaps. Our knowledge of phylogeny and ontogeny is sufficient to enable us to see how in fact a limiting process such as Goethe imagined could operate, and to test whether it does so by the methods of experimental morphology.

It's irrelevant perhaps, but as a matter of curiosity, has this theory of Goethe's stood up to later tests?

Well, it is found that the Goethian homologies are usually <sup>now</sup> but not always valid. Several points of detail are/much in dispute, such

as, for example, whether carpels are covered by the theory. On the other hand, the theory of evolution correlates the particular question of leaf origins with a very wide range of related phenomena, though it incidentally shows us that the supposed single primordial corblad is in reality at least two corblades, <sup>one</sup> of which originates as a special outgrowth from the primitive stem and accounts for the leaves of club-mosses and maybe also conifers, while the other one starts from the whole branch of the primitive plant and leads to the leaves of the majority of modern plants. These two kinds of leaf started quite independently and if we are to attach any significance at all to the generalisation of the leaf concept, which includes both, it is in terms of function <sup>and</sup> not in terms of origin. From this illustration you can see that our metaphysical principle can be used to assist the birth of a theory, but it is not sufficient in itself to produce one. The theory - process of theory-making - is a particular limited case of the principle itself, limited by the scientist's need to correlate his terms at every stage. But he is guided by the search for that kind of greater generality which points in the end towards complete limitedness. What Goethe didn't realize is that in this progression he was only taking the first step.

It seems to me you are getting back to the Eastern view of metaphysics as an activity where you go on giving words more and more unlimited meaning until you come to a point where, some would say, the words are just vacuous, others would say that you reach an intuition of the inexpressible, which sets you free from being bound by the unlimited - by the limited seekings imposed by custom and ordinary life. I still don't see that this is the same as the Western view, which makes metaphysics consist of certain very general principles which can perfectly well be stated and the more specific effects of which can then be systemically worked out.

Well, look here, this Eastern view does link up with one form of Western metaphysics and in fact with the views of Bergson and of Whitehead, which you've been referring to. Whitehead thought that all

enunciations of general principles were approximations to a complete generality which we can never reach, but that metaphysics consists in the attempt to reach it. But he also assumed the Western notion of metaphysics adds system building and so he tried to make a system out of the provisional principles he had reached by stretching and generalising concepts derived from several separate sources - mathematics, biology, human history, mysticism - and these didn't really cohere with one another, you see, and so the whole thing didn't work.

Yes, isn't it a point that one can't have metaphysical systems as it were on top of the scientific ones? Whereas you can have metaphysical principles which can help you to create scientific theories.

This, of course, would be a likely consequence if, as I said, our fundamental experience is of an unlimited continuum, not of a collection of distinct and isolated objects.

Look here, I'm a physicist and I'm in general very much in agreement with this view of the way <sup>a</sup> metaphysical principle can work. But I'm bound to differ from you to some extent about this. You're talking as though this complete unlimitedness were the one metaphysical principle and from this you're led to the conclusion that certain ways of thinking about the world, namely those leading in general to an atomistic conception, are out. Now to my mind, this is correct as applied to the intellectual situation in which we are at present, since the prevalence of theories which stress the discreet structure of matter and the atomic nature of language, is in my view cramping our fundamental thinking. But I can imagine us in a quite different intellectual situation in which, as metaphysical thinkers we found ourselves needing to invoke a quite different metaphysical principle.

Look, could you illustrate that?

I think so. Like this. The non-metaphysical person simplifies and tends to pick out one principle. Atomism, for instance. Or impericism.. And having got it, he freezes it and gives it a rigid application. The metaphysically minded person, on the other hand, is driven to a deeper sense

of ultimate complexities so that he is aware that, whatever is said with the help of a principle - principle like atomicity or impericism - there is another, something else that can be said with the help of - there is, there's also something else that can be said with the help of another principle. He will want to stress the points in which the dominant principle is only one intellectual principle which may break down.

Look here, you really must give an example.

All right. Fundamental particles. The majority of physicists take what we might call a simple realist attitude to fundamental particles, but there are important respects<sup>in</sup> which the particles in question are very unlike ordinary material objects and I think you will tend to find the metaphysically minded person, always wishing to emphasise how different they are from ordinary material objects. They therefore insist - these metaphysical people I mean - on retaining a grasp of the - of the complexity of the experimental situation. In effect, the metaphysically minded person tends to find himself opposing whatever happens to be the current orthodoxy at the time. I think, in any age, the main current of thought is usually a hardening into a dull commonsense of the application of one particular metaphysical concept. In the case I've mentioned, the metaphysical concept which has thus become dogmatic, is that of the physical reality of the particles. This particular situation moreover is interesting because another set of thinkers oversimplifies in an opposite way, by completely denying the physical reality of these particles. And so it's left to the metaphysically minded person to preserve the complexity and not try to over-simplify in order to make this fundamental problem intellectually comfortable. And so, if I might, metaphysics, far from foreclosing possibilities, has a liberating effect. It expresses our intention to preserve complete freedom to establish new connections of any kind whatsoever.

We seem to be moving to rather <sup>a</sup> / somewhat rather unusual

usually a red rag to scientists because they mean what they say that a -  
that a <sup>person</sup> is metaphysical. When they say that a person is metaphysical  
he is allowing himself to be governed by preconceived ideas rather  
than by experimental facts. But if you are right, the boot is on the  
other foot. It's the non-metaphysical person who is tied by preconceptions.

Well, let's wait a bit and see what we've got. We've been  
taking a principle Eastern thought and considering alternate processes  
of derestricting meanings until we reach a generality which seems to be  
on the edge of the inexpressible. And then a restricting - re-restricting  
the meanings again. We have said that this is a method of thinking which  
brings us to a boundary point where new fundamental concepts can be created  
and new ways of ordering experienced. Only <sup>that</sup> if these can be connected  
with precise techniques they may generate new sciences and scientific  
theories. Here we've got three sciences in quite different disciplines  
- physics, biology and theory of language - all saying that they find a  
principle like this fruitful in their scientific thinking.

I believe this has to do with religion too and I think I -  
I'll try and say why. We've said a good deal about the way a metaphysical  
principle can be involved in the creation of a new scientific idea. Now  
I think it's a common experience among scientists that such a process of  
discovery is associated with a complete breakdown of previous thought  
connections so that new connections can emerge. And I believe that in  
this state of intellectual desolation, the metaphysical principles stand  
out as the only guide one has left. This is an ascetic and contemplative  
experience.

It is indeed. <sup>it</sup> and isn't/in fact the case that nowadays  
it is the creative scientists and the other people who are in this light  
creative scientists, who are willing to be stretched, that is in this  
way, who are having the deep religious experiences, rather than the more  
orthodox religious people who only live in terms of a fixed ritual system.