

Mathematics, Philosophy, and Yoga

Part 1 of 6

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Since 1936 I have entered upon the platform for one reason, and one reason alone, and that is to render more accessible, be it even in slightest degree, that which we know as Realization. There is a reason for this connected with the problem of humanity. If one looks over the course of human history, so far as we know it, this fact stands out above all others—the record of man's inhumanity to man. Through the endless wars, through enslavement, exploitation, and otherwise, suffering has been, as the Buddha said, the great lot of humanity bound to dualistic consciousness. Not only this record from history, but the problems that every human being faces involve tragic elements. There is the problem of death, and death holds toward us here its brutal guise. That is not all, to be sure, but that's what we see. There is the problem of the meaningfulness of an endless round that seems to go in a circular form without progress, without advance. I might go further, but this is the part of dualistic consciousness, the world which we commonly know. And the efforts of man, by the resources of the dualistic consciousness alone, to effect a resolution of the suffering, of the problems that are unsolved and seemingly unsolvable, has never led to a successful outcome. I do not intend to enlarge upon that, I hope that just mentioning it is enough to remind you of the fact.

Dualistic consciousness is dualistic by reason of three facts at least. It is a relationship between a subject and an object; that's the commonplace here. We know nothing except by contrast with its opposite; we know *up* only by contrast with *down*, *good* by contrast with *evil*, and so on through all the dualities. We know nothing save by contrast. It is also dualistic because it possesses only two functions, organs, or faculties of knowledge: sense perception and conceptual cognition.

Now, it is true that there are those who have found release. It is true that there is a way. And a handful there are who have not left this humanity alone. I could mention the names of Krishna, of Buddha, of Christ, of Shankara, of Lao-Tzu, Apollonius of Tyana, Meister Eckhart, Jacob Boehme, and a few others, known and unknown. And but for these, this humanity would have perished ere this. But a handful among the billions of humanity have not made too great an impress. Now, I know there are those who will say things are different today. We have the marvelous accomplishments of science, postulational science, and they are marvelous. Many of the achievements are fabulous. But also because of that science we, all of us in this world, live upon a powder keg. I submit that that negative fact cancels out all the positive values of postulational science. Our military men today talk in terms of a minimum kill in this country of seventy million people and a maximum of 130 million. Was ever there a time in past history so dangerous, so dark with threat? Perhaps we may judge our postulational science as a demonic force that would destroy more than it builds. The

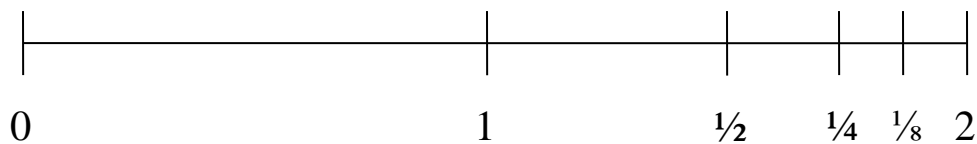
Door to the resolution of the problem of human suffering, of the unresolved questions, is that which we mean by Realization.

I shall try tonight to bring to you some clarity of conception as to what we mean. I shall draw a line on the blackboard—

Nondualistic Consciousness

Dualistic Consciousness

—below, the domain of dualistic consciousness; above, the domain of the nondualistic. And above this line the unaided intellect cannot rise. Oh, I grant you that the intellect, unaided, may reach beyond any height it has so far attained—and I will say that never in the future will it reach a height beyond which it cannot go—but it cannot reach beyond that line. Now, those of you who only know primitive, kindergarten logic may say that is a contradiction, but it is not; and I imagine those who know their mathematics may foresee the answer. Conceive of this as a *limit* in the sense with which some of you are familiar in your studies of calculus. To give you a conception of a limit, consider the series: $1 + \frac{1}{2} + \frac{1}{4} + \frac{1}{8}$ and so on. Now let's take this line for another use; one end we'll call 0, an arbitrary distance, 1, and the same distance doubled, 2. These steps that I've shown above could be represented here as a line that bisects that area—at the point there, $+\frac{1}{4}$ here, $+\frac{1}{8}$ here, $+\frac{1}{16}$ there, and so on. After an infinite number of steps, but no less, the sum of the series is 2; 2 is a limiting value never reachable by a finite number of steps. Though you were to add those ever-reducing fractions for a whole googol of years, you would not have arrived at 2.



I wondered if anybody would ask what a googol is. Do you all know? That number: 10^{100} . The name comes from some pre-first grade, kindergarten students who were given some conceptions as to bigness of number, which they surprisingly were able to understand—also indicating that we're born, latent within us, the whole of known mathematics and all mathematics which will ever be in the future. I may run into some theoretical objections on that, but let that be the thesis for the moment. That's just an aside. To get an idea of how big a googol of years would be, if you took a hundred years of Brahma, supposed to be a fairly large number—I think it has fifteen places—it would only be a brief vacation as compared to this.

Now, it's in that sense I say the intellect cannot reach above this line and yet it can rise higher than any point it has yet attained or ever will attain in the future, but it's in that sense: that you can always get a step in addition when you've gone only a finite time. Now, you say, in other words, the intellect could rise so that its distance from this line would be less than any assigned quantity however small; you might say its attainments would be

unimportant because the distances that it's advancing are small. That's not necessarily so. The significance of the attainments might be very considerable. I'm putting no limit upon it in one sense: when it's unaided it can ever rise but cannot cross this line. That means it remains within the dualistic world, the dualistic domain of consciousness.

Now, I'm most concerned in these lectures with the powers resident in the intellect, the conceptual powers. They're not the only powers by which ascension can be made; that is granted. But for our purposes in this series of lectures, we shall be most concerned with the conceptual power in the ways that it can be used for the attainment of the Realization, and by Realization we mean the entrance into the nondualistic in at least some minimum degree.

I probably should go into rather an extended footnote at this point, for I've drawn simply a line representing a border between something above and something below, and that does not make the picture complete. So let us make a sketch of a more complete picture.

Dr. Jung, in his autobiography, has given us the image of man in the field of dualistic consciousness as being in a box hung up by a thread. He had been out of that box in an experience when he was near to death and voluntarily returned, and he regretted the fact that he might come again to view the consciousness within the box as normal. I do not remember that he said there were any windows in that box or whether it was windowless, as were the Monads of Leibniz. I have spontaneously imaged more a cell like an ellipsoid—an ellipsoid is an ellipse in three dimensions rotated around—and that man here moves confined in that space at distance with respect to all others, oneness in the true sense impossible to imagine or believe in. Around him, in this ellipse—and we'll use this figure for the individual or for collective humanity—there is this vast zone, not merely above, but on all sides and below. And in analytic psychology all of that is called the unconscious—above, below, to right, to left, before, and behind. Here, a little zone of consciousness is all the world he normally knows. To be sure, usually untraceable influence penetrates to him, but it's not all exalted: some of it is dark, some of it is neutral, some of it is seductive and can trap. It's not enough to make a break through that wall, but it makes a world of difference how you do it.

Nowadays there is an intriguingness with certain chemical substances that can make a break, but beware . . . or off some way like that, not that way. Beware of them. The damage done may possibly not be corrected in a lifetime. Furthermore, for Western man, I find all of the practices of the *tantric* type—that's an Indian word—suspect and questionable. I do not recommend *pranayama*, *asana*, *mudra*, *mantra*, or efforts to arouse *kundalini*, as at all safe. There may be those, most likely in the Orient, operating under a proficient guru who may safely use these things as aids, but it's a way to potential damage; and remember, it is ascension in consciousness we seek, not merely breaking out of the cell of dualistic consciousness in any direction—supernal up here and infernal down there. They're a danger. There's one safe way alone, and essential to that is the sacrifice of everything that the aspirant possesses and everything that he is, a holding to nothing—to wealth, to position, career, to family, to preferred conceptions, to life itself. That is alone the secure way; that is essential. All else, including meditative techniques, are of the nature of aids, not essential.

Now, of course, a person may say, “If I sacrifice everything what is left?” Do you know what the word sacrifice means? I recommend you look it up in the dictionary. It means rendering sacred. It also is, of course, a giving up to that Other, that supernal Other, that which appears as the “numen.” I’m using a scientific term here. I’m trying to avoid the more religious terminology because the *zeitgeist* of our Western people is in science and not in ordinary religiosity. I could speak in the terms of religiosity, but I’m choosing to speak in the terms that belong to the *zeitgeist*, the spirit of the times. And the scientific name for the deity is the numen, the adjective numinous. The numen is a fact of reality that can be experienced. I know. This is not theory. And the sacrifice is to the numen. Generally that which has been offered upon the altar of sacrifice is returned purified; but whereas it was seemingly your private possession, it comes to you again as trustee, as steward, for its proper handling, a steward handling these things—be it wealth, be it keen intelligence, be it relationships, be it life itself—for a larger whole—the whole. Mayhap not all is returned, but if so, it is better so. So the complete emptying is essential to the way, and the holding back no part, no special attachment. Sometimes people fool themselves by disguising an attachment by calling it a performance of a duty. These people are some for whom I have an obligation. I feel it a duty to care for them. I cannot sacrifice that. But what you’re saying is you do not trust the numen, the divinity. Those noble sounding words are merely a disguise for an attachment.

And there is a moral discipline, and the keynote, so far as the breaking through to the transcendent is concerned, is purity—purity not alone in the more obvious sense in which one eschews obviously lurid ideas, but purity in a far more comprehensive sense of completeness of self-giving; purity which means unmixed motive, unmixed thinking. One of the greatest lessons in purity is the study of pure mathematics. These things are essential, and someday in the passage of time, for there is a law of cycles that brings the appointed hour, the line above breaks open, bursts forth. Mayhap you may hear words or may silently receive the knowledge. Here before you lie all the treasures of the Infinite; take what you can.¹ And foolish is he who says, one pearl of this is enough. Plunge to the deeps which are also the heights, to the limits of your capacity. That’s the path of wisdom.

And here there is courage required. I may tell you that there are stations on the way. One good one, but not the end, one may find himself so embraced by this which I have called the numen, lifting from the shoulders all loads, giving completeness of comfort, and enveloping with a bliss beyond understanding. This is real. I know it. It’s experience of supernal sweetness, but it’s still dualistic and not the end of the way. It’s less than identity, but it is the goal of the *Bhakti*, and he who has gone that far is safe, but he may linger long. Beyond is a greater goal, not so sweet perhaps, and that is the Realization of identity. That means becoming identical with Parabrahm, not with some little corner of Parabrahm, but as Shankara has pointed out, identical with the whole of Parabrahm. This takes courage. This, however, while not the final stage of ascent, is, nonetheless, home.

¹ Perhaps a reference to A. T. Barker, ed., *The Mahatma Letters* (Adyar: The Theosophical Publishing House, 1923), 65, which actually reads, “There are the powers of all nature before you; *take what you can.*”

Many of you, not understanding, may say this is no more than a vast hubris, or inflation—the psychological term for an enormous ego. Well, there was a story told, an Indian story, of a certain *chela* who had come into somewhat imperfect Realization of his identity with Parabrahm. And he was walking with his guru along a trail in the woods, and an elephant guided by a mahout who was on his back, came along. The mahout called out, “Get off the trail so the elephant can pass.” But the *chela* did not get off the trail. And then the elephant came up to him, the elephant reached around him with his trunk, lifted him off the trail. And the *chela* was shocked, “If I am Parabrahm, how could the elephant do that?” And the guru told him, “You ignored Parabrahm speaking to you in the mahout and so Parabrahm in the elephant lifted you off the trail.” He made the error, “I am That,” but failed to say, “So art Thou.” That’s the difference between inflation and the real thing.

Now as we come later to more mathematical aids, I think I’ll be able to show you a logical parallel in the mathematics of the transfinite for how it is possible that an individual could become identical with the whole of Parabrahm, and yet that every other creature at the same time could become identical with the whole of Parabrahm. But it is so. This is simply a universal truth forgotten by us. Actually we do not become That. We awaken to a forgotten fact that is eternally true. In Buddhistic language, which uses a different terminology, the statement is that every man, and not only every man but every creature, is Buddha already, but he’s forgotten it and he suffers because of his ignorance. The only difference between the ordinary human being and the one who has attained Realization is that the latter knows the fact, but he hasn’t made a new fact. It’s a fact that’s true for all.

I’m sketching here very rapidly something that’ll be the keynote of all that we shall say. I’m not tonight defining; definitions will come later. I’m not tonight concerned with details that will have their appropriate place later. I shall say concerning the intellect that it’s probably the greatest power, or potentially the greatest power, in the *adhar*, the dualistic consciousness; but, nonetheless, I shall have to emphasize what it cannot do. I’m speaking of the unaided intellect, the intellect working by its own resources alone. The intellect that has been able to make the sacrifice and subordinate itself to another power can rise into these realms. But if it does not so subordinate itself, if it remains a power of great pride, it may lead one to the *asuric* temptation. That is real, and I know it.

Now, I thought that some of the differences in consciousness as between that which is above the line and that which is below, in so far as I know them and can give expression to them, might be of value to you. First of all, the consciousness which we call dualistic, we may call “granular” or moving in terms of “manifolds.” Now, these are terms that begin to be more intelligible to the mathematician than perhaps to the generality of people, but by a manifold I might suggest this: the ordinary natural numbers 1, 2, 3, 4, and so on, no end to it; one number is next to the other; 3 is next to 2 and also next to 4. And when you have a collection or aggregate of that sort you call it a manifold or granular because like grains of sand each grain is separate from the other grains. There is a grain next to a given grain. But now there are other entities which we call the “continuum” in which this is not true. I’ll suggest this by supposing we take not only the 1s, but all the fractions between 1 and 2, and so on—all the fractions that come in here; also, that’s numbers of the form of $\frac{a}{b}$ where a and b are integers, and all numbers of the

form like the n th root of a , which sometimes will reduce to an integral form, or a combination of an integer and a fraction, but most commonly gives us what are known as irrational numbers, like the square root of two, which you can never write down in any complete form—1.41 . . . , and so on, and an infinite number of decimal places to write it down exactly. It's a new class of number called "irrational." Now, you can say that this number is greater than that but less than some other figure that might follow—I don't remember the full form of it now for several places. You can pin it down to a given area, but you cannot make it come out to an exact point. Now suppose we write a series with all of the fractions that come in here and all numbers of this sort—irrational sort in there. There'd be no two numbers next to each other. Between any two numbers that you pick up there'd be an infinity of other numbers. This is characteristic of what we call the continuum. It is a concept that's very important in the calculus.

Now, I use the conception of the continuum as suggesting something of the consciousness above this line that I drew here. Nothing here is granular; everything flows, as it were. This is used a great deal in connection with the analysis of motion, something where you do not have discrete steps as indicated in this number system. Those who have had mathematics will understand me a good deal better, to be sure, but I'm talking for the intellect especially in this way. Here we move in discrete steps. Here the essence of the consciousness or essential part of it is, "I [am] different from you." "I [am] different from everyone else." Here [is] a sense of flow. To each part there's a continuous flowage. Now, I use that symbol [∞] because the experience of that consciousness on the other side is of a flow. It seems like a flow of consciousness without discrete parts. You cannot classify it into compartments. Everything tends to flow into everything else. There is an order in it, but that wouldn't be surprising to those of you who know mathematics, because there is an order in the analysis of the continuum. But it's not this primitive order, the order that belongs to elemental logic. It's a different kind of logical process that goes on here, but it's orderly nonetheless.

There is a stage where you find a formless thought, no concepts. Concepts are like clothes thrown on thoughts, these formless thoughts, containers of the thoughts. But here's the thought freed from the container—pure meaning. Concepts are forms which are valuable to us insofar as they suggest meaning, but the concept is not the meaning. Here in this consciousness it is the meaning disrobed from concepts, and it moves like a stream. If you wished to formulate it for objective consciousness, here imagine a flowage, a complex flowage, all parts continuously in change. To conceptualize is like taking a cross section, and if it were true for that moment it would not be true for any other moment, for the flow is continually changing. But this is the best you can do. And the concepts that make up *shastras* and *sutras* are made of efforts to take a cross section of what is a flowage; and as a result, while every authentic *sutra*, *shastra* or scripture reveals, it also distorts and falsifies. All these are pointers only to a truth that can be contained in no form, concept, or symbol, but can be suggested. The proper way to use *shastras*, *sutras*, or scriptures are as signposts. But mostly people behave like this—you see it on every side; it's the trouble with what we ordinarily call the religious people—here's the dead letter of a scripture, and that is the truth; because I have it, I have arrived. But they're like the man who, going to a town, say he's going out here to Yuma, and he comes to a signpost with the words Yuma on it and an arrow pointing, and he says, "I

have arrived,” and he gets out there and hugs the signpost, “I have arrived.” That’s the way most people use religion, and that’s why religion often becomes the big barrier.

There is a true religion all right. The religious attitude is fundamental; nothing wrong with that, you’ve got to have it. But crystallized dogma does not contain the truth. On that I’m categorical. At best it points to the truth, which is a Realization beyond word and form. Yet, we need scriptures. There was one, a great one, one of the greatest of the great who was also a purist—I’m referring to the Great Buddha—and he refused to compromise. Knowing that out of his enlightening Realization, that no word, no form could communicate the reality, he refused to say anything about the content of that Enlightenment, but spoke only of the means whereby it might be attained. He was correct, absolutely correct, but it didn’t work with the limited human consciousness, and I’ll show you why. It led to a great error.

Here’s a form that recurs again and again in the Buddhist *sutras*. I’ll take it up from—I’ll treat it in terms of—it’s one of the forms of symbolic logic. Let this be your universe of discourse, and let’s say this is any entity or quality which we call *a*, and on this side, *not-a*—everything that is *not-a* over here. Now, one of the methods of indicating *not-a* is to draw a line over it. That was introduced by Boole, who brought in the beginning of symbolic logic, the kind of formalistic mathematics that plays such a large part today. This is the dichotomy, and the logical statement is that all things are either *a* or *not-a*. Like, for instance, all things are either white or not white. I guess you’d agree with that wouldn’t you? All things are either good or not good. The idea that there is nothing else except the *a* and the *not-a* is known in logic as “the law of the excluded middle.” Now, in the Buddhist *sutras*, you will have not only this denied, but at the same time this denied. And what does that suggest to you? The reality is neither this conception, whatever that conception might be, nor over in the class of the negation of that conception. It’s true all right. It’s not thinkable in our dualistic conceptuality is what is meant. But what did people so often get? There’s another possible meaning of that, namely, complete annihilation, a nothing whatever, and that the ultimate reality, *Nirvana* itself, is nothing but absolute annihilation, absolute negation, a nothing at all state. And it’s said that today that there are many Buddhists who live very fine and righteous lives in order to attain absolute annihilation. That’s not what Gautama Buddha meant; and it’s said that he came back the next time to correct this misunderstanding and took chances on giving metaphysical material, accepting the distortion involved in that as a lesser of the two evils.

But I know; I know that there are things that I would have to use this pattern for to say correctly, and it wouldn’t communicate. It’s possible to find that which is not in either of these classes that is the universe of discourse. It does not include the cognizer of the universe of discourse. You catch the point? That is before me. Oh yes, it includes this body. This body is either in *a* or *not-a*; this mind is either in *a* or *not-a*; anything that you can name is either in *a* or *not-a*. But the ultimate observer, that which we point to often by the word ‘I’, or the word ‘self’, or the word ‘subject’, but which we cannot define and cannot really name is cognizant of this and of this, but is not contained in either classification. So there’s a proof, Buddha’s right. Not all is contained in those two classes.

Now, that illustrates something that's very fundamental. I notice however that our tape recorder has just about run out and that probably means that I should draw to a close. I'll say this, now, if you have questions, that you can write intelligibly, I'll see what I can do about answering them next time. Hand them in to Mr. Briggs; and; as he said, don't write a thesis or a discourse with a question mark after it—I've often had that—but something that you may want to know, that I can add, throw some light on, I'll try to do so. It isn't always easy to know how people use words, and sometimes you have to study, but others use them clearly. I hope you do, if you want to have any such questions.

Now, we had a custom at the close of meetings where we together pronounced certain words. Some of you here are familiar with these words and the others of you who wish may come into them, may speak them as they can grasp them, may quickly enough and perhaps next time you will handle them more. But if you'll rise; repeat with me:

Let there be peace within the universe.
Let the power of the warriors of light be made manifest.
Let wisdom guide us and love protect us throughout our lives.
Peace be with you.

I'll see you tomorrow night at 8:00 o'clock, not 8:15.