Nature and consciousness

Elements of world

In the Brihadāraṇyaka Upanishad, there is a curious account of the traditional 'five elements'. A lady called Gārgī points out that the entire world of earthly things is actually made of the element 'water', just as a cloth is woven from thread. What then, she asks, about the element 'water'? If all things of 'earth' turn out to be made of 'water', then what is 'water' made of?

She is questioning Yājnyavalkya, who replies that 'water' is made of the underlying element 'fire'. And what about 'fire'? In its turn, 'fire' is reduced to the underlying element 'air'. Similarly, 'air' is reduced to underlying 'ether'.

The Brihadāraṇyaka Upanishad is over two and a half thousand years old. It describes the 'five elements' as a conception that was then already established by ancient custom, handed down from the distant past. For thousands of years, in Europe and India, this conception has been used to progress from the gross particularity of earthly things to the ethereal pervasiveness of space and light throughout the universe. In India, traditionally-minded people still use this conception today.

Like many ancient conceptions, this one is metaphorical. It uses the metaphor of certain physical substances to suggest a subtler and more basic analysis of our experience. But what does the metaphor mean? How might it be interpreted in more abstract, modern terms? Since it is a metaphor that has been used over thousands of years, by many different people, we must expect that it can be interpreted in different ways. In the discussion that follows, one such interpretation is suggested. It is summarized in figure 1 (overleaf).

Through our limited senses and minds, we do not see everything at once. Instead, we see particular objects; and we conceive a material world that is made up of many such objects. Each object is a particular piece of matter, divided from other objects by boundaries in space and time. This divisible *matter* corresponds fairly obviously to the traditional element 'earth'. In a classical Indian metaphor, the particular objects of the world are conceived to be formed from the element 'earth' as pots are formed from clay.

Traditional element	A modern interpretation	Level of modern physics
'Earth'	Matter	Material objects
'Water'	Energy	Changing configurations
'Fire'	Information	Relative observations
'Air'	Conditioning	Conditioned fields
'Ether'	Continuity	Space-time continuum

Figure 1

At first, the world of particular objects seems solid. But, upon further investigation, it is not so. As objects interact, they are caught in a constant process of formation and transformation. When changing time is taken into account, our solid-seeming world is shown to be only an instant snapshot: a momentary picture taken at a particular instant of time. As time flows, the objects of the world keep changing. Each moment that we look, what we have seen keeps vanishing, transformed into something else.

Through this examination, the seeming solidity of objects gives way to a fluidity of changing forms. It is then clear that matter is not the only element in our experience of the world. In addition to the concrete particularity of matter, we experience a second, more fundamental element: which may be called 'energy'. This second element, of *energy*, is manifested in moving activity; and it thus produces the changing forms of objects in the world. It is associated with the fluidity of change, which makes it correspond to the traditional element called 'water'.

Through the changing flow of energetic activity, information travels from place to place. This enables us to observe the world. Each observer receives information that represents other things. These represented things are then illuminated by observing them, from a particular point of view.

So, beyond matter and energy, *information* is a third element of our experience. By representing other things, it throws a particular light on them; and it thus corresponds to the traditional element called 'fire'.

We do not directly observe the matter and energy in the world outside our bodies and our measuring instruments. External matter and energy are only observed through the representations of information that our in-

struments have received. In this sense, information is more fundamental than matter and energy.

In its turn, information depends on something further still. In order to represent anything, information depends upon a comparison of represented conditioning. For example, a map shows some places closer together and other places further apart. Or it may show how various places are cooler or hotter: by comparative shades of colour, or by numbers that spell out the comparison in a more calculated way.

Thus, beneath the information through which the world appears to us, there is a fourth element: of relative *conditioning*. It shows the world as conditioned by varying characteristics and qualities, in much the same way that the atmosphere is conditioned by climate. So there is another correspondence here, with the traditional element called 'air'.

In order to compare the differing characteristics of different places, there has to be an underlying continuity, which extends through space and time. This continuity is understood in a way that is rather different from our perceptions of matter. Where matter is perceived, space and time are distances that *separate* particular objects and events. Where continuity is understood, space and time are not what separates, but what *connects*. Here, distance is not separation, but a connection in between. It is the intervening connection between parts of a world that has been made to seem divided, by our limited and narrow perceptions.

Thus, beneath the differentiated conditioning of the world, there is a fifth element, of pervading *continuity.* This evidently corresponds to the traditional element called 'ether'. It was described as the subtlest element, pervading the entire world.

In this kind of way, the 'five elements' can be interpreted as different levels, which get mixed up, in our experience of the world. These same five levels can be seen in modern physics.

At the first level, we have Newtonian physics, where the world is described as made up from pieces of matter, which act upon one another through force.

At the second level, physical objects are described as configurations of energy. Here, we have Einstein's principle that matter is only a concentrated form of energy. And we have quantum systems: as configurations of co-ordinated activity, which get disturbed by observation and other actions from outside.

At the third level, mass, energy, time and space are seen as relative measurements that depend upon the observer. They are not absolute things

in themselves. Instead, they are interdependent components, in the process by which an observer receives and interprets information.

At the fourth level, there are various theories of fields. In physics, the word 'field' refers to a 'conditioned space'. The conditioning is described by attributing a mathematical value to each point of space and time. The idea is to explain phenomena, and to predict occurrences, on the basis of such mathematical descriptions of field conditioning. Relativity and quantum theory have gone a long way in this direction. They use field calculations to describe physical phenomena, in a far more accurate and systematic way than our common sense ideas. And, in building these more accurate descriptions, modern physicists have shown that our common sense assumptions are often wrong. In particular, our notions of separated matter are only approximations, and misleading ones at that. For many everyday purposes, our habitual assumptions work well enough to make us think that they are right. But, upon closer examination, they break down. Then they have to be replaced by rather different ideas, which look deeper into our experience of the world.

At the fifth level of modern physics, there is the space-time continuum. At the end of the nineteenth century, physicists had a somewhat degraded notion of the traditional element 'ether'. They were puzzled as to how electromagnetic waves, like light, could travel through empty space. So they thought of the 'ether' as a special kind of material substance, which invisibly filled all space. Electromagnetic waves were supposed to be carried by material vibrations in this invisible substance, like sound waves travel through vibrations in physical air.

But, as a material substance, the 'ether' was rather mystifying. To account for the tremendous speed of light, it had to vibrate extremely fast, like a very hard solid. On the other hand, it was like a very thin fluid, which penetrates through everything. To enable the passage of light, the 'ether' had to permeate the vast emptiness of outer space, between the earth and the stars. Similarly, the 'ether' had to be present in the empty space of a vacuum tube; and it had to permeate air and water and other substances in which light travels and electromagnetic phenomena take place.

Moreover, as our planet earth moves around the sun, it must move through the 'ether', like a ball moves through physical air. Thus, on planet earth, there must be an 'ether wind'; and this must affect the speed of light, depending on whether the light travels with the wind or against it or across it. But the Michelson-Morley experiment showed that there was no such wind. So something was badly wrong.

Albert Einstein took a rather different approach. He did not think of light and electromagnetism as the result of any material substance that is somehow *added on* to space. Instead, he saw that the transmission of light is an essential property of space itself. Light and electromagnetism are not transmitted through any material substance, but through the essential continuity that relates together the different points of space and time. Thus, in place of a material 'ether', Einstein developed the conception of a 'space-time continuum'.

In Einstein's conception, the mechanics of matter is replaced by a geometry of space and time. The world is no longer pictured through material objects and substances, mechanically acting upon each other in three dimensional space. Instead, the world is conceived through events: which are related to each other by geometry, in four dimensional space and time. The geometry connects events, into a space-time continuum. All occurrences and happenings are partial manifestations of this continuum, as it is seen differently by the different observers who travel through it.

This space-time continuum is much truer to the ancient concept of 'ether'. In India, the word for 'ether' is 'ākāsha'. It is an old Sanskrit word, which means 'pervading space'. On the one hand, it is commonly used for the overarching space of sky, beyond the atmosphere. And on the other hand, it is philosophically used for the pervasion of space within particular objects and locations: as for example when talking of the 'ākāsha' within a pot, or within a person's body and mind.

In the story that began this talk, Gārgī is not satisfied with her initial questioning. So, a little later, she goes on to ask:

> Consider all that's said to be:
> above the heavens, below the earth,
> in heaven and earth and in between;
>
> including all there ever was,
> is now, and will in future be.
>
> In what is all that woven, warp and woof? *from 3.8.3*

Yājnyavalkya replies:

> All of that is woven, *from*
> warp and woof, in 'ether'. *3.8.4*

Underlying reality

What could it mean to say that all the world is 'woven, warp and woof, in "ether"'? If the word 'ether' describes an underlying continuity of space and time, then it clearly implies that different parts of the world are essentially interconnected, beneath their seeming separation. But what is the nature of this interconnection? What does it finally show? That is the drift of Gārgī's last question, as she goes on to ask: 'In what is "ether" woven, warp and woof?'

Yājnyavalkya's reply is complex, so it's best considered in stages. In the first stage, he says:

> Those who investigate reality
> describe it as the 'changeless'.
>
> It is not coarse, not yet refined;
> it is not long or short.
>
> No flame of passion colours it;
> no fond affection is involved.
> In it, no shadow brings obscurity;
> there's no obstruction to be cleared.
>
> It is not 'air', nor 'ether'.
> Connection and relationship
> do not apply to it. Nor do
> any qualities, like taste and smell.
>
> It has no eyes, no ears, no speech,
> no mind; it is not sharp, nor has it
> vital energy, nor any face, nor measure.
>
> Nor does it consume, nor is consumed. *from*
> It has no outside, no inside. *3.8.8*

What does Yājnyavalkya mean by this description of a changeless reality, in which no attributes are found? Is this just a mystical vision: to be accessed through meditation, in some specially 'altered states'? No, it isn't. If reality is changeless, it is found in all experience, not just in mystical states. No such special states are required to access it. There is a more straightforward approach: which looks directly into common experience, by asking skeptical questions. When Yājnyavalkya says that reality is changeless and without attributes, he may at first *seem* dogmatic,

but in fact he is being thoroughly skeptical. He is doubting all the changing things that we see through our senses and minds.

And there is a problem here, which gives him cause to doubt. When we look at the world, we do not see things directly. We look through our senses and minds, which only show us appearances, from particular points of view. When one's point of view changes, so do the appearances that one sees. Then how do we tell what is shown to us, by these changing appearances?

We use the word 'real' to describe something that stays the same, no matter how differently it may appear, when perceived in different ways. If a change of view makes something change, then that changing something is not real. Instead, it must be an appearance: like the changing views of a mountain which a traveller sees from different places. This sense of changelessness is essential to the word 'reality'. It is essentially what the word means. That is what Yājnyavalkya points out, when he says:

> Those who investigate reality
> describe it as the 'changeless'.

However, as we look at the world, we see particular things that we take to be both real and changing. For example, we take a rock to be real, in the sense that the same rock is seen in different ways; and yet the rock changes, by weathering or by getting moved about or broken up. Similarly, a tree is taken to be real; though it grows and is transformed from season to season. And a person is taken to be real; though obviously moving and changing, from moment to moment.

It is here that Yājnyavalkya is being skeptical. Particular things – like rocks or trees or persons – are not seen by themselves, unrelated to other things. Instead, they are seen as particular components – with particular names and forms and qualities – in some picture of the world. And we have many pictures of the world, depending on how we look at it.

From the viewpoint of Newtonian physics, one kind of picture appears. But in relativistic physics, quite a different picture emerges, from a different point of view. And quantum physics gives us differing pictures again. If we look beyond the confines of physics, different pictures keep emerging: from a variety of biological, psychological and cultural points of view. As the pictures differ, so do their components. A rock or a person is very differently represented: in various physical, psychological and cultural pictures.

Then what reality is there, in our various pictures of the world? How real are the particular things to which we attribute names, forms, functions and qualities, in our differing pictures? When Yājnyavalkya describes reality as having no attributes, he is saying that none of our pictures is real in itself. Each picture is only a representation; and so are all of its particular components, along with all their attributes. No parts or attributes are real in themselves. They belong to the representation, not to the reality that is described. Name, form, function and quality are only attributes: which describe the varied and changing appearances that we find at the surface of our pictures. If we enquire seriously into the concept of reality, we are led beyond appearances, to look beneath their superficial picturing.

In effect, by raising the question of reality, Yājnyavalkya is suggesting a reversal of direction: in the way that knowledge is approached. Our usual approach is to build pictures, from the particular things that our minds and senses see. And we tend to take for granted what has already been built. So, by force of habit, we develop an inbuilt picturing, in which we believe. Through our habits of belief, we use their inbuilt pictures to choose what we want and to go about the business of achieving it. As we thus go about our lives, we see new things and build our pictures further.

But when we think seriously about reality, there is a reflection back, from this constructed picturing. Instead of building pictures *up*, from our already inbuilt picturing, we question what the pictures show: to ask what lies *beneath* them. And then, we are not putting pictures *together*, but trying to look *through* them. So we do not see objects and events as separate pieces of matter and happening: which must somehow be connected together, in order to form the world. Instead, we try to understand them as changing appearances, of an underlying reality that is differently shown at different places and times. Such an understanding would naturally account for an inherent continuity between different parts of the world.

Manifesting nature

How could a changeless reality be expressed, in the changing appearances that our minds and senses see? Yājnyavalkya first describes its expression in the outer cosmos, through the ordered functioning of nature.

> Under the guidance of this
> same changeless principle:

the sun and moon are kept on course,
and heaven and earth remain in place;

moments pass in due succession,
days give way to nights and nights to days,
seasons alternate and years pass by;

rivers flow from white mountains,
some to the east, some to the west, *from*
each in its own direction. *3.8.9*

In this passage, nature is described as functioning under the 'guidance' of a changeless reality. Here, the word 'guidance' is being used in a special kind of way. At first, it may seem to imply that reality is somewhat like a person, with personal faculties that somehow guide nature's activities. But Yājnyavalkya has just denied this, quite explicitly, by saying that reality has 'no eyes, no ears, no speech, no mind'. He is thus describing a kind of guidance that does not involve any personal faculties. What could this impersonal guidance be? Is it just a poetic metaphor, or can it be rationally conceived?

Actually, we can and do conceive of such an impersonal guidance: through the word 'expression'. Whenever we think of natural phenomena as expressing some underlying principle, then this natural expression does amount to a kind of impersonal guidance – or an impersonal ordering – which comes up from below. It implies that the changing phenomena of nature have a deeper meaning, which arises from one or more underlying principles. All our sciences are based upon a recognition of such principles: like the mechanistic laws of Newtonian physics, the principles of invariance and equivalence in relativistic physics, and the principles of uncertainty, complementarity and symmetry in quantum physics.

But what exactly is an underlying principle? Essentially, it is something shown in common, by various particular phenomena. It stays the same, unmoved and unchanged, beneath the varied activities that manifest it. It isn't moved and changed, as it gets expressed in movement and change.

This kind of expression is inherently natural. An underlying principle does not make any artificial calculations; it does not dictate any ideological commands; it does not engineer any technical performance. Instead, it is naturally inherent in its manifesting activities. Such an inherent expression is very different from the action of an instrument. In an instrumental action, one object, or one event, acts as an instrument; so as to produce

results on other objects and events. The results produced are driven from the outside, through the intervening instrument. An instrumental action is thus essentially incomplete, pushed by some additional force that interferes from outside. By contrast, a natural activity is organized on the basis of underlying principles that are inborn in it.

Here, as Aristotle points out, is the difference between technology and nature.

- Technology is driven from outside, by some external user, towards particular objectives. This makes technology partial and specialized. It does not contain its own source of motivation. It is directed towards various narrow goals; but these goals imply a basis of motivation that cannot be technologically addressed.
- In a fundamental sense, nature is complete. It contains each user, each technology and each particular objective. It contains the process of thinking and feeling, through which objectives are chosen and valued. So nature does contain its own sources of motivation. It is self-motivated; or, in plainer English, it acts of its own accord. The activities of nature are not artificially directed, by any user who thinks of them from outside. Instead, they are spontaneous: as they inherently express their underlying principles.

The inspiration of life

In different branches of science, a variety of principles are identified: as underlying particular kinds of phenomena, observed in particular ways. But Yājnyavalkya is looking beyond such differing branches of knowledge and their many principles. He is asking about a single principle, which underlies all experience. So he goes on from the physical world, to a consideration of living personality. Here, he says:

> Under the guidance of this
> same changeless principle:
>
> people praise those who give;
> the gods are connected
> with the sacrificer;
> the ancestors are connected
> with their ritual offerings. *from 3.8.9*
>
> Wherever in the world there's ignorance
> of this unchanging principle,

all offerings and sacrifices,
all intensity of discipline –
continued even for thousands of years –
cannot bring more than passing gain.

Wherever there is ignorance
of this undying changelessness,
someone who departs from this world
is an object to be pitied.

But where this changelessness is known,
there one leaves the world behind *from*
by realizing everything. *3.8.10*

This passage points out that what we do is part of nature. Our physical and mental activities express the same reality as everything else. Through our bodies and minds, we act in the world; but all that we do is merely passing. All of our physical and mental achievements pass on to something else. So they have no independent value, in themselves.

And yet, we do have a sense of independent value, which is essential to our lives. Beneath the changing circumstances that push and pull our acts, we do have a sense of something that we live for, something that gives meaning and value to what we say and do. But if our lives do show such a source of value, beyond our conditioned acts, then where could it be? As Yājnyavalkya says, it could only be found by looking beneath the conditioned world: through a knowledge of underlying reality.

A delicate question is raised here, about what we mean by the word 'life'. We usually think of life as a special property that we find in living things. It is a property that we understand reflectively, by referring back to ourselves. In particular, we refer to our faculties of mind and sense. We regard something as alive if it shows some sign of the purposefulness or sensitivity that we find in our minds and senses.

But, as parts of nature, our minds and senses must express the same reality that underlies both living and non-living things. As we look back into our personal faculties, we first see principles – like purpose and sensitivity – that we share in common with persons who seem like us. Looking further back, we see these principles more deeply: as shared in common with other living creatures who are not so obviously similar. Looking back still further, we see more fundamental principles – like order and relationship – which we share in common even with inanimate things that do not seem to be alive at all.

Everything that we perceive is understood through a recognition of such shared principles. To understand nature more deeply, one reflects back, into one's own experience. This inward reflection is from one's current picture of things, towards the underlying reality that one shares in common with everything.

The inherent problem with any picture is that it gets imposed on what it shows. Our pictures are artificial constructions, built by our minds and bodies, from bits and pieces of perception. As we impose these pictures, we are telling stories, about a pictured world. In the course of experience, we perceive particular objects and events, which then appear in our pictures and get described in our stories. So our pictures and stories develop; and we think of this as learning about the world.

But we also learn in another way, which is more fundamental. We sometimes turn back from our picturing and storytelling, in order to ask what nature has to say. This is an attitude of listening: in which it is implied that nature somehow speaks to us, as if it were alive. The speaking here is impersonal, as Einstein suggested rather beautifully, when he said: 'Nature hides her secret by her essential loftiness, but not by an intended deception.'[1]

What could it mean, to think of nature as 'alive'? Is it just a poetic metaphor, through which some scientists indulge themselves, when they are not being properly scientific? Actually, that kind of dismissal is neither fair nor accurate. There is a more rational way of looking at our persistent sense that through our observations of an ordered and meaningful world, nature shows us its own kind of life.

In fact, no matter what we look at, we may or may not see it as alive. The way we see it depends on how we look.

For example, consider a human face. On the one hand, it can be seen as a formal arrangement of features, which are related to each other in space and time. We can go on to think that these features are activated by physical and chemical activity in muscles under the skin, in nerves that stimulate the muscles, and in a brain from which electrochemical impulses travel down the nerves. But so far we are looking only at relationships and interactions between objects and events. The face is still described as

[1]'Die Natur verbirgt ihr Geheimnis durch die Erhabenheit ihres Wesens, aber nicht durch List.' (Quoted at the beginning of Abraham Pais, *Subtle is the Lord…: The Science and the Life of Albert Einstein*, Oxford University Press 1983)

a mere arrangement, moving in relation to other such arrangements, in external space and time. Until we see some further meaning in these changing arrangements, we do not see them as alive.

When a face is seen as alive, some living meaning is seen expressed, in the formal arrangement of features. Through this expression, the face shows feelings, thoughts and perceptions: which we understand by reflecting back from the arranged features, into our own experience of perception, thought and feeling, in our own senses and minds.

Such a reflection back is essential to what we mean by the word 'life'. If something is alive, it expresses an inner meaning, which we understand by reflecting back within ourselves. And if something expresses such an inner meaning, we think of it as alive, or at least as expressing life.

For a second example, consider a sentence that's read in a book. As a formal arrangement of letters and words, it is clearly not alive. And it isn't brought to life by a merely formal analysis of its grammatical construction, nor of its semantic concepts, nor of some deep logical structure that is unearthed from it. But it does come to life when it is read with an understanding that refers to one's own experience and thus brings a natural response from one's own feelings and thoughts. Then one sees in it an inner meaning that makes one treat it as a living statement, not as a mere arrangement of words or represented concepts.

But what about an inanimate object like a rock? How can one see any life in that? Unlike our human bodies, a rock doesn't have any organs of sense or faculties of mind. At least, we don't normally recognize any such faculties in it, not even in the most rudimentary form. And if no living organisms have interfered with the rock, no sensual or mental faculties are expressed there, as in a printed book.

Still, as with everything else, there are two ways of looking at a rock. One can picture it and describe it, as an arrangement of features; or one can look at it more deeply, in a way that awakens one's intuitions. As one looks more deeply, mere pictures and descriptions are left behind. Alternatively pushed and pulled, by feelings of puzzlement and beauty, one is led to find correspondences and symmetries: which show an underlying kinship and harmony, between the rock and other things.

Thus the rock is seen to express an inner meaning, as a manifestation of nature. And this inner meaning is understood by reflecting back into the depths of one's own experience, thereby implying a profound kinship between the rock and oneself. Here, the rock is understood on the basis of its kinship with oneself, and so is all of nature. But that reflective kinship

is exactly what characterizes our understanding of living beings. In that sense, both rock and nature are being treated as alive.

What could be one's kinship with all of nature? It must be a common reality that nature expresses everywhere, including our personalities. If one could understand such a reality, it would be nature's source of life, and ours as well. On this basis, one could recognize our physical and mental actions as natural phenomena: which show us nature's expression of underlying reality. And one could see that inherent expression as our natural motivation: which inspires all our faculties from within, beneath their outward objectives. That would be our underlying source of value, the same source that motivates all happenings in the world.

Non-dual consciousness

However, there is an obvious problem with the concept of underlying reality. It is a vast generalization. It isn't limited to any particular thing, nor even to any class of things. Its scope extends beyond all the limits that narrow down our perceptions and conceptions. How then can we focus attention on such a reality, whose scope is so utterly unlimited? How could one find a clear and specific knowledge of it, so as to know exactly what it is?

In our story from the Upanishads, Yājnyavalkya has been describing reality in a general sort of way: as a universal principle that must underlie the world at large. And he has ended his general description by speaking of the need to go beyond all passing achievements, in order to know just what reality is. So now he goes on to a specific description: of what exactly it is, and how it may be distinguished, in one's own, individual experience. Here is what he says:

> This same changeless principle
> is not the seen. It is the see-er.
> It is not heard; it is the hearer.
> It is not thought; it is the thinker.
> It is not known; it is the knower.
>
> Apart from it, there is no see-er.
> Apart from it, there is no hearer.
> Apart from it, there is no thinker.
> Apart from it, there is no knower.

In just this unchanging principle,
the [all-pervading] 'ether' *from*
is woven, warp and woof. *3.8.11*

This passage refers to the duality of subject and object: which characterizes our perception of the world. Each person's experience seems divided into two. On the one hand, at the centre of experience, there is a subjective self: which sees, hears, thinks and knows. And on the other hand, from this subjective centre, a world of objects is seen, heard, thought about and known.

Yājnyavalkya points out that there can be no see-er, no thinker, no knower, apart from the subjective or knowing self. It is the one centre that is shared in common by all experience. This same self is the unchanging reality that underlies everything in the world.

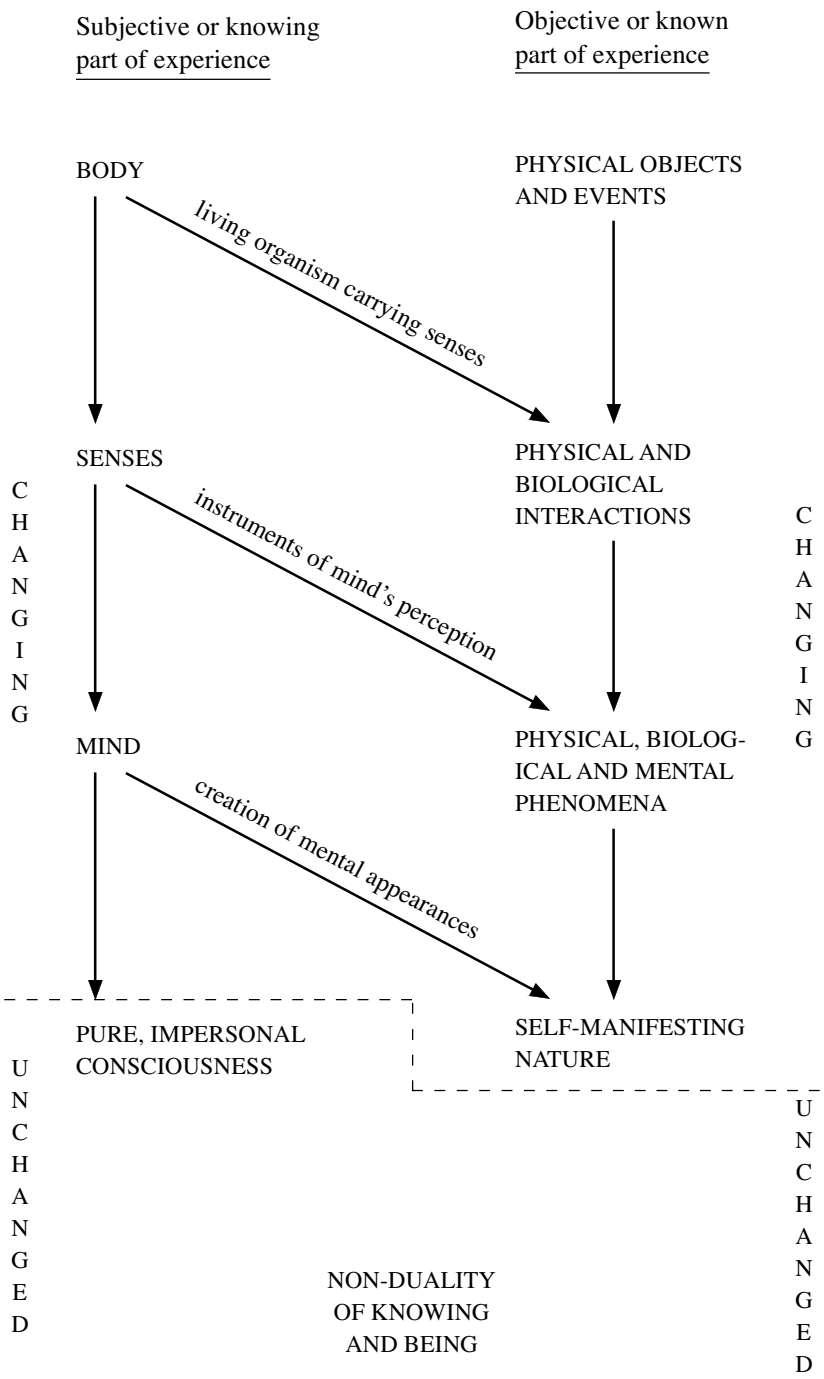
At first, the conclusion can seem quite mystifying. How can each little self amount to the whole reality of the vast universe? But it must be remembered that a statement from the Upanishads is often used as a kind of shorthand, which is meant to suggest a carefully reasoned enquiry. In this case, Yājnyavalkya is suggesting an enquiry into the nature of one's own self: as a direct way of understanding reality.

The enquiry starts with one's physical identification: as a particular body, among other objects in the physical world. But why *this* particular body? What makes it so special, that one should single it out as one's own self?

Through the duality of subject and object, a simple answer is suggested. One identifies with one's body because it is the subject of one's physical experience. As one experiences the physical world, one's body is just that part of the world which knows everything else. It has organs of sense that see, hear, smell, taste and touch. It has a brain that thinks, and a nervous system that co-ordinates its various activities. Through a co-ordination of sensual, brain and other activities, one's body knows the world.

This physical identification produces a particular view of personal experience. One's body is at the centre, as the knowing or subjective part of experience. In the world that contains one's body, physical objects and events are known. They are the known or objective part of experience: the part that is produced by nature's activities, appearing through bodily perceptions. This is a physical duality, between one's body and the objects that it perceives. For those who like diagrams, this physical duality is shown overleaf, at the top level of figure 2 (immediately below the underlined headings).

Figure 2


Subjective or knowing part of experience
Objective or known part of experience
BODY
PHYSICAL OBJECTS AND EVENTS
living organism carrying senses
SENSES
PHYSICAL AND BIOLOGICAL INTERACTIONS
instruments of mind's perception
MIND
PHYSICAL, BIOLOGICAL AND MENTAL PHENOMENA
creation of mental appearances
PURE, IMPERSONAL CONSCIOUSNESS
SELF-MANIFESTING NATURE
CHANGING
CHANGING
UNCHANGED
UNCHANGED
NON-DUALITY OF KNOWING AND BEING

But there is an inherent weakness in all physical experience. One's body is not only the perceiving subject, but also a perceived object that acts in the world. The perceptions of one's body are actions in the world. They are actions that come in the way of knowledge, because they intervene between the perceiving body and what it perceives. This is perception at a distance, through an instrument whose actions must be taken into account, in order to interpret what is perceived. One's body is just such an instrument. The physical world is known through its perceiving activities. It is itself known through these activities. They need further examination, to take them into account.

If one's body is examined in this way, as a perceiving instrument, there is a change of view. The body is then distanced from oneself. It is not quite the knowing subject of experience. Nor is it just a physical object. Instead, it is a living organism which carries out one's sense perceptions and one's other activities in the world.

This is a different level of experience. It includes biology, as well as physics. Here, one is identified with one's living faculties, in particular with one's faculties of sense perception. They make up the knowing part of experience. And what they know is a world of physical and sensual interactions, including physical objects and living things. The known part of experience is here made up of living and non-living interactions, occurring in the course of nature's physical and biological activity.

Thus, by asking how the body perceives things, it turns out that one's body is not just a knowing subject. It is a mixture of two parts: one that knows, and another that is known. The knowing part consists in one's living faculties of sense. The known part is a living organism that carries these senses.

As one makes this distinction, one reflects back: into the living faculties that underlie one's bodily activities. From here, one sees not only physical objects but living things as well. One sees both physical and biological interactions. A broader and deeper view is achieved; by seeing the body as a living organism, outside the perceiving senses. Seen thus, as a living organism, the body has been transferred: from the knowing to the known part of experience.

By this transfer, the knowing subject is narrowed down to the perceiving senses; and what one knows is broadened, to include living things. The transference is illustrated in figure 2: by the slanting arrow that comes down from the uppermost level, to the next level immediately below.

But what about the senses? When they are examined, in their turn, it is

evident that they too are instruments of perception. Like the body, the senses do not know anything in themselves. Instead, they act as instruments for an inner subject that perceives the world through them. The body acts as a physical instrument of perception for the inner senses that it expresses. The senses, in their turn, are living faculties that act for the sake of inner mind. Their actions express one's mind; and bring perceptions to it, from the world outside. It is not the senses that know one's experience. Instead, it is one's mind that perceives the world through its senses.

Thus, the senses are distanced from oneself; and one's sense of identity shifts to the mind, producing another change of view. By seeing the senses as instruments of mind, they are transferred to the known or objective part of experience. By this transfer, the knowing subject is narrowed down by a reflection back to inner mind; and the reflection deepens knowledge, enabling a broader view of what is known. It now includes not only physical and biological phenomena, but mental phenomena as well. In figure 2 (on page 16), this deepening of perspective – from senses to mind – is shown by the transition from the second to the third levels.

In its turn, the mind can be seen as an instrument that acts for the sake of knowledge. In particular, the mind acts by creating a stream of perceptions, thoughts and feelings: which show us a world of physical objects, living organisms and directing minds.

But how are these perceptions, thoughts and feelings known, as they come and go in mental experience? They cannot appear without the illumination of consciousness. Each one of them is an appearance, which implies the presence of consciousness. And this consciousness illuminates each appearance from within.

Appearances differ from each other, as they come and go at the apparent surface of one's mind. Thus the surface of mind is always changing, as different appearances keep on replacing one another. But consciousness is the common principle of experience. It is present at every moment that we know. Different appearances keep coming and going; but consciousness remains, throughout experience. Change does not apply to it, for it is logically prior to change. Every change is an appearance that requires the illumination of consciousness.

All changes appear through our limited perceptions, thoughts and feelings. They are displayed at a limited focus of superficial attention, in the narrowly conditioned foreground of mental appearance. But as each change appears at the surface, consciousness continues beneath, at the background

of experience. It is the continuing basis on which all changes are known. And it is also the common ground on which perceptions, thoughts and feelings are put together in knowledge.

This underlying consciousness is expressed in all our perceptions, thoughts and feelings; and in all our living acts. In fact, our perceptions, thoughts and feelings are not conscious in themselves. They are only physical and mental activities, which produce appearances. They only *seem* conscious: to the extent that they express an underlying consciousness which illuminates their appearances. Through this illumination, they are known, along with the whole world that is interpreted through them. So they belong to the known or objective part of experience; and they must be transferred there, for a correct understanding of our experience.

This transfer is achieved by a reflection back to underlying consciousness, at the background of experience. Here, beneath the changing surface of appearance, all change and difference are left behind. There are no changing activities, nor differing names and forms and qualities, no limited objects and events. There is no conditioned personality: of body, senses and mind. There is only a quiet, undistracting knowledge: which is utterly impersonal and unaffected, beneath all the mental, sensual and physical experiences that express it.

By this reflection to the unaffected background, the duality of subject and object is completed. The subject is pure consciousness: unmixed with any physical, sensual or mental objects, or any of their activities. The object is inherent nature: without any of the artificiality that gets imposed on it, by leaving out the personal faculties through which it is perceived.

We habitually exclude our personal faculties from nature, because we take it for granted that they belong to the knowing part of experience. Thus we mistake our partial views for knowledge; and so we think that nature is incomplete, that it somehow needs our personal interference. Such an attitude is inevitable, so long as we fall back upon our personal faculties, in what we take for knowledge.

But by reflecting back to underlying consciousness, one stands there realized for what one is: unconfused with personal faculties that more accurately belong to nature. Then nature is understood in its completeness, including the perceiving faculties that manifest its changing appearances in one's experience. Thus, one comes to the realization of a complete duality: in which a completely objective and impartial nature manifests itself, before a purely subjective, impersonal consciousness. This final duality is illustrated in the fourth level of figure 2 (on page 16).

But as the duality is completed, it immediately disappears. It gets completely dissolved, in the pure illumination of consciousness: which is inherently non-dual. That pure illumination is not an action carried out by one object towards another. As consciousness knows appearances, it lights them from within: as their underlying reality. For no appearance has any existence independent of consciousness. Without consciousness, there could be no appearance at all.

Consciousness is the one thing that stays unchanged: shown in common by all appearances, no matter where, no matter when, no matter in whose mind. It is the one reality which nature always shows: through each appearance that is manifested in the physical and mental world. There can be no other such reality; for if there were, there would be no way of distinguishing it from consciousness.

Thus, 'reality' and 'consciousness' are two words for the same thing. When we look out into the world, we call it 'reality'. When we look back into ourselves, we call it 'consciousness'.

As consciousness illuminates appearances, it only knows itself: by its inherent nature of self-illumination. Its very being is to know. There, all divisions disappear: in a self-evident non-duality, where knowing and being are identical. That position is represented by the bottom level of figure 2 (on page 16).

As nature manifests itself, it spontaneously expresses this non-duality, which is at once reality and consciousness. That inherent expression can be understood as nature's life, which motivates all activities and happenings from within. It appears impersonally in the ordered functioning of nature as a whole, and more personally in the bodies and minds of living things. But whichever way it appears, the underlying source of motivation is that same non-dual oneness which shines out for us in states of happiness and love. In a delicate, but fundamental sense, it is only for the sake of this non-dual shining that anything is done.

Appendix – some parallels between Indian and Western thought

In India, nature is described by the Sanskrit word 'prakriti', which simply means 'ongoing activity'. And nature's motivation is described as 'purushārtha': which means that its activities are done 'for the sake of consciousness'. In everyday usage, the word 'purusha' means 'man' or 'person'; but it is used philosophically to describe 'consciousness', as the underlying principle of personality. In this philosophical usage, 'purusha' is the 'indwelling spirit' of life that animates our personalities and all of nature as well. It is itself unchanged and motionless, beneath the changing actions that it motivates. They all express it, as it motivates them from within. All appearances are manifested by nature or 'prakriti', which acts entirely of its own accord. But in doing so, it acts for the sake of 'purusha' or consciousness.

In the west, Aristotle conceives of nature in a similar way, as acting for love of the 'unmoved mover'. And the 'unmoved mover' is conceived as 'nous', which is the highest principle of pure knowledge. The word 'nous' is usually translated as 'mind' or 'intellect', which is its everyday usage in ordinary Greek. However, as with the Sanskrit 'purusha', when the Greek word 'nous' is used by philosophers, they are not satisfied with any habitual meaning that has come to be taken for granted, in everyday usage. Instead, they are looking for something more essential. Philosophically used, the word 'nous' does not refer to our habitual notions of personal 'mind' or 'intellect'; but to a more essential, impersonal principle that our changing minds and intellects express.

In Plato's *Republic*, the concept of 'nous' appears in the simile of the divided line. Here, Socrates describes an ascending path, through four levels of experience. The lowest is 'eikasia' or 'illusion'; next above is 'pistis' or 'commonly accepted faith'; further above is 'dianoia' or 'discursive reason'; and the highest is 'noēsis', which represents the same concept as 'nous', in a different grammatical form. So Socrates tells us that 'nous' is a pure knowing, beyond even the discursive reason of an exact science like geometry.

Illusion is a misleading confusion of knowledge with imagined appearances. Commonly accepted faith seems more reliable; but its reliability is compromised to the extent that it is mixed with the distorting prejudice of habituated beliefs. Discursive reason seems more accurate, because it shows its derivation from explicit assumptions; but its seeming knowledge is still mixed with derivations and assumptions that are inherently compromised, by the distortions and obscurities of limited preconcep-

tion. Beyond illusion, faith and discursive reason, 'nous' is the essential principle of pure knowing: unmixed with the imagined appearances, the habituated beliefs and the limiting preconceptions that get heaped on top of it.

When the Greek 'nous' is seen in this way, it describes a knowing essence of pure, impersonal consciousness: which corresponds to the Sanskrit 'prajnyāna' or 'vijnyāna' or 'purusha'.

In *De Anima* (3.5), Aristotle distinguishes two senses of the word 'nous'. The first is a changing and affected 'nous', characterized by its capacity to become all things. The second is a changeless and unaffected 'nous' that brings all things about, as light brings colours into appearance. The second 'nous' is separate and unmixed: as an 'actual knowledge' that is 'identical with the fact known'. It is thus an immediate knowing which continues throughout experience, without stopping and starting. As Aristotle goes on to say, it is the second sense that tells us what 'nous' really is. 'When separated, it is alone just what it is; and this alone is immortal and eternal. But we do not remember it, because it is unaffected. Without it, nothing can be known by the affected and perishable nous', whose essence it thus is. (The quotations marks in this paragraph enclose translations that combine elements of Hugh Lawson-Tancred's translation, Penguin 1986, and the J.A. Smith translation, Oxford 1956.)

In figure 2 (on page 16), the affected and dependent 'nous' corresponds to mind, as a changing expression of consciousness (shown at the third level). The unaffected and independent 'nous' is pure, impersonal consciousness (shown at the fourth level of the diagram).

Six hundred years after Aristotle, Plotinus went on to develop his conception of three hypostases: called 'psuche', 'nous' and 'oinos'. These three hypostases correspond, in descending order, to the bottom three levels of figure 2 (page 16). 'Psuche' is creating mind: proceeding through successive perceptions, thoughts and feelings to create our pictures of the world, and to breathe life and meaning into them. 'Nous' is pure consciousness: illuminating everything from beyond time, and thus knowing each manifestation as an appearance of itself. 'Oinos' is the underlying oneness of non-duality: where all differences and attributes dissolve, in the realization that knower and known are not two, but only one.

And seventeen centuries after Plotinus, here is a passage by Albert Einstein, describing essentially the same enquiry into underlying unity, in both religion and science (from *Mein Weltbild*, Amsterdam: Querido Verlag, 1934).

You will hardly find one among the profounder sort of scientific minds without a religious feeling of his own. But it is different from the religiosity of the naive man. For the latter, God is a being from whose care one hopes to benefit and whose punishment one fears; a sublimation of feeling similar to that of a child for its father, a being to whom one stands, so to speak, in a personal relation, however deeply it may be tinged with awe.

But the scientist is possessed by the sense of universal causation. The future to him is every whit as necessary and determined as the past. There is nothing divine about morality; it is a purely human affair. His religious feeling takes the form of rapturous amazement at the harmony of natural law, which reveals an intelligence of such superiority that, compared with it, all the systematic thinking and acting of human beings is an utterly insignificant reflection. This feeling is the guiding principle of his life and work, in so far as he succeeds in keeping himself from the shackles of selfish desire. It is beyond question closely akin to that which has possessed the religious geniuses of all ages.

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