

13 June 1966

## READING 5

Last week's derivations of the Sanskrit names of the Three Gunas can only be applied to the special case of the Charioteer who has to control the activities of his mind and body according to his central Aim of Self-realization. We must avoid particularly in this case the common error of arguing from the particular to the general.

### PART 1. UNIVERSAL ASPECT OF LAW OF THREE FORCES

We can, moreover, get great help in escaping from our prison of identification by trying to think of the Universal aspect of the Law of Three Forces; for as Mr. Ouspensky pointed out, we cannot think in that way if we are identified. That was why, in the paper 1966/18 of 23rd May, I introduced the subject of Newton's Laws of Motion because I felt sure that behind those laws which were the result of measurements of heavy or so-called 'material' bodies, one could discover two, at least, of the three Forces in their universal application. Unfortunately – owing to identification – no one achieved any success. This week we ought to take it further.

We started, if you remember, by quoting this sentence from Professor Herman Bondi's recent television talks on Gravitation:

Newton's first law of Motion is that a body on which no force acts, moves in a straight line with constant velocity.

Realising that such a restrictive conception couldn't possibly be maintained, one took the trouble to look at Newton's *Principia* and found, as expected, that this was a typical misquote missing completely the point that Newton was trying to make. Book 1 of that work is called *The Motion of Bodies*, Book 2 *The Motion of Bodies in Resisting Mediums*, and Book 3 *The System of the World*. But before Book 1, we are meant to read two sections, the first called 'Definitions', and the second called 'Axioms or Laws of Motion'.

The 3rd Definition must be quoted in full for, without it, the First Law of Motion cannot be understood in the way he evidently intended:

The *vis insita*, or innate force of matter, is a power of resisting, by which every body, as much as in it lies, continues in its present state whether it be of rest or of moving uniformly forwards in a right line.

This force is always proportional to the body whose force it is and differs nothing from the inactivity of the mass, but in our manner of conceiving it. A body, from the inert nature of matter, is not without difficulty put out of its state of rest or motion. Upon which account, this *vis insita* may, by a most significant name be called inertia (*vis inertiae*) or force of inactivity. But a body only exerts this force when another force, impressed upon it, endeavours to change the condition; and the exercise of this force may be considered as both resistance and impulse; it is resistance so far as the body, for maintaining its present state, opposes the force impressed; it is impulse so far as the body, by not easily giving way to the impressed force of another, endeavours to change the state of that other. Resistance is usually ascribed to bodies at rest, and impulse to those in motion; but motion and rest, as commonly conceived, are only relatively distinguished: nor are those bodies always truly at rest, which commonly are taken to be so.

**COMMENT**

If you think of this deeply, you will see that it is in perfect agreement with what the System calls 'Passive Force' and what we could now call the 'force of inactivity'. Newton, as well as His Holiness, begins by describing this inertial force of matter; both then go on to describe the 'Active or impressed Force':

**Definition 4**

An impressed force is an action exerted upon a body so as to change its state either of rest or of uniform motion in a right line.

This force consists in action only, and remains no longer in the body when the action is over. For a body maintains every new state it acquires by its inertia only. But impressed forces are of different origins, as from percussion, from pressure, from centrifugal force.

With these definitions in mind, we pass to the second section to consider the Laws of Motion:

**Law 1**

Every body continues in its state of rest, or of uniform motion in a right line, unless it is compelled to change that state by forces impressed upon it.

And to show that he is including *every kind of motion* and not just straight line motion, he gives three examples:

Projectiles continue in their motions, so far as they are not retarded by the resistance of the air, or impelled downwards by the force of gravity. A top (whose parts by their cohesion are continually drawn aside from rectilinear motions) does not cease its rotation otherwise than as it is retarded by the air.

The greater bodies of the planets and comets, meeting with less resistance in freer spaces, preserve their motions both progressive and circular for a much longer time.

**Law 2**

The change of motion is proportional to the motive force impressed; and is made in the direction of the right line in which that force is impressed.

**Law 3**

To every action there is always opposed an equal reaction: or, the mutual action of two bodies upon each other are always equal, and directed to contrary parts.

Whatever draws or presses another is as much drawn or pressed by that other. If you press a stone with your finger ['active force'], the finger is also pressed by the stone ['passive force']. If a horse draws a stone tied to a rope, the horse (if I may say so) will be equally drawn back towards the stone... If a body impinges upon another, and by its force changes the motion of the other, that body also (because of the equality of the mutual pressure) will undergo an equal change, in its own motion, towards the contrary part...

**COMMENT**

Newton defines '*matter*' in terms of density and bulk, and his laws are taken to apply only to a 'material' body – that is, one that can be weighed and measured. The System however says that everything in the Universe is material, but that materiality is different.

If, in substance, his Laws can be held to apply universally (and therefore to much that is not usually regarded as material at all), we shall of course have to make new definitions of ‘quantity of matter’ and ‘quantity of motion’. But can we find examples?

I think we can apply these laws to much of our psychological experience – to ‘impressions’, to ‘desires’, to ‘trains of thought’ – in short, to whatever is mechanical in our psychology. (Newton in his preface to the First Edition says, ‘Rational mechanics will be the science of motions resulting from any forces whatever.’)

## PART 2 PRACTICAL APPLICATIONS

For instance, it has been said in our System that we always start to change or ‘do’ something (active force) without calculating the resistance (‘force of inactivity’). Newton, too, implies that we must start by observing the *status quo*, for

... a body from the inert nature of matter is not without difficulty put out of its state of rest or motion.

We see this in the Meditation most clearly. Here we shut our eyes and by repeating the mantra, allow it to take us away both from the force of inertia (e.g. the direction of our thoughts and desires), and from any superimposed force (like a noise). Yet we must remember that, for certain, the force of inertia will be constantly counteracting this effect. And the more we try to use active force (‘effort’) in pushing the mantra along, so much the more will the force of inertia counteract this effort.

We see also on a longer time-scale that in nine cases out of ten a person who has been initiated into the Meditation will return sooner or later to his former condition unless he receives help. This must be taken as the rule and not the exception.

You can see the similarity between the way Newton writes of the innate resistance of matter and the way His Holiness speaks of its particular applications as ‘Tamas’, from the following quotations:

### Allahabad 1965 p.27

Q. At certain times things are so low that even remembering the Realized Man, Atman or Meditation does not change this lowly state into a happy one.

S. This desperate situation arises out of abundance of Tamas. As long as Tamas dominates it would be difficult to do anything...

Q. Tamas in such cases seems not to be confined only to a situation of sleep and inertia, but to negative emotion and impatient or rebellious attitude.

S. The situation you describe is Tamas mixed with Rajas. This is more like early morning or evening when there is neither day nor night, light or dark – a mixture of both. You should just see the situation as it is, and observe what is happening, and in doing so perhaps you will find a moment which would bring forth solace and pleasure, knowing that since everything changes, that situation is also going to change and can turn to better.

### p.42

Q. The last few days I have found great help in practice from your words, ‘Buddhi must be stilled’. This is achieved now during meditation and is also when I wake at night. But

any mental activity sets it moving again, and it takes time once more to still it. How to keep it more quiet?

S. We want to still Buddhi because Buddhi is in motion. Of course it is in motion because every activity is basically Rajas. Whenever you have activity Buddhi will have to work and so move. When in meditation Buddhi is still, that is fine; nothing wrong. What one needs is to see (by becoming Observer), that one has to activate Buddhi for certain work, but when not required one stills it. You can enjoy Buddhi either still in meditation or properly active in work...

#### COMMENT

If we take this advice and 'observe that we have to activate Buddhi (Charioteer) for certain work, but when not required we have to still him', we see that we are up against another aspect of inertia – for the Buddhi just carries on its state of motion by its momentum unless you impose a certain force to still it. It is really only necessary to see that this is inevitably so and realise that this is our main leak of precious energy.

#### Postscript

I watch with interest on Saturday mornings the television series 'Laws of Disorder'. Last Saturday, the speaker, Prof. George Porter, introduced the idea of catalysts demonstrating that they not only worked by splitting things apart (for instance, in the body the enzyme catalase in the liver gets rid of the poisonous  $H_2O_2$  by splitting it into oxygen and water), but also in bringing two things together, e.g. light makes hydrogen combine explosively with chlorine. He mentioned that the 'Third body' needed to bring two radicals *together* was now called a 'chaperone'. Shortly after the introduction of this term, he happened to meet the Professor who introduced it and said to him that he couldn't quite understand the term 'chaperone', because he'd always thought a chaperone was for keeping two bodies apart! The answer was, 'Oh, no! You're wrong. I've made a special study of chaperones, and their function is to bring two bodies together but by gradual degrees and prevent thus their uniting when in a highly excited state!'

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