

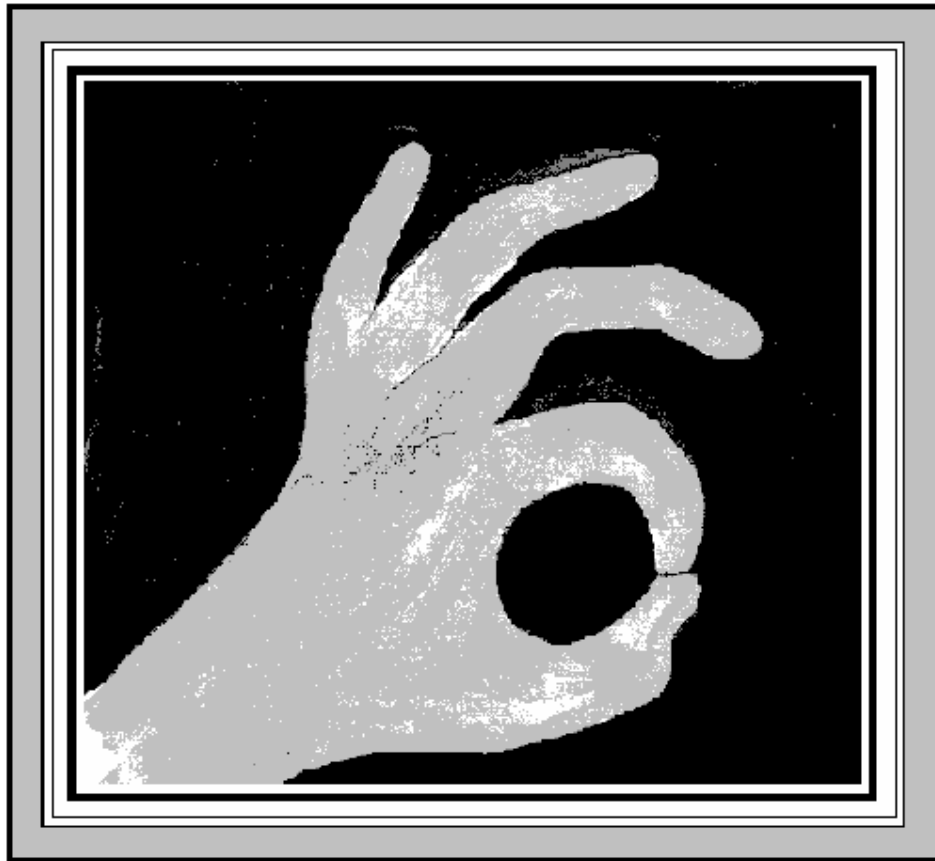


STAGE 5

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There are those who attempt to control their destiny,
and those who allow destiny to control them.

Robert Beckman



Yes!

WHO CREATED GOD? If that is a sensible question then it has a meaningful answer. The source of both a question and its answer is ultimately this conscious experience. Therefore this conscious experience

itself transcends all questions and answers and that is unquestionably final, so that's that.

Having fully realized this Zen satori, what could one say? One can't ask a relevant question because one has gone beyond questions. All thoughts by this stage must be complete self-evident propositions. Prior to this, the more semipropositions (questions) that are dissolved by answers, the greater the depth, or height, of consciousness. However, even simply remembering can raise questions. Only undisposed sans-instinctual unreflecting clear and totally participative observation with entirely emphatic or imperative utterances could be consistent with this depth of consciousness. What more can one say? O!

Man has learnt to think in terms of written language. This limits thought and alters consciousness. O God, are you incomprehensible then? O God, my feeble understanding is a tangled web with many loose ends, each of which terminates with a profound question! Nothing is problem-free! The web of language, its grammar and vocabulary, ties everything together, but not without loose ends, not without unresolved problems! O God, all one can say is O!

What does the perfect observer think? Is he stumped by deep difficulties when confronting others? Does he rack his brains constantly to help lift the veil of māyā from others eyes? Does he stick out like a lemon in a bucket of oranges, or does he blend into the background like one of those oranges in that very bucket? Does it take one to know one? Why should it? Isn't it obvious? Does he need to think at all? Deep action follows deep thought. O.

Kurt Gödel proved in 1930 that *all* consistent axiomatic formulations of any reasonably complicated theory include undecidable propositions. Having been depressed in stage 1 with the Gödelian realisation that there is huge potential for problems, having had hope restored somewhat in stage 2 by seeing the depth of known solutions, and then having transcended both, including scientific method itself, in stages 3 and 4, let us now encounter ecstatic problem-free total joy in stage 5.

When you transcend problems and solutions then you don't need to reflect. You are not that little-ego consciousness. *You are superman/wonderwoman.* You yourself experience THE ONENESS OF THIS PHENOMENAL VIBRATION. O.

① Psychotropic Conquest: Experiment with mind!

ANTHROPOLOGISTS DELIGHT IN IDENTIFYING some custom or belief of a primitive society which is held in extreme awe, reverence, or veneration by that society but which seems incomprehensible, and hence ridiculous, to the arrogant Western mind. For example: who needs totem poles, rain dances, lingams, idols, witch doctors or yashmaks? And who needs skin marking, neck stretching, foot binding or skull shrinking? The secrets or tightly held *taboos* of a society arouse particular curiosity and glee. But for all its long-standing derision of foreign customs and its emancipated self-image, the West too has its taboos about which it is extremely sensitive. When we Westerners come across societies which do not possess *our* taboos then our reaction turns from jest to indignation and even outrage. In Sri Lanka, I once met a Buddhist monk, Seelawansa Thera, who had been living in a cave near Kandy for twenty eight years, since 1949. Then the new authorities came along and demanded that he remove the ant hill from inside his cave and put a door on the front. This he reluctantly did *for them*.

Psychoactive drugs are a current *bête noire*, but we have not always been so self-righteous. The British government, in the first *opium* war of 1839-42, *forced* the Chinese, who officially discouraged drug-taking and had no great need for other European imports, to accept voluminous imports of Indian opium in exchange for tea, silk and porcelain which were in great demand in Europe at the time. After the end of the Second World War, the Japanese government encouraged the use of *amphetamines* to increase industrial productivity. Both policies led to widespread drug dependency in the Far East.

For many years *psychoactive* drugs have been outlawed in Western society. Furthermore, the West has *insisted* that the ban extends to the rest of the world too. In *India*, where it had been customary for Hindus to smoke *hemp*, it became illegal. In the *West Indies* where it used to be common to see an old woman smoking a pipe of *ganja* or drinking ganja tea, it is now a serious crime challenged openly only by the righteous Rastafarians. The *Red Indians* who chewed *peyote* cacti in religious ceremonies also had to stop the practice.

Advocation of mind altering plants and chemicals has been a Western taboo over the last thirty years. Some professional psychologists at Harvard University were *imprisoned* for experimenting on their own minds with lysergic acid diethylamide (*LSD*), a chemical whose psycho-

active effect was discovered by accident in 1943 by Albert Hofmann. One of those psychologists, Timothy Leary, concluded that prior to taking LSD his body had been deficient in this substance, rather like Christopher Columbus and his sailors were deficient in vitamin C. Now customs officials all over the world stop at nothing in their crusade to detect psychoactive substances. Not wanting to miss an opportunity, the US Army gave LSD to American soldiers without their knowledge to see if it could be 'useful' as a new type of mind-destroying psychopharmacological weapon. It did cause distress but was not as incapacitating as the leaders had hoped so they lost interest.

There is considerable blind disapproval of psychoactive drug taking but there is not much discussion of the *psychological effects* of mind altering drugs. The subjective effects cannot be legitimately discussed without someone having direct personal experience and that experience is emphatically *illegal*. Hence the media silence on this crucial issue. All behavioural tests on animals, such as experiments which administer large doses of LSD to rats and note twitching responses, are USELESS as regards understanding the *mental* effect of the drug, at least not without a good psychophysical theory. In the absence of such a theory, nobody can properly discuss the action of a psychoactive drug without actually taking it *themselves*. They can describe the type of behaviour induced or the order of visible addictiveness or even the effect on the brain neurotransmitter system, but the actual central issue, the most relevant and direct phenomenon, they cannot know and therefore cannot meaningfully discuss. How can you explain blueness to a blind man. This is not just a contingent lack of knowledge. It is quantum ignorance; the noumenal value of an observable in the absence of observation. Everyone has to discover blueness for themselves. O.

If a drug has an obvious mental effect deemed 'good' by the user then psychological addiction may mean nothing more than an eager wish to continue use. We are all totally addicted to oxygen, water, vitamin C, ...and will fight for them. O! So what *is* the EFFECT, and why is it of interest? Some drugs are, of course, toxic and dangerous and should never be taken except by prescription under the supervision of a medical practitioner. However, under the influence of LSD, which cannot be obtained legally and therefore has extra dangers associated with it, people talk of having their mind *expanded*, of having their perceptions *heightened*, of new unexpected *higher levels of consciousness*, of *superconsciousness*, of *religious experiences*, of *revelations*, of *enhanced*

cognition and of *increased* intelligence. People claim *better* concentration, *better* short term, long term and photographic memory and *greater* clarity of thought. They say they have *improved* brain power, *improved* learning ability and *better* correlation between the left and right hemispheres of the brain.

Obviously some intoxicating drugs have the opposite effect but it would seem that at least cannabis, psilocybin, mescaline, LSD, and dimethyl tryptamine (DMT) can have *mind expansion* properties without being physically addictive. This is exactly what is needed if man is to survive through the twenty first century. One ought to be intelligent enough to want to be more intelligent - wise, not clever. Without an efficient reliable way of increasing the intelligence of large numbers of people then it is likely, if past experience is anything to go by, that the nuclear war, started in 1945, will not end in Japan, but will continue with everything from the new *micro-nukes* and *mini-nukes* up to monstrous H-bombs when a nuclear power finds its back against the wall. O!

If anybody knows a way to enhance their intuition or otherwise improve their mind then this information should NOT be repressed by taboos or legal enforcement. In Western society people are taken to be well unless they have particular distressing medical or psychiatric symptoms, like a runny nose or an irrational fear. In other societies the perception is very different. In Indian society one is only considered to be truly well when one achieves enlightenment, *samadhi*, Heaven on Earth. In other words the normal condition is seen as an illness. We conceited Westerners who think we know practically everything of any great significance that anyone knows actually can't perceive mental condition very well at all. If it is not a behavioural nuisance we minimise its importance.

Normal behaviour springs originally from thought. So really the quality of thought is central to the quality of society. We don't know how to recognise real intelligence. We can test memory quite well, but IQ tests are often useless when applied to the unwesternized. Clear-headedness is too subjective to be quantified by any known measure at the current stage of development of brain science. Neither hard-headed scientists, nor zealous lawyers nor policemen, nor self-righteous clerics, nor politicians, know much more about mind or consciousness than anyone else. It's like an elephant at the zoo who takes a sniff at an onlooker and says to himself "Pooh, that poor clean blighter can't have much smell sense!"

It is probably stupid to take heroin. Many argue the dangers of drug abuse. Children can have access when parents can not! The authorities are right to be cautious but other 'approved' forces are actually more perilous. Drugs should not be taken lightly. They should be investigated carefully and seriously with a genuine scientific approach. Is the school playground the best place to conduct research in psychopharmacology? These chemicals might be the only tool that man can employ to assimilate the scientific developments quickly enough to avoid disastrous applications of science and obliteration of humanity along with most other advanced life too. When Russia armed Cuba off the coast of the USA, America was prepared to risk nuclear war and the nuclear winter that could have followed. Now the US is arming Taiwan off the coast of China. Perhaps China is equally resolute and justified in its condemnation!

While the European Community is considering making all vitamin supplements available only by prescription, America might be beginning to temper slightly its extreme stand on drugs because of pressure from AIDS victims to allow mail imports of some unapproved drugs. Many new psychotropic drugs are being discovered which have verified *beneficial effects* on the brain and mind. Substances such as pyrrolidone derivatives, fipexide, vinpocetine, hydergine and vasopressin are legal in many non-Western countries. Prozac (floxetine) is marketed as a drug that can make you 'better than well'. It is called a neurological smart bomb of cosmetic pharmacology, a subject still in the Stone Age.

Many nutrients and micronutrients have been identified as being essential foods for health. Hence the popular Health Food Shops. Nevertheless, it may be that we are being consistently and litigiously starved of a sort of 'neuron oil' or 'cell lucence' which facilitates the existence of, and enhances the free flow of clear thought. Only trace amounts of certain psychotropic substances may be necessary to correct a wide-spread brain malfunction through starvation. One kilogram per day could be sufficient for the whole population of the UK. After much animal testing, the only obstacle to practically free supplies is ideological. No thought is given by governments to integration of understanding or unification of personality. The popular imagination is obsessed with uncontrollable vice and violence and with terrifying madness and horrific death. This is symptomatic of the dangerous times in which we live, not of responsible experimentation with mind.

Hindu Vedic Philosophy

Raja Yoga is a MENTAL SCIENCE of religion. The Vedic philosophy behind it is more like quantum philosophy than Newtonian materialism. Its central notion of unity does not lead to an unbridgeable impasse between consciousness and brain, between psychology and neuroscience, between mind and matter. Instead raja yoga gives a recipe for *samadhi* or superconscious enlightenment, for *nirvana* or final absorption into the divine, for *heaven* or joyful reunion in paradise. Raja yoga declares that when you step beyond thought and intellect and all reasoning, then you have made the first step towards God. O! Buddhism talks of being freed from the cycle of birth and rebirth. Christians ought to prepare to immediately face God directly. O God!

The essential method of raja yoga sounds very simple. Find a posture in which you can repose effortlessly for a long time; hence the whole field of *hatha yoga* or posture fitness. Now take a breath and say *O*. As the breath runs out, the mouth closes and the vibration becomes *mmm*. When the sound is completely gone take a new breath and repeat, enjoying the pure vibration which is the gate to ecstasy. The sacred word *Om* (ॐ), pronounced as in 'home', can be called silently to oneself, any time, anywhere. The vibration is a subtle thread permeating *everything*. Eventually there is no *mmm* just *O* without end because this vibration is everything. Matter is energy says relativity, and energy is vibration says quantum theory. Therefore material reality is quantum vibration.

When the mind has been freed from taking various forms then the self is identified with everything; the sensor and the sensed are one. With the cessation of all secondary mental activity, including devised intentionality, then the mind retains only unreflected impressions. *Samadhi*, or freedom through perfect superconsciousness, is achieved. That manufactured something called knowledge is transcended, not lost.

According to the Vedic theory of *Om*, the sum total of impressions can live on in the mind. The sound of *Om* loosens these *samskaras*, or mental preconceptions, or tendencies, and liberates the mind from their domination. Brain science has discovered that exposure to different sounds can result in auditory pathways being differently tuned in young children. For example, Spanish speaking children have formed channels in the brain which resonate at about four hundred cycles per second, the dominant frequency of Spanish. In the case of English speakers, the resonant frequency is found to be about one thousand cycles per second because the average frequency of English is higher. Although most

apparent in early life, neuron cells *can* be disconnected and reconnected. Otherwise it would be impossible for an English speaking adult ever to be able to learn to hear Spanish properly. It is therefore possible to believe that *Om* may actually help neurons to reconnect, making the mind more transparent.

Although Patanjali said that *progress is swift for the extremely energetic*, apparently the vast majority of yogis do not achieve samadhi in their lifetime. Yogis have spent eighteen hours a day in meditation, without final success. Could it be that we are mixing up acting with actuality? *Don't do this to become that but will do this when are that!* Does one become a yogi by doing yoga postures and exercises or is this the way one instinctively acts when approaching enlightenment. Does one become more holy by praying to God or does one instinctively talk to God when holy enough to recognise the mighty presence?

The Vedas mention a plant called *soma* whose juice was used in sacrifices. There has been debate about what soma really is. It has been suggested that soma is Fly Agaric, a psychoactive mushroom. Soma is believed by many to be hemp which has been traditionally used by Hindu monks in their religious quest. In 1973 the Dali Lama agreed that LSD *might* be of use in the pursuit of nirvana. So perhaps the way to succeed in the religious quest is by taking control of the tide and then calming the water. After all, without food one would expect to die. The wine used in communion does not lead naturally to abuse and wine can help wedding feasts and friendly encounters.

A sick experiment with rats taught one rat a maze, emulsified its brain and skimmed off the ribonucleic acid (RNA). The RNA was injected into another rat who then learnt the maze significantly faster, thus demonstrating that memories had been transferred. Perhaps future university degrees will be bought in the form of an injection of (preferably cloned) emulsified professors' brains! Neuroscientists no longer believe that intelligence is determined strictly by genetics. Nature is not so mechanical and unintelligent. The brain is fluid not solid, active not placid, *alive not dead*. Where, if not here, is life?

The Federal Drug Administration still has no category for drugs that IMPROVE COGNITION in normal healthy people. But that does not mean that there isn't one. The new neuroscience technologies already have irrefutable evidence for those who will transcend the taboo and countenance it.



In the West, physical science has developed over the last two and a half thousand years from the works of Pythagoras, Aristotle, Euclid and Archimedes. In the East, mental science has been developing for just as long from the words of Vyasa, Patanjali, Kapila and Buddha. Could it be that what the West knows scientifically but can't feel, the East knows intuitively but can't explain: **THERE IS AN INDIVISIBLE UNITY IN PHENOMENA WHICH CANNOT BE SURPASSED.**

Contenders for a quantum theory of everything have not been around very long. If any one of these is correct then there is no reason why it cannot be entirely grasped intuitively, eventually. That intuitive understanding would be a *quantum rational* mystical experience. Future physics may require courses in meditation, memory implants, fitness training courses and digestion of psychotropic food to facilitate intuitive understanding of fundamental concepts such as four dimensional space-time or the complex wave function of quantum states. If quantum philosophy is to be taken seriously then MIND has to be accorded its rightful place as the vast beyond that lies within.

Experiment with mind! Sit quietly doing nothing! O!

② Loopless Itness: Be without time, now!

WHAT IS THE RELATIONSHIP BETWEEN MIND AND BRAIN? Computers have been developed by analogy with the mind-brain complex, so what is the computer analogue? Software is like an intelligence telling a brain what to think. Software is composed of programs which are lists of information and instructions to the hardware. Hardware is like a body made of a brain plus external senses. The essential senses are the keyboard for input from, and the Visual Display Unit (VDU) for output to, the computer operator. The brain analogue is the Central Processing Unit (CPU) and at least two different types of memory. The CPU is like a single neuron cell where information is added and subtracted, multiplied and divided, pushed and popped. Two types of memory are Random Access Memory (RAM), or long term memory, and the general registers, or short term memory.

The program resides in RAM. Individual instructions are passed to the CPU on the *data bus* when requested. Inside the CPU is a fused microcode program, usually written by the chip manufacturer and permanently hardwired into the CPU chip. This microcode program interprets the incoming program instructions and determines what to do next. Examples of what it might do next are: get the next instruction; add the contents of one register to the contents of another and put the result in a third register; move the contents of one register into another; read a character from the keyboard into a register; write the character in a particular register onto the VDU; get an instruction from RAM at the address given by the contents of a register.

As long as a computer is switched on and working it is running a program. For much of the time the computer is waiting in a program loop, listening for keyboard input by the operator. This loop is a small subset of program instructions which checks if anything has been typed. If something has been typed then the CPU exits the loop and goes to another part of the program. If nothing has been typed then the CPU goes back to the beginning of the loop and asks again (and again) if there has been any input. This is the alert or *ready state* when the computer is not busy computing but is waiting for a command from the operator. This is the usual state of most small computers.

To what extent does this software-hardware computing machine model the mind-brain complex? Obviously it is a pale reflection although it can mimic stereotyped algorithmic thinking with lightning speed and

magnificent accuracy. The computer probably best models, not the whole neural network, but a SINGLE NEURON CELL. A living body is made of billions of replicated cells each specialising as one cell of some particular organ. The cell outer membrane regulates the passage of certain materials into and out of the cell. Nutrients are allowed to enter and waste material is allowed to leave. This is like a connection to a power supply. Substances for use elsewhere in the body are also allowed to leave and certain substances or physical stimuli from outside are allowed to enter. These are the cell outputs and inputs. The nucleus is the control centre of the cell which governs cell behaviour by means of protein synthesis. Analogous to microcode, DNA in the nucleus regulates protein synthesis and these synthesised proteins then regulate all the major functions and activities of the cell.

All cells in the body can communicate slowly with one another via blood cells. In the case of a NERVE CELL, or *neuron*, its distinctive function is to transmit or *fire* an electrical impulse along its axon, which is essentially elongated cell cytoplasm. A neuron can fire many times a second. The electrical impulse causes the release of some particular *neurotransmitter* from the axon terminals. The activity of most neurons is controlled by the effects of neurotransmitters released from adjacent neurons. These neurotransmitters, of which at least fifty different examples have been identified, are the outputs and inputs of neurons.

The CPU is like the nucleus of a neuron cell. The microcode is like the DNA. The data bus leading from the CPU is like the axon and dendrites. (Axons are unlike the data bus in that they are unidirectional. This gives them a rectifying property even at radio frequencies. Axons in the laboratory have actually been shown to resemble silicon diodes in that they can be used to receive radio signals.) The neurotransmitters are like the program instructions (or operator commands) and system responses going to and from the CPU. Many psychoactive substances closely resemble certain neurotransmitters, for example DMT and LSD resemble serotonin. RNA in the cell seems to be used for short term memory. Long term memory seems to be established by axons suitably connecting themselves to other neurons.

Recently it has been discovered that the *inorganic gas* nitrous oxide (and possibly carbon monoxide too) acts as a pervasive neurotransmitter which can influence cells outwith the immediate vicinity of the source cell. This is the closest indication yet of a quantum foundation to mind whereby overall brain patterns can be controlled by the well defined quantum states

of *simple* chemicals. From another angle, Penrose is investigating the possibility of coherent quantum effects in the *microtubules* inside brain cells producing large-scale quantum-coherent oscillations.

If every computer in the world was connected to a thousand others directly through the data bus then this would still only model a tiny piece of a single human brain which has about a hundred billion neurons, most of which connect via synaptic junctions to thousands of other neurons. Nevertheless this computer network might be a reasonable classical model of the brain *if* the connections between computers could be relatively easily swapped around at the behest of a software program, like telephone connections at the telephone exchange. INTERNET and the World Wide Web are getting there slowly.

Through this computer *analogy* we can imagine what might correspond to various mental events or activities. An *idea* might correspond to the firing of a neuron or set of neurons by a particular neurotransmitter. An *impression* might be firing by way of an external physical stimulus, like a single photon on a retinal rod or cone nerve cell. *Knowing* a fact might correspond to having a particular subnetwork loop of connections which relate the neuron firing *ideas* and *impressions* together in an appropriate way. *Thinking* might correspond to passage and change of ideas along chains of neurons. *Reflecting* might be thinking in large loops of neuron connections which occasionally involve connections with subnetworks representing facts. Such electrical loops must generate our recognition of passage of time of the order of seconds. *Understanding* might mean making associations, or loose connections, between large groups of subnetworks representing various facts.

One major application of the conscious brain is to *plan the future*; both strategic planning of the long term future and tactical planning of the short term immediate future. When a big business plans a large project it often uses a computer to assist. In particular, a project coordinator may use Critical Path Analysis (CPA), on a model network. Each milestone in the project can be represented by a node in the network and each activity linking events can be represented by an arc drawn between two nodes. When all the major dependencies in the project have been thus represented, the result is a more or less complicated network with a definite unidirectional temporal flow imposed upon each arc, reminiscent of the action of a silicon diode.

One job for the computer is to calculate when it is best to start each activity, taking into account all the resources at the company's disposal

and the specific deadlines to be met. While the project is underway, changes in network node connections are made as seems appropriate to tactical planning. The whole network can be divided into subnetworks which can be recognised in terms of the overall strategic plan. CPA is thus appropriate for project planning using time analysis and resource scheduling. By monitoring, updating and interpreting the computer output correctly, the implementation of the project can be controlled effectively and the project ought to be completed dead on time.

Thus the thinking, knowing, understanding *and planning* mind might be *physically* comprehensible in terms of the neural network of the brain. This model suggests a mind-to-brain reductionist theory whereby mind is ultimately explained by matter, through dynamics and structures. Neuroscience can be reduced to bioscience then to chemistry then to physics. But can *psychology* really be reduced to neuroscience? What about consciousness? How can consciousness ever be reduced to matter in motion. For classical matter, that reduction is *categorically impossible*. The theory of consciousness as an epiphenomenon of the brain would only be tenable if consciousness was a new emergent property not reducible to matter in motion. Knowing, thinking and understanding are empty vacuous concepts without consciousness at their heart. Intelligent behaviour can sometimes be imitated artificially by computers but genuine intelligence necessarily involves consciousness.

Penrose interprets Gödel's theorem to imply that *understanding* can not be encapsulated by *any* computational procedures.

Quantum Philosophy

We can, in principle, analyse on a chemical constituent basis the detailed makeup of any other human being. In so doing we do not expect to discover anything other than a molecular or atomic substratum. However, in quantum principle, this analysis can not be performed on oneself because there will come a time when dismantling oneself further will snuff out the required awareness and eliminate the dexterity essential to the analytic process. These limitations cannot be removed to an arbitrary degree of accuracy. *Consciousness cannot be analysed by the usual scientific procedures*. Instead introspection is absolutely essential.

Thus *oneself* is categorically different from others. One can be objective about oneself only up to a point. Consciousness makes the difference. One looks out. The whole world centres about this present

consciousness. From the point of view of classical science, that is a trifling, albeit necessary, detail. For quantum philosophy it is a vital recognition. Why the eye cannot see itself. Why the finger cannot point at itself.

As physical theory has evolved from Newton's classical mechanics, to Maxwell's electrodynamics, to quantum mechanics, to quantum electrodynamics, and to the standard model, there has been not only a unification of physical forces but also a *unification of ideas*. The move towards a theory of everything is a move towards *a single grand general idea*. Where once there was diversity and difference, when seen with ultimate clarity, there is unity and identity. The standard model introduces new unifying concepts like colour charge, weak isospin and weak hypercharge. These concepts remain partially mysterious, like electric charge, until the theory is fully understood. Since they are deep and powerful unifying concepts, when fully understood these ideas *must* play a central rôle in the meaning of life itself.

At the deepest levels of thinking *all* ideas become closely associated. When the biological cell nucleus is suitably adjusted, and the brain cells are suitably reconnected to reflect an understanding of the theory of everything, then deep thinking should involve the entire brain and every other cell in the body too. Looking out, one further involves a unified inseparable world. This integrated transparently comprehensible world reflects THE unifying idea described by the theory of everything. It's when you are unwell that transparency goes and you really start noticing your body.

At a certain level of comprehension, one is a biological being made of billions of interacting cells. The basic phrenological structure of the mind is reflected in neuron groups and their interconnections. Memory and thinking both have physical correlates. Speed of axon transmission, around a hundred metres per second, determines reaction times and implies typical minimum processing times of the order of fractions of a second. Appreciation of durations of time of this order stems from neuron loops and their electromagnetic characteristics.

At a deeper level of comprehension, living form rests on precise, identically replicated, cellular, chemical, and possibly undiscovered sub-nuclear, structure. The chemical level can be mistaken for a classical thermodynamic domain based on deterministic substructure. Chemical synthesis is reliably reproducible and chemical reaction is a comfortable concept for the materialist. Body clocks such as heartbeat and neuron

firing can be related to entropy of matter in motion for their accurate definition of time mensuration. Neurotransmitter chemicals must have some intimate correspondence with basic ideas. They may somehow represent archetypal ideas.

Deeper still are the nuclear and subnuclear levels for which quantum field theory is the most appropriate language. At this level of comprehension there are very few components, and the very concept of analysis into definite ontological parts becomes progressively more meaningless. There is the electron field which can account for almost all non-gravitational aspects of the chemical and biological levels. There are three (QCD) colours of *up* quark field and three colours of *down* quark field. These six fields co-operate to provide the substantive framework around which chemical and biological activity adheres. A proton, most of the time, consists of two up quarks and one down quark. A neutron consists of two down and one up. There is intense electrical contact between coloured and uncoloured levels. At the (QCD) coloured level the photon field (light) is dominated by gluon fields. A virtual photon field holds the molecular body together. A virtual gluon field holds, for want of a better term, the astral (or subnuclear) body together. If *seeing is believing* in the light of day, then *sticking is being* in the astral plentitude!

If *the theory of everything is a representation of the consciousness of the perfect observer*, then the quark field approaches the representation of the foundation of unity consciousness, the source of all understanding. Time in this realm can find direction from effects which violate charge conjugation and parity *both* together. Such processes have been observed. By the CPT theorem mentioned on page 60, these processes violate time reversal symmetry and thus offer an arrow, or preferred direction, to time. When gravitation is included in the reckoning then another arrow to time appears from the curvature of space-time. Since the universe is expanding, local curvature is on average decreasing. Thus, like entropy, it can be used to give an arrow to time. Once time has a direction, memory becomes a possibility. While DNA is one manifestation of a deep memory unfolding over months and years, millennia and epochs, it is conceivable that the astral body also has memories accessible in trillionths of a second. Nuclei have recently been observed spinning at a thousand trillion revolutions per second, and there is plenty of scope for other ways of storing information at the coloured quark level.

In many ways we *are* our memory. We obtain our self image by identifying with our biological memories. Even when we are born we

already have many memories. Some enthusiasts claim to be able to instil an appreciation of Mozart or Beethoven months *prior to birth!* Any theory of reincarnation obviously could not retain biological neural memory after dissolution of the body, although it could conceivably be restored from coloured level memory. Probably not everyone would see much value in being brought back to life after death without any recollection of their everyday past life. In practice, resurrection of a sort has been effected eighteen million years after death because in 1990 molecular biologists managed to clone DNA from fossil magnolia leaves of that age. This DNA is the blueprint for making that ancient species, indeed that particular magnolia tree. If we believed a little more in the nucleus then we might begin to wonder when exactly we will finally die, and what coloured memories we have inherited from the stars and early universe.

An anaesthetic chemical agent inhibits neurons from firing. Generally anaesthetising the frontal lobes of the brain eliminates ordinary waking consciousness according to common sense reality. There can be lucid audio-visual dreams; presumably thoughts arising in other areas of the brain. So many processes have been shunted into the automatic responses that it is not obvious what is under immediate control and what can be easily towed out and freely driven again. Processes taking aeons, which in some deep way seem to be closely related to almost instantaneous processes (the age of the universe would be almost zero if the total energy of the universe was not almost zero), are entirely obscured by biological thought awareness, as fear obscures mystical rapture. Sleep suggests unconsciousness, yet we never fall out of bed! O! Perhaps there are levels of awareness which are obscured by this constant waking frenzy called everyday life. So calm down. O O O O O O ..

What subnuclear instruments could the *perfect* observer have with which to manipulate quarks? As Aladdin must have realized, just one wish granted is sufficient to get three more. Miniscule conscious control over the quantum wave function would be sufficient to construct stable quark states; subnuclear instruments with which to probe *outwards* to the electronic level. By identifying with just one quark, one is identifying with all quarks. The quark is a representation of that deep level of consciousness in the same way that a brain is a representation of everyday mind.

Ultimately the theory of everything talks in terms of a single universal field. From identifying with the biosphere, to the material, to the subnuclear, ultimately a supremely healthy being identifies with the origin



of this single entity. This cosmological origin has to be understood without resort to the concept of time. Therefore the description applies *always*. The world is elaborated round this origin. Realising it, *here and now*, is timeless wisdom. Loopless itness.

Mind is associated with grey matter. Looking out on the world, one sees people with brains which correspond in detail to their minds. They are a reflection of oneself. They are an essentially identical *image* of the self. Lower forms of life reflect deeper levels of oneself. Rocks reflect the inorganic chemical level of understanding. When the mind is cleared of confusing day-to-day dross, one is ready to feel nuclear. O. All quarks in the universe reflect quantum identically that single unique quark about which the perfect observer controls quantum reality. This phenomenal here and now experience of the subject-object whole is *it* when recognised as almighty soul. Science gives a precise comprehension, however mathematical or abstract, of the unobservable noumenon behind a phenomenon. The theory of everything is a perfect representation of this real phenomenon plus that ideal noumenon. The theory of everything offers, through unified ideas, a great degree of control of this phenomenal reality.

Molecular medicine is flourishing. Atomic medicine is in the Stone Age. Nuclear medicine has hardly begun at all.

③ Godship: Fulfil selfless purposes!

WHO IS THE HIGHEST BEING? Human kind? Our cats and dogs probably do not regard us as more highly evolved forms of life because they do not have the same language, or the same categories of understanding as us, although their forms of perception are clearly very similar. The thought could hardly cross their minds in that guise. Could there then be a higher life form looking at us in much the same way as we might look at an ant? Since we devised the evolutionary theory being applied here, we therefore know what to look for and can say with some conviction that Homo Sapiens is the most highly evolved species on Earth. There could be a higher life form looking at us from another planet or another solar system. As far as we currently can tell with the few resources which we can apply to this question, there is not.

What then is the nature of our apparently special position? Does it mean that we can understand the whole cosmos while a dog has no chance? Or does it just mean that we can understand somewhat better than a monkey and a lot better than an ant? Quantum philosophy concludes neither of these. A conscious being appears embodied. The body is endowed with a complete set of senses as *intentionally* developed over time. The mind holds an associated understanding. Taken together perception and comprehension make perfectly good sense. If the senses are extended in any arbitrary way and the understanding is adjusted or developed to maintain total comprehension, then that too is perfect sense. If this can be achieved by man, then dogs or cats or ants can achieve it too. No absolute distinction can be drawn between species as regards potential depth of understanding.

What then of man's special position? He is like a parent entrusted with the care of children. By his relatively greater breadth of applicable knowledge, man dominates the animals. This has in the distant past gone hand in hand with greater depth of understanding, but not any more. Most wild animals are wiser than most people because people have lost clear contact with their origin. We possess huge amounts of objective information but have practically lost conscious control and mental power over the body. For those with self-control, death is a *decision*.

Materialist philosophy says that ultimately mind control is an illusion and therefore not worth effort which is rather to be expended on more tangible pursuits. Talk of meditation or contemplation is regarded with suspicious aversion. Prayer is tolerated in the modern world, in

moderation. The Westerner generally reviles mysticism because he sees it as the very antithesis of science. In fact it is the complement of science. Authentic mysticism does not encourage but rejects and ultimately dispels incomprehensible mystery, sorcery and secrecy. Science should not blind but enlighten. The goal of science is actually reduction to self-evidence. The same is true of mysticism. Both say, “Don’t believe blindly.” Science without any mysticism yields obscure algorithmic pragmatic knowledge. Mysticism without any science is powerless. Mystical science should reveal clear practical wisdom.

Quantum Religion

The word ‘religion’ means BINDING TOGETHER. Quantum binding is the ultimate binding because it makes a seamless whole. Quantum religion binds God and Nature inextricably and inseparably.

During the time that an object is in interaction with another object, the two objects are essentially one. This essential unity, as in an EPR state described on page 12, can last indefinitely even when, from a classical point of view, the interaction ceased long ago.

During the time that an object is in interaction with a *measuring instrument*, the two classically separate components again form an indivisible quantum whole. The instrument might well have a memory and therefore might not necessarily be consciously observed until long after interaction has classically said to have ceased. But when the instrument, or anything else physically connected either directly or indirectly, is *actually observed*, the interaction between that material thing and one’s body joins both together in an indivisible quantum unity. Thus all observable nature is only known by being *united* quantum physically with one’s brain.

Quantum description of this sort is necessary to properly understand the interaction between a microscopic object and a measuring instrument. However the relationship between measuring instrument and observer’s body is comprehensible at the classical level because an action far greater than Planck’s constant is usually involved in the interaction. This makes classical explanation meaningful to a good approximation. Classical explanation is still meaningful *within* the brain down to the level of nerve impulses in axons which involve millivolt potentials that are comprehensible in Maxwell’s electrodynamical terms and don’t immediately demand quantum electrodynamical terms.

At the chemical level of neurotransmitters released at the axon terminal, or *synapse*, quantum description again becomes essential. Quantum identity of these chemicals provides a physical representation of the meeting of minds. At this level independent ego dissolves. This is the limit for introspective psychoactive chemical experiments.

The electronic level of description represents identity of all atomic and molecular level structures and interactions. At this quantum electrodynamic level ALL current medical, biological and chemical notions are subsumed and superseded. This level of intuitive understanding, although encompassing the overt reproductive purpose of life, is not yet full enlightenment because the electrical level is controlled by the nuclear level.

With or without any special constraints on a physical system, the most likely behaviour of that system is the behaviour involving least action. This is THE FUNDAMENTAL CONTINGENT PHYSICAL PRINCIPLE in science. Quantum indeterminism allows, in general, a range or distribution of possible behaviours. Many things are impossible. For example, an electron cannot have a different rest mass. Those sort of miracles can not happen, even quantum mechanically. Many things are possible, but most are very unlikely. A cup of water could spontaneously boil, taking heat from the surroundings. The Earth could suddenly stop rotating, transferring all of its angular momentum to matter on the surface which would all fly off at a tangent. These events are perhaps possible but very very unlikely. Matter could spontaneously develop from chemicals into higher and higher life forms as matter is supposed to have spontaneously developed from quarks and electrons into planets and rocks. But is this likely? Life *could* be a giant accident. Everything could have spontaneously appeared yesterday, memories and all, but this is NOT the most rational explanation.

I can lift my hand! If the wave function at the nuclear level can be controlled, however slightly, by will power (spirit), then likely behaviour at the molecular level could be significantly adjusted. The electromagnetic interaction between quark and electron may then be brought to bear to influence molecular behaviour. Neutrons could decay into protons changing the atoms in the molecule into atoms of a different element. A proton could disintegrate into three jets of baryons, one jet from each constituent quark. Nuclei could disintegrate in some other possible but generally unlikely way by quantum tunnelling. More subtle influences from the nucleus on the outer electronic structure could make the

difference between chemical reaction and no reaction with a neighbouring molecule. In this way the development of life could have been consciously designed and implemented. All levels outside the nucleus may be regarded as extended senses; equipment manufactured for the purpose of integrating and interpreting more and more complicated signals from ‘the classical outside’.

If you had been looking through a telescope for eighteen months it would be easy to forget that you are actually sitting in the attic of your house. And that you could just turn your head and see a cosier world. Similarly our bodies are our *transparent* outer instruments which can be put aside. O. The less transparent they are the more unwell we are. When perfectly clear, there is no ego in the way. O.

Description at the quark level is not so much about building blocks as essences. As there need be only one electron in the universe, so there need be only one of each flavour and colour of quark. Quark control therefore represents cosmic control of all quarks (essentially the one quark) in the universe.

Ultimately both quark and electron fields emanate from string, or lumps, or some other ultimate entity which itself initially emanated from a singularity, or the origin of octonionic space, or whatever the cosmogony of everything decrees. At this level of description, all space-time and matter is absolutely identified. Einstein’s gravitational field equations already identify matter with space-time curvature. Since the origin of space-time-matter is without time, its description is not only valid at the moment of creation of space-time-matter, it is valid always. In particular, it is valid NOW.

These levels of description correspond to levels of consciousness when the theory of everything is understood intuitively. Words such as transcendental consciousness, cosmic consciousness, superconsciousness and *unity consciousness* have been given to different levels of awareness experienced in raja yoga. The word yoga itself comes from the same Sanskrit root as yoke and means to join or *unite*. The whole ‘external’ world is a manifestation of this level of consciousness. A brain is a reflection of a mind. A brick is a manifestation of cosmic consciousness. The whole phenomenal physical world is a manifestation of the unity consciousness of the perfect observer. Any consciousness is essentially that unity consciousness. All are essentially one, and that one is named God. Krishna, Buddha, Christ are all essentially the same personality, as are, essentially, a wise king and a good pauper. The sacred taboo of

orthodox Christianity is the Hindu teaching that the purpose of life, the universe and everything is for one to realise godship oneself. If not part of truth, what are we?

Sociable Vocations

In very ancient pre-animal times some deep understanding was reached that there should be a division of rôles between male who would fecundate and female who would bear fruit. Once, before flowers, there was no such distinction. This fundamental work arrangement eventually brought physical and mental differences between man and woman all in the interests of routine, daily, seasonal and future life.

The modern division tends towards economic class (or knowledge) division between skilled, and unskilled labour. Less and less is muscle power, which was required of men in the past to obtain food and construct shelter, needed today when pushing a button can lift a bridge. Women too can just about have test tube babies that are put in an oven and then given to a robotic 'loving' nannie. Hormone therapy can further narrow the distinction between the sexes, as every athlete knows. Genetic engineering may one day, in the not too distant future, manufacture a unisex *oman*. Is this any help towards the goal of unity consciousness? Probably not.

There are those who seek wisdom and those who pursue selfish goals. Only with wisdom can you master destiny. Everyone must be accorded freedom consistent with fairness to others, according to nth cousin identity politics wherein if my cousin is sad then I am sad. Everyone must be given every possible help and encouragement to be fully and truly themselves, and to understand their life and fulfil their purpose - to concieve and realize their ideal.

Ancient grand projects involving very many man-years of labour include construction of the Pyramids in Egypt, of Stonehenge in England and of the Great Wall in China. Modern grand projects include the exploration of space, the mapping of all the genes in DNA and the quest for the theory of everything. But like the button which can lift the bridge, the modern grand projects can progress without vast expenditure of society's most precious yet most squandered resource, manpower. They are not so demanding of involvement. Indeed practically all of mankind is *excluded* from these élite endeavours, unlike those ancient grand projects which doubtless involved a large fraction of the whole society's effort.

The present demanding awful and awesome project is the arms race, as has doubtless been the case at other times in history.

It is unlikely in the near future that most of us will want to devote our lives to selfless goals. Nevertheless, in the foreseeable immediate future most people, whether selfish or unselfish, *will* have to be physically involved in servicing the daily needs of their society.

One key to world prosperity is access to affordable resources. Hence the prosperity of Europe after colonization. With cheap material resources and scientific know-how, society can provide cheap quality nourishment and medication, cheap effective housing, cheap efficient transport and cheap useful appliances. Therefore all willing hands ought to be encouraged immediately to help their geographical region or country to supply the rest of the world with those ecologically sound or renewable resources which they can produce cheaply locally. Willing hands should be encouraged to manufacture and supply, according to need, good cheap standard modular goods and appropriate services. The whole social system ought to be organised and administered in a free whilst fair manner, at minimum knock-on cost, because at least their vocation ought to be a calling. Unfortunately this grand project is unlikely to take hold before further nuclear conflict has brought First World Man to his senses because currently aggression is rewarded and the personality of Christ is jeered.

The Five Propositions

Without curiosity mankind would neither progress nor survive. The drive to ask questions is fundamental to discovery, learning and *living*. Questions are verbal manifestations of problems. All life experiences problems, the most pressing being verbalised as “Where is some food?” All life is, in some very general sense, inquisitive. Materialists would argue that this is an automatic response, needing no deep sense of awareness, like one billiard ball (famine) causing another billiard ball (foraging) to act law-likely accordingly. Quantum mechanics as well as classical chaologists agree that there is tremendous scope for, not just one, but a wide variety of possible responses to real stimuli. The quantum philosopher witnesses his own experience and recognises consciousness as the essential ingredient for understanding questions and divining answers.

In the mathematical theory of light, red corresponds to a wavelength of around a thousandth of a millimetre. This number is not redness itself but quantitatively *represents* redness. Theories are not facts but *represent* the world. What they are representing is, like redness, ultimately some conscious experience. Problems have their origin in consciousness.

There is a Problem

There is a Solution

This is It

That is That



Given consciousness, there is no end, in principle, to the possibility of asking questions in our causal world because one can always ask “Why?” Amazingly it turns out that even the most abstruse questions can, when properly posed, eventually be answered satisfactorily. Problems are actually found to have solutions. This discovery drives man on in his scientific search for the meaning of life, the universe and everything. Certain questions, which seemed sensible classically, are in every sense (feeling and meaning) *not* sensible quantum mechanically. Nevertheless quantum science still substantiates the faith that *sensible questions have meaningful answers*. Even huge generalities, which supply answers to many questions at once, can be induced.

Answers, whether particular or general, arise from conscious effort. An answer is not an answer until it is appreciated consciously. Although solutions can be programmed algorithmically in retrospect, genuine consciousness is required in the original acquisition of the appreciation of and the final understanding of the conclusion to a question. Consciousness is the essential origin of solutions.

The most immediate reality, this conscious, phenomenal, eternally present experience, integrates all sense; impressions and meanings. *This* (waving hands everywhere and pointing), *whatever it is, is the source of the problem and the source of the solution*. The certainty of here-and-now impressions, plus their significance as given by the theory of everything, is this ultimate thing or *itness*. At least if not reflecting, one is perfectly clear about this: *one is perfect sense!*

Having an answer so general that all possible questions are answered enables one to transcend questions and answers, problems and solutions. By experiencing the manifest wholeness of phenomena with deep understanding, problems and solutions are transcended. At this depth of consciousness one performs consciously but unselfconsciously because problems are solved directly so that reflection is hardly necessary.

Since no insoluble problems arise, having the theory of everything at hand, the resulting consciousness entertains no doubts, which result from confusion rather than ignorance. When ego is dissipated and the sensor identifies physically with the sensed then the whole cosmos is understood as a manifestation of his cosmic consciousness, as his brain manifests to another an everyday mind.

When one dies and the chemical order is eventually eroded, there remains cosmic consciousness. When nuclear matter is destroyed there remains unity consciousness. This invincible consciousness is the

UNITY CONSCIOUSNESS AND THE PERFECT OBSERVER

sustainer of all. Wisdom is not silence. If you have a moment, enchant from O to O to o to o to o to o to . , WITH TOTAL RAPTURE AND JOYFUL ASTONISHMENT, BORDERING ON ACCUTE SHOCK, as Ptolemy or the ‘Three Wise Kings from the East’ or Kepler or Einstein may have gazed at the heavens.

“He to whom the eternal word speaketh is set at liberty from a multitude of opinions.” If *there is a problem*, loop until the penny drops.

