

SCIENTIFIC AND RELIGIOUS UNDERSTANDING: Towards a Post-modern Spirituality

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IS 'TRANS-WORLD TRAVEL of the spirit' possible? Is there one world—of which science and religion give us different aspects—or must we accept the fragmentation of our universe into many incommensurable departments, between which we cannot meaningfully be said to journey, but only to leap discontinuously as quanta? Is there, or is there not, a point at which the big human questions—about what is true, what is good, what is beautiful, what is God—finally 'fold together and become one'?¹

'Post-modern' denotes the situation left by the demise of one particular way of understanding the world as a unified whole: the modern way whose origins lie with the project of Descartes. Much contemporary spirituality supposes that this world is still with us, as if there were still a coherent self that could journey in a single coherent world, albeit a somewhat bleak, disenchanted world alien to the human spirit, the so-called 'world of modern science'. Other strands of theology rejoice in the collapse of a world dominated by scientific ideology and hostile to faith. The task of this essay is to look more carefully at the relationship between science and spirituality now developing, as both evolve beyond the fragmentation of the modern self and world.²

The demise of the modern

Descartes sought to build knowledge on irrefutably sure foundations. To gain certainty, paradoxically, we try doubting everything we possibly can, see what is left, and see what can be logically built upon that indubitable remainder, after the manner in which Euclid built his geometry, step by logical step, upon his axioms. That way we arrive at a knowledge-system as tightly unified as Euclid's geometry.

Most of Descartes' argument has been faulted, but his way of proceeding has set the modern agenda. Modernism has been characterized, broadly speaking, by *foundationalism* (the search, via scepticism,

for sure foundations), *deductivism* (the equation of knowledge with provability and certainty), *dualism* (the separation of the subjective world of thought from the objective world of matter) and the *correspondence theory* (the view that knowledge consists in an exact mirroring between these two worlds, so that my thoughts correspond to things).

This had momentous implications for spirituality. The route to God divided into three culs-de-sac. One could take the objective road and see God as the ultimate scientific explanation, the designer of the sublime mechanics that Newton had uncovered as the mechanism of the universe. But Hume consumed that view in the searing fires of his scepticism. One could pursue Descartes' own route from the subjective self to God. Spirituality, with Ignatius Loyola, indeed turned this way, abandoning the old naked and imageless search for direct encounter with God, to see self-discovery, examination of conscience, meditation and moral improvement as the essence of the spiritual life. But Don Cupitt takes this line of spirituality to its conclusion when he shows that we can retain faith's subjectively inspiring images but dispense with the objectivity of God. Finally one could adopt a spirituality of 'correspondence'. Thus Protestantism froze the objective pole into a static verbal revelation which it was our task simply to believe, making our subjective selves 'correspond' with our objective redemption. But Protestantism's own scriptural researches have uncovered the amount of subjective faith that is already there behind the supposedly objective revelation: the Jesus of history blurs into the Christ of faith, object into subject, confusing the correspondence between the two.

Broadly speaking, however, modernism has failed to make any progress or clarify anything about what it means to know. All knowledge is open to doubt; indeed Karl Popper has shown that it is precisely the dubitability of statements that makes them testable and hence stand a chance of being found true. Foundationalism has collapsed, and taken deductivism with it. Dualism, having divorced mind from matter, has proven incapable of stitching them together again into a coherent world, for no coherent account of correspondence has been forthcoming.

More generally, the different branches of science, philosophy and theology have each pursued their own specialism to the limits; the question of relating their 'discoveries' to those of other specialisms now lies beyond the scope of any specialism. The result is the disappearance of 'the Universe', and in effect the inadvisability of speaking of the results of our academic practices as 'discoveries' at all. Our results remain local to our procedures; there are no 'global' variables that apply across disciplines, let alone any deductive system that could embrace them all.

But this has a profound effect on our spirituality. The objective God disappears, but so does the idea of a spiritual development that can assimilate the knowledge embodied in diverse disciplines and mould them into a coherent wisdom or vision of life. One possible response—Don Cupitt's, for example—is to look for a spirituality without knowledge. Another—mine—is to look for a spirituality of knowledge without deductive certainty, wisdom without foundations.

Groundless wisdom in science and elsewhere

A look at the way we know things—in everyday practice and in the more sophisticated practices of science—reveals that the foundationalist enterprise plays but a limited role, and never did or could play the all-encompassing role modern philosophy tried to assign to it. Three kinds of knowledge may be distinguished: knowing *someone or something*, knowing *how* to do something, and knowing *that* something is the case.³ None of these can be seen as basic; each draws on the others.

Chinese astronomers regularly noted events in the heavens like supernovae, sunspots and the appearance of new stars. Western astronomers, even when they had devised the observational equipment to do so, never observed such changes until the theory of Copernicus gave them, in addition, the necessary theoretical equipment. Before that the heavens were perceived as the unchanging spheres that Ptolemy's cosmology described. With this and countless other examples, Thomas Kuhn and others have shown us that our basic perceptions, and *especially* our scientific observations, are theory-laden.⁴ Empiricist foundationalism sought to build theory on self-evident experience; but experience proves to be theory-dependent.

Looking at a piece of rock, I will see just an unusually pretty pattern. A scientist may discern the fossil of a creature that lived millions of years ago. A creationist may see the cunning etchings of the devil, tempting us to doubt the Word of God. People with different understandings have different experiences. They have no common language to compare their experiences in; their theories and their data are 'incommensurable'. The creationist and the evolutionary scientist inhabit—Kuhn would say—different worlds, and there is no wider objective framework in which to compare and say which is right. We cannot progress or grow from world to world, only leap or convert.

Here then is one way forward for faith—to mark itself off from science as an 'alternative world', or to take up Wittgenstein's phrase, an alternative 'way of seeing'. The fragmentation of the modernist world into a plurality of incommensurables is welcomed as liberating religion

from the scientist's tribunal. This 'live and let live' approach is popular today. Unfortunately, it leaves us no hard testing ground to distinguish faith from fantasy, spirituality from religious indoctrination.

Moreover, behind this seemingly tolerant relativism lurks a new kind of absolutism. On the grounds that experience is theory-laden, the foundation has been shifted from experience to theory, from direct knowledge to propositional knowledge, knowing-that. Language and formulation are now absolute. There being no world to compare theories and judge which best corresponds, we are left with a set of different theory-worlds, some religious, some secular, each an absolute and irrefutable law unto itself. The continental structuralists took a similar step in making languages into absolute, self-contained systems, with the real world and real people reduced to a kind of by-product of language. 'In the beginning was the Word'—and no way of getting beyond the Word.

But we interact with 'the world' in many ways other than by verbally describing it. There is surely something there which the evolutionist, the creationist and I are all describing in our different ways. Of course we cannot say what it is except in our different terms, but unless we can affirm that it is in some sense the *same* rock, the relativist point about the different aspects is lost. The fact that I can be facing one way and seeing the sun rise, whilst someone looking elsewhere sees the moon set, tells us nothing deep. It is only when we think of the possibility that Tycho Brahe and Johannes Kepler could have looked on the *same* event, and the former would have seen the sun rising above the stationary earth, whilst the latter would have seen the earth tilting towards the static sun⁵—only then do we begin to grasp the impact of relativism. The relativist thesis can only be articulated alongside the assumption of a real, theory-independent world.

So theory interilluminates with experience.⁶ Theory can show us a new aspect of an object. But the object is more than the aspect with which that theory happens to interilluminate. The object is, perhaps, the sum-total of all possible interilluminations with theories, but we do not know what that totality is, there is always the possibility of something new. And the object helps illuminate the theory in turn. We understand the Copernican theory a bit more by the thought of Kepler's perception of the sunrise. Objects act as *models* for theories. Kuhn—like the continental structuralists—totalized theory, and ignored this dialectical interaction between theory and experience.

Were it the case that we were progressing towards some all-encompassing mega-system—a 'Glass Bead Game', perhaps⁷—in

which all previous kinds of knowledge, religious and secular, were subsumed, then one might well feel that 'reality' would be some kind of product of the system. It is precisely the clash of diverse thought systems and cultures—and the unanticipated interilluminations between them—that gives one the sense of a reality that transcends all our attempts to articulate it, and in its many aspects resists reduction to any particular theoretical framework.

But how can we articulate that world beyond language? Or if experience is burdened with, and presupposes theory, what is theory itself burdened with, what does theory presuppose? My suggestion is that it is burdened with practice; that knowing-that relies on knowing-how. Theories are ways of teaching us how to see, how to relate; in Wittgensteinian terms, each language game manifests a way of life.

Michael Polanyi has taught us to see scientists as a community engaged in certain modes of relating to each other, passing on traditions that are skills of interacting, through experiment, with the world. Each theoretical system of knowledge—religious or secular—is also a social system of interaction.⁸ And as Michel Foucault has shown, the axioms of the theoretical system, as well as forming the supposed base for experience of the world, demarcate an 'us'—the community that accepts the articles of faith—from the 'them', the outsiders. In the medieval, religion-dominated era, the heretic or infidel was the paradigm outcast, and the scientist was suspect as a sort of heretic; in the modern, science-dominated world the paradigm outcast is the irrational, the lunatic, a category generally regarded as including the religious!⁹

So theory is laden with social practice, all too often the practices of power. I have argued that true theory is theory that enables *diouisia*—not a relation of power but a dialogue of being between equals.¹⁰ To know the world is not to submit to it and worship it as in paganism, nor to seek mastery over it as in the ideologies associated with modern science, but to gain a rapport in which action and passion are balanced. To know how to sail a boat is not to drift about aimlessly in every wind and current until you capsize, nor to fix on a predetermined rudder angle regardless of changes in wind and wave and any rocks you may subsequently observe, but to correlate your area of control—the tiller and the sails—responsively with the area beyond your control—wind, rock and wave—to achieve your (significant word!) objective.

Such correlation is, I argue, the root of our sense of an 'objective' world, and at the same time the root of our sense of our subjective selves. Self and world emerge simultaneously through interaction. Our interac-

tion, moreover, generates a great deal of what Polanyi calls tacit knowledge, knowledge that we have not, perhaps cannot put into words, into theory. The number of people who know how to ride a bicycle vastly exceeds the number who can describe in theory how it is done!

It is highly significant that in quantum physics the basic concept is interaction.¹¹ No determinable reality is there prior to the experimental interaction. The particle and wave aspects cannot be reconciled into a single independently existing substance. Nonetheless quantum theory encompasses this incommensurability within itself, by being a single coherent body of theory that predicts particle and wave aspects. The coherence is not picturable, but is acceptable if we allow the interaction, rather than the things that interact, to be the fundamental reality.

The notion of a theory that encompasses incommensurability within itself is an interesting one. In his Incompleteness Theorem, Kurt Gödel showed that no self-consistent set of axioms could prove all the truths of mathematics. We have either to accept truths outside our favoured system, or if we wish for a 'theory of everything', adopt axioms that embrace conflict and paradox. Modern scientific theories have accepted a limited vision in the interests of consistency; perhaps poetry and religion welcome paradox and ambiguity as the inevitable price of the wider vision.

There is a real choice here in our style of description, between the demands of simplicity, depth and universality. Take a piece of computer art. I can store it as a data file in which every dot of it is recorded on the computer disc. This record is very long, but accurate—every dot in the picture is precisely recorded. I achieve universality at the expense of simplicity. Or I can store it as the programme I used to generate it—a set of instructions for making the picture. This programme is short, but there may be dots on the original picture that the programme does not produce. The programme is simple, but not universal. We can call it deep, in the sense that the programme needs to be run many times before the picture is produced; while the data file method is shallow and instant.¹²

Modernism sought for simplicity and depth in the universe; it looked for a simple set of laws capable of generating, by many reiterations through time, the universe we have. Often modernism would discount features of experience that did not fit this elegant simplicity. Postmodernism is shallow but tolerant and universal. It has sought to let our experience be just what it is, not tracing anything to deeper causes and underlying realities, but savouring *jouissance*¹³ in the sheer inexplicable variety of appearances.

Modernism came up against conceptual limitations as to how far we can ever think of a simplicity deep down underlying all phenomena. After all, even in a relatively simple piece of computer art it may be impossible to decide whether a simple programme generated it, or to tell what the programme might be, unless the programmer lets us in on the secret. The universe, then, may be the manifestation of a simplicity too deep for us ever to recover, too deep for us to know whether it is there or not. Unless the universe itself finds some way of letting us know.

We cannot 'refute' postmodernist relativism and its spirituality of *jouissance*. But such relativism opens up the possibility of meanings not accessible to our world-view but lying in incommensurable others. That opens our ears to what we have not yet the minds to understand. We may still listen for the universe's secret, in a spirituality of thought-forsaking attentiveness and hopeful waiting.

Three steps for post-modern spirituality

The way to that waiting is then not away from modern science and modern scepticism, but deeper into its question. We need not just to ask the questions, but to become them, or realize that we are them.

As a first step towards this, we note that the science that has revealed the world as a process of evolution is itself a product of evolution. We can know the world because through evolution our matter is attuned to other matter. So the science that often teaches us to accept the world as the 'meaningless' product of chance processes itself consists of a body of material structures—experimental apparatuses, marks in text-books, vibrations in air made over seminar tables—which, if genuinely meaningless, undermines the meaning of its own suggestion that the world is meaningless! In the science that proclaims meaninglessness we find an instance of the deep meaningfulness of the matter that, through the scientific process, is coming to understand its own meaninglessness!

Therein lies the paradoxical heart of post-modern spirituality. In our coming to terms with our own randomness, our sheer 'Godforsaken' materiality, matter is coming to terms with its own spirituality, and fulfilling its divine vocation.

The Japanese Buddhist Keiji Nishitani¹⁴ criticizes the modernist, Cartesian scepticism because its doubt is superficial. Deeper than the doubt as to what we know is what Zen Buddhism calls 'the Great Doubt', the doubt we *become*, the doubt that consumes all we are and attunes our very being to the Emptiness of everything. It is the refusal of this doubt that leaves us with a superficial nihilism. When we accept the Great Doubt, the void of nihilism widens to the Dark Night of Prayer. In

that very night we become 'the self-awareness of reality'—reality grasping, in its objective poverty, its richness as subject; in the absence of God as object, his presence as Spirit in my own matter crying out, in the absence of the beloved Object, the presence of Love itself in the subject.

Spirituality here touches on God in a deepening of its agnosticism, embarked as it is on that apophatic way that Western Christendom lost sight of in much of the modern era, and is now recovering.

But if what I have argued is true, such agnostic love of God is not without resources of wisdom. Though it can perhaps never express itself in theory, in the forms of statements *that* God is such and such, of that whereof we cannot speak, we do not (*pace* Wittgenstein) have to remain silent. We can pray, we can sing, we can make poetry; and we can live the divine in our midst.

For the theory of knowledge I have outlined allows of two other ways of knowing where word-world correspondence falls short: as the second step, the *diousia* of our actions; as the third, the interillumination of our symbols.

The unknowableness of the Father, the source of being, the ultimate referent of faith, is complemented by the Spirit, the life of God in our living, and the Word, the secret whispered in our human flesh.

Religious practices embody knowledge if they liberate us, extend the range of our interaction, facilitate *diousia*. They embody ideology if they enslave us, perpetuate one group's powers of action over another, or—as so often in our 'late' capitalism—perpetuate the power of the theory or the system of interaction itself over the interactors. It is a deep paradox of our post-modern era that the ideology of science that speaks of us gaining more and more powers of action over nature has somehow rendered us powerless over ourselves, powerless in the face of our 'power-enhancing', objective knowledge. We have now the power to destroy our civilization and our planet, and feel altogether enslaved and powerless in the face of this power.

The task for a 'spirituality of matter' is precisely to wrest science free from the 'scientific' ideology that has done this to us; to return us from science as an autonomous instrument of power to science as the enabler of *diousia* between us and the world, and each other.

As separate disciplines, science and religion are certainly power-enforcing and ideological, but in inverse ways. Scientific ideology grants us a mastery of nature at the price of submitting to the 'scientific' version of objectivity, whereby we divest ourselves of inherent worth and see ourselves as objects to be manipulated by social and natural forces. Religious ideology grants us a freedom of soul, an inner sense of worth,

at the price of submitting to nature and the powers that be as the embodiment of the law of the God who calls me by name.¹⁵

It is therefore when religion and science interrogate one another that they can cure each other of ideology and open the way to a liberating *diousia*. By showing that the universe obeys laws of nature not justice, science can undercut the tyrant-God who rewards virtue and punishes vice, and the corresponding false spirituality of the subjected, submissive subject; religion can recover the divinity embodied in diontic delight, and restore personal worth in the face of alienating social forces.

Through experiment, science plays the world's games to learn its rules. It tries carefully controlled moves, observes nature's response, and tries to correlate the possible moves under a simple set of rules. All the time it is dealing with those kinds of reality—physical, chemical, biological—of which we ourselves are built, and upon which we can act. But when the reality in question includes our own, when we are looking to discover what we ourselves build up into, and what are the furthest reaches of the possibilities of the human game, we have no longer to perform but to *become* the experiment whereby the conjectures of faith are proven true or false.

Herein lies the painful tension of the spiritual search. The nature of the object is so vast that we cannot but approach with a yet greater degree of tentativeness and agnosticism than scientists themselves show in their researches. And yet the nature of the self-involvement required for the experiment is such that only a life of total commitment stands any chance of finding faith's conjecture true—or false. We require a faith that both teeters humbly on the brink of the unknowable and plunges in with total self-risk.

The tension would be unsustainable without the spark of interillumination, the possibility that as we play its games, the universe may whisper its secret. Poetry is language that embodies its own message; the message is there not only in the slippery meanings of the terms—which indeed generally become even more slippery and ambiguous than in prose—but also in the sound, the rhythm and rhyme and assonance. The whole physical aspect of the poem interilluminates with its object. Typically, religious symbols too combine in unresolved paradox in which the meaning, as we try to grasp it, eludes us. Yet the significance returns as we worship together and the symbols interilluminate with our lives. It is as if religious language slips away beneath the propositional frameworks of our mind, to generate an interillumination between our lives and something unspeakably deep, the life of the world, the grain of the universe, the light and activity of God.

Hence the significance of the Word made flesh. Modernist theology has systematically endeavoured to reduce the revelation back to pure Word, propositional truth about God. But the Incarnate One is surely the poem of God, the life of the world, interilluminating with us not as abstract message but as the fleshly, living being he is. In the fragmentary, outcast truths outside the religious system, which Christ gathers together in his parables and his life, he kindles the fire of a rapport with the heart of the world. A secret, once told, breaks the code of things: the whole universe is now readable as a single open mystery, forever dying, forever rising anew.

The reading, however, is not by our minds but by our lives. We journey now across worlds that will not reduce to a single deductive framework. Our conceptual 'worlds' may not meet; but we ourselves are pathways for the real world's self-meeting.

NOTES

¹ Cf my *Holy ground* (London, 1990), p 265.

² Among English theologians, Don Cupitt has taken postmodernism seriously, notably in his *Life lines* (London, 1986).

³ Cf Ryle, Gilbert: *The concept of mind* (Harmondsworth, 1963), ch 2: 'Knowing how and knowing that'; Russell, Bertrand: *The problems of philosophy* (Oxford, 1959), ch 5: 'Knowledge by acquaintance and knowledge by description'.

⁴ Kuhn, Thomas: *The structure of scientific revolutions* (Chicago, 1962), p 117.

⁵ Cf Hanson, N. R.: *Patterns of discovery* (Cambridge, 1969), p 4.

⁶ I introduce the term 'interillumination' in *Holy ground*, p 48.

⁷ This was the fictitious game Herman Hesse describes in his novel of that name. Played by a quasi-monastic community, it is said to embrace all the possibilities of human thought, knowledge and imagination. In Wittgenstein's terms it is the game that embraces all language games as subsets of itself.

⁸ Cf *Personal knowledge* (London, 1973).

⁹ Cf *Madness and civilization* (tr., Tavistock, 1967).

¹⁰ I introduce this concept in *Holy ground*, p 133.

¹¹ Cf Hanson, *op. cit.*, p 122.

¹² The information theorist Charles Bennet has developed a concept of depth in this sense to explain what distinguishes the order of a living being (realized by the reiteration of the programme contained in its Genetic Code) from that of a crystal (shallow repetition of a pattern). Cf *Holy ground*, pp 199–203. When John Barrow—in *Theories of everything* (Oxford, 1991), pp 10–11—writes of science as the search for 'algorithmic compressibility', he is describing it as the replacement of complex, shallow descriptions with simple and deep ones.

¹³ The term used by the postmodern psychoanalyst Jaques Lacan; hard to translate without loss, it roughly means joy or enjoyment.

¹⁴ *Religion and nothingness* (California, 1982), pp 16–21.

¹⁵ Cf the analysis of religion as ideology in Althusser, Louis: 'Ideology and the ideological state apparatuses' in *Lenin and philosophy* (London, 1977).