MENTALISM – A PHILOSOPHY OF SCIENCE

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Abstract - Physical scientists generally take a materialist/reductionist approach to research, central to which is a belief in something called "matter", representing a reality apart from that of the scientist; an *independent* reality of a separate, "external" world which can be studied with total objectivity and thus induced to yield its secrets to the impartial researcher. This belief has been remarkably fruitful in advancing knowledge of the *mechanics* of physical systems, i.e., of how "things" act on other "things".

"Things", however, are not what they seem. Appearances to the contrary, the independent reality of an "external", "material" world has never been and can never be established. Belief in the independent reality of something called "matter" is a monstrous fallacy based on an unproved and unprovable assumption that has hobbled and warped scientific thinking for centuries.

Scientists are increasingly being forced by the sheer logic of their own research findings to accept a new Mentalist paradigm.

To advance much further, science must return to its philosophical roots for a fresh look at metaphysics. This paper restates, in modern terms, the ancient doctrine of Mentalism: that in the last analysis, Mind is All that Is, and shows that this is fully consistent with the *whole* of human knowledge and experience.

Keywords: Mind, reality, existence, essence, Being, substance, idea, ego, change, "matter", dream, universe, Solipsism, consciousness, paranormal, paradigm

Introduction

Extraordinarily simple, yet profound, Mentalism is the doctrine that only one Being, Cosmic Mind, is real; that all phenomena, including ourselves, exist as temporary projections within that Mind; that the universe is a display of Mind, by Mind, to Mind. Mentalism discriminates between reality and existence, declaring that Mind is the *only* reality – the changeless That which *always is*. The existent comprises changeable phenomena that are manifested and

animated by Mind, their *substance* in its true, original meaning. The universe exists, but is unreal as such; it derives its apparent reality from that of the Mind that generates it.

Cosmic Mind's infinitely varied manifestations arise, are sustained from moment to moment, and pass away within It. Such manifestations include all possible objects, realms of experience, dimensions, parallel or divergent universes, "multiverses", space and time. All of these, and any conceivable or inconceivable others, are ideas in that Mind, which is conscious and supremely aware through Its progeny, creatures like us, of all events, in all times and places, simultaneously.

From our individual standpoint, all experience, *without exception*, is wholly and entirely mental, including everything that we incorrectly assume to be independent "matter" separate and apart from us. The belief that there is a "real", "material", *independent* world "out there" is a misapprehension of experience. There is only the One, Infinite Mind, in which we, like everything else, appear to enjoy a temporary existence as Its thoughts, but in which in essence, as Mind Itself, we are birthless and deathless.

We normally fail to perceive this because of the existence of the ego, defined here as a strongly-held complex of ideas, focussed on the body and the personality, themselves ideas, which deceives the individual into believing that he or she is uniquely and essentially different from all other people and things.

The similarity of our individual sensations is due to the fact that a common Cosmic Mind is projecting them through us. There is no wholly isolated thing or event. All are interconnected at the deepest level. *If there were not this underlying mental continuum, we could never become aware of each other.*

The perishable individual ego is comparable to a wave on the ocean's surface. Looking out at other waves, coming into momentary existence only soon to disappear, the individual wave may perceive itself as unique, wholly separate from and independent of all other waves, and even mourn the appearance of birth and death amongst its companions and as its own fate. Yet all such illusions are dispelled once it realizes its boundless essential nature, its true self, as *Ocean*.

The Phenomenon of Change

Heràkleitos observed that no man can twice enter the same river. Kratỳlos noted that he cannot do this even once, as he is himself always changing. It is a continuing wonder that humankind can be aware of change taking place all around them, yet, blinded by familiarity, fail to grasp its meaning. Everything is *constantly* changing. Nothing remains the same for two consecutive instants. Moreover, anything that comes into existence at one moment of time, be it an emotion

or a planet, must go out of existence at another moment of time. Obviously, *there is no fixed*, "material" reality.

Every atom, every sub-atomic particle of the table at which one writes, is a fresh projection of Mind each incredibly tiny fraction of a second. The slowly decaying table and the more obviously transitory environment in which it exists, are a continual succession of extremely rapidly-projected images. Just as one ignores the projector while at the cinema, accepting that the sounds and sights on the screen truly represent "external reality" rather than a blended succession of still images, so one is deceived by its continuity into believing that it remains the same table.

Despite the fact that we *know* them to be impermanent, we nevertheless, because of their very ordinariness, unthinkingly accept the false belief that "things" exist as "matter", "outside" us, that *somehow* changes in time, not realizing that the entire panorama is only an enormous, complex event in consciousness, i.e., an idea. Otherwise inexplicable, *the very fact of change requires* a projecting Cosmic Mind of which we are not normally directly aware and that Itself is changeless.

The Psychology of Dream

There are two aspects of common, non-lucid dreaming. First, the individual dreamer projects an entire dream universe, which can comprise anything that can normally be experienced in the waking state: sun, moon, stars, crowds of people, etc., together with the time and space in which they are perceived. The dreamer may even take on a different dream body or personality. Yet, after waking, it becomes clear in retrospect that the dream was the private product of the dreamer's mind, and that the myriad people and events were imaginary.

Secondly, however bizarre the events of the dream may be, the dreamer, while caught up in it, is normally quite unaware of this at the time. He or she confidently accepts its reality as unquestionable.

These are clear signals to warn the dreamer that waking experience may be comparably unreal, creatively imagined through and imposed upon him or her by a powerful Cosmic Mind. In effect, we dream that the world and we as individuals *independently* exist and we are forced, owing to the overwhelming power of Cosmic Mind's constructive imagination as compared to our own, to believe that we are experiencing reality direct, rather than at some remove.

Mentalism and Physics

Research into the nature of "matter" over the past century strongly reinforces the Mentalist position. With Relativity, Einstein established that time and space do not have absolute values. He also confirmed that so-called "matter" ("mass") is interchangeable with "energy". With the Uncertainty Principle, Heisenberg showed that the observer *participates in* every observation. Later findings of quantum physics, such as Bell's determination of non-locality in a superluminal universe, *which implies universal simultaneity*, are replete with Mentalist conclusions, all pointing to the essential unity and timelessness of all being and to the illusory nature of so-called "matter".

Accepting the 1918 Nobel prize for Physics, Max Planck declared: "There is no matter as such! All matter originates and exists only by virtue of a force ... We must assume behind this force the existence of a conscious and intelligent mind. This mind is the matrix of all matter." Although initially reluctant owing to a materialist-oriented training, many scientists, especially physicists, whether or not conventionally religious, or even atheistic, forced by the ineluctable logic of their findings, have independently achieved an insight into the mental nature of the real universe as the culmination of their investigations into the presumed structure of so-called "matter". Some typically Mentalist statements:

Werner Heisenberg: "It is essential that God is in the world and in the I and it is also essential that I cannot really be separated from the world ... All elementary particles are made of the same substance, which we may call energy or universal 'matter' ... atoms or elementary particles are not real; ... they form a world of potentialities or possibilities rather than one of things or facts." (Heisenberg 1962) ... "Atoms are not *things*. When we get down to the atomic level, the objective world in space and time no longer exists." (Heisenberg 1969). [Emphasis in the original.]

Roger Penrose: "Consciousness seems to me to be ... the phenomenon whereby the universe's very existence is made known ... It is only the phenomenon of consciousness that can conjure a putative 'theoretical' universe into actual existence." (Penrose 1991)

Roger Sperry: "Science cannot claim to be complete until it recognizes 'inner conscious awareness' as a causal reality." (Sperry 1987)

Erwin Schrödinger: "Consciousness is that by which the world first becomes manifest, by which ... it first becomes present: that the world *consists of* the elements of consciousness ... their multiplicity [of minds] is only apparent, in truth there is only one mind Mind is always now. There is really no before or after for mind ... Mind has erected the objective outside world ... out of its own stuff." (Schrödinger 1958) [Emphasis in the original]

Hermann Weyl: "The objective world simply *is*. It does not *happen*. (Weyl 1949) [Emphasis in the original].

John Wheeler: "Nothing is more important about the quantum principle than this, that it destroys the concept of the world as 'sitting out there', with the observer safely separated from it ... the universe is a participatory universe". (Wheeler 1981/1993)

Louis de Broglie: "In space-time, everything which for each of us constitutes the past, the present and the future is given en bloc ... each observer, as his or her time passes, discovers, so to speak, new slices of space-time which appear to him or her as successive aspects of the material world, though in reality the ensemble of events constituting space-time exists prior to his or her knowledge of it." (de Broglie 1959)

David Bohm: "In nature, nothing remains constant. Everything is in a perpetual state of transformation, motion and change ... It is possible to understand the universe as a unique and independent actuality, which includes both observer and observed ... Each object, event, process, etc., is determined in principle, but ultimately, the ground of this determination is the undivided totality of the universe itself. The latter is indeed *self-determined*". (Bohm 1984). "The primary emphasis is now on *undivided wholeness*, in which the observing instrument is not separable from what is observed". (Bohm 1983). [Emphasis in the originals]

Walter Heitler: "The separation of the world into an 'objective reality' and 'us' can no longer be maintained. Object and subject have become inseparable from each other ... No sharp line can be drawn between an outside world and the self-conscious observer who plays a vital role in the whole structure, and cannot be separated from it." (Heitler 1959)

Niels Bohr: "... the development of atomic physics ... forces us to an attitude towards the problem of explanation recalling ancient wisdom that when searching for harmony in life one must never forget that in the drama of existence we are both actors and spectators." (Bohr 1959) Wolfgang Pauli: "It would be most satisfactory of all if physics and psyche could be seen as complementary aspects of the same reality." (Pauli 1955)

Kurt Gödel: " ... one is led to conclusions about the nature of time which are far-reaching indeed ... one obtains an unequivocal proof for the view of those philosophers who ... deny the objectivity of change and consider change as an illusion or an appearance due to our special mode of perception." (Gödel 1959)

Commenting on this statement, Einstein said: "Kurt Gödel's essay constitutes, in my opinion, an important contribution to the general theory of relativity, especially to the analysis of the concept of time." (Einstein 1959)

Albert Einstein: "For us convinced physicists, the distinction between past, present and future is only a stubbornly persistent illusion ... time is not at all what it seems. It does not flow in only one direction, and the future exists simultaneously with the past." Einstein 1955)

"A human being is part of the whole, called by us 'Universe'; a part limited in time and space. He experiences himself, his thoughts and feelings ... as something separated from the rest – a kind of optical delusion of his consciousness ... a prison for us ... Our task must be to free ourselves from this prison." (Einstein 1972)

"The true value of a human being is determined by the measure and the sense in which he has attained to liberation from the self". (Einstein 1956/1990) [Emphasis in the original] Sir James Jeans: "The universe begins to look more like a great thought than like a great machine ... The old dualism of mind and matter seems likely to disappear ... through substantial matter resolving itself into a creation and manifestation of mind." (Jeans 1930) " ... discussing the creation of the universe in terms of time and space is like trying to discover the artist and the action of painting by going to the edge of the picture. This brings us very near to those philosophical systems which regard the universe as a thought in the mind of its Creator, thereby reducing all discussion of material creation to futility". (Jeans 1931) Sir Arthur Eddington: "The stuff of the world is mind-stuff ... The realistic matter and fields of force of former physical theory are altogether irrelevant – except in so far as the mind-stuff has itself spun these imaginings ... It is difficult for a physicist to accept the view that the substratum of everything is of a mental character. But no one can deny that mind is the first and most direct thing in our experience, and all else is remote inference ... Recognizing that the physical world is entirely abstract and without 'actuality' apart from its linkage to consciousness, we restore consciousness to the fundamental position ... The idea of a universal mind or Logos would be, I think, a fairly plausible inference from the present state of scientific theory".

Fred Alan Wolf: "There is not the slightest shred of evidence that proves the existence of a physical world acting independently of human thought ... There is one mind and one mind only ... For the one mind to know, it must project itself ... From the one mind, all minds and all experiences are projected ... 'I' am all my projections ... All is one." (Wolf 1986)

(Eddington 1930)

Finally, a purely Mentalist statement from John Wheeler: "To my mind there must be, at the bottom of it all, not an equation, but an utterly simple idea. And to me that idea, when we finally discover it, will be so compelling, so inevitable, that we will say to one another, 'Oh, how beautiful! How could it have been otherwise?" (Wheeler 1985)

With Arthur Koestler, Mentalism is now able to say, "Since the concept of matter itself has been dematerialized by the physicists, materialism can no longer claim to be a scientific philosophy." (Koestler 1975)

Mentalism and Cosmology

Mentalism solves the questions, "What was the 'Big Bang'?"; "How did the universe come into being?"; and "What is the fate of the universe?".

Mentalism begins by pointing out that the "Big Bang", if indeed it ever took place, is a materialist concept which postulates that the entire universe, at its beginning, was inconceivably dense "matter" compacted into a superhot "singularity", a "cosmic egg", or, the latest fashion, a "pea instanton". What this is composed of and where it came from is never made clear.

Mentalism holds that the very concept of such a "singularity", by any label, begs the question, as it contains within itself an unproved and unprovable *assumption*, that of the independent existence of "matter". The materialist view inevitably generates questions, such as "What was before the 'Big Bang'?", to which it is unable to provide coherent answers.

To Mentalism, before any such first event there was a timeless, spaceless void which, although itself empty of phenomena, contained within itself all that is, as a potentiality. Absolute Mind in Itself alone was, and is. As viewed from our side, "Creation" appears to have taken place when Mind actively projected the universe out of Its own Being, creating both time and space in the process, while still retaining Its ineffable character as Absolute Mind. The apparent sequence of events thereafter is more or less as depicted by physicists.

As to its fate, the projected mental universe will apparently continue to expand either until through entropy it disappears in the "heat death", or until, in the fullness of time, gravity will cause its collapse into the so-called "Big Crunch". Thereafter, Absolute Mind will once more reign alone and unmanifest in a timeless, spaceless void.

In either event, it is conceivable that this could be followed by yet another creative emanation. There is no reason why the same process of apparent projection and re-absorption of universes cannot continue forever in an endless series.

This, however, would only be the way in which such universes would manifest and disappear as perceived by an individual creature caught up in this process. To Absolute Mind-in-Itself, nothing at all will have occurred, while from the standpoint of the all-comprehending "Creator" Mind-in-the-Universe, everything is happening at once; to It there is no succession, including that of universes.

What Mentalism is Not

Mentalism has been much misunderstood and misrepresented by unthinking critics who reject it without taking the trouble properly to examine its tenets.

Mentalism is not nihilistic; it does not postulate the non-existence of the world. What Mentalism denies is that "material" things, although they unquestionably exist, are real in some totally *independent*, physical sense. Mentalism holds that all things are *wholly* and *entirely* mental things, projected by Cosmic Mind through all our little minds, not merely reflected mental images of unknown and unknowable "material" things.

In disposing of "matter" as an *independent* reality, Mentalism affirms the underlying "deep" reality, Cosmic Mind, that, Itself not directly detectable by the senses, proclaims Its being in every manifestation.

When Mentalism describes the world as "idea", this should not be taken as equating the world with the insubstantial ideas held solely by individuals. The substance of the universe is real - Cosmic Mind - true substance that underlies and animates appearances which, although they exist, are unreal in their fleeting form, but timeless, hence everlasting in their essence. In the final analysis, therefore, the universe *is transcendentally* real – but not real in the limited, inferior sense in which the average "individual", self-trapped in "time" and "space", assumes it to be.

Mentalism is certainly not the naïve belief expressed by one critic: "We just couldn't survive very long in the world if we treated all material objects (such as cars on the highway or poisonous substances) as unreal 'dream stuff'. Interacting with material bodies produces very significant consequences." (de Quincey 1997).

This confuses personal dreams, the transient products of the individual mind, with physical objects, the continually-sustained products of Cosmic Mind. The "dream" of Universal Mind is the everyday "material reality" of common experience. *Essentially* real, the world is not composed of "unreal dream stuff". As a form of Cosmic Thought, it is certainly based in reality, but is not an independent "material" entity apart from the Mind that projects it and with which it is forever subliminally united.

Mentalism does not claim that the entire universe itself is contained within the human brain. The brain, itself an object of consciousness, is not the mind, nor is the mind, or consciousness, limited to the brain. Mentalism regards consciousness as universal and *not* an epiphenomenon. Hence, humankind did not "evolve" consciousness. While "inner", "outer", "before" and "after" are themselves only spatial and temporal ideas, it would be truer to say that the brain is

in the mind and that consciousness, being both primal and ubiquitous, "evolved" humanity, not the other way round. Accordingly, contrary to common opinion, *there is no "mind/body problem"*.

Despite its assertion that past, present and future are co-equal and that everything, from the cosmic standpoint, is happening at once, Mentalism does not deny free will. It accepts the possible existence of an infinite number of parallel worlds, each *apparently* brought into being by an individual exercise of free will, all of the phenomena of which would nevertheless be projected from, animated by, and forever present to Cosmic Mind.

Mentalism is not Solipsism, except in the very special sense that the "Ipse" is understood to be Cosmic Mind, the ultimate Self of all things, not the individual ego. From the standpoint of Cosmic Mind, It alone *IS*.

Although Mentalism, as such, prescinds from theology, it does not deny "God". "God" is a label for Cosmic Mind, which has projected time, space and the countless entities and events that manifest in them. Both immanent and transcendent, "God" does not so much "create" the world as It appears, from our individual standpoint, to become the world.

Cosmic Mind, although One, has two aspects: The Absolute, Mind-in-Itself; and Mind-in-Action, the "Creator" of the universe. To achieve an insight into the essential oneness of all things in "God", through Its nearest and only practicably approachable manifestation, i.e., the individual self, is the acknowledged or hidden goal of all religious worship, mystical practices, metaphysical analyses and philosophical quests.

While emphasizing the ineffable nature of Mind, Mentalism does not deny the possible existence of a personal God or gods or other beings who may or may not inhabit heavens, hells, or other realms not normally perceptible by humankind. Nothing is impossible to infinite Mind.

Mentalism considers good and evil to be purely relative terms and that all perceived dualities dissolve in the unity of Mind. Mentalism does not deny post-mortem survival of the ego, nor does it reject individual reincarnation. It merely asserts that all phenomena, whatever they appear to be and whenever or wherever they occur, are ideas in Cosmic Mind, hence inescapably limited in time and extent when viewed from our side. Nevertheless, in what to us appears a paradox, from the standpoint of Cosmic Mind Itself, everything that ever was or ever will be, already *IS*, fixed forever in Its infinite, timeless contemplation of Its "creation".

Obstacles to Acceptance of Mentalism

The primary difficulty faced by most people when they first encounter Mentalist doctrine is that it appears too alien to their normal thinking, whereby they judge the reality of things by what appear to be their "physical", "material" characteristics: accidents such as hardness, weight, colour, location, etc. The apparent concreteness of "matter", coupled with its apparent externality, persuades them falsely to equate Mentalism with insubstantiality.

Deceived by the "outsideness" of the "external" world, they overlook the fact that every experience is a mental one by definition; that no experience other than mental experience is even possible; and that what appears external to the body is simultaneously internal to the observer's mind.

A more intractable problem is that, because of their innate, ego-centred materialism, many people *do not want* Mentalism. It is not to their taste and may actually terrify them. They wrongly fear that Mentalism will render valueless or cause to disappear everything that they cherish, above all, their egos. Hence, they refuse to believe that their limited personal existence, as an entity forever separate and apart from all others, is illusory. They fail to see that, although their present ageing body and changing personality are obviously perishable, in essence they themselves are immortal.

Mentalism and the Paranormal

The paranormal has been defined as beyond what should occur if only the known laws of cause and effect are operating (Dale et al. 1977). Such "laws" are materialist concepts which assume that events are able to act upon other events only because they precede them in time. While they normally appear that way, this is because of the limitations of our own perceptions, not because that is how they truly are.

That Mentalism can perceive all events as happening at once is demonstrated by documented episodes of retrocognition, precognitive dreaming and prophecy and the experience of remote viewers, who have found time to be no barrier to perception.

Given its basic postulate of a single, Cosmic Mind, that underlies, permeates, and indeed *is* the whole of reality, Mentalism is clearly consistent with every manifestation of *psi*, including all forms of extra-sensory perception (ESP) and psychokinesis (PK).

To Mentalism, there is no such thing as pure coincidence. All "coincidences" are meaningful, i.e., quite literally, synchronicities, all of which further clearly demonstrate the underlying mental nature of experience.

The "placebo" effect in medicine; the "experimenter" effect and the division of experimental subjects into "sheep" and "goats", characterised by their performance in parapsychological tests in accord with their basic beliefs; out-of-body experiences (OOBEs), near death experiences (NDEs) and the multitudinous phenomena of psychic mediumship, including dowsing, psychic and faith healing, as well as the manifold varieties of mesmerism and hypnotism, clearly show that all individual minds are inescapably interdependent, rooted in and subliminally interconnected via Cosmic Mind. Indeed this normally unperceived mental link is the *only* valid explanation for all paranormal phenomena.

Summary

There is only one Being, Cosmic Mind, self-born, self-generating; the substance, in that word's true, original meaning, of the universe. Mind Itself is timeless, spaceless, and real. The universe It projects within Itself is alive, conscious and mental. The universe exists, but is not ultimately real as such; it derives its apparent reality from that of the non-material Mind that projects and animates it.

Separateness is an illusion; all "things" are ultimately interconnected and whole. There is no *independent*, "material" world apart from its appearances. The universe, a vast presentation of Mind, by Mind to Mind, perceived as external to the body, is internal to the mind of the observer.

Past, present and future are co-equal, hence time itself is an illusion, as is space. All events are actually happening at once. We must perceive the universe in a before/after sequence of apparent causality, set out in a space/time framework, if we are to perceive anything at all, including our individual selves, although that is not how either the universe really is, or we really are.

Perception, therefore, is deception. Although they exist, we may also *know* that "things", as such, are unreal *because* we perceive them. There is only the one Mind, our own ultimate Self, which is the unnoticed source of our individual sense of reality and selfhood. This may be called Solipsism, but only if the "Ipse" is clearly understood to be the Cosmic Self that underlies and animates all our little selves.

Based on pure reason, Mentalism provides the framework required to explain all apparent psychic anomalies. Moreover, it is increasingly confirmed by modern developments in physics,

answers basic cosmological questions, sheds light on the darkest enigmas of metaphysics and religion, and clarifies the true nature of the so-called "soul" and "God". All is One.

Afterword

Einstein has warned us that what is most basic in Physics is not the mathematics but rather the underlying concepts. One such concept, the belief in the *independent* reality of something called "matter", is a monstrous fallacy, based on an unproved and unprovable *assumption* that has hobbled and warped scientific thinking for centuries. Scientists are increasingly being forced by the sheer logic of their own research findings to accept a new Mentalist paradigm.

As Thomas Kuhn pointed out, in a similar context, "Priestley and Lavoisier both saw oxygen, but they interpreted their observations differently. Aristotle and Galileo both saw pendulums, but they differed in their interpretation of what they had seen." (Kuhn 1970).

Both the materialist and the mentalist perceive exactly the same world, but interpret the experience differently. The naïve materialist uncritically accepts the superficial testimony of the physical senses, whereas the intuitive mentalist *sees through* the same surface experience into the underlying Reality, the truth of which, once fully understood, is self-evident. For Mentalism, therefore, there are two viewpoints, the materialist and the mentalist, from which one may choose to consider the world. The first is that of the imagined "individual", who appears normally to perceive events sequentially from within what seems to be his or her own peculiar time-space framework, which may or may not be similar, but is never quite identical, to that of any other "individual". The second is that of the all-encompassing, timeless Cosmic Mind, which both consciously experiences all events and evolutionary sequences of events to be happening at once within Itself, and is supremely aware of Its own indescribable nature as Absolute Mind. To choose the second viewpoint, the "individual" must be both willing and able to discard his or her ego-spectacles, with their built-in distortion lenses.

Logically unassailable, Mentalist doctrine has stood the test of time. The higher Hindu and Chinese philosophies, including Buddhism, are purely Mentalist in character, quite apart from any associated religion, *vide* Shankara's "Crest Jewel of Discrimination", Gaudapada's "Karika" (Commentary on the Mandukya Upanishad), the "Ashtavakra Samhita" and the "Lankavatara Sutra", with its momentous final declaration, "But if only they knew, they are already in Nirvana, for in Noble Wisdom, all things are in Nirvana from the beginning".

References

- Bohm, David (1984), *Causality and Chance in Modern Physics*, 2nd Edition, London, Routledge & Kegan Paul
- Bohm, David (1983), Wholeness and the Implicate Order, London, Routledge/Ark
- Bohr, Niels (1959), "Discussion with Einstein on epistemological Problems in Atomic Physics". In Schillp, Paul Arthur (Ed) *Albert Einstein Philosopher-Scientist*, N.Y., Evanston & London, Harper & Row, Harper Torchbook edition
- Dale, Laura A & Rhea A. White (1977). Glossary of Terms Found in the Literature of Psychical Research and Parapsychology. In Benjamin B. Wolman, Laura A. Dale, Gertrude R. Schmeidler and Montague Ullman (Eds), *Handbook of Parapsychology*, 1977, Jefferson, North Carolina & London, McFarland & Company Inc.
- de Broglie, Louis (1959) "A General Survey of the Scientific Work of Albert Einstein". In Schillp, Paul Arthur (Ed). *Albert Einstein Philosopher-Scientist*, N.Y., Evanston & London, Harper & Row, Harper Torchbook edition.
- De Quincey, Christian (1997). The Final Frontier. *Institute of Noetic Sciences Review 42.31* Eddington, Sir Arthur (1930) *The Nature of the Physical World*, N.Y. Macmillan/Cambridge UP Einstein, Albert (1955) Correspondence with Michelangelo Besso 1903-1955. P. Speziali (Ed) Hermann, Paris 1972. Quoted in Coveney, Peter & Roger Highfield. *The Arrow of Time*, London, Flamingo 1991.
- Einstein, Albert (1956/1990). *The World As I See It*. N.Y. Quality Paperback Books, 1990 Einstein, Albert (1959) "Remarks concerning the Essays Brought Together in this Co-operative Volume". In Schillp, Paul Arthur (Ed.), *Albert Einstein Philosopher-Scientist*, N.Y., Evanston & London, Harper & Row, Harper Torchbook edition
- Einstein, Albert (1972). <u>New York Post, November 28, 1972</u>. Quoted in Le Shan, Lawrence, <u>The Medium, The Mystic, and the Physicist</u>, N.Y. 1975/1982. Ballantine
- Gödel, Kurt (1959), "A Remark About The Relationship Between Relativity theory and Idealistic Philosophy". In Schillp, Paul Arthur (Ed.) <u>Albert Einstein Philosopher-Scientist</u>, N.Y., Evanston & London, Harper & Row, Harper Torchbook edition
- Heisenberg, Werner (1962), *Physics and Philosophy*, N.Y. Harper & Row/Penguin Books Heisenberg, Werner (1969), "Der Teil und das Ganze" ("The Part and the All"). Autobiography. Munich. Ouoted in Arthur Koestler (1975), 248
- Heitler, Walter (1959), "The Departure from Classical Thought in Modern Physics". In Schillp, Paul Arthur (Ed.) *Albert Einstein Philosopher-Scientist*, NY. Evanston & London, Harper & Row, Harper Torchbook edition
- Jeans, Sir James (1931), <u>The Universe Around Us</u>, N.Y. Mcmillan/Cambridge University Press Jeans, Sir James (1930), <u>The Mysterious Universe</u>, N.Y. Macmillan/Cambridge University Press
- Koestler, Arthur (1975), "Order from Disorder". In Hardy, Alister, Robert Harvie & Arthur Koestler. *The Challenge of Chance*, N.Y. Random House/First Vintage Books edition
- Kuhn, Thomas S. (1970). *The Structure of Scientific Revolutions*, University of Chicago Press
- Pauli, Wolfgang (1955), "The influence of archetypal ideas on the scientific theories of Kepler" in C.G. Jung and W. Pauli, *The Interpretation of Nature and the Psyche*, N.Y., Pantheon, Bollingen Series L1.
- Penrose, Roger (1991), The Emperor's New Mind, London, Vintage
- Schrödinger, Erwin (1958), What is Life?, Cambridge University Press
- Sperry, Roger (1987), "Structure and Significance of the Consciousness Revolution". <u>Journal</u> <u>of Mind and Behavior</u> 8, 37-66

- Weyl, Hermann (1949), *Philosophy of Mathematics and Natural Science*, Princeton University Press
- Wheeler, John (1968), "Superspace and the Nature of Quantum Geometrodynamics", in DeWitt, C. & J.A. Wheeler, <u>Battelle Rencontres</u>. 1967 <u>Lectures in Mathematics and Physics</u>. N.Y., W.A. Benjamin. Quoted in Michael Talbot, <u>Mysticism and the New Physics</u>. 1993 London Arkana
- Wheeler, John (1981/1993). *The Physicist's Conception of Nature*. Quoted in Michael Talbot, ibid.
- Wheeler, John (1985). Comment in an interview with Timothy Ferris at Austin, Texas, February 28, 1985. Quoted in Ferris, Timothy, *Coming of Age in the Milky Way*, 1988 Anchor/Doubleday
- Wolf, Fred Allen (1986), Star Wave, N.Y., Collier-Macmillan