

Chapter Twenty-three

A Contemplative View of the Mind

When we inquire into our personal experience of physical and mental events, we find that we encounter two types of phenomena that bear distinct differences. Material objects characteristically have location and may have mass, velocity, and physical dimensions. Thus, they lend themselves to quantitative measurement and analysis. Some mental events, such as physical pain, may be located in specific areas in the body, but for others the notion of location seems inappropriate. Where, for example, is affection located; or where are the recollections of one's childhood? It is possible to locate neurophysiological processes that are associated with certain mental states, but science has in no way demonstrated that the two are equivalent. It is possible to trigger specific mental events by electrically stimulating areas of the brain and to trigger specific neurological events by subjectively stimulating the mind. This proves neither that the mental events can be reduced to the physical nor the opposite. It is just as reasonable to explain the evidence of introspection in its own subjective terms as it is to explain the findings of objective science in its terms.

The concepts of mass, velocity, and physical dimension are all inappropriate when discussing the whole range of mental events; nor do they lend themselves to precise quantitative measurement. Just as physical phenomena have their own unique attributes, so do mental events have theirs. The dominant property of mental states is aware-

ness. To define consciousness, we need not engage in mental gymnastics, nor in abstract, philosophical speculation: it is that very event of knowing, with which we are all familiar. The mental gymnastics come in only when we try to define this firsthand event in terms of noncognitive physical processes, configurations of matter, abstract behavioral dispositions, emergent properties of the brain, and so on.

Mental events are modes of awareness, and it is this property that distinguishes them from physical entities. Unless we allow our introspective faculty to atrophy (for example, by subjecting ourselves to the dictates of physical reductionism, which takes us away from experience, not deeper into it) we must readily acknowledge that mental events are every bit as real as physical events. Our thoughts, intentions, and emotional states maneuver our bodies and thereby other physical objects; likewise, material things are constantly influencing our mental states. Subjective empirical examination of mental and physical events indicates that both types of phenomena are in a constant state of flux, both act as causal agents, and both are influenced by causes that are themselves physical and mental.

Adherents of mechanistic materialism, with their insistence on quantitative knowledge, may easily overlook these otherwise evident facts of our experience. We may recall Einstein's comment that it is the theory that determines what can be experienced. In the light of this insight, it is apparent that physical reductionism blinds its proponents to realms of experience that are easily available to those unafflicted by this view.

Just as the materialist is bent on expressing the evidence of introspection in terms of physical science and reducing all of existence to mass and energy, so does the idealist seek to reduce the physical world to an emanation of the mind. Idealists are not content to acknowledge the existence of objective physical events. Turning Francis Crick's admonition on its head, they might well state: "The evidence of objective science should never be accepted at face value. It should be explained in terms other than just its own, namely in terms of the one absolute reality—the mind."

Idealists may further claim that we have no empirical access to a physical world apart from the mind; therefore objective physical events cannot be explored or discussed in a truly scientific manner. Any scientific explanation of physical phenomena must be couched in terms of the one type of phenomenon that is immediately accessible to direct observation, namely mental events. Just as materialists deprive

themselves of the possibility of profoundly exploring the mind and manifesting its deepest potentials, so do the idealists turn their backs on careful investigation of the physical world and the development of technology.

The Buddhist centrist view regards both materialism and idealism as extremes. The objective physical world is empirically knowable in relation to our modes of experience, as is the subjective cognitive world. The terms *subject* and *object* are used, but they denote a mere conventional duality, rather than the absolute duality that we encounter in Cartesian-based Western thinking. For example, in scientific dualism it is common to posit photons or electromagnetic waves as objective conditions for the visual experience, and such physical phenomena are considered to exist independently of perception. According to the Buddhist centrist view, the objective condition for a visual perception of the color of a rose is the very color that we perceive; and it exists in relation to our perception of it.

Thus, from the perspective of the centrist view, the object of that perception is not photons, a certain set of frequencies of electromagnetic waves, or any other event existing inherently in some independent, objective, and invisible world. Both subject and object exist in interdependence, both are evident to experience, and the distinction between them is conventional, not intrinsic.

To elucidate this point further, let us take another example: the conceptual cognition of electromagnetic waves. Let us assume that such waves do in fact exist. In this case, the cognized event—electromagnetic waves—exists in relation to the conceptual awareness of it; and that conceptual awareness exists in relation to that event. That cognition contacts its object via a generic idea of such waves, and that idea also exists only in a mutually dependent relationship with the corresponding conceptual awareness. We may also conceive of things that have no existence whatever. The absolute space of classical physics provides one example. Absolute space does not exist, either conventionally or intrinsically, so it does not exist in relation to the conceptual cognition of it. The generic idea of absolute space does exist, however, and it is mutually interdependent with the belief in such space.

Physical and mental events occur in mutual interaction and are therefore interdependent. Thus, neither can be considered absolute in the sense of being independent; nor is one more real than the other. Our verbal and conceptual constructs determine the manner in which we commonly experience physical and mental phenomena;

and the events that we perceive do not exist independently of those constructs. Even the very distinctions between subject and object, mental and physical, do not exist apart from conceptual designation; so neither class of phenomena could possibly exist intrinsically and independently.

The centrist view casts off the limitations of experience imposed by materialism and idealism. It encourages us to explore the natural world in its entirety, including the physical and the mental domains, and to tap these resources to their fullest. Western civilization is justifiably proud of its enormous achievements in objective science and technology. A major challenge facing it now is to acknowledge the possibility that other civilizations may have made their own astonishing discoveries and accomplishments in terms of their contemplative science and technology.



Let us reexamine the nature of mental events in relation to the physical world. Nowadays, perhaps the most sophisticated scientific cognitive theory states that mental events are equivalent to patternings or configurations of mass/energy. Most people who adopt this view assume that mass/energy exists independently of consciousness. Thus, the Cartesian duality of mind versus matter is overcome by identifying the mind with epiphenomenal patternings of physical events. There is solid evidence for stating that mental events are related to such patternings, but the grounds for equating the two seem inconclusive. The experience of heat is normally related to the random kinetic energy of molecules; the perception of colors is associated with certain frequencies of electromagnetic radiation; the experience of taste is usually related to the chemical structure of the tasted substance. But in all the above cases, close inspection has shown that there is no one-to-one correspondence between the subjective experience and the objective phenomena posited by modern science. No such uniform correspondence has been demonstrated between mental events and patternings of mass/energy, and it is questionable whether any such equivalence will ever be established empirically. Even if such a correspondence were eventually proven, this by itself would not necessarily imply that mental events are themselves patternings of mass/energy.

Scientific convention uses the term *light* in reference to the conceived phenomena of electromagnetic waves, whereas in common parlance it refers to a visually perceived phenomenon. Similarly, science may use subjective terms such as *pain*, *perception*, and *memory* in reference to configurations of mass/energy. Such conventions are malleable, but they should not lead us to believe that mental events are equivalent to patternings of mass/energy, any more than the appearance of light is identical with electromagnetic waves.

Everyday experience provides us with a general mode of observation of such sensory objects as the color of a rose and such mental events as feelings, desires, and mental imagery. This mode of observation is regarded as subjective. It allows us to describe these events in accordance with our personal experience. Western science has developed another general mode of research which uses the phenomena presented to our awareness as grounds for constructing a physical world that purportedly exists independently of the events that we perceive and yet accounts for them. These two modes of inquiry are profoundly different, and in many respects they are incompatible. Neither unveils reality itself as it exists apart from our perceptions and conceptions. Both illuminate elements of conventional reality that exist in relation to those modes of inquiry. Thus, the grounds for equating elements of the physical world constructed by Western science with elements of everyday personal experience are extremely tenuous.

It makes just as little sense to try to equate quantum phenomena with those of classical physics. It is usually not the case that classical and quantum mechanics observe the same phenomena in different but complementary ways. Rather, due to their differing modes of inquiry, they reveal different aspects of the physical world. Similarly, modern neuroscience and Buddhist contemplative science do not usually examine the same phenomena in different ways. Rather, they observe different types of events that exist in relation to their contrasting modes of investigation. The powerful urge to include all phenomena within a single unified theory—while ignoring the profound distinctions between the modes of questioning that resulted in the observation of those phenomena—is based upon the deep-rooted assumption that the universe we experience exists independently of our perceptions and ideas. It is this assumption that is questioned by the Buddhist centrist view.

Let us now proceed to explore the nature of mental events in relation to contemplative research, which may be regarded as refined everyday experience. Modern physical science has discovered a principle of nature that has become perhaps its most central tenet: namely, the conservation of energy. Although mass/energy may undergo radical transformations, it is never created from absolutely nothing, nor does it ever totally vanish from existence. Might there be a comparable principle when dealing with consciousness?

Before addressing this question, we must take a position concerning the relation between mental and physical events. We have seen that the grounds for reducing mental events to physical phenomena of any kind, including patternings of mass/energy, are inconclusive. The Buddhist centrist view finds equally untenable the reduction of the physical world to configurations or emergent properties of consciousness. Mental events deserve to be examined and analyzed in terms of their own characteristics, just as science does with physical phenomena. Let us regard the mind from the contemplative viewpoint and provisionally use the hypothesis that mental events exist as a different class of phenomena than the physical. We thereby accept a dualism of a conventional sort, not of an absolute, Cartesian variety.

Using the above hypothesis, we are now in a position to ask: whence do mental events arise? Is mass/energy the stuff out of which they are created, or do they originate from some other type of phenomenon? Let us examine the hypothesis that awareness, as an example of a mental event, arises from mass/energy. According to the principle of conservation of energy, if any new physical entity, such as the heat from a fire, is created, some other form of mass/energy must have been used up in the process. That heat may have originated from some of the stored energy of wood, which is released in the process of combustion.

It therefore follows that if some physical entity—say, a component of the brain—is to be identified as the origin of awareness, that physical entity must be used up in the process of producing the awareness. The physical component would be transformed into the mental phenomenon, just as the energy in the wood is transformed into heat. The difference in our hypothetical production of awareness is that the physical component would be transformed into a nonphysical phenomenon. Now physics has discovered a vast body of evidence to support the principle that physical phenomena are conserved

through all known transformations. To be conserved means, for the physicist, that they retain their physical status as forms of mass/energy.

Thus, the hypothesis that any physical component or process in the brain transforms into a nonphysical mental event would be vigorously denied on the grounds of energy conservation. Given our initial hypothesis that mental events are nonphysical, events in the brain certainly influence mental phenomena, but the former cannot be the source of the latter.

Does the whole range of mental entities arise from nothing at all? In this case, processes in the brain would assist in the continual production of mental events, but those nonphysical phenomena would essentially arise from nothing. Nowhere else in the whole of nature does an entity originate from simply nothing, so it seems implausible that this process should be posited for mental events. Even in principle it seems to fly in the face of logic to suppose that events in the brain could influence nothing to become something.

If mental events do not originate either from mass/energy or from nothing, whence do they arise? Buddhist contemplative science responds that they originate from preceding mental events. Mental states arise from previous mental states in an unbroken continuum, much as physical entities arise from preceding physical entities. The aspects of those mental events may change dramatically, but consciousness is essentially conserved. Physical events modify and condition mental processes without transforming into them; and, conversely, mental events modify and condition physical processes without transforming into them.

Modern physics claims that mass/energy can never be utterly destroyed: in the physical realm something cannot transform into nothing. Does a similar principle hold true for consciousness? Buddhist contemplatives respond that the essential stream of consciousness of any sentient being—human or otherwise—cannot be utterly destroyed. The contemplative principle of the conservation of consciousness holds, both in the process of creation and in that of cessation. As this is the case during the course of an individual's life, so is it true at conception and at death.

Tibetan Buddhist contemplatives assert that during the death process, the various forms of vital energy in the body retract into the very subtle life-sustaining energy. During this same process the five

forms of sensory awareness as well as one's conceptualizing faculties retract into the very subtle consciousness. At the final, clear light stage of the death process, this very subtle energy and nonconceptual awareness remain; and when they depart from the body, death occurs. This subtle continuum of vital energy and consciousness can never be destroyed, nor can the two ever be separated.¹ Indeed, it may be more accurate to think of a single entity—the continuum—bearing physical and mental attributes. It is at this level that the duality of physical and mental events disappears.

The very subtle continuum of energy/consciousness can also never be freshly created. It is the entrance of this continuum into the union of the sperm and egg that enables the zygote to grow into a fetus. Consciousness is therefore present from the moment of conception onward; and during the development of a human fetus, the five types of sensory awareness and conceptual cognitions arise from that initial consciousness. Similarly, during the growth of the fetus, various derivative forms of vital energy arise from the original very subtle life-sustaining energy. Modern neuroscience regards human sensory and mental cognitions as being emergent properties of the brain. Buddhist contemplative science, in contrast, regards them as emergent properties of the very subtle energy/mind.

According to Tibetan Buddhist contemplatives, there is an unbroken continuum of consciousness throughout life, the death process, an intermediate state, and on to the next life.² These transitions are ordinarily so traumatic, however, that the individual quickly loses any recollection of this experience; and by the time an infant can speak, memory of its time in the womb and before then may be inaccessible. This should hardly come as a surprise, since most adults can remember very little even of their early childhood. The more recent events of one's life intervene, and earlier memories withdraw into a latent state. The continuum of consciousness itself flows on, unbroken, but because one's memory is lost at these crucial transitions, one loses this sense of continuity. On what, then, do Buddhist contemplatives base their highly detailed accounts of the sequence of death, intermediate state, and rebirth?

These contemplatives employ ancient meditative practices that enable the adept to refine and stabilize the mind so that an unbroken clarity of awareness is maintained throughout all these events. Here is a mode of research that could hardly differ more drastically from

the methods of modern Western science. The observed events, too, are bound to be profoundly different from those known by Western science. The events witnessed by a Buddhist contemplative, however, are no more intrinsically real than those observed by a neuroscientist. Nor do Buddhist, any more than scientific, theories describe the way things “really are,” unrelated to the mode of research upon which those theories are based.

Tibetan contemplatives also create facsimiles of the death, intermediate state, and rebirth process through their powers of meditation, enabling them to transform these actual experiences to the enhancement of their spiritual growth.³ It is believed that such advanced contemplatives die, take rebirth, and as young children often remember many of the events of their previous lives as well as experiences following their recent deaths. Such children are called *tulkus* in Tibetan, and for centuries it has been the tradition in that culture to seek out such spiritually advanced children so that they can quickly recommence their contemplative training.⁴

Other young children, often up to the age of four or five, may also recall events in their previous life, particularly if they had died in a sudden, violent way. There are numerous documented cases of this occurrence on several continents, and the most plausible explanation seems to be the simplest: for each individual there exists a continuum of life, intermediate state, and rebirth.⁵

If one seriously considers this assertion of the continuity of consciousness, a number of qualms may arise. How, for example, does this theory account for the fact that the human population on the planet is increasing if no new continua of consciousness are created? And how can the population decrease in times of war or famine if consciousnesses cannot be destroyed? Buddhist and other contemplatives commonly assert that the rebirth process can carry over from human to nonhuman forms of life and vice versa. Moreover, there is no reason in principle why a conscious continuum must invariably reincarnate on our planet. According to the Buddhist worldview, there are countless other worlds inhabited by human and nonhuman forms of life; and a being that dies in one world may be reborn in another.

We may further wonder whether there are meaningful causal relationships among the sequence of lives connected by an individual’s continuum of subtle energy/mind. Buddhist contemplatives respond that such relationships are indeed present. The quality of our present

life profoundly influences the type of future births that we will take: some types of rebirth are favorable, both for one's well-being and in terms of one's further spiritual maturation; and the type of behavior that yields such rebirth is deemed wholesome. Unwholesome behavior leads to misery in future lives and to situations in which the opportunities for spiritual growth are extremely limited.

On this basis a system of ethics is developed that is asserted to be grounded in natural relationships between actions and their results from life to life. The laws of karma concern just those relationships. The Buddhist spiritual path entails the cultivation of wholesome behavior and the attenuation of the unwholesome. In this way one comes to live increasingly in accordance with reality, in which all things exist as dependently related events. Unwholesome action, on the other hand, is motivated by mental distortions, primarily ignorance. By increasingly living in accordance with reality, one gains ever-deepening experiential insight into the nature of that reality.

As we follow the implications of this worldview, we may ask: how did consciousness first originate in the evolution of the cosmos? If no stream of consciousness is freshly created, this would imply that each continuum has no conceivable beginning! This is precisely the conclusion of Buddhist contemplatives. At the same time, Buddhist cosmology does posit a beginning to the present cycle that the cosmos is evolving through, though its history thus far is thought to be much longer than the twenty billion years suggested by modern cosmology. At the beginning of this cycle, there was only empty space, composed—according to one Buddhist theory known as the Wheel of Time—of space-particles. These particles were stimulated by the actions of the sentient beings who were to inhabit this cosmos, giving rise to a movement of energy. This in turn resulted in the production of heat, which led to the formation of liquids and solids.

In the early stages of this evolution, the cosmos was uninhabitable for human and animal life. However, highly advanced Buddhist and Hindu contemplatives speak of experiencing other realms, or dimensions, of existence that transcend this gross sensual realm, which they call the *kāmadhātu*. They report the existence of the *rūpadhātu*, a form realm that is unperturbed by many of the changes in the gross physical cosmos. And beyond this is the *arūpyadhātu*, a formless realm that is completely unaffected by the stages of cosmic evolution. All three of these realms are said to be inhabited by sentient beings. Indeed,

when the sensual or gross physical dimension of a cosmos is uninhabitable, most sentient beings are thought to dwell in the form and formless realms or in other inhabitable cosmoses. Humans cannot dwell in the form and formless realms, although they are considered to be accessible to a human mind that has been highly refined through the practice of meditation.

According to Buddhist contemplative science, ours is not the only world that is undergoing these stages of evolution. The universe is composed of clusters of worlds, each containing on the order of a billion systems, and many of them are inhabited.⁶ In short, we dwell in a limitless universe inhabited by countless sentient beings. Neither the universe nor its conscious inhabitants can be traced to an ultimate beginning, nor are we destined for ultimate annihilation.

Tibetan Buddhism asserts that our experiences of our environment come about as manifestations (might one say emergent properties?) of imprints placed upon our mental continua due to previous actions. Such imprints are sometimes called *karmic seeds*, and the world that each of us experiences arises from those seeds. Some of our actions are committed in relative isolation, while others are committed in participation with others. As the imprints from those actions manifest, we experience events individually and in common with others, respectively. In short, participatory action yields participatory experience, while solitary individual action yields solitary experience.

According to this view, multiple worlds coexist in an interpenetrating fashion. One might liken this to different frequencies of electromagnetic energy occupying the same space: the band of frequencies that one detects depends upon how one's receiver is tuned. This allows for a tremendous malleability of experience for a single individual, depending on how the mind is transformed. The type of events that we experience is a function of our conceptual conditioning. And numerous Buddhist contemplatives have verified that in the utter absence of even the most subtle conceptualization all appearances vanish, and only emptiness is experienced.

The theory of emptiness is relatively simple, whereas the Buddhist theory of karma, or of actions and their results from life to life, is extremely complex. A satisfactory understanding of the process underlying the commonality of our experience and of the causal interactions among phenomena can be gained only through prolonged study and contemplative inquiry. As one's insight into emptiness deep-

ens, understanding of the interdependent nature of events is enhanced. And as one investigates more closely the interactions among phenomena, their lack of inherent existence becomes increasingly apparent.

Upon first encountering this contemplative view of the mind and the cosmos, our initial reaction may be: this worldview, while rather interesting, can only be the product of the imaginations of Eastern mystics. Using only the human mind as one's means of investigation, how could one ever know of the existence of past and future lives, the relationships between actions and their effects from life to life, and the history and breadth of the universe? This entire worldview must be relegated to the status of religious mythology and not be confused with sound scientific discovery.

This response is based on the assumption that the mind is incapable of such direct empirical investigation of physical and mental reality. Buddhist contemplatives would swiftly agree that anyone who is not highly experienced in advanced meditative discipline can only speculate on these matters. But a central facet of Buddhist cultures over the past twenty-five hundred years has been precisely to keep this contemplative tradition alive. If modern scientists find it unbelievable that Buddhist contemplatives can explore physical reality and higher dimensions directly with their minds, so do traditional Tibetans find it amazing that modern cosmologists have gained so much progress using only mechanical instruments, mathematics, and imagination.

Although many of the assertions of modern cosmology seem abstract and speculative, scientists are able to show the evidence on which they base their claims; and their mathematical reasoning is accessible for those of sufficient intelligence and training. Can Buddhist contemplatives likewise give a precise account of the empirical manner in which they arrive at their view of the nature of the mind and its role in the universe? And are these types of training accessible to us today as a living discipline? If so, their theories stand the scientific test of being subject to empirical refutation, perhaps even more so than scientific theories concerning entities in the black box of nature.

When first encountering a theory that differs radically from one's accustomed views, skepticism is bound to arise, whether in a classical physicist upon first hearing about quantum theory, or in a neuro-

scientist upon first learning of Buddhist contemplative theory. It is most useful to transform simple skepticism into critical investigation, and the first step is to identify the specific object of one's doubts. In the creation of an empirically based theory, three phases deserve special attention: (1) the method of research or experimentation, (2) the reporting of the observed phenomena, and (3) the conclusions drawn from those observations.

If a theory is based upon research methods that lack credibility, the contents of the theory may be dismissed. One example would be a physical theory that is based upon a poorly conducted experiment. Similarly, if certain contemplative methods do not refine human awareness but simply lead to states of trance and hallucinations, we need not concern ourselves with the theories that arise from them. We must be convinced of the usefulness of a research method and its reliability in yielding sound data.

Secondly, we may question the reporting of the observed phenomena. This is essentially a question of accuracy and honesty. In Western science high standards of integrity have normally been maintained in this regard, and the same is true in the Buddhist tradition. Nevertheless, out of reverence for outstanding scientists and contemplatives, their followers may attribute to them discoveries and accomplishments that they never claimed. Thus, care needs to be taken to check out the source and veracity of such accounts.

The third phase is most subtle, especially when we bear in mind that both the method of research and the reporting of results are theory-laden. The essential question here is: is the theory justified given the nature of the empirical evidence? Are the conclusions drawn in a reasonable fashion, or do they appear farfetched? Here is the issue of interpretation, and—as we have seen in the case of the Casimir effect—it is a complex one. It should certainly be evident that more than one theory may appear justified in light of the evidence; that is, the observed phenomena alone do not determine how they are to be interpreted.

In the preceding discussion of Buddhist theories frequent reference has been made to the views of Tibetan contemplatives. It would be misleading to leave the reader with the impression that all Tibetan contemplatives hold the same views and speak with one voice. While there is widespread agreement among them concerning many of the essential aspects of Buddhist theory, there is also a diversity of methods that they favor, as well as differing modes of interpretation.

Buddhism does offer various means for experiencing ultimate reality in a manner that transcends language and concept. Concepts, however, are used in the training leading to such experience, and differing theories are created around it. Moreover, some modes of contemplative investigation are more penetrating than others, and some theories make intelligible a broader range of phenomena. For those reasons, one contemplative theory may be regarded as being superior to another.

Various incompatible theories concerning conventional phenomena can also be found in Buddhist literature. Different contemplative techniques yield different results, and the interpretation of those results also varies. For example, discussions of the types and functions of vital energy differ from one Tibetan Buddhist system to another. Further distinctions are found in discussions of this topic by Hindu and Taoist contemplatives. All of these contemplative traditions, however, recognize the existence of vital energies and emphasize the advantages of mastering them. Recognizing that no type of vital energy exists inherently in nature, we may focus more on the usefulness of a given theory, rather than on its presumed representation of any objective truth. For the search for the one true theory of vital energies is futile.

As stated previously, an empirically based theory deserves our attention only if the research methods upon which it is based appear useful and credible. Thus, let us turn now to a closer inspection of some of the methods used in Buddhist contemplative science.