

MONISM.

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THE monistic view of the universe would have a wider popular acceptance if it were not that it is supposed by many to be something recondite and ultra-scientific in which only a select class of students are interested. To state them in the simplest terms should, however, attract all who care to know the fundamental facts of this universe. Science ever aims at higher and higher generalizations, and the highest is reached when the many are resolved into the one. This, the universe, is the sum total of all objective reality, and its phenomena are either the forms or the functional activities of existing structures. We are not left without a *gnomon*, or test, of what is real, as contrasted with the unreal and ideal; for every thinker—we may say, every living animal—is inherently impressed with the certainty of his own existence; and his chief desire is to perpetuate this existence, which is the most real thing to him; and he holds everything real that resembles himself.

A man is to himself the most real being, and he is born with this instinctive assurance. As astronomer, he notes the stars, huge in their immensity, and he holds them real as he himself is real. The totality of earth and stars and meteoric dust, with all the mineral and organic objects that exist on them, is recognized as a monistic entity, every component of which is also an entity. And the man, reasoning outwards from himself, sees that not only his body but also his clothing, his habitation, his country, his earth, his solar system, and his whole environment throughout all space can be considered in a true sense as himself, since he is a real part of the macrocosm.

Then the thinker observes that the things he perceives around him exist under a few different, obvious conditions: as solids, liquids and gases. And next, he becomes a chemist and analyzes the contents of the world in his laboratory, where he discovers and

proves that all objects, irrespective of their physical conditions, are entities composed of certain elements—few in number—and that these elements differ among themselves according to a periodic law that prescribes the size, shape and weight of their respective atoms. Electrical research shows that electrons are almost immeasurably more minute than the smallest chemical atoms; and electrons themselves act as if they are constituted of at least two extremely small corpuscles—the primordial particles, or units, they may be termed—that are too minute to be further divisible, and have no ponderosity, no friction, no internal motion, but, like geometrical points occupy positions in space, yet have no dimensions. A universe consisting of these particles, in entire separation from each other, would, in many respects, resemble the hypothetic ether that is held to fill universal space.

The construction of the cosmos, as it now presents itself to the scientific observer, begins with the primordial units, and these unite in pairs to constitute corpuscles of negative electricity. These may be unaffected by the reciprocal affinities of corpuscles that give origin to the phenomenon of gravitation, yet they have attained a stage of cosmic evolution greatly superior to that in which the primordial particles exist. The next advance is the formation of chemical atoms in all their varieties by combinations of the electrons. And, after this, by combinations of atoms and of their innumerable compounds, all inorganic and organic structural forms are evolved. This is the process of evolution from the very least and simplest things to the very greatest and most complex, or from the incalculable many to the single whole, which is the universal monad.

Now the thinking man, observing these structures that are objective to his senses, gives them the name of Matter—the entity that has position, or extension, in space, possesses form and stability, and seems capable of a vast variety of functional activities that occupy time. He recognizes his own material form—his body, and from analogy calls all forms, from those of the dimensions of Arcturus to the minute primordial particles, by the same name. The term “body,” however, means something more than the mere material form. The man notices that he can do things—his body functionates; and he is not insensible to the fact that all bodies functionate. Every world, every organism, every chemical atom, every electron, every primordial unit is a body and functionates. In a word, there is always combined with the matter of a body a definite quantity of energy, and the two are complementary to each other, and inseparable, and in combination perform work. Matter is the

hypostasis, or substance of the body and energy is its activator, and the two in collaboration produce the innumerable changes of form, composition and position that are called functional activities, or events.

This is the mechanical view of the cosmos. Every structure is, so to speak, a machine for developing and applying energy, and the more complex the machinery the higher is the order of the functions of which it is capable. Now he who develops this mechanical ideal will not fail to perceive that himself, or any other living being, is a machine, and that life is the highest development of mechanical activity. He sees activities even in inorganic machines that very much resemble life in the living. When the mainspring of his watch breaks, the watch is dead. When the fire of a locomotive goes out, the engine dies. Death is the determination of the power of developing energy, and therefore of doing work; and it is only the machine that has been once alive that can be said to die. The developing of energy seems to be invariably a chemical process, as we know it is in man. We see it working too, on a large scale, in the sun and in our earth, and we cannot help thinking sometimes of these great and complex machines as living, as well as doing things. So, when we come to speculate regarding the origin of life, we are forced to admit that although life attains its culminating perfection in organic structures, yet it exists in a lower degree wherever form determines function, wherever chemical processes occur, and wherever there is energy doing work.

The thinking man is now on a plane of knowledge to which the ancient philosophers never attained. They recognized the principle *dynamis*, but they never took the further step that proves that energy is always and inseparably united with matter. Not knowing chemistry, they had no adequate conception of molecular motion, or the products of atomic activities. But now, the man knows that his "body" is not simply a material structure, but is matter plus energy. And, still studying himself, he finds that his "body" is not yet completely expressed, for inseparably united with it is his mind. Body is a term that may be scientifically defined as a trinity of matter, energy and mind. The whole three are always found together, and neither exists isolated. He is sure of his mental element as much as of his energetic one, or of his material substance. These three elements in every "body"—whether it be a huge mass or a particle of impalpable dust—are not fictions, nor ideals. They are real in the most positive sense of the word. And when the man's self-analysis is carried out through several tests, he finds he

has reached a finality in regard to the description of his "body," and that three—and only three—elements constitute its entity.

It is important that the term "body" should always be taken in the sense of an entity constituted of three complementary elements, and that we should cease talking of "mind and body," thus placing them in contrast. Even the people who use the term in the incorrect way are fully conscious that the mind is always a part of the body, and it is as unreasonable to contrast them as to say "the head and the body." All the objects in the universe are bodies, and every body in the universe is a trinity of matter, energy and mind. Some eighty years ago, there was no great objection raised to the recognition of the dual nature of bodies, that is, constituted of matter and energy. But the vestigial notions derived from primeval metaphysics render many college professors reluctant to admit mind into the domain of physics. Still, on all sides we see evidences that psychology is being put in its true place—as a department of physical science, and experimental psychology is a tacit acknowledgment of this fact.

Psychology, the science of the mind, has for ages been an interesting study, yet only very recently has it been freed from religious and metaphysical conceptions and been presented to us as simply a section of somatic study. Many treatises are still used in colleges that tell of the "mind" on one page and of the "soul" on the next. This confusion concerning the psychic element of the body is due to the prevalence of ancient dualistic notions, for which monism is the only corrective. In popular conversation, we find the body and the mind treated as two opposite things, yet every biologist knows that mind is an essential element of body, and is its intellectual endowment, or mental charge. In other words, the thinker is not separable from the doer, and neither mind nor energy can functionate without the other, nor either or both of them without matter, which gives the whole acting body form and a place in the universe. The three are inseparable and the three are one. It is the whole body that thinks and moves and acts. Mind nowhere exists apart from matter, and wherever there is matter there is mind.

Even in the nineteenth century, learned treatises discoursed on the "reason" of man and the "instinct" of lower animals. There was a silly reluctance to admit that brutes could possibly have the same kind of minds as man. It remained for a more honest modern science to show that minds differ not in kind but in degree and that there are countless gradations from the very lowest degrees of awareness, or impressibility, up to the highest rationalistic imagina-

tion. Science shows that man—the most perfect intellectual being—is as much dominated by instincts and habits as any other animal, and that he is moved more by his subconscious emotions than by his reasoned-out decisions. Man is not a member of a special natural kingdom, and anthropology is but a branch of zoology. In the intellectual development of the human child, the hereditary psychology of lower animals is as marked as is the hereditariness of its material form's construction in its embryology.

We do not underrate man's magnificent endowments and exalted position in the universe by insisting that he is still an animal, still a machine, and still a tri-elemental body. We accord him the most perfectly developed form of all creatures—the best eyes, the best ears, the best fingers, and above all, the best larynx, for his most wonderful intellectual progress is traceable to his superior power of articulation, forming real words, which are the necessary symbols of high thinking, as money is the necessary medium of commercial exchange. But man need not arrogantly deny to the lower animals some faculty of reasoning, for assuredly many of them possess it in a minor degree to his own. There are truly many degrees of mentality between the abstract thinking of the philosopher, or mathematician, and the tropisms and sensitiveness of the amoeba. Yet the protozoan has a mind that responds to sensations and stimuli, rejects the evil and chooses the good. Its small mental equipment is proportional to its material and energetic equipments. Every cell in a multicellular animal, like man, has its own form and energy and mind, and through these three it functions.

And when we are satisfied that there is a mental element in every animal, however minute and low in the scale, we are prepared to admit that plant cells and plants also possess a mental element. Several books have been written in proof of the existence of mind in plants, and to argue the matter would be merely to repeat what is predicated of animals. The homologies between plants and the lower animals are so numerous and close that it is reasonable to conclude that all fundamental facts that are true of the one may apply to the other.

Moreover, we cannot limit mind to the organic kingdom. Among minerals, chemical atoms and primordial units we can trace it in its simplest expressions, yet very vividly and really. The so-called properties and affinities of inorganic particles are indications of mentality. There is not an insurpassible gulf between the mentality of a bacterium and that of a crystal, and every ion has certainly its

affinities and repulsions, and on these affections all chemical action depends. Because the mental element feels, the kinetic element moves, and the whole atom, or organism, acts. Is not this exactly what occurs with a man?

Our corrected conception of the universe must allow that every primordial particle is a "body," and as such is a trinity of matter, energy and mind. Every particle is hypothetically exactly equivalent to every other primordial particle, and its matter has a mental charge that is proportioned to its minute size and is therefore exactly of the same value as the mental charge of every other primordial unit. The same may be said, *mutatis mutandis*, in regard to the energy charge attached to every primordial unit. And this view does away with all speculations about the whence and whither of energy and mind. They are always there, wherever there is matter or form. The notion that a number of assorted minds are stored up in the empyrean, like drugs in the bottles on an apothecary's shelves, and that, when a babe is being born, one of these is sent down to animate it, dwelling in the body like a canary in a cage, and at death making its escape and still continuing to live as a disembodied ghost,—all this has not a particle of scientific fact to support it; whereas the view that mind is an essential element of the universe, as much as matter or energy, is corroborated by every test that can be scientifically applied. And this view leads directly to the monistic conception of the eternal universe. Every body, that is—every distinct entity, great or small—in the universe is a trinity consisting of three inseparable elements. Its functions depend on two things: first, the numerical quantity of primordial units in its form, and second, the complexity of its mechanical structure. For instance, the moon has a great number of primordial units, but a man has an extremely complex structure, and a complex structure greatly countervails mere quantitative mass.

Now the mental action of a body depends on the active mentality of its component particles. Some of these may be comparatively dormant, as some of its energy may be merely potential. But when, for instance, we refer to a man as a highly active organism, we must not make the mistake of supposing that only his brain cells think. Every cell in his whole organism thinks, yet it is the cortical cells of the brain that are the organ of his senses, coordinate his reasoning, enable his thoughts to get expression, and register with much precision his sense impressions mnemonically. When we regard this terrestrial globe as a "body," we cannot fail to note its multifarious geophysical activities as resulting not from chance but from

a certain determinism that is due to mind. Its mentality is in every second of time active and expressing itself. And the totality of all bodies, constituting the universe, is incessantly thinking out, acting out, and showing out the wonderful functional changes that are termed cosmic evolution. The universe is not blind nor paralyzed, but is a living, thinking, working machinery, evolving through its intrinsic forces age by age from perfection to perfection.

Modern medicine has not been slow to avail itself of the scientific view of psychology as applicable to all the universe. Note is taken of the mentality of the living bodies formed of protoplasm. The unicellular protozoans have undoubtedly the faculty of choosing what suits them and avoiding what is repulsive. Then it is recognized that the human body is composed of billions of living cells comparable to the protozoa. Every such cell lives its own life, does its own thinking, and also cooperates with the community-life of the other body cells. We find a hundred varieties of specialized cells and cell-groups working for the common good. Hence, physicians now do not treat diseases as such, nor morbid symptoms, nor yet the patient as a whole, but direct their therapeutics to the cells and cell-groups, for it is through these that the combat with disease must be waged, and it is these that accomplish the recuperation of the patient. They will do their duty if the conditions for the exercise of their functions be favorable; and it is now the task of the physician to arrange these conditions as quickly and perfectly as possible. Reliance on external forces gives place to dependence on intrinsic powers; and it is seen that what applies to a human body is applicable to even the inorganic worlds—everything happens through the functioning of the internal powers.

The error of the psychology of the past was in making a broad distinction between mind and body. Now, as monists, we are prepared to assert that every body has a mental element, and it is this fact that accounts for the occurrence of mind wherever it is perceived. Mind is not supernatural, it is as natural as matter or energy. The universe could not exist, much less functionate, but that mind is one of its three essential elements. It is a fact of every one's experience that there is such a thing as matter, and such another thing as energy, and such another thing as mind. It is only the influence of ancient and mistaken metaphysics that still blinds some people to this common, irrefutable, and most simple fact. Those who have been teaching the old psychology hate to give up the notion that mind is mysterious and supernatural, just as for a long time after Copernicus the schools continued to teach the geocentric

theory. There was some excuse for this, for apparently the sun went round the earth; but there is no excuse for supernatural psychology, for the whole of it is merely a figment of the imagination incapable of withstanding a single scientific test.