



HUMAN EXISTENCE

Mortimer Adler

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WHAT DO PEOPLE HAVE in mind when they inquire about the existence of anything?

First of all, they are asking about whether the thing in question has reality. Does it exist in the real world quite independent of our minds and whatever we may think or know, or is it only an object that exists for us when we exercise our powers of perception and thought?

A second question they may have in mind concerns the manner of existence. Does it exist in and by itself, not as a part or aspect of anything else, or is it merely the latter? If it exists alongside other things which, taken all together as an organized aggregate, constitute the whole of reality, then, of course, it exists as a part, and not entirely in and by itself. But if, when one of these other things ceases to exist, it still continues in existence, then it is not a part of that thing in the sense in which the leg of a table would cease to exist if the table did.

What I have just said about the leg of a table can also be said about its color, its shape, its weight, and so on. These are attributes or characteristics of the table. As such, they do not exist in and by themselves; they exist in the table, and continue to exist only as long as the table does.

In ancient philosophy, the words “substance” and “accident” were used to make this distinction between that which existed in itself and that which existed in another. These terms no longer have currency and may be misleading. I am, therefore, going to substitute for them the more familiar words “thing” and “attribute” for what was once spoken of as having substantial and accidental existence.

Still another question concerns the duration or durability of existence. As compared with a thing, or even with its attributes, events are existences of short duration. A lightning flash, for example, we regard as an instantaneous event; a long peal of thunder, as an event of short duration, having a beginning, middle, and end within a brief span of time. We would not, therefore, refer to it as a thing. In contrast, a house that has been standing for a century or more, undergoing change during that time, is not an event but a thing.

In the world of material, physical phenomena, things are the only existences that are the subjects of change. Events do not change. The attributes of a thing do not change. The greenness of an apple that has not yet ripened does not become red when the ripening occurs. On the contrary, it is the apple that has altered in quality, changing, from green to red. It is the apple that changes in place when it is moved from here to there. And it is the human baby that changes in size and weight, and in many other respects, when it grows, not the attributes or characteristics that are replaced by other attributes or characteristics when these changes take place with growth.

The mutable existence of things involves another point of great importance. For a thing to change in whatever respect, it itself must remain that one and the same thing throughout the process. If it did not remain the same thing, how could we possibly speak of *it* as changing?

In short, that which is the subject of change must have an enduring identifiable identity. It must also have a persistent unity. If the thing is a whole that has component parts it is, of course, divisible; but while it remains a single subject of change, it must remain undivided. When it is divided, it ceases to be that one individual thing.

How, then, does a human being exist? Our common sense of the matter, based upon our common experience, is that human beings exist as individual things, having many attributes with respect to which they change while they remain one and the same enduring thing that is subject to all these changes.

What has just been said may seem simple and obvious, perhaps hardly worth saying, but it is a matter of no slight importance. Without the kind of identifiable identity that belongs to the individual thing as a subject of change, human beings, having obviously mutable existence, could not be held morally responsible for their acts.

Our own sense of our personal identity is that, from moment to moment, sleeping or waking, we are one and the same individual, the same whole of parts, the same bearer of many attributes. We do not cease to be that one individual thing, even if, with surgical amputation, we lose a part of our body; or, in the course of aging, we undergo radical changes in our physical characteristics, our personal attributes, our temperamental traits.

We regard other human beings in the same light in which we view ourselves. They, too, have an identifiable identity, an enduring oneness and sameness while they undergo change. We do not experience their identity as we experience our own, but we have no doubt that they possess it in the same way that we do, and that through it they have the same moral responsibility for their acts that we have for ours.

Our common sense of the matter goes further than that. All the physical objects in the world of our daily perceptual experience—the chairs and tables, the houses and automobiles, the pet animals, the trees and plants in the garden, the stones and statues—all these are individual things, enduring identities that are subject to change. And we think of them as possessing the various sensible qualities—the colors, textures, odors, and so on—that we experience them as having.

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This common-sense picture of the world in which we live would appear to be shattered by what we are told by the physical scientists of our own day.

I will never forget my shock when, more than fifty years ago, I read Sir Arthur Eddington's Gifford Lectures, *The Nature of the Physical World*. In his opening remarks, Sir Arthur told his audience that the table in front of which he was standing, the table

which seemed so solid to them that they would bruise their fist if they tried to punch through it, was in reality an area of largely empty space in which tiny invisible bodies were moving about at great speeds, interacting with one another in a variety of ways, and making the table appear to us to be solid, of a certain size, shape, and weight, and having certain other sensible qualities, such as its color, its smoothness, and so on.

Appearance and reality! As Sir Arthur spoke, there seemed to be no doubt in his mind which was which. The table the lecturer and his audience perceived through their eyes and could touch with their hands might appear to them to be an individual thing that had an enduring identifiable identity which could undergo change while remaining one and the same thing. That was the appearance, an appearance that might even be called illusory in comparison to the invisible and untouchable reality of the atomic particles in motion that filled the space occupied by the visible table, a space largely empty even though impenetrable by us.

My initial shock increased when I passed from thinking about the table to thinking about myself and other human beings. We were not different from the table. We, too, were individual physical things. We might appear to ourselves and to each other to be as solid as the table, perhaps somewhat softer to the touch, but just as impenetrable to a probing finger. But, in reality, the space our apparently solid bodies occupied was just as empty as that of the table. Whatever attributes or characteristics our bodies appear to have as we perceive them through our senses, they have as a result of the motions and interactions of particles that themselves had none of these sensible characteristics.

(According to this view, the imperceptible particles that compose all the objects of our ordinary perceptual experience possess only quantitative properties, no sensible qualities at all. The latter, it is maintained, exist only in our consciousness of the objects we perceive, not in the objects themselves. They have no status in reality. Thus arises the riddle about what came to be called “secondary qualities,” a puzzlement that always accompanies the reductionist fallacy to which atomists are prone.)

What becomes of my personal identity, or yours, and with it moral responsibility for our actions, if each of us ceases to be one individual thing, but becomes instead a congeries of physical particles that do not remain the same particles during the span of our lifetime?

To face the problem that here is raised, let us eliminate at once an easy way out of the difficulty. That easy way out is to regard both

pictures—the one we have as a matter of common sense and common experience and the one we are given by atomic physicists—as convenient and useful fictions. The first of these serves all the practical exigencies of our daily lives. The second, applied through technological innovations, gives us extraordinary mastery and control over the physical world in which we live.

Approached this way, there is no conflict between the two views of the world in which we live and of ourselves as living organisms existing in it. We need not ask which is the reality and which is the mere appearance or illusion.

Before the middle of the last century, the theory of the atomists was regarded as positing a useful scientific fiction, and so it posed no challenge to the reality of the commonsense view that a sound philosophy endorsed. Until then, beginning with Democritus in the ancient world and coming down to Newton and Dalton in the modern world, the atom was conceived as the absolutely indivisible unit of matter. In the words of Lucretius, it was a unit of “solid singleness,” with no void within it, as there must be a void in any composite and, therefore, divisible body having atoms as its component parts.

We know that in the late nineteenth century, and in our own day, all this has been radically changed. There is no longer any doubt about the real existence of atoms, which are now known to be divisible and to be as much filled microscopically with void or empty space as the solar system is filled macroscopically. In that empty space move the elementary particles that have now been discovered by the most ingenious detecting devices, the real existence of which is supposedly verified by inferences from the observed phenomena, phenomena that cannot be explained except by positing the real existence of these unobservable particles.

Let me make sure that the last point is fully clear. The elementary particles, which are the moving components of the divisible atom, are intrinsically imperceptible to our senses. As a contemporary writer puts it, they are essentially unpicturable—“unpicturable-in-principle.” They and the atoms they constitute do not have any of the sensible qualities possessed by the perceptible physical things of common experience. Nor do the elementary particles even have the quantitative properties possessed by atoms and molecules, such as size, weight, shape, or configuration.

Werner Heisenberg’s statement of the matter confirms how radical, indeed, is the unpicturability of the elementary particles. He writes as follows:

The indivisible elementary particles of modern physics possesses the quality of taking up space in no higher measure than other properties, say color and strength of material. [They] are no longer bodies in the proper sense of the word.

Heisenberg goes on to say that they are units of matter only in the sense in which mass and energy are interchangeable. This fundamental stuff, according to him, “is capable of existence in different forms,” but “always appears in definite quanta.” These quanta of mass/energy cannot even be exclusively described as particles, for they are as much waves or wave packets.

Speaking of atoms and molecules, are we not called upon to say of them what we seem to be called upon to say of ourselves and the other perceptible things of common experience? They, too, are divisible wholes made up of moving and changing components. What about their reality as compared with that of the elementary particles that constitute them? If we could perceive with our naked eyes an atom or a molecule, would we not be compelled to say that it only appeared to be what it was perceived as—a solid, indivisible body—but that in reality what we perceived was only an illusion?

What we are confronted with here is the fallacy of reductionism, a mistake that has become most prevalent in our own day, not only among scientists but also among contemporary philosophers. It consists in regarding the ultimate constituents of the physical world as more real than the composite bodies these elementary components constitute. Reductionism may go even further and declare these ultimate constituents to be the only reality, relegating everything else to the status of mere appearance or illusion.

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How is this fallacy of reductionism, this philosophical mistake, to be corrected, as it must be if our common-sense view of things and if a philosophy of nature that accords with it is to be validated?

Before I attempt to suggest a solution, let me make sure that the conflict between the scientific and the commonsense view is clear. The chair on which I am now sitting fills a certain area of space. To say, on the one hand, that that space envelope is filled with the single, solid body that we experience as the perceived chair contradicts saying, on the other hand, that that space envelope is largely a void filled by moving and interacting imperceptible particles.

The conflict or contradiction here is not simply between filled and empty space. It involves a contradiction between the one and the

many. The chair of our common experience, the reality of which a philosophy based on common-sense defends, is not only a solid body, but even more fundamentally it is a single being. The chair of physical theory consists of an irreducible multiplicity of discrete units, each having its own individual existence.

If the unitary being which is the solid chair, with all its sensible qualities, is dismissed as an illusion foisted on us by our sense-experience, then no conflict remains. Or if the physicist's atoms, elementary particles, wave packets, or quanta of mass and quanta of energy are merely theoretical entities to which no real existence is attributed (that is, if they are merely mathematical forms which have no physical reality), then their being posited for theoretical purposes as useful fictions does not challenge the view that what really exists out there is the solid chair of our experience.

If, however, real existence *of the same kind* is attributed to the entities described by the common-sense view and by the scientific view, then we cannot avoid a conflict that must be resolved.

A clue or hint that leads to the solution is contained in the italicized words in the preceding statement: "of the same kind." Both the solid chair and the imperceptible particles have real existence, but their reality is not of the same kind, not of the same order or degree. By virtue of that fact, the conflict can be resolved. The contradiction is then seen to be only apparent.

The problem would be insoluble if the two assertions to be reconciled stood in relation to one another in the same way that the statement that Jones is sitting in a particular chair at a particular time stands to the statement that Smith is sitting in the same chair at the same time, and is not sitting on top of Jones or on the arm of the chair, but exactly where Jones is sitting. The statements about Jones and Smith cannot both be true. They cannot be reconciled.

The assertion about the nuclear particles as the imperceptible constituents of the chair and the assertion about the perceptible solid chair as an individual thing, both occupying the same space, can be reconciled on condition that we recognize different grades or degrees of reality.

Werner Heisenberg used the term *potentia*—potentialities for being—to describe the very low, perhaps even the least, degree of reality that can be possessed by elementary particles. He wrote:

In the experiments about atomic events we have to do with things and facts, with phenomena that are just as real as any phenomena in daily life. But the atoms or the elementary particles are not as real;

they form a world of potentialities or possibilities rather than one of things or facts.

Heisenberg, in saying that the elementary particles are *not as real* as the perceptible individual things of daily life, does not deny that they still have some reality.

The merely possible, that which has no actual existence at all, has no reality. That which has some potentiality for existence and tends toward existence has some, perhaps the least, degree of reality. It is barely more than merely possible.

Let me now summarize the solution of the problem, which corrects the philosophical mistake that arises from the fallacy of reductionism. It involves two steps.

(1) The reality of the elementary particles of nuclear physics cannot be reconciled with the reality of the chair as an individual sensible substance if both the particles and the chair are asserted to have the same mode of existence or grade of being. The same thing can also be said about the nuclear particles and the atoms of which they are component parts. The particles are less real than the atoms; that is, they have less actuality. This, I take it, is the meaning of Heisenberg's statement that the particles are in a state of *potentia*—"possibilities for being or tendencies for being."

(2) The mode of being of the material constituents of a physical body cannot be the same when those constituents exist in isolation and when they enter into the constitution of an actual body. Thus, when the chair exists actually as one body, the multitude of atoms and elementary particles which constitute it exist only virtually. Since their existence is only virtual, so is their multiplicity; and their virtual multiplicity is not incompatible with the actual unity of the chair. Again, the same thing can also be said about a single atom and the nuclear particles which constitute it; or about a single molecule and the various atoms which constitute it. When an atom or a molecule actually exists as a unit of matter, its material constituents have only virtual existence and, consequently, their multiplicity is also only virtual.

What exists virtually has more reality than the merely potential and less than the fully actual. The virtual existing components of any composite whole become fully actual only when that composite decomposes or breaks up into its constituent parts.


The virtual existence and multiplicity of the material constituents do not abrogate their capacity for actual existence and actual multiplicity. If the unitary chair—or a single atom—were exploded

into its ultimate material constituents, the elementary particles would assume the mode of actual existence which isolated particles have in a cyclotron; their virtual multiplicity would be transformed into an actual multitude.

The critical point here is that the mode of existence in which the particles are discrete units and have actual multiplicity cannot be the same as the mode of existence that they have when they are material constituents of the one chair in actual existence.

If we assign the same mode of existence to the particles in a cyclotron and to the particles that enter into the constitution of an actual chair, the conflict between nuclear physics and the philosophical doctrine that affirms the reality of the material objects of common experience ceases to be merely an apparent conflict. It is a real conflict, and an irresolvable one, because the conflicting theories are irreconcilable. But if they are assigned different modes of existence, the theories that appear to be in conflict can be reconciled.

Not only is the conflict between the view of the physical world advanced by physical science and the view held by common sense reconciled. We also reach the conclusion that the perceptible individual things of common experience have a higher degree of actual reality. This applies also to the sensible qualities—the so-called “secondary qualities”—that we experience these things as having. They are not merely figments of our consciousness with no status at all in the real world that is independent of our senses and our minds.

With this conclusion reached, the challenge to the reality of human existence and to the identifiable identity of the individual person is removed. There can be no question about the moral responsibility that each of us bears for his or her actions. 

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