

CHAPTER 1

The Experiment

The grandest experiment in history comes from Quantum Mechanics, and its results—the *Double Slit Experiment*—are not only astonishing but revolutionary. Everything humans believed about the nature of reality was obliterated with this one, simple experimental result.

First, let us get a little context. Atoms and their constituent parts are the basic building blocks of everything in the universe. Electrons, as well as protons and neutrons that together form the nucleus of the atom, exist in all atoms, and electrons orbit the nucleus in an imprecise cloud of possible locations. It was known since 1801 that light had wave and particle properties. In 1927, Davisson and Germer demonstrated that electrons show the same behavior as light, and that was subsequently extended to atoms and molecules.¹ That meant electrons also had wave and particle properties. Particles are *localized*; that is, they exist as a specific point at a specific time. Waves, on the other hand, are *nonlocalized* and are therefore spread out. It also is significant to note that electrons are the glue that binds atoms together in chemical bonds. These chemical bonds form the physical environment around us—the constitution of matter itself—that we simply term the *material world* (although as we shall see shortly, the underpinning of atoms is invisible energy, so atoms are therefore actually immaterial). In no small way, then, electrons are the basis of the universe and of reality itself.

Astonishment

In the *Double Slit Experiment*, electrons were shot at a partition with two open slits (there was a screen behind the partition to record the paths of the electrons). What emerged was a wave-like arrangement on the screen when the expectation was two distinct columns of dots representing individual particles. The results showed that the electrons were behaving like waves, transversing through both slits when they should have traveled through one slit or the other. Remember, a wave could pass through both slits, whereas particles would have to choose one or the other slit. Physicists initially thought the electrons were bouncing off each other, forming the wave arrangement. So they reduced the electron stream to one electron at a time. When the electrons were fired singularly and slowly (supposedly ensuring their particle-like nature), each electron also passed through the two slits. What was thought to be a single particle was behaving like a wave by passing through both slits at the same time. This is the famous *wave-particle duality* of Quantum Mechanics since an electron is both a wave and a particle existing as one. To this day, there is no satisfactory explanation for this phenomenon. Obviously, this baffled early physicists. In fact, these findings were so bizarre that physicists tried to peek at the electrons to catch them in their curious behavior. They used measuring devices to actually see the electrons pass through the slits. Much to their astonishment, when they observed the electron, it behaved like a particle and passed through only one slit. The mere act of observing the electron (called the *Observer Effect*) caused it to assume particle characteristics and abandon its wave-like nature.

So let us get directly to the point:

Our observation of the electron creates its nature. When we are observing, the electron behaves as a particle; when we are not observing, the electron behaves as a wave. Our observation (Consciousness) determines the electron's properties and actualizes it.

Then some extremely high-level mathematics was applied, and the calculations demonstrated that an electron in its natural state can go through both slits, neither slit, one slit, or the other slit. All the potentials of the electron exist before observation in what is known as a *superposition*. At once, the electron is everywhere! It does not have a definite state or position. That is also known as the *wave function* of the atom where the electron exists in many orbital positions above the nucleus (behaving like a wave). Yet if we want to observe

the electron at a specific point, the electron appears as a particle (as opposed to a wave) in that exact location and ceases its other potential positions. That is known as *collapse of the wave function*. This bizarre collapse is caused by the observation made by an observer where literally Consciousness collapses the wave function and forces the electron into one position with nothing more than the intention of a human observer.²

Thus, the *Double Slit Experiment* is the definitive glance into reality. Mind compels electrons to become real things, controlling their characteristics and behavior. Without Consciousness observing them, electrons exist only as clouds of potential and would never become actual things. Again, the same dynamic extends to atoms and simple molecules that form the building blocks of the entire universe, so reality is inexorably linked to observation and Mind. Fundamentally, it is Consciousness that brings things into existence by materializing potential into matter.

Implications

So how can this be? How can a supposedly objective and independent universe exist only through an association with Consciousness? How is it that Consciousness brings the universe to life? How can matter and energy behave in ways that appear so counterintuitive and absurd to our everyday senses? What does the *Double Slit Experiment* say about the nature of reality?

Consider the following:

The universe is not a real thing in the materialist sense of the term. As Nobel Prize–winning physicist Neils Bohr once famously remarked, “Everything we call real is made of things that cannot be regarded as real.” Physicists have discovered that atoms and subatomic particles are vortices of invisible energy, perpetually spinning and vibrating, existing in a type of physical void with no actual material structure. Things become real only by connection to Mind. Thus, Consciousness creates the universe.

This puts Consciousness at the forefront as the organizer of existence, arranging innumerable potentials into the one actuality we know as reality. But the question remains—“of whose Consciousness?” Where does this Mind come from? Is this Mind evenly dispersed throughout the universe or located in just one place? We obviously have some of this Universal Mind in us, but we are not its source. Moreover, since the ingredients forming the universe are immaterial and unreal, that fact alone attests to a source that is incorporeal, transcendental, or even spiritual.

Therefore, Consciousness is likely related to Spirit, comprised of the same incorporeal essence. In addition, the Observer Effect noted earlier connotes a *first observer* where an initial observation (or something similar) brought an entire universe into existence. This original observer would possess both mental and spiritual properties, offering considerable challenge to scientific orthodoxy that cannot account for Mind and believes Spirit is ridiculous. After all, science is based on things being physically real, our common sense notion of reality premised on matter as actually existing in material form. The quantum, however, clearly demonstrates that this is false. Consider the following from *Collective Evolution*:

According to the quantum mechanic laws that govern subatomic affairs, a particle like an electron exists in a murky state of possibility—to be anywhere, everywhere or nowhere at all—until clicked into substantiality by a laboratory detector or an eyeball.³

Think about that. Nothing exists without Mind. That is not the reality we were all taught to believe in. The scientific materialist preference for an objective and independent reality apart from Consciousness literally doesn't exist. Their doctrine that everything is matter and its movements, including all mental processes leading to Consciousness, is eviscerated by the *Double Slit Experiment* and the primacy of Mind. Matter is merely a product of Consciousness. Scientific materialists hate this fact (partly because it was derived

scientifically) and for additional reasons to be explored in subsequent chapters, but consider the words of physicist David Deutsch:

Despite the unrivalled empirical success of quantum theory, the very suggestion that it may be *literally true as a description of nature* is still greeted with cynicism, incomprehension, and even anger.⁴

Put another way, some of our greatest minds are struggling to accept reality. That cannot be good for the human future.

Ultimately, what does that mean? Let us consider some indisputable and glaring implications of a reality created by Consciousness as learned from the *Double Slit Experiment* to assist in our embrace of the truth.

Reality is a structure that appears real but is made of unreal things, coming into its “realness” only through the observational power of Mind. Consider reality as a great painting. Mind creates the art, filling a blank canvas with a visible masterwork. Yet if you remove Consciousness from the equation, the art literally disappears. Consciousness doesn’t so much witness the image as actually create it; the prodigious painter of the art we term reality is simply the Mind being the Mind. Without Consciousness, there is no art.

That causes some troubling questions. Is reality an illusion? Can the universe and, by extension, reality ever truly be understood? As with the *Double Slit Experiment*, perhaps other revelations within Quantum Mechanics might provide answers to questions about the true nature of things. Be warned, however, that every further exploration into the inner workings of the atom reveals more unbelievable truths. Virtually nothing is as we thought. Let us turn to that exploration next.