

07. The Waking World and its Transphysical Dimension

This chapter serves two different functions. First, It explores the way in which the transphysical worlds¹ already pervade our waking lives. I call this the “transphysical dimension of the waking world.” Second, I review and expand on many of the metaphysical ideas we have considered in previous chapters.

Let’s begin by clarifying what I mean by “the waking world.” It is the world as we experience it when we are awake, in our “normal” state of consciousness, highly privileged in modern science.

In general, we tend to confuse the *waking* world with the *physical* world. They are not at all the same thing. During the day, and under normal circumstances, we live in the waking world and experience much of the richness, complexity, and subtlety it offers. We perceive things with our senses, we feel our emotions, we interact with other people and animals and with the wider world around us. We engage in a variety of personal and social relationships, and spend at least as much time dealing with other living beings as we do with the physical environment that surrounds us.

The physical world *per se* is nowhere near as rich as the waking world. It consists only of low-grade occasions interacting in metrical time and metrical space. If we try to imagine how the world appears to, let us say, an atom, it probably appears as nothing but a gravitational and electromagnetic gradient. It’s not complex compared to our richer and more nuanced experience. An inorganic actuality can know nothing of chairs and cups, even when it is part of one, and it can never know a living being in the way that one living being can know another.

Our waking experience is much richer than that of an inorganic occasion. Not only can we know about systems of atoms, but we also know and engage with living and thinking

¹ “Transphysical” refers to worlds of high-grade occasions existing on their own, with no dependence on the low-grade occasions studied by physics.

beings that are embedded in systems of inorganic occasions (physical bodies). Higher grade occasions can know about their lower grade constituents in ways simply not available to the low-grade occasions themselves. In short, living beings in the waking world construct a far richer appearance of the world than the inorganic entities occupying the physical world do.

In this chapter, then, I will distinguish between the physical world and the waking world, and I will discuss properties of the waking world that are richer and more complex than the properties of the physical world itself.

A Metaphysical Review

In order for us to account more fully for the difference between the waking world and the physical world, we have to work with the idea of “grades” of actual occasions. Before we get to that, however, let’s review key aspects of this new metaphysics.

In the last few chapters, I have been speaking about “actual occasions.” This is Whitehead’s technical term for the ultimate entities making up the actual world. An actual occasion is simply a moment, or occasion, when something actually happens. Instead of things or ideas, the world is composed of *events*. Human beings are fine examples. As I write these words, my personality is a sequence of events, and my body is a more complex society of events. Together, these events compose all of who I am (e.g., beating heart, pumping blood, metabolism of energy, activated nerves and muscles, as well as all my thoughts, feelings, emotions, and other mental activities). And you, as you read these words, are likewise a sequence of actual occasions. Actual, things are happening, and that’s what makes a world—any world—actual.

When we reconceptualize the world in terms of actual occasions, instead of merely physical atoms, the appearance of the world we construct is transformed. We no longer get caught in the problematic oppositional dualisms of Western philosophy—particularly, the split between matter and mind. Instead, we realize, everything consists of *actual occasions that are both material and mental*. Remember in Chapter 2, we saw that every moment can be viewed as a “drop of experience” (mind) on the inside, and as a causally effective events (quanta of energy) on the outside (from the perspective of subsequent

occasions). The causal transmission of experiences from past to present, is the transmission of energy; it is the physical, or material, pole of an occasion. A *re-experience* of past experiences occurs in the new mental pole, felt in the new consciousness of each new actual occasion. In other words, what we call “energy” is the experiences of the past made present,. Energy and experience, then, are always bundled together in every moment, composing every actual occasion.

The technical term for this feeling of causes streaming in from the physical pole is, as noted in chapter 6, “*causal prehension*.” A causal prehension is the *re-experience of an experience* that was already complete when it began to concreate. Notice the symmetry: Every *cause* (a past drop of experience that has become actual) is, later, a *prehension* (a mental accounting of the cause in a new present). Matter and mind, always go together. Their difference, essentially, is a question of perspective.

The material and the experiential cannot be separated. They always occur together in everything actual. This means, in case you hadn’t already noticed, that some degree or *capacity for experience* is present *at every level* in the actual world—whether electrons or elephants, atoms or apes, molecules or mice. All actualities have the same essential psychophysical nature, and they differ only in the richness and complexity of their structures and processes.

Every actual occasion is an experiential process. There is no such thing as a vacuous actuality that can exist or persist from moment to moment, devoid of self-experience and self-enjoyment of value. Nothing actual exists independently of time, like the hypothetical insentient atomistic BBs of Newtonian physics and materialist metaphysics. To repeat: Everything actual is an experiential *process*.

Although everything actual is a process, there is more to reality than just actuality. To help you grasp what I mean, I should point out that I am making a distinction between what is “real” and what is “actual.”

Both possibilities and actualities exist; they are *real*. We can, and do, entertain real possibilities, and by choosing them we make them actual. Only what has been actualized

actually exists. Every occasion, as it comes into being (or concretes), must possess the *capacity to experience* past causes, the capacity to organize them into an appearance, and the *ability to choose* among the possibilities *presented* to it. Once its decisions are made, and it has become actual, the occasion then exercises *causal efficacy*—*the ability to participate as a causal prehension in future occasions*.

Every process enacts these four phases: experience, interpretation, choice, and causal efficacy. That is how something new emerges in every moment; it is what Whitehead calls “creative advance.”

We can now the distinction between possibility and actuality discussed in Chapter 4.² Unlike actualities, possibilities (or abstractions) do not exist *in* time or space—rather, they exist *with* all time and *with* all space. The pattern of possibilities surrounding an emerging actual occasion is unique, and so is the pattern it ultimately chooses to actualize. Neither pattern will ever be repeated. But each of the individual possibilities making up these patterns—both simple possibilities such as colors and sounds, and more complex possibilities through which simple possibilities are related—do not change; they are “eternal objects,” like Plato’s forms or ideas. They are identical with themselves wherever and whenever they are experienced. Yet these forms or possibilities do contribute to change in the real world when they are incorporated into an actual event as one of its defining characteristics. Everything actual comes into being in a process that involves feeling or prehending its past (causal efficacy), feeling the halo of possibilities surrounding the emerging moment (conceptual prehension), forms an interpretive cascade of propositions (propositional prehensions) and decides whatever needs to be decided along the way. This process is guided by an aim at the maximization of value.

Every process is both material (causal) and mental (experiencing and choice-making). All of this happens, for every actual occasion (from proton to primate), within the context

² For a more detailed consideration of this issue, see my “A Commentary on Chapter 10 of *Science and the Modern World* Alfred North Whitehead.” This has been accepted by the *Process Studied Supplement* at <http://www.ctr4process.org/publications/ProcessStudies/PSS/>, though as of this writing, the article has not yet been posted. It can be found at: <http://ericweiss.com/a-commentary-on-chapter-ten-of-science-and-the-modern-world-by-alfred-north-whitehead>.

of the entire history of all past events. In other words, every actual occasion emerges out of an *already existing* actual world. It always begins its coming-into-being at a specific moment in the creative advance, following a particular actual universe alive with the immortal experiences of the past. Thus, it occurs at a specific moment in time.

In addition, every actual occasion also has a position in space. For example, not only do I exist right now, at *this moment*, I am also somewhere in the world, in this position, at this *place*. I am right *here* in relation to everything else. This place determines my perspective on every other place.

To be actual, then, means to exist *somewhere* in space and *somewhen* in time. That is to say, every actual occasion exists at a *position in the creative advance of actuality*.

But that is not all. Every actual occasion is an *experiential* process. It feels, or is aware, that it is located and in process. A spark of consciousness is always present. Every actual occasion is aware of the world, in some way, however abstract. Along with consciousness, each actual occasion also always possesses a quantum of free will.

Furthermore, every actuality is guided by an aim; it is going somewhere. At every moment we make choices (sometimes conscious and explicit, sometimes unconscious and implicit). Our choices always have some motive behind them. We act for a reason. We may not be able to articulate that reason fully, but we sense it. This leads to a bold and stark conclusion:

If there wasn't a reason to exist, existence wouldn't happen.

In dramatic contrast to the doctrine of materialism, which denies any purpose at work in the universe, transpersonal process metaphysics holds that purpose or aim (the “final cause”) is intrinsic to the actual universe.

Following Whitehead, I start with the assumption that each of us is a perfectly valid example of what it means to *be*. I then acknowledge the obvious fact that we experience ourselves as having goals and aims, and that we choose and act with purpose (despite the materialist worldview that tries to tell us it isn't possible). What is true in our own case

must also be true of every other actual occasion because they are all *experiential processes*, just as we are. There is no *essential* ontological difference between actual occasions. Therefore, since *we* have a motive or a reason directing our existence, it follows that *everything* has an aim or motive for existing.

That's the starting point of Whiteheadian process metaphysics: Every actual occasion begins as a moment in an actual world, located at a position in space, possessing a spark of consciousness motivated by an aim, and equipped with the capacity to interpret its past and to choose freely among the possibilities implied by that past, and even among novel possibilities never before actualized.

The world is made of actual occasions—but they are not all alike.

Every actual occasion is unique; however, we can usefully group actual occasions by their “grade.” The simplest, lowest grade actual occasions discussed by science are quantum events, the tiniest processes identified by post-modern science. Quantum events are so unimaginably rapid that from our perspective they are hardly distinguishable from instantaneous blips. To a quantum, the speed at which we change and grow would probably be as undetectable and as uninteresting as the changes taking place in a rock would be to us. In fact, the duration of actual occasions is one of the characteristics that distinguish the different grades—higher grade actual occasions take longer to happen than lower grade occasions.³

In the theory I am suggesting here, an atom (a system of subatomic blips) is itself a higher grade of actual occasion that organizes a series of lower grade, sub-atomic occasions. On a higher level, a cell is an actual occasion that organizes macromolecules, and so forth. Like nested Russian dolls, the waking world is composed of actual occasions all the way up and all the way down. Technically, waking reality is

³ This does not imply some objective temporal framework by which duration can be measured. It simply means that during the concrescence of a high grade occasion, it canprehend the concrescences of many lower grade occasions. For example, my decision to turn left or right at an intersection spans many nervous impulses, each of which spans many sub-atomic events. I believe that this idea differs from the ideas that Whitehead was working with in *Process and Reality*. It is a part of what distinguishes transphysical process philosophy from the Whiteheadian version. I have discussed this issue in Weiss, *Embodiment*, Op. Cit.

dynamically structured in layered networks of actual occasions within actual occasions within actual occasions. The higher we go in this hierarchy, the higher the grade of the occasions involved.

Two Worlds: Waking and Physical

We are now in a position to make a more precise distinction between the waking world and the physical world. The world that we see when we are awake, the world perceived through our physiological sensory apparatus, is the physical world—as apprehended by higher grade actual occasions. For example, when we see a cell in a microscope, we see inorganic macromolecules organized into a glorious dance by the presence of a higher grade occasion a cell, that is using those macromolecules as its prehensions in the physical world. And when we gaze into the eyes of other animals, we see thinking beings gazing back at us, animated not only by medium grade occasions like cells, but by high-grade mental occasions that *think* about the world around them give it *meaning*.

The waking world is profoundly shaped by higher grade occasions, that exist beyond the reach of physics. They are transphysical in the sense that they are much less predictable in their actions than physical occasions and, although they produce causal effects in the waking world, they do not exist in the same time and space as the actual entities studied by physics. I will return to this issue in greater detail in Chapters 8 and 9.

This notion of “grades” is so important, let’s pause to look more closely at the anatomy of an actual occasion, and see how process metaphysics accounts for different grades that make up the multi-layered complexity of our actual world.

A Three-Phase Anatomy of Process

Once an actual occasion comes into existence and begins to function, we can further analyze its process into three distinct stages.

1. We Feel what Causes Us.

First, moment-by-moment, every one of us is emerging into actuality—right here, right now. You opened your eyes this morning, and there you were, existing again. And,

thankfully, it's still happening. Well, how *does* that happen? Where do we come from? How do we exist? That's what we're going to look at.

The beginning of each actual occasion is profoundly mysterious. Whitehead attributes this beginning to the ongoing activity of what he calls "Creativity." Creativity is the ultimate principle by virtue of which "the many become one and are increased by one"—which is to say that the many actualities of the past are unified into a single experience by a new actual occasion in the present, and this adds one more occasion for all subsequent concrescences to unify in their experience. The actual world is evolving and constantly growing.

As we continually emerge into our world, the first thing we do is to take it in—we behold it. The universe flows into us, and, for our part, we experience the world. As Whitehead said, we experience the world "conformally"—in other words, we experience the world *as it was*. The world out of which I emerge is there for me to behold, and I have to behold it just as it was, otherwise there could be no continuity in the universe at all. As noted earlier, I am *caused* by the world and, as the world causes me, I *feel* it.

I want to emphasize this point—and it's one of the deepest shifts in perspective that comes with the new paradigm I am describing here: The distinction between causality and feeling is transformed into a difference of perspective.

To be caused by something is to feel it. To feel something is to be caused by it.

The efficient causes from the world rush in on us and we feel the effects—every occasion does.

2. We Interpret the World.

Next, as we emerge into actuality, we interpret the world. Notice that you are exactly at the center of your own universe (just as every other actual occasion is at the center of *its* world). While you may not be in the center of the room where you are right now, or at the center of your town or city, state, or country, nevertheless you are in the center of your

experienced world. If you move across the room, city or country, you will still be in the center of your world.

You are always precisely right at the center of your universe.

When you look out and behold the world, your experience always has the structure of a *mandala*—a meaningfully ordered pattern with a clear center and a periphery.⁴ In Chapter 9, we will see that actual time-space, as we experience it, is always mandala-like. We begin each new moment with a diversity of objects spread around us and ordered by the relevant time-space relation, and, as we take them in, we interpret them into the aesthetic unity of one moment of actual experience..

First reality . . . then interpretation, and every interpretation shapes how reality appears to us. For every actual occasion, the world has a certain appearance. That appearance is always, and inevitably, mandala-like, with us at the center. What appears can be very rich and detailed or it can be very poor and abstract. Nevertheless, every actual occasion constructs an appearance of the world for itself.

Imagine the experience of a hydrogen atom in practically empty interstellar space; its experience is very poor. The appearance of the world it constructs is very abstract. It probably experiences the entire universe as a fairly flat gravitational gradient and nothing else. By contrast, we have a much more elaborate experience, involving a multitude of objects, forms, and forces that share our immediate and distant environment in a massively rich and meaningful way.

The point to realize here is that the appearance constructed by each actual occasion is causally connected to the reality out of which it emerges. The world impinges on me (or, as Whitehead would say, “Iprehend the world”); it comes into me. Then I begin to pay attention to certain things and ignore other things. Patterns emerge from my experience of the world—my *mandala*. By selective emphasis and abstraction, I begin to construct my

⁴ Note that two-dimensional mandalas, for example, in Tibetan paintings, are mere abstractions. The mandalas they represent can be three-dimensional, or can even take place in non-metrical spaces such as those I will in Chapter 9.

appearance of the world, but what I pull from the world is always causally connected to the world from which it comes.

I am now addressing one of the longest-standing problems and debates in philosophical thought—the relationship between appearance and reality (it goes all the way back to Plato and his allegory of the cave). Typically, we think appearance is something that shows up “inside,” while reality is “outside.” Modern thought assumes there is no intrinsic connection between what shows up “inside,” in our experience, and what is really “out there.” All we know are the appearances in our minds, and because we cannot step outside our minds to know what lies beyond them, it is assumed that we can never know reality *as it is in itself*.

German philosopher Immanuel Kant described this split between appearance and reality in great detail in his influential book *Critique of Pure Reason*. He distinguished between the *phenomenon* (what shows up in our minds) and the *numenon* (the unknowable reality as it really exists in itself).

But now we can see this split does not really describe our own experience. We *can* know reality as it is in itself because the world impinges on us at every moment, and we feel it.⁵ We then abstract those features that are interesting to us (relevant to our aims), and that is how we construct our appearance of the world. True, we don’t do justice to all the details of the entire world in our experience at every moment—that would be unimaginably overwhelming. But what we do select is, nevertheless, actual. It is not “just” an appearance; it is a real part of the real world as it was just a moment ago. And, once again, *what is true for us is also true for every actual occasion*. Countless times in every second, every entity in the world is constructing an interpretation of the world (its “appearance”) for itself.

This has some quite profound and practical implications: The way we interpret the world conditions what we experience as possible. For example, when I apprehend my cup, I see

⁵ See Christian de Quincey’s “Reality Bubbles: Can We Know Anything about the Physical World?”, *Journal of Consciousness Studies*, Vol. 15 (8), August, 2008.

that I can pick it up and that I can drink from it. A particular set of possibilities was actualized by the actual occasions making up the cup, and I experience them conformally, as they were. I select among the possibilities, and even arrange them in novel ways, as I construct my appearance of the world. But if my cat saw the cup, a different set of possibilities would be selected, or prehended—the world would show up differently for him. My cat might, for example, conceptualize drinking from the cup, but would never conceptualize the possibility picking up the cup; she would pull out a different set of possibilities relevant to her history and her aims.

The first phase of actualization, then, is to feel the world *conformally* (exactly as it was), and the second phase is the formation of an interpretation of the world relevant to our aims. And this leads us to the third stage.

3. We Make Decisions Aimed at Enjoyment

I pull the world in and I construct an experience of it. That experience comes with a halo of possibilities radiating out in all directions. As I become actual in this moment, I choose which possibilities I am going to actualize, and I enjoy the value that comes from that decision.

A Deeper Look at Grades of Actual Occasions

I have said that all actual occasions are identical in that they undergo the same essential process of actualization: *feeling the world conformally, interpreting the world, and deciding about and enjoying the world*. However, these elements of the process are experienced differently depending on the complexity, or grade, of the actual occasion in question—whether a low-grade *physical* occasion, a medium-grade *living* occasion, or a high-grade *mental* occasion. An atom does not experience the world the way an ape does. As we move along the evolutionary continuum, different grades of actual occasions experience the world with different emphasis (see fig 1).

	Feeling	Interpretation	Decision/Enjoyment
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Low	X	x	x
Medium	X	X	x
High	X	X	X

Fig 1: Grades of actual occasions.

Note that even though every actual occasion goes through the three stages of feeling, interpreting, and deciding, each differs in the emphasis given to the three phases depending on the complexity of its grade.

Although I have divided actual occasions into three grades, I want to be clear that these grades are not entirely distinct. In fact, there is a continuous variation in grade, from the lowest to the highest. The three-fold distinction I am using is similar to our convention of dividing the color spectrum (which is continuous) into seven distinct colors. The three-fold distinction is convenient because it corresponds to our usual differentiation between inorganic, organic, and thinking beings. Yet, as we know, even that distinction is a continuous one. The fuzziness of the distinction between inorganic and organic, for example, is often remarked upon.

Low grade

Low-grade occasions emphasize *feeling*, the first of the three stages in concrescence, or the process of actualization.

A low-grade actual occasion, such as a hydrogen atom, mostly just feels the world, and interprets it in a very abstract way. The interpretation is entirely lacking in nuance, and does not disclose the vast richness of concrete actuality. Also, there is a bare minimum of exploration of the possibilities that are revealed. The atom, most of the time, just repeats

what it did a moment ago.⁶ It does not exercise elaborate decision making. As an actual occasion, it is comparatively very simple.

Medium grade

Medium-grade occasions emphasize the first *and* the second stages of concrescence—*feeling* and *interpretation*.

A medium-grade actual occasion—for instance, the personality of a cell or an organ or an animal—feels the world but also interprets it in a much more elaborate way. We can easily observe that is the case. A bacterium can identify a chemical gradient and follow it to food. However, these medium-grade, living occasions do not seem to spend much energy in deciding what to do. Plants, for example, experience a limited range of possibility for novelty; for example, they follow the sun, and grow this way or that. They just do it with minimal choice. Similarly, simpler animals (e.g., those without the complexity associated with a frontal cortex) simply follow their impulses or instincts.

Just to be clear: This is not intended as a biological treatise, so I am not concerned about consigning any particular species or, indeed, any phylum, to a specific grade. Those kinds of details need to be worked out later by a science informed by this alternative metaphysics. Here, I am simply noting that actual occasions do occur in different grades, and I'm indicating the kinds of entities and organisms that, in general, can be assigned to each grade. The important point is that understanding the differences between grades will help us later on when we come to discuss what kind of entity the human personality must be in order to survive the death of the body.

Keep in mind (as mentioned earlier and will be important later) that medium-grade occasions alwaysprehend other medium grade occasions, and may or may not (depending on their own aims)prehend low-grade, inorganic occasions. In other words,

⁶ Of course, sometimes it does do something different—as when, for example, it gets together with oxygen to become water. But it does this under external pressure and, in any case, its behavioral repertoire is comparatively small.

medium-grade occasions can form a world of their own, not dependent on the physical world in any way.

High grade

High-grade occasions emphasize all three stages in the process of concrescence—*feeling*, *interpreting*, and *deciding*.

High-grade occasions, like ourselves, feel the world and interpret it in a very elaborate way. Additionally, we actually *think* about what we are going to do next. At many moments, we consciously evaluate possibilities and choose those that best suit our aims. We have an elaborate decision making process—we go for the possibility that will yield the maximum value over sometimes considerable ranges of time and with many intervening steps. For example, we may decide to go to school, and then realize we need to work to make the money for tuition, and then prepare ourselves for a job that will accomplish this.

Again, high-grade occasions alwaysprehend other high-grade occasions, but they need not (depending on their own aims) prehend occasions of medium or low grade.

The process of actualization or concrescence always involves these three stages, but the emphasis placed on each stage, along with its richness and depth, varies for different grades of occasions.

Here we are in the waking world, where inorganic or low-grade occasions play a very significant role; they make up the physical bodies of the objects that surround us—walls, roofs, furniture, tools, toys, and so forth. As societies of high- and medium-grade occasions, we are actualizing moment to moment, in a very rich way. Meanwhile, the atoms and molecules around and inside our bodies are low-grade occasions actualizing in their own, comparatively poorer way. When we study them, we are doing physics. To state the not-so-obvious: Physics is the study of low-grade occasions by high-grade occasions.

Until the advent of quantum mechanics, physics didn't have any place for high-grade occasions—they were irrelevant to the professional concerns of physicists. Consequently, because physicists concentrated on studying low-grade atoms and molecules, that's all they observed and then, mistakenly, they many made a leap and declared “that's all there is.” Reality, they claimed, consists exclusively of low-grade inorganic occasions, and anything else is either a a configuration of those inorganic occasions, an epiphenomenon or an illusion. Hence, the awkward metaphysical tangle we know today as *physicalism*—the assumption that only what is physical (low-grade) is ultimately real.

Clearly, this is not satisfying philosophical reasoning. Good philosophy does not require us to explain away our own existence. The whole purpose of philosophy is to allow us to explain our own existence to ourselves.

Then came quantum theory, and physicists began to realize that, in fact, reality must include something other than the low-grade inorganic entities they study. Famously, they have had to deal with the metaphysically shocking discovery that *somehow* their little inorganic blips, now limited in time as well as in space, can come into actual existence only when *observed*. The shock was probably intensified because they assumed that the observer had to be a *human* observer. That assumption leads to the absurdity that the whole evolutionary past didn't exist until human beings evolved to notice it.

I agree with the quantum physicists that it always takes a conscious decision to make anything actual. This is the truly radical and paradigm-shattering discovery of quantum physics that should send every serious physicist, scientist, and philosopher scrambling for their textbooks on metaphysics. *How could such a thing be possible? How or why is it necessary for consciousness to be present for the actual physical world to come into being?* Answering that question will open the way for understanding that we live in a vastly more complex and interesting world than previously suspected by science (though it has been known by spiritual traditions for millennia).

What I will suggest, following Whitehead—something many quantum theorists are beginning to think, too—is that *each occasion has the consciousness needed to make itself actual*. Each actual occasion makes the decisions by virtue of which it becomes

actual. This realization now forms the basis for a number of interpretations of quantum theory.⁷

Understanding Measurement

Let's remind ourselves that, in this chapter, we are working to understand the waking world—by focusing on the various grades of actual occasions. In doing so, we have highlighted the distinction between what we normally call “matter” (actual occasions of low grade) and “life” (actual occasions of higher grade) that organizes matter into the interesting and beautiful forms we observe in waking life. However, in order to refine our understanding of the difference between the waking world and the physical world, we also have to examine the question of measurement.

In this discussion, when I use the word “measurement,” I am indicating what it means in classical science (which I will elucidate below). In quantum mechanics, by contrast, the word tends to connote “detecting”—where what is detected can be any quality whatsoever.

Physicists understand inorganic occasions in the language of mathematics. Since the late 1600s, it has been assumed that numbers are the language of nature. To “get nature’s number,” to understand it mathematically, we have to *measure* it. Only through measurement can we transform our experience of the world into numbers we can manipulate mathematically.

But what is measurement? Well, in essence, it is an operation that reliably produces a number in relation to some observation. This much is often taken for granted. But then we can ask: How is measurement possible? This is a much deeper question.

We need to understand what measurement is if we are to understand what science can effectively tell us about the actual world.

Measurement is central to almost every scientific procedure, yet few people have paid sufficient attention to this deceptively simple process. One of the great merits of

⁷ For example, Epperson, Op. Cit.

Whitehead is that he devoted an enormous amount of attention to unearthing and explicating the conditions under which measurement is possible.

To make this really simple: All measurement involves either a ruler (which physicists rather suggestively call a “rigid rod”) or a clock (which physicists call a “periodic oscillator”). Measurement requires a fixed standard for comparison, and standards are either spatial or temporal.

If I want to measure something in time, I compare its duration to the ticks of a clock. If I want to measure something in space, I take a ruler (which is a standard) and I count⁸ how many units designated on that ruler it takes to equal the extent of the object I am measuring. It is very simple. Whenever you measure something—whether reading a dial, a digital readout or anything else—it all comes down to comparisons between what we are measuring, on one hand, and rulers and clocks on the other.

But why are rulers and clocks good for measurement? What gives them this ability? If you think about it you will realize that the reason rulers and clocks work is because compared to the characteristics we care about, they are invariant. Periodic oscillators continue to oscillate regularly even when they are moved, and rulers hold the same length over time and across space. For very good reasons, we don’t use the songs of birds as periodic oscillators, or snakes and rubber bands for rulers.

So far so good. It all seems so simple and obvious. But then we ask what are the conditions under which things can either oscillate periodically or hold a rigid length? Now, the answer is no longer as obvious. However, given what we already know about actual occasions, we can see that rulers and clocks work because they are made up of low-grade occasions that tend to persist in their habits unless disturbed. You could not make a ruler out of living tissue, which is always adapting to its environment and won’t hold still to function as a standard. Measurement works only with inorganic entities. Basically, it involves comparing inorganic entities to inorganic entities.

⁸ Note that measurement presupposes counting. We must *count* the number of units that correspond to the extent we are measuring. Counting itself is a very complex activity that many of our ancestors (whose whole number system consisted of “one,” “two,” and “many”) did not possess.

*Measurement is possible only in the inorganic world.*⁹

The stubbornness of inorganic occasions is not the only factor necessary for measurement to be possible. Space must also be structured in a certain way. If I measure my chair to see if it will fit through the front door, I have to assume that one-and-a-half feet here is *the same* one-and-a-half feet over at the door. As I move in space, the definition of distance does not change. If it did, measurement would be impossible. By contrast, think of what happens in dreams, where distance does change. In a dream, I could measure my chair over here and think that it would fit, but when I go over to the front door, it might not fit at all. Unlike in the waking world, dream space is fluid.

In Whitehead's terms, the only way measurement can work is in a space pervaded by (imaginary) parallel lines. For example, in our physical space, a set of parallel lines connects the width of my chair to the width of the door. Being parallel, the distance between the lines is constant, and so the ruler remains the same here and over there. That's what makes measurement possible.

In other words, measurement is possible only where actual occasions are interacting in a stable, grid-like, metrical, space-time (I will discuss the structure of time and space more deeply in Chapter 9). Bottom line: Measurement is possible only in a space-time that permits Cartesian grids with parallel lines.

The inorganic world, studied by physics, is populated by low-grade inorganic occasions operating in a time and a space in which, for all practical purposes, parallel lines never meet. As we will see in Chapter 9, measurement is possible only when the time-space relation is defined by a metrical geometry.¹⁰

⁹ Psychologists will sometimes claim to “measure” experiences like “anxiety.” What they are doing, however, is either measuring something else (such as electrical resistance in the skin), or else asking people to assign a number to their experience (“how anxious are you on a scale of one to five?”). In the former case, what is being measured is something physical (electrical resistance), and the connection between that and what is supposedly being measured (anxiety) is purely speculative. In the latter case, there is no way to replicate the measurement, and so it is hardly scientific. These methods may or may not be useful in some contexts, but they can be called “measurements” only by analogy.

¹⁰ The metrical geometries are those in which parallel lines are defined. These are Euclidean, elliptical and hyperbolic geometry. (In order to be metrical, a time-space must also have a constant curvature.)

Inorganic entities do, indeed, form the inorganic, physical world, and when we are awake we are very much involved in the physical world—but we are not inorganic. We are actual occasions of a higher grade. In other words, the “matter” that constitutes us *is not physical*. Yes, we are material beings, but we are not physical beings. This is an important distinction to grasp. It is central to the model I am proposing here. We could regard different grades of actual occasion as, in effect, different types of matter. For example, I am an actual material being—as actual as any atom anywhere in the universe. But I am nowhere in the physical world. I inhabit the living, or vital, world and also what we will call the mental world. While it is possible to locate and measure the physical atoms that compose my physical body, *I cannot be located or measured*—because I am of a higher grade than my physical atoms and molecules.

One of the challenging and controversial consequences that follows from this radical worldview is the realization that no scientist has ever detected a living being *per se*. All they have detected are complex systems of inorganic beings. The qualities that inform the lives of living beings cannot be quantified, and the relationships between them cannot be reduced to relationships among numbers. Living beings causally interact with each other in ways that are richer and more complex than any that can be represented in the Cartesian grid, where inorganic occasions reside. Your personality and my personality are actual entities, sequences of actual occasions that are as actual as anything else in the universe. We are, in that sense, material beings that are not physical beings. *We exist in a different world*—beyond the domain studied by science. We are high-grade actual occasions—*we are transphysical*.

This gets a little tricky because one of the fundamental tenets of the modern world is the equation “physical = actual.” It goes with the assumption that everything actual can be measured by a physicist. In fact, in our culture, if you want to know if something is real, you go to a physicist (or an engineer) and ask for it to be measured. This belief runs so deep it is even a major factor in our legal system where forensic science is called on to provide “physical proof” of what is real, of what actually happened.

But you simply cannot prove the existence of a human being in that way. Our personalities do not exist in such a world—a world of low-grade physical occasions operating within a metrical space-time relation. Once we realize this, we can see that what I am calling the waking world is not at all the same as the physical world. *Physical does not equal actual*. The actual world is *more than* physical—in fact, the actual world is *both* physical and *transphysical*. The waking world is profoundly shaped and formed by these higher grade occasions—and these form a very different kind of material than that studied by physics and the other sciences. We could call it “transphysical matter” or “subtle matter.”

This is not a new idea. It has been around for a long time, showing up in the cosmologies of all pre-modern peoples, and, more recently, in the writings of Theosophists and spiritualist-oriented scientists during the 1890s and early twentieth century. But to my knowledge, no one has yet come up with a definition of transphysical matter that really makes sense in relation to scientific ideas. I aim to rectify that in this work by offering a robust and coherent set of metaphysical ideas that not only make sense of the discoveries of modern science but also extend to what are sometimes referred to as “esoteric” disciplines.

The Theosophists and others tried to explain subtle matter in terms of “density,” saying that solid matter is dense, liquid matter is less dense, gas even less so . . . moving along a continuum of density, until eventually reaching transphysical matter. But that approach doesn’t work; no matter how rarefied and tenuous low-grade matter becomes, it is still low-grade matter—still subject to mathematical laws. Explanations in terms of “density” don’t correspond to the experiences we have of transphysical worlds in dreams, waking-dreams, lucid dreams and out-of-body experiences.

Nor does it work when people talk about “higher dimensions” (as the Theosophists do) because as long as these are, in principle, measurable, they are merely complications of the familiar *physical* world.¹¹

I am suggesting something very different. The key factor that differentiates transphysical matter from physical matter is the proportion of *mental* activity involved. Entities higher on the gradient of actual occasions are capable of more elaborate interpretation and decision making. The crucial difference between grades of actuality is not an issue of “energetic vibrations,” “material density” or “physical complexity”—it is comparative *richness and complexity of consciousness*.

Once we acknowledge that every actuality involves both consciousness and matter—that every actual occasion is a drop of experience on the inside and an event on the outside—then we can see how the respective proportions, or dominance, of materiality and consciousness can change from physical to transphysical. In higher grade occasions, the process by which they become actual involves more elaborate mentality (interpretation and decision making). Actualities that involve more mind are *qualitatively* different (not just a difference in quantities such as vibrational frequencies or material density). Higher grade, transphysical entities are still material—they are still fully actual like physical atoms are, but are actual in a richer, more mentally elaborate way.

I want to emphasize this point, it is so important to grasp: The crucial factor that accounts for a true transphysical domain is not mere complexity of *physical* substance (or “vibrational” density) but *the complexity of dual-natured actual occasions instantiating proportional differentials of mental and physical constituents*. That’s a technical mouthful; but it means, essentially, that the transphysical matter of higher grade occasions is imbued with more consciousness. A human being has more consciousness

¹¹ The Theosophists were fascinated by the “Fourth Dimension” because it gave them a way of answering the question “where are the transphysical” worlds? I propose replacing this idea of “higher dimensions” with the idea of transphysical worlds, that are configured in terms of less restrictive time-space relations (see Chapter 9). I cannot say with any authority what “string theorists” are getting at, but in any case their eleven dimensions are all orthogonal to one another, and so merely complications of an essentially Newtonian time-space relation. Such “higher dimensions” are not, as far as I can tell, relevant to transphysical worlds.

than a bacterium—and, therefore, the stuff of which we are made is proportionally qualitatively different.

Given this, we now realize that matter itself comes in grades—along a continuum from low-grade physical matter to higher grade transphysical matter. Both physical and transphysical are equally actual. It follows, then, that we cannot explain everything on the basis of the properties of physical matter alone. Higher grade actualities (such as human beings) literally consist of a *different kind of material* than matter formed of low-grade atoms and molecules. Atomic material is physical; human material is *transphysical*. We are “transphysical” beings because we have more elaborate capacities for interpreting what shows up in experience and for choosing among the range of possibilities that present themselves—far more than merely physical atoms can.

If we accept this analysis, we may then ask: *How do transphysical entities interact with physical entities?* How can entities from one kind of world cause anything to happen in a different kind of world? How are high-grade and low-grade occasions related? These are legitimate and metaphysically important questions—and, in fact, they lie at the heart of the modern scientific and philosophical conundrum known as “the hard problem.” Answering these questions will put us right on track to understanding the relationship between human personalities and survival in a postmortem realm.

Scientists have been trying to understand reality by restricting analysis to causal interactions among low-grade occasions. But if we accept the idea that there are various grades of matter, then we also have to look at the causal interactions among high-grade actualities themselves (“*intra-grade*”), as well as the causal interactions between high-grade occasions and lower grade occasions (“*inter-grade*”). Understanding the difference between “*intra-grade*” and “*inter-grade*” interactions will go a long way toward elucidating the nature of transphysical worlds.

When we take on this task, we are faced with a network of causes far more complex than those recognized by modern science. In fact, this investigation demands that we radically expand our conceptual toolkit to embrace a richer and more complex reality than hitherto

accepted by our culture—a reality that includes the possibility of consciousness surviving the death of the physical body.

In the next section, we will move one step closer to understanding this by examining the causal interactions among different grades of actual occasions—how different worlds form and interact.

Embodiment in Different Kinds of Matter

We are now ready to talk about how causal interactions take place among occasions of different grade. Specifically, we will explore how high-grade occasions, like ourselves, interact with lower grade occasions like those that make up our bodies. The mystery we are about to unravel is: *How do we inhabit a body?*

Many scientists tell us that we *are* our physical bodies—nothing more. They say, for example, that to be conscious is just to be a complex pattern of electrical activity in the brain. They are trying to tell us, in other words, that all actuality—including our own consciousness—can be reduced to causal interactions among low-grade occasions.

I reject such extreme reductionism on both intellectual and emotional grounds. Intellectually, the notion of minds emerging from purely physical brains is incoherent—no one can even *begin* to explain how such a “miracle” could happen. This “mind-body” problem has befuddled modern science and philosophy for centuries.¹² Emotionally (aesthetically and morally), I refuse to be objectified as merely a collection of physical atoms. As an actual occasion of higher grade, I am not just physical matter. Because of my proportion of consciousness, I am a *different kind* of matter. I do not inhabit the physical world, as atoms and molecules do.

How, then, do I (*a mental grade personality*) control or coordinate the activities of my body (*which consists of medium grade [organic] and low grade [physical] occasions*)?

¹² See Christian de Quincey’s *Radical Nature* for a detailed philosophical analysis of the mind-body problem.

To understand this, we have to remember that we come into being out of an already existing world that presents us not only with already-existing actualities but also with a field of structured possibilities. We are determined by the past, yes; but the future is always open because every actuality exists in the present surrounded by a halo of possibilities. Given these possibilities, we can *choose* our future. However, our choices are not entirely open and free. There are things we can and cannot do. Also, some options are more probable than others.

The choices we make are always in reference to our aim or purpose at that moment. Aim (Aristotle's "final cause"), remember, is intrinsic to actuality—every actual occasion is imbued with purpose. But just what is this purpose? What is the general aim of all actuality?

We have already seen that aim is intimately related to *value*. Whitehead says that the general aim of actuality is the maximization of value in the present and in the relevant future. And so now we go a little deeper, and ask: What is value? In simple terms, value is the richness of experience—the essential capacity for enjoyment or bliss. That's what we aim for. That's what motivates every actual occasion from low-grade atoms to high-grade human beings. We all live for value in that sense. We want to maximize value. And that's what guides our decisions.

Metaphysically, this very general aim is built in to the very fabric of reality itself. In addition, each one of us has our own specific aims directed at a certain type of value. For example, each of us has a personality, developing over many years, that expresses itself (at least in part) as preferences for certain kinds of value. And, of course, what makes life interesting is that we all have different tastes (and, thankfully, we also share many preferences, too). In my own case, as a philosopher, I happen to greatly value intellectual understanding, and in my day-to-day decisions I sacrifice other values in order to achieve this one. Other people place greater value on artistic or ethical issues and sacrifice some others. We each have our own individual aims that we develop over time.

We also have social aims. Our values are, in part, conditioned by our environment—for example, by our families, friends, community, or nation. We have a certain set of values

that comes to us from the larger social environment in which we exist and out of which we emerge.

Beyond individual and social aims, and also influencing them, are more-encompassing cosmic aims. Take evolution, for example: Why does it happen? Why is there, as Teilhard de Chardin would say, a “privileged axis of evolution,” or a consistent aim at “complexity and conscious interiority?” Somehow, it seems, the universe itself has an aim, and this aim conditions all of the occasions that participate in it.

The aims that influence our existence, therefore, are multi-layered—coming to us from our personal past, from society, and from the cosmos.¹³ The particular aims that coalesce in us as individuals determine how we evaluate the possibilities available to us at any moment.

With this in mind, the issue at hand gets really interesting. In general, how do high-grade occasions interact with low-grade occasions? and specifically, *how do I cause my body to act?* I am suggesting that at every moment *we influence the aims of the actual occasions that make up our bodies*. I’m saying that we actually shift the taste for value of our organ systems, so that, for example, when I form a proposition concerning the moving of my arm, my muscle cells are predisposed to act out that decision because the very aim under which they have come into existence is influenced by my aim. In short, I persuade my cells to accept my suggestions; I influence their aim.

In a similar way, occasions larger than I—those that organize society, Gaia, the universe as a whole—affect the aim or motive guiding the choices I make. I, in turn, affect the choices of my cells by influencing their aims. That wonderful Hermetic phrase “As above, so below” expresses this relationship aptly.

¹³ It seems to me, for reasons beyond the scope of this book, that the evolutionary pull animating evolution comes from something that transcends the universe as a whole. I call this factor the Divine. The ideas presented in this book, however, do not require this to be the case.

We can now view the whole waking world as a cascading hierarchy of actual occasions, where the larger, higher grades persuade the activities of the smaller, lower grades, which then begin to organize in new ways.

Let's now focus on this process in terms of a single cell. We know from science that cells are vast collections of very complex molecules, called macromolecules, such as proteins and DNA. Scientists have boldly tried to recreate simple living systems in the laboratory—and have actually made some significant progress. For example, they have succeeded in stimulating groups of macromolecules to perform as dissipative systems that actually form their own boundaries or membranes, creating little sacs around themselves. But, that is not life.

Living systems are more than the organization of macromolecules. Three additional factors are needed for life beyond what can emerge simply as the result of dissipative structures of macromolecules.

1. A living cell is a center of consciousness.

Every living cell has its own unified, central consciousness—it's not just a sac of chemicals. We can make this assertion with confidence based on our rehabilitation of the Hermetic Principle. We know that we are a center of consciousness that directs our own bodies. In general, our bodies enact our purposes. It is quite clear that the bodies of higher animals also respond to the will of a central consciousness in a similar way. We should be able to make this analogy “all the way down.” We may doubt that this is the case in slime molds or plants, for example, which seem to be, as Whitehead suggests, more of a democracy. This is analogous to the difference between rocks and cells. Rocks seem to be associations of molecules held together merely by networks of efficient causes. There is no reason to think the various molecules in the rock share a common purpose. But cells, autopoietic structures, do seem to have a unified interiority over and above from that of their constituent molecules. Slime molds and plants, analogously, are more like “living rocks”—associations of cells in which no higher grade occasions have been embodied. Multicellular organisms proper (beings such as snails and mammals), however, *are* presided over by actual occasions of higher grade.

2. Living systems actualize a greater range of possibilities.

Every actuality—from atom to molecule to cell to human—as part of its coming-to-be (its concrescence) surveys a range of possibilities and decides among them. The higher the grade of the actuality, the larger the field of possibilities open to it, the more options it surveys, and the larger its behavioral repertoire will be. Because of its greater complexity of matter and consciousness, a cell pursues possibilities that would not make any sense to macromolecules. Living cells respond, in recognizable ways, to gradients of value or satisfaction. Put a cell in a Petri dish with some food such as sugar, and it will spontaneously move toward the food source (or away from some toxin). Macromolecules don't do that. In other words, the cell can penetrate deeper into the halo of possibilities that always surrounds every actual occasion.

3. The organization of life requires a coordination of spontaneities

Not only does a cell decide among the possibilities open to it at the *cellular* level, it employs its consciousness to influence the aims and direct the organization of its own constituents at the *molecular* level.

A living cell manifests qualities that a macromolecule cannot because the cell coordinates the spontaneities of its constituent macromolecules.¹⁴ I am convinced that if we examine the behavior of molecules within a living cell we will find that they move in different ways than they do outside the cells. *Molecules in a living cell behave differently*. The behavior of macromolecules is not totally determined. We know this from quantum theory: There is always some indetermination in every moment of actuality. The momentum and position of a macromolecule are not fully determined by its past. It has a degree of freedom.

¹⁴ I am assuming, here, that a macromolecule is not an embodied system. It is, rather, an association of atoms in which each atom, pursuing its own individual purpose, finds it natural to associate itself with other atoms. I make this assumption because the behaviors of molecules can be fairly well understood by the methods of classical physics, while those same methods cannot be used fruitfully to predict the behaviors of cells. I am assuming, that is, that a macromolecules is more like a rock or a crystal than a cell. It is probable that the most complex macromolecules, such as DNA or viruses, occupy a position intermediate between rocks and cells in this regard.

I am proposing that the consciousness of the higher grade occasion embodied in a cell influences the aims of its macromolecules so that they begin to behave differently than they would if left to themselves. Macromolecules within a cell behave as what appear to be self-organizing systems under the influence of the higher grade occasion embodied in the cell. The phenomenon of self-organization, so prized by biologists as an explanation for life, can itself be understood only as a result of the intervention of actual occasions of higher grade.

We are not stuck with the properties of the atoms or molecules, and we don't have to derive everything from them. Every actuality surveys a range of possibilities and decides among them. And because higher-grade actualities have a larger field of possibilities, they can manifest a larger repertoire of behaviors, allowing for entirely new behaviors to emerge.

I call this a theory of *embodiment*.¹⁵ Personally ordered societies of higher grade occasions become embodied in self-organizing systems of lower grade occasions. These higher grade embodied occasions influence the purposes of the lower grade occasions in which they are embodied, through a kind of final causation. Because the purpose, the subjective aim of these occasions, is modified, the possibilities they notice are different, and thus they can behave in ways that would otherwise be impossible for them. The presence of apparently self-organizing societies in the waking world is always a sign of the presence of the unifying will of a higher grade, personally ordered society.

The Waking World Revisited

At this point, we come full circle, back to the waking world. As we know from physics, the real world beneath our feet—the world we actually experience—does, in fact, consist of physical inorganic atoms and molecules. They are really there, fully actual. But that's not all. The waking world we experience also consists of equally actual higher grade

¹⁵ I have further elaborated the doctrine of embodiment in an unpublished paper: "Embodiment: An Explanatory Framework for the Exploration of Reincarnation and Personality Survival," Eric Weiss, 2004.

actualities, transphysical material—but this aspect of the world is beyond the reach of our physical senses and current physics.

We know from common everyday experience that higher grade beings, such as humans, are constantly manipulating and changing the appearance and the actuality of the physical world around us. Living systems reorganize the elements of the physical world. For example, we turn physical matter into objects of art, into houses and cathedrals, into cities and civilizations. Higher grade human occasions have produced technologies that enable us to radically transform our waking world. *Human transformations of the physical world cannot be explained merely in terms of the principles of physics.* Clearly, other factors come into play—such as our goals and desires, our aims and values, our consciousness and our choices.

And this same principle extends to all life. All living beings achieve complex organizations, and pursue novel and interesting possibilities, through the influence of higher grade occasions, and these higher grade occasions are not part of the physical world.

Thus, we see that the transphysical worlds thoroughly pervade the waking world, and this is what I call the “transphysical dimension of the waking world.”

We can now explore a remarkable implication of this transphysical dimension.

Recall, in Chapter 6, I discussed the subjective forms of actual occasions of different grades. I noted that actual occasions of low grade achieve a final satisfaction with the subjective form of simple certainty. We call prehensions that have this subjective form “facts,” and facts such as these play an overwhelmingly important function in scientific work.

But actual occasions of medium grade achieve a final satisfaction that may fail to achieve simple certainty, but does achieve a vividness and complexity of appreciation that I am calling “emotional.” Actual occasions of medium grade necessarily objectify other actual occasions of medium grade, and they objectify those other occasions in a way that is conformal to their emotional experience. Thus the waking world, to the extent that it

embodied actual occasions of medium grade—and is, therefore, alive—is pervaded by a network of empathic connections.

We are aware of the network of empathic connections that pervades our bodies. If even a few cells in our little toe are in pain, our entire body feels the discomfort. In Chapter 1, I pointed to cases in which people can make geometrical blisters, or even writing, appear on their skin merely by willing or imagining it. It has been shown that the patterns that appear on the skin do not correspond to patterns of nervous tissue in the skin, and so cannot be accounted for by reference to the nervous system.¹⁶ However, when we understand the body to be pervaded by a network of mutual feeling, these skin patterns begin to seem more intelligible.

Our metaphysical position, moreover, leads to us believe that these empathic network are not confined to the interiors of bodies. Rather we can justifiably assume that the living occasions in our bodies also prehend living occasions in other bodies. Certainly, when someone near us is angry, or desires us in some way, we can *feel* it. The living occasions in our bodies are directly prehending the living occasions in the bodies of others.

Furthermore, because the living occasions of our bodies are not, strictly speaking, part of the physical world, the causal prehensions among them are not restricted by distance in the same way that the causal prehensions of inorganic occasions are. For example, someone I care for deeply is *empathically* closer to me (even if physically distant) than someone I don't care for (who may be physically close). In an important sense, this network of empathic connections is world-wide, spanning the web of living systems.

Finally, high-grade occasions—possessing subjective forms involving some shade of “meaning”—also causally prehend each other, and do so in a world-spanning way. This web of telepathic connection can help us to find a metaphysical basis for terms such as “zeitgeist,” and for phenomena such as simultaneous discoveries.

¹⁶ get reference from Ed Kelly

When we recognize that the waking world is not just the physical world, but is also constituted by the pervasive texture of medium- and high-grade occasions that give it so much of its characteristic form, then we realize that the entire waking world is pervaded by empathic and telepathic networks.

At the very least, this metaphysical model allows us to intelligibly account for all of the data of parapsychology confirming empathy and telepathy. In addition, however, it is also fully consistent with what we already know about the universe through modern and postmodern science.

It has other implications, as well. If our intuitive sense of feeling the feelings of others and of telepathically knowing what they mean is valid; and if, further, these empathic and telepathic connections are elaborately interconnected in complex ways that transcend mere physical proximity, then it means we are awash in an ocean of feelings and thoughts that we usually fail to notice, in the way a fish fails to notice water.

We might think that our thoughts and feelings are safely “sealed up” in the private domains of our own individual minds or personalities; however, according to this new model, we are always participating in complex networks of feeling and thinking involving beings all over the planet—indeed, throughout the universe (and even from transphysical worlds). The Internet is just a pale shadow, an infinitesimal abstraction from the flows of sensation, feeling and thinking that bind the planet into a living and thinking community of sentience.

Any attempt to account for the unfolding of history that neglects the unifying influence of transphysical communications (effectively binding us into a single community of sentience) is necessarily incomplete. History is not just a series of “external” physical events influenced by the “internal” force of great personalities; it is, rather, powerfully influenced by participation in the shared network of empathic and telepathic influences operating through the transphysical worlds. The waking world, then, is understood as a play among both physical and transphysical domains of being.

In the next chapter, I will discuss the ways in which the transphysical worlds actually transcend both the physical world and the waking world itself.