REFLECTIONS ON CONSCIOUSNESS

Consciousness is notoriously difficult to define. Its ineffability is remarkable, or paradoxical, given that it is so intimately connected with our moment-to-moment experience. In attempting to understand it, we can start by defining consciousness as a *state or quality of being that is characterized by sentience and subjectivity. Sentience* can be defined as the capacity to feel or be aware of, however dimly, anything within or beyond the locus of our immediate personal experience. At the very least, we can say animals and humans have a capacity to experience their environments, whereas ordinarily we would not say a table or chair can have an experience.

Subjectivity, in turn, can be defined as the capacity to have a "point of view" from the inside out. "Objects" are things and events perceived as external to us without themselves having any internal point of view themselves. By contrast, "a subject" is something that can have a point of view toward an object; it is the "seat" or locus of a point of view. As a subjective phenomenon, consciousness is interior to things—not in a *spatial* sense of being physically inside, but in an *ontologically* (fundamentally) *distinct* sense of "from the inside out."

Teilhard de Chardin (1959) expressed it as the "within" of things, and the philosopher Thomas

Nagel (1998) described it as the "what it feels like from within." This is an important point. The interiority of consciousness *is not the spatial interior* of anything we regard as an object. It is an ontologically and existentially distinct category: *a state of being, directly experienced from the inside out.* Objects are perceived by a conscious subject as distinct from that subject. But consciousness, in its essence, *cannot be an object unto itself, because it is a state of being*. We can be aware of our thoughts and feelings the moment after we experience them, as if they were "objects" of our inner awareness (in fact, they are actually very recent memories). But that which is aware, the seat or source of awareness, can only "be." It is fundamentally a *state of being*

and cannot, in the moment of experience, be a perceptual object (in space) unto itself.

Imagining some type of solution to the perennial "mind- body" problem is not to regard mind or consciousness *merely* as a subtle energy or non-spatial "stuff" that somehow mysteriously interacts with the brain. This is the solution Descartes came up with four hundred years ago, and it's fraught with problems. Energy or stuff, no matter how subtle, can never in itself constitute an *interior point of view*. Energy, perceived as an objective process in space-time, can never reason or intuit or feel happy or sad. Mind and consciousness *as experienced* are categories of being—we can "be" our experience

directly, but our stream of experience does not occur as an *object* of our sensory faculties.

The difference between brain versus mind is not one of different kinds of objective substance but of *ontologically distinct points of view*: "perceptible on the outside" vs. "from the inside out." One way to move toward some type of "solution to the mind-body problem," is to come up with some form of *monism*: mind and body are flip sides of a common coin. The physical brain is the *exterior aspect* that we can observe in terms of neurophysiological and biochemical processes in space-time. Mind is the subjective or, if you will, *"existential interior"* of that brain. It is not perceived in space but experienced existentially

as a stream of thoughts, feelings, sensations, and so on.

Given the monistic view, whatever the ultimate underlying "thing" or, better, "process" might be of which body and mind are ontologically distinct (outer and inner) aspects remains a mystery. There are, though, certain concepts from the "objective side" that seem to correspond rather closely to what happens on the "subjective side." The term "field," for example, can be applied both to physical (or subtle) energy fields as well as to the notion of a "field of consciousness." If there is a point of correspondence between objective brain processes and subjective streams of

consciousness, it might be through events/processes that are described in terms of *fields*.

Here there is a lot of current neurophysiological details that this essay will not explore. *Receptive fields of large flows of neuronal activity* are observed between/among various portions of the objective brain. Whether there is an interior aspect of these visible brain fields that has any correspondence to states of inner consciousness (from the inside out) is an open question, left to the reader.

Monism is the most parsimonious (simplest) point of view about the relationship about brain and consciousness, i.e., two aspects—outer and

inner-- of a common process. However it has a problem if we assume that consciousness can separate from the brain at the moment of death and continue on in an afterlife (see the essay on life after death).

Attributes of Consciousness

Sentience and subjectivity are important attributes of consciousness. What other characteristics of consciousness distinguish it from objects that we do not think of as possessing consciousness, such as tables or chairs?

A partial list of characteristics (in addition to sentience and subjectivity) would likely include:

***Intentionality**:* the ability to refer to or be about something else. A typical state of consciousness such as believing, doubting, or hoping is *about* something. Ordinary physical objects such as lamps or chairs are not about anything.

***Purpose**:* the capacity to aim toward a goal. Purpose is closely related to intentionality. We can assign purpose to a physical object such as a chair, but it does not make any sense to regard the chair *in and of itself* as aiming for any goal. Physical objects without consciousness do not pursue goals.

***Self-agency**:* the capacity to direct oneself. What is conscious has the capacity to move itself internally. It is self-directing and self-organizing.

Though it may be influenced by external factors, it can be said to *be its own source of causation.* As such, it may be said to have the capacity for *choice*.

Meaning*:* the capacity to have import or significance. Subjective experience has meaning to the subject who is experiencing. Meaning is not ordinarily a property of those things we view as objective events and processes. Meaning is experienced from the inside out.

The Extent of Consciousness

What is the extent of consciousness? Is it confined simply to the human brain? Descartes thought so, excluding consciousness in the sense of "mind" even from animals. If consciousness is

characterized foremost by qualities such as sentience, subjectivity, and self-agency, how far down the evolutionary scale does it extend? Are worms conscious? Then there is the question of whether or in what sense plants might be conscious. It would appear that organisms all the way down to single-celled protozoa display a basic form of self-agency. Simpler life forms such as bacteria or viruses seem to lack many of the usual attributes associated with consciousness, but some type of very rudimentary type of consciousness is perhaps within the realm of possibility.

In his 2002 book, *Radical Nature*, philosopher Christian de Quincey argues that consciousness

extends beyond living organisms "*all the way down*" to the most minute elements of physical reality, such as molecules, atoms, and even subatomic quarks. (de Quincey, 2002). He maintains that to say consciousness is an "emergent" phenomenon, that appears only at higher levels of organization in nature, is to explain nothing. It does not tell us *where* consciousness comes from or how something ontologically distinct from *objective* nature— something with properties of subjectivity and sentience— could ever arise.

For something like consciousness to suddenly appear out of nowhere at a certain level of complexity of nature is like pulling a rabbit out

of hat; in short, it would require a miracle. Thus, the argument goes, consciousness must be an inherent aspect of things "all the way down." There is an interior or subjective aspect to everything, all the way down to micro-entities such as atoms and subatomic particles. If this is true-- and it's a big "if"-- then there is some sense in which atoms and even electrons are capable of "experience" and are "sentient," perhaps not in any way that is comparable to animal experience, but in some remote fashion. Such an idea resembles the philosophy of Alfred North Whitehead (1967), who developed a cosmological model in which all processes, down to the most microscopic, are capable of

"prehending"—taking into account—other processes and events.

An example of consciousness at the most minute level *might* be inferred from the fact that quantum events are *non-causal*. The inherent indeterminacy of quantum processes implies that the exact moment an electron jumps orbit, or a radioactive particle is emitted from an atom, is entirely random, which *could* be interpreted as saying it's *entirely uncaused*. This is Niels Bohr's view and that of most quantum physicists. Only Einstein took the position that "God doesn't play dice," and argued that there must be underlying causes that are invisible or

undetectable. Could it be that Einstein was right, but not in the way he might have supposed?

Perhaps, if quantum particles are in some dim sense "conscious," but are not affected by any discernible outer forces, their behavior is *self-caused*. This is the position of philosopher Arthur Young, who argues that saying that an event is *uncaused,* amounts, logically, to saying that it is *"self- caused."* Ultimately this is to say that the particle (if not caused) in some sense *chooses* to come into existence—that is, it is *self-determining,* one of the essential characteristics of consciousness. The notion that quantum events in some way "choose" their behavior is a radical

idea indeed. It is probably not one that most quantum physicists would accept.

The idea that consciousness constitutes the "interior aspect" of all phenomena in nature implies not only that it goes all the way down but "all the way up" as well. One clear example of this is James Lovelock's original Gaia hypothesis (Lovelock, 1979), the view that the entire earth is an intelligent, self-organizing, and in some sense "conscious" being. (Lovelock later softened his original idea, claiming that the notion of the Earth as a conscious being was only a metaphor.) The increasingly bizarre weather patterns that have been occurring over the past decade are Earth's "response" to the

imbalances in the atmosphere created by global warming, ozone depletion, deforestation, and other environmental hazards.

On an even larger scale, the entire solar system can be imagined to have an interior, subjective aspect if one happens to subscribe to astrology. The configuration of planets at any given time implies a meaningful, archetypal pattern (each planet represents a particular archetype in astrology) that is reflected—or imprinted—on anything that is born or comes into existence at that particular time. If one is born at a time when the planets Mars and Saturn are in opposition (180 degrees apart), one may have a life where obstacles to action come up more

frequently, since Mars is the archetype of action and Saturn is the archetype of contraction or restriction. To entertain astrology is to see the entire solar system as a cosmic mandala that plays out different archetypal patterns as the planets change their relative positions. *Meaningful patterns* are something we ascribe to *subjects*, not objects. So, if astrology has any validity, the solar system might conceivably have both an objective (astronomy) and subjective (astrology) aspect. Before the Scientific Revolution, there seemed to be some recognition of this possibility in that some of the finest astronomers (Johannes Kepler and Tycho Brahe, for example) were also astrologers.

Beyond the solar system there is the Milky Way galaxy, and beyond that, galaxy systems or clusters. Our galaxy, for example, is part of the Virgo supercluster of galaxies. If consciousness goes all the way up, there must be a sense in which even these enormous systems are conscious, self-organizing, and in possession of an interior, subjective aspect.

The idea that consciousness exists at all levels from the most minute to the most enormous phenomena—a concept often referred to as *panpsychism*—is not new in philosophy. Nevertheless it radically challenges the prevailing scientific worldview, which, following Descartes, limits mind or

consciousness to the brains of living organisms only. This more radical view holds that *any self-organizing system,* whether a molecule, a plant cell, the earth, or a galaxy, is a system that both exhibits *self-agency* as well as being influenced by objective, external causes. Self-agency is one of the defining attributes of consciousness. By implication, all such systems could have an interior, subjective aspect (involving purpose and meaning) as well as an objective, observable one.

Perhaps Aristotle had it right when he theorized that *everything in nature* could be characterized both by *material* and *efficient* causes (the outer, objective explanation typical of science) as well

as by what he called a *final* cause, a particular *purpose* or *goal.*

To accept such a radical view of consciousness is to fundamentally change the way we look at the world. Nature at all levels is understood to be conscious, and from here it is only a small step to viewing it as enchanted or sacred. In brief, *nature at all levels is understood to have intrinsic purpose and value.* As such, it is worthy of our deep respect.

The de-sacralization of nature that occurred with the Renaissance and scientific revolution is thus reversed. The cosmos is not simply a neutral object to be analyzed purely objectively (though science has so far done a good job of

describing and explaining it in this way). It is also *a sacred being*, deserving of our reverence. We are called to live in balance and harmony with that which is the matrix of our very existence. Many indigenous cultures have never given up this view.

Consciousness and the Life Force

What is the relationship between the so-called *life force*—that which animates organisms-- and consciousness? Are all life forms, including viruses and plants, conscious? Are only living things conscious—or does consciousness extend (as suggested above) beyond what is considered to be "alive"? If we subscribe to *radical naturalism*, the position just described, then

consciousness includes but is far more inclusive than "life" or what is motivated or animated by the so-called "life force." If *any* self-organizing system can be said to be "conscious" in some sense, then viruses and plant cells are definitely conscious because they exhibit self-organization. But, then, following the same reasoning, so are protons, atoms and molecules. Should we thus say atoms and molecules are alive? It would seem to make more sense to restrict the terms "life" and "life force" to *biological* entities alone, which includes the entire evolutionary sequence from algae, viruses, and bacteria up to primates and humans. Biological organisms and plants can be said to be alive. Atoms, molecules, and galaxies are not, as they are not, strictly

speaking, biological in nature. However, they still in some sense might be viewed as "conscious." They might be said in some way to have characteristics such as self-agency and even subjectivity.

In short, what is conscious may be far more inclusive than what we conventionally speak of as being alive. This distinction between consciousness and the life force also helps out when we start talking about survival of the soul after human death. Restricting the concept "life" to biological processes would allow us to say that the soul is not "alive" after death *in a biological sense*, but that it continues to be *conscious*, and that its consciousness goes on. So

consciousness in some sense might survive physical death, even though life does not. If we stick with these definitions, angels and spirit guides, assuming they exist, are certainly conscious and capable of influencing us all for the better. However they are not the kind of beings that we can speak of as "alive" (at least in a biological sense). If we speak of them as "living spirits," then we have changed the definition of "life" and extended it to *any* being that can act, whether that being happens to be physical or nonphysical (outside of four-dimensional space-time). While these definitions are arbitrary, it would seem simpler to restrict the notion of "life" to biological entities alone.

Consciousness and Freedom

Is consciousness free or is its activity strictly determined?

The picture of the universe that we have inherited from Descartes, Newton, and the scientific revolution is one in which all events are said to be causally determined. Although quantum physics has revised our notion of causal determinacy at the microscopic level, we still tend to assume that events at the macro level are subject to the law of cause and effect. At least for nonliving phenomena such as the weather, the motion of falling objects, and the operation of machines, we assume that each

event in a sequence of events is the outcome of its preceding causes.

When we consider human beings (and, for that matter, animals), however, there is a problem. As conscious beings, each of us perceives that we are freely choosing our behavior from moment to moment. Most of the time we see ourselves as free agents who act in a purposeful, intentional way. If our behavior were entirely determined by prior causes, we would be like robots. We would not be free—everything we did would result mechanistically from all of the many causes that were acting on us at any moment in time.

Yet if one looks closely, it appears that each of our actions, is, in fact, determined by or flows out of the immediate thoughts, feelings, motivations, and impulses that occurred right before we acted. In turn, those thoughts, feelings, motivations, and impulses are the effects of previous thoughts, feelings, and motives that are influenced both by 1) our current goals, intentions, feelings, moods, and dispositions as well as by 2) the cumulative history of our entire life experience and everything we have learned. Are we really so free after all—or can we analyze each of our actions in terms of a myriad of influences, both past and present, that precisely led up to the particular action we took at a given time?

Herein lies the famous philosophical dispute of determinism versus free will. *Determinists believe that our subjective feeling of agency or free will is an illusion,* and argue that everything we do is determined by numerous subjective as well as objective conditions and influences. Other philosophers (*volitionists)* take the opposite tack. *They maintain that determinism cannot be true because it contradicts our most intimate experience: the ability to choose freely what we do.* Volitionists give experience primacy over logic. If our subjective experience is one of personal freedom, so much the worse for the logic of causal analysis.

However this either-or dilemma—either our behavior is *completely* determined or we are *completely* free—leaves us with some problems. On the one hand, if everything we do is indeed causally determined in its entirety, then it would seem we *are* robots and our notion of free will is illusory. Yet this seems to contradict our experience and totally undermines the entire basis of moral responsibility, ethics, and law. Our entire legal system would make no sense if our actions were strictly determined. We would have no personal, moral responsibility, and thus our notions of ethics would be illusory.

On the other hand, if everything we do is *entirely* free and unconstrained, such a total freedom

contradicts our experience that much of what we do is *influenced* by our past conditioning, preferences, goals, and expectations, all of which we have learned. The writing of this essay is not *completely* free and unconstrained: it follows from an intention to record ideas on this subject, and these ideas, in turn, have been acquired over years of reading and reflection.

In brief, there appears to be something wrong with casting the dilemma in terms of strict determinism vs. strict (or complete) freedom. It would seem the answer lies somewhere in between. What if it were possible that, in each moment, our behavior is both *relatively* determined and *relatively* free to *varying degrees?*

How can this be? How can free will and determinism *both* be true? How can we avoid contradiction here? One possible way to avoid contradiction is by making two assumptions. *If you accept these assumptions, then an important conclusion follows.*

Self as Its Own Cause

The position taken here—one that has been argued in many places--is that the origin, locus, or "source" of human action, which we can call the "self-as-agent" *is its own cause*. We are, after all, *conscious beings*, and a defining attribute of consciousness is self-agency. This self-as-agent is not the deterministic effect of prior causes. It is always consciously choosing in every moment,

and these choices are not *strictly* caused by anything prior to the self's acting as agent. Each act of choice by self-as-agent is purely creative, a spontaneous act of volition at the moment of choice. Furthermore, self-as-its-own cause presumes no distinction between cause and effect at the initiation of action. The self choosing is both cause and effect simultaneously. In fact, one definition of "self-as-agent" is that *it constitutes a point in the universe where cause and effect are the same*: there is an *identity* of cause and effect.

If we make the above assumption, then in a (relative) sense we are like gods. Each of us is a unique source of creativity in the universe, and,

as such, we are ultimately responsible for what we do. The nineteenth-century German philosopher Johann Gottlieb Fichte had this idea in referring to consciousness as ”self-positing itself”(de Quincey, 2002). In the twentieth century, Alfred North Whitehead developed the idea further in his notion of the self as a “creative agent positing itself from moment to moment” in a world of objects (Whitehead, 1967).

Influence vs. Total Causal Determination

A second assumption here—also subject to dispute-- is that a *distinction* can be made between “influence” and “total causal determination.” Even though we are choosing

our behavior from moment to moment, our choices may be *influenced* by a diversity of factors, including our goals, intentions, motives, feelings, needs, and moods, as well as numerous outside circumstances (my turning on the air conditioner, for example, is influenced by the room being hot). Self-as-agent can be *influenced* by all sorts of things, but that does not for a moment diminish the fact that it continues to choose in *response* to those influences. It does not react reflex-like as a machine to these influences—it *responds*. Thus it can be said to be "responsible." A motorboat's motion may be influenced by the current, turbulence, and amount of wind present on a lake, but that does not change the fact that its own motor is playing

a large role in its motion. So each choice we make is *influenced* by a host of factors, but that choice is not exhaustively *determined* by them. The self-as-agent is causing—actually sourcing--one's behavior in response to various influences.

A critical point here is that our choices can be influenced by inner and outer factors to *varying degrees.* All of us have had the experience of feeling like we are acting "on automatic." When we drive a car, many of our activities, such as turning the wheel, braking, or accelerating, seem to be relatively automatic because they follow from highly conditioned habits we have acquired over years of driving. When we were first learning them as a teenager they were not

so automatic, but now they are. In a real sense, some of our behavior in driving is more "robotic" because it occurs automatically or reflexively without our having to think too much about it. At the other end of the spectrum, when one is painting a picture, composing a letter, or engaging in any other creative activity, there is *relatively* more freedom in what one is doing from moment to moment—though, to be sure, past learning and conditioning enter into it. Creating something as one goes along entails a greater degree of freedom than driving on the freeway, though both are a synthesis of free choice and influence from past conditioning.

From a spiritual perspective, the only *perfectly free* behavior would be one that is in total alignment with the rhythm, flow, or creative expression of the entire Universe, Cosmos, or God. If we were completely enlightened, like Buddha or Jesus Christ, our actions would not be influenced by the history of our personal conditioning, or even our heredity, but would flow from the fully spontaneous, creative flow of the Cosmos itself. It is no accident that spiritual enlightenment is often referred to as "liberation" or "total freedom" from conditioned patterns of thought, feeling, and behavior, as well as external influences of the physical world.

So the implication is that our personal degree of freedom is *relative.* The more we are able to align ourselves with our innermost being (in religious terms, the dharma, the Tao, or the Way), the more our actions tend to take on the attributes of complete creativity, spontaneity, and freedom. Conversely, the more we act out of prior conditioning, the more our action is influenced and constrained by our history and our past. In any given moment, the degree of freedom and constraint contributing to our action will vary, depending on the degree to which we are in attunement with our innermost essence , living beyond the dictates of our ego or personality-self. Our ego-self is simply a construction based on our cumulative experience in this life (and

possibly past lives), as well as the traits we inherited from our forebears.

To sum up, human behavior in each moment is *freely chosen,* and, at the same time*, influenced* by a variety of internal and external conditions. Each of us responds—rather than reflexively reacts—to the circumstances of each moment. Since we respond, we can be held "responsible" for what we choose. Our behavior can be said to adhere or not adhere to the ethical dictates and principles that serve to hold society together. As long as we *respond* rather than merely react in an automatic way, we can be held accountable. So *ethics and the legal system do have relevance*, although outer circumstances are often taken

into consideration in evaluating the magnitude or degree of a person's responsibility for a given action.

Summary

Consciousness is widely discussed in many places, yet defining exactly what it is can be daunting. To begin with, it's not something we can observe in our outer world; it's something we can only experience subjectively, and only in the present moment. Yet it appears to have a visible influence on natural systems, orchestrating a coherence that allows systems such as cells—or entire organisms—to maintain their integrity.

This essay proposes that consciousness is not just a property of living systems but extends all the way down to the quantum level and all the up to the cosmos as a whole. To say that it just spontaneously appears at a certain level of biological complexity (the materialist viewpoint) begs the question of where did it come from in the first place. Physical phenomena that we observe, no matter how complex, do not *in their outer aspect* have feelings and moods. However they may well have an *interiority,* a "from- the inside- out" aspect, that might possess one or more attributes of consciousness. If consciousness survives physical death, consciousness itself must be something

nonmaterial, transcending biological life and life forms.

Freedom of choice is an attribute of consciousness. Although our consciousness is constrained by multiple influences affecting us at any given moment, we have the capacity to reflect and enact a creative response, exercising a higher degree of freedom than if we were to just reflexively react.

Consciousness is distributed throughout the universe; each point or "locale" of consciousness responds to its surroundings with the intention of maintaining itself. At the same time, all points of consciousness are deeply interconnected parts of a seamless whole.

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