# PATTERNS AND PERCEPTIONS

## Musings on Reality, Consciousness and the Self

West Marrin, Ph.D.

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# Opening Remarks

As a scientist specializing in water issues, I have long suspected that the challenges we now face result from our restricted perception of water as a financial commodity, common resource, legal entity, and human right. I proposed that these challenges would probably not be met solely through technological innovations, financial infusions, government policies, conservation programs or other worthy intentions. I surmised that only when we perceived water and the natural world differently, would we begin to treat it differently. Suggesting ways that we might alter our perceptions, which ranged from scientific, artistic and ancient insights to intuitional, sensorial and personal connections, I assumed that the appropriate trigger(s) might be sufficient to alter our collective perceptions.

More than a decade after proposing this view of perceptual change, I had an opportunity to revisit it and, perhaps not surprisingly, found that I had likely underestimated what was required to alter our perceptions. A brief perusal of recent neuroscience research was sufficient to suggest that most perceptions and behaviors are the product of automatic, unconscious and conditioned brain processes that are not even accessible to the "self" that we consider to be in charge. Acknowledging the difficulties in altering our perceptions, I suggested that we might utilize what the brain does well (e.g., pattern seeking, imitating and abstracting) to emulate or copy nature's patterns and processes when designing technologies, managing resources, developing models or identifying solutions.

This presentation is a more in-depth look at our perceptions and behaviors, briefly describing some of the ways that the brain has been theorized to recognize, interpret and navigate the perceived reality we seem to share. It also examines theories about our perceived reality and whether it may be fundamental, emergent or illusory. Finally, the topic of altered perceptions is revisited, but this time from the vantage point of consciousness and being rather than intention and doing. Although such a vantage point may seem overly mystical, it might be ultimately practical.

# Topic 1: Patterns, Patterns Everywhere

Science writer Philip Ball observed that people attempt to make sense of a seemingly complex and confusing world by looking for similarity, predictability and regularity in the form of patterns. Although more methodical, science does essentially the same thing by reducing the complexity of nature to its own rules or causal relationships, which often include only a fraction of the processes involved. Essentially, humans use patterns to find or impose order on the perceived chaos of a complex world. He posits that this pattern-seeking behavior is hardwired into our brains, as is the common notion that intricate patterns in nature must have been created by intelligent design, rather than by self-organizing processes.

All natural patterns originate from a seemingly limited selection of possibilities, occur over a range of spatial and temporal scales, and are produced by different phenomena (e.g., gravity, heat, erosion, evolution). Ball asked if this similarity is coincidental or a result of some underlying mechanism. The answer is probably "neither." Both spatial and temporal patterns exist as a component of the perceptual and interpretational processes attributed to the human brain.

An important clue to the whereabouts of patterns was provided over 30 years ago by the book, *Pattern Thinking*, in which Andrew Coward noted that a pattern need not repeat exactly or in its entirety to be recognized. Different combinations of a pattern's components, or so-called subpatterns, can create the same pattern (i.e., there is no unique set of subpatterns for every pattern). And only a minimal number of component repetitions in a portion of the pattern are required to satisfy the threshold for human recognition, even if they do not always repeat in exactly the same way. Consequently, patterns are more of an improvised creation than an objective perception. So, why might this realization be important?

Neuroscientist Mark Mattson noted that the human brain's so-called superior pattern processing, or SPP, was the foundational basis for intelligence, language, invention and imagination, as facilitated by its network-based encoding, integration and transfer of either perceived or mentally fabricated patterns, and reinforcement by emotional experiences. Pattern processing is not just something that the cognitive brain does exceptionally

well, but instead may be its only function. It has even been proposed that human consciousness (as a personal or subjective awareness) is a function of the brain's pattern processing ability, which perceives its own patterns of activity. My use of the term *pattern processing* includes the identification, interpretation and projection of spatiotemporal patterns.

Pattern identification is dependent on stimuli (e.g., visual, auditory, tactile) corresponding to a pattern already stored in one's memory, regardless of how it is acquired (e.g., experienced, learned, inherited). Memory is often considered to be the root of intelligence, which permits imagining, creating and envisioning (i.e., pattern projecting). Memories rely on varying degrees of pattern abstraction; however, if patterns themselves exist only as inferential tools, then they too are simply abstractions.

As natural pattern seekers, humans use pattern processing to rapidly identify cues and derive meaning from an environment without conducting a thorough or prolonged investigation. Within this ceaseless search (both knowingly and unknowingly) for the meanings and causes of patterns lies the questionable assumption that there are meanings and causes—at least ones that can be accessed via pattern interpretation. Whereas causes and meanings serve as useful abstractions or interpretations for navigating our observable world, their ultimate truth is uncertain.

If the human brain is predominantly a pattern processor, how does it perform tasks such as reasoning, logic and mathematics that require computational or rational abilities? The answer seems to be slowly, often poorly and with great effort. This is one reason that people can hold completely inconsistent and even contradictory ideas or beliefs with equanimity. The brain has no automatic mechanism for assessing the compatibility of patterns to one another, nor can it handle the multidimensional or nonlinear relationships that characterize most of the world. This is why the double-state logic and probability computations of digital computers outperform the brain's fuzzy logic and qualitative reasoning for handling most kinds of complex applications. Instead, the brain excels at efficiently and adeptly performing the tasks required of it by the human organism.

The brain adopted heuristics (i.e., simplified shortcuts) to achieve the organism's goals, which were likely to have been self-preservation, energy conservation and procreation rather than comprehension, accuracy and

truth. Abstract activities such as reasoning are accomplished primarily via pattern matching, followed by applying logical proofs or equations. These slow and energy-inefficient tasks were purportedly selected, not to reveal truths, but instead to facilitate social persuasion. At the highest level, humans recognize and utilize patterns associated with irony, analogy and language, which biologists suspect developed to entice others to cooperate with them in performing difficult tasks or to mate with them.

Evolutionary psychologist Geoffrey Miller theorized that sexual selection was the principal impetus for these human abilities inasmuch as they provided a competitive advantage (using art, music, humor or reason) for eliciting assistance or courting mates. Whereas natural selection acts on an organism's ability to adapt to its environment, sexual selection acts on its ability to mate successfully—often resulting in traits with unusually high complexity and metabolic demands that appear unrelated to environmental adaptation. Miller observed that these traits, along with sexual selection's positive feedback mechanism, could explain the relatively rapid evolution of human mental abilities. Incidentally, the brain's complex processing consumes up to 25% of the body's metabolic energy.

## Topic 2: Memory and Automaticity

So, what exactly is being stored and retrieved within our brain that allows us to identify the patterns of visual, auditory or other stimuli? A.I. researcher Ray Kurzweil noted that there are no images, videos or sound recordings stored in the brain, but rather sequences of patterns that are reconstructed when identifying patterns or their integral subpatterns as incoming stimuli. This reconstruction process permits our memories to be deleted, amended or otherwise modified (inadvertently and deliberately) and potentially used to fill in any data missing from our sensory inputs. Hence, human memories are often considered to be subjective and at least partially fictional, as well as laid down sequentially.

Besides the sequential ordering of memories (as patterns), there is a hierarchical organization that theoretically progresses from the simplest to

the most complex or abstract stimuli, thus facilitating a superposition or nesting of patterns to achieve a combination of specificity and generality. According to neuroscientist Erik Hoel, our dreams may also function to counteract the risk of learning too narrowly by translating the performance of specific tasks into generalized abilities. The dominant theory regarding memory is that it evolved, not to reminisce about the past, but rather to anticipate or plan for the future. This permits the projection of oneself into a limitless number of anticipated or fantasized scenarios.

Both long- and short-term memory have been identified in facilitating brain automaticity. The concept of automaticity is certainly not a new one, as all the body's organs display this property. From a functional perspective, there is no reason to suspect that we have any more control over or direct knowledge of our brain's mechanisms than we do those of any other organ. Certain actions or thoughts can indirectly affect our organs or glands (e.g., the pancreas by eating sugar or the adrenals by skydiving), but we have no conscious or volitional control of them (i.e., releasing insulin or epinephrin) as we seemingly do of our skeletal muscles.

Neuroscientist John Bargh's research indicates that the only prerequisites for automaticity are frequency and consistency in using the same set of brain processes under similar sets of circumstances. Environmental stimuli or the brain's projections about what may occur (or interpretations of what has occurred) triggers an automatic response without our realizing it. Automatic responses are considered to be unconscious or outside of one's subjective awareness, while conscious responses are assumed to be within a person's awareness and, perhaps, volition.

The lively debate among researchers about what activities are conscious and unconscious (i.e., in or out of subjective awareness) may be important only from the perspective of the "self," which identifies solely with its perceived conscious state. Nearly all of the self's illusory existence has been traced to unconscious processes, about which it has no control and negligible knowledge. Cognitive researchers Susan Blackmore and Daniel Dennett consider the difference between the brain's conscious and unconscious processing to be imagined, and the assumption of one's unified and continuous awareness to be erroneous. The apparent seamlessly-linked content of subjective awareness may be nothing more than a thought.

Our actions and decisions have been traced to automatic and unconscious brain processes utilizing information that rarely enters conscious experience; hence, the self relies on post-hoc observations, probability-based guesses, and memory-dependent edits to concoct its rational explanations. This is reportedly facilitated by what cognitive neuroscientist Michael Gazzaniga referred to as the brain's *interpreter*, which resides in the left hemisphere and is likely responsible for our constraining beliefs and even aspects of our subjective awareness.

The left-brain interpreter has been hypothesized to facilitate processes as diverse as [i] mistaking similar patterns for identical ones, [ii] rejecting facts that contradict beliefs, [iii] rationalizing emotions and behaviors, and [iv] integrating inputs from the brain, body and environment to create order from apparent chaos. The interpreter appears at the age of about two years and operates nonstop; however, neuroscientist Chris Niebauer observed that people who recognize its workings, perhaps experientially via introspection or experimentally via research, frequently cease to take its interpretations quite as seriously.

The interpreter can be tripped up by a paradox or observation that is not deducible from the contents of consciousness. The easiest of its tricks to recognize is splitting the world and the self into opposites, so that individuals are forever conflicted (e.g., what I am versus what I want to be or what others are). The mode of operation is always to divide and define (i.e., creating subject and object), as the interpreter uses the brain's pattern processing for perceiving patterns in the world and then interpreting them via sufficiently similar patterns or subpatterns as memories.

Although we seemingly experience something before we recognize it, stored patterns are what actually permits us to perceive it at all. Neuroscientist Anil Seth posits that much of what we observe are the brain's top-down expected or projected patterns, representing its best guesses about reality that are edited (as required) using bottom-up inputs from our senses. If true, our experiences consist mostly of brain-controlled hallucinations that are constrained by our body and the environment.

When the brain experiences or observes something that it can neither identify nor interpret (i.e., the pattern is too unfamiliar or complex), its only option is to break it up and search for any identifiable subpatterns. This

may be why the brain's divide-and-define mechanism is so pervasive and why it repeats indefinitely until a pattern (often inexact) is recognized, satisfying the self's quest for causality and certainty. This mechanism may also underlie the workings of a Zen koan, which consists of a paradox or pattern that cannot be reduced to identifiable subpatterns. One's pattern processing is forced into a positive feedback loop that persists until the brain's process, rather than just its content, is observed.

## Topic 3: An Illusory Self

Chris Niebauer asks the rhetorical question of why we cannot control our interpreter and, more generally, why we cannot control aspects of ourselves (e.g., thoughts, beliefs, desires, reactions, emotions) that we want to control. His answer is that we cannot do so because we are not our interpreter, nor are we our thoughts, beliefs, desires, reactions, emotions or a self that orchestrates and controls our living organism. These are simply the content of consciousness (assuming a conscious state exists apart from its content) and unrelated to our true essence, which is not divided or defined and is not the thinker of the thoughts—as these are just more thoughts comprising the content from which a self is constructed.

Evolutionary psychologists surmise that our perceiving the human organism as a self may have been selected because its useful, but dubious, interpretations of reality and nonstop pattern processing afforded it a competitive advantage over "no self" individuals. If true, the self was selected as a means to increase the survival of genetic information via dividing and defining the world. A thought was born that discerned the inner patterns of one's self from the patterns of everything else that appeared to be outside of it. Once firmly established in human perception, the self is difficult to observe because, as a thought generated automatically by thinking, it remains effectively undiscernible to the thinker.

Thoughts and patterns must be seen as real or they would probably not be acted upon. Pattern processing is hypothesized to be heightened in generating an experience of realness and in preventing the left-brain

interpreter from discovering itself. If the brain's SPP is heightened, one can reportedly experience anxiety, worry or paranoia—and if it is reduced, one can feel hopeless or depressed. These latter states have been hypothesized to be closer to the phenomenon of *awakening*, which is generally considered to be a process in which the self is transcended or at least recognized (for what it is) by the human organism or being.

According to most neuroscientists, the self is an illusion, no matter how real it feels to us. The word *illusion* does not mean that something does not exist, but rather that it is not what it seems to be. Cognitive psychologist Bruce Hood notes there is no brain center controlling the human organism, as the brain has many distributed functions that often compete in automatically processing and abstracting information required by an organism to navigate its perceived reality. Perhaps the conflict and hesitancy that often accompanies decisions is related to these unconscious competing processes, about which the interpreter is ignorant and must ascribe them to whatever makes sense. He also observes that our learning something that contradicts a belief may not invalidate the belief from the perspective of a self, which is dependent upon the certainty of beliefs.

Making choices may also be an aspect of the illusory self, as those choices have been attributed to genetic, environmental and experiential biases, as well as to prior thoughts, beliefs, and emotions. The feeling of making a choice has been observed by some researchers to occur after the brain has already made it and the body is already in the process of responding; hence, no conscious free will or volition is seemingly involved. Critics disagree with this interpretation of the brain's sequential processes; however, the assumption of causality is also questionable. Although there is no current consensus on the existence or extent of free will, any volition would be that of the human organism and not the self.

All sensory data streams (e.g., vision, hearing, touch) are processed by the human brain at different rates, yet it all seems perfectly synchronized. Neuroscientist David Eagleman explains that the brain accomplishes this by delaying the story of what is happening until the final bits of data are processed, thus presenting a synchronous picture of what just happened (past tense) that we perceive is happening in the moment. Consequently,

the human organism lives in the present, but one's self is merely a thought that figuratively lives in the past. As such, it can "do" nothing.

As noted earlier, one's indicated intent to begin a bodily movement or to make a decision can lag one-third of a second or more behind the organism's initiating the corresponding action or decision. Our visual inputs are so complex that the delay for a synchronous update can take as long as 15 seconds, but it successfully transforms chaos into contrived continuity. If multiple events occur less than about one-tenth of a second apart, our brain reportedly cannot discern their actual order. This permits the interpreter to sequence events in a manner that supports causal relationships, foundational beliefs, and a volitional self.

According to the Brain User's Guide, one's self feels real because [i] we perceive an identifiable physical body, [ii] we seem to have a continuous subjective awareness, [iii] our temporo-parietal cortex integrates sensory data to create a feeling of embodiment, [iv] the brain arbitrarily orders the input of sensory data, and [v] we appear to have an unchanging identity according to a semi-fictional, but coherent, story that is continually updated by our imperfect memory. A feeling of self may also derive, in part, from our relationship with others who also recognize a self (both ours and theirs) and with cultures that consider individuality and a robust sense of self to be personality assets.

Functionally, the self has been described as an abstraction that serves to separate us from everything else in the world, ostensibly for the purposes of adapting to social life and, perhaps, facilitating a sense of body agency. Our life-long obsession with preservation may be as much about sustaining the self as safeguarding the physical body, and our impetus to garner resources such as food, shelter, mates, children and possessions can be traced to the survival of genes (as evolutionary information) rather than to the pursuit of happiness (as personal fulfillment). Sociologist Tracy Brower, as well as various psychology researchers, recognize happiness as a paradox insofar as pursuing it reduces the likelihood of experiencing it.

## Topic 4: Brains and Bodies

*Intelligence* is defined in a variety of different ways and, among the brain's abilities, appears to be one that is determined predominantly by genetics, rather than by training or the environment. Intelligence has been correlated with anatomical and physiological properties of the brain such as [i] highly myelinated (insulated) neurons, [ii] more efficient neural networks, [iii] a high density of mu-opioid receptors in regions related to learning, and [iv] an ability to concurrently hold multiple concepts in short-term memory. Once considered a defining attribute of human intelligence, metacognition (i.e., thinking about thinking) is now suspected to exist in other animals. Surprisingly, one's "brainy" functions are not confined to what resides inside the skull, as the body has other brain-like abilities and nervous systems that serve the human organism.

Perhaps best known is the enteric nervous system (ENS) in the wall of the gut that not only aids in digestion, but also plays a role in physical and mental wellbeing. The Brain User's Guide notes that the ENS can work independently or in conjunction with the skull-enclosed brain in regulating and producing neurotransmitters such as dopamine and serotonin, as well as gathering information about the environment and even taking action directly. Diverse gut bacteria affect the insular cortex that is linked to our perception of motor control, self-awareness and interpersonal experience, as well as the somatosensory cortex that assists the body to interpret various sensations. Surprisingly, the body consists mostly of non-human cells and DNA belonging to the microbes that influence our actions, emotions and perceptions, thus blurring the behavioral and genetic distinctions of the human organism that we know as ourself.

Neuroscientist Antonio Damasio proposed that patterns of neural activity or brain states constitute a kind of map that we use to navigate our body and the environment. Even our decisions may rely on the perception of body states that communicate the emotional component of different options. Damasio suggests that our experiencing fear is a result of the body's preparing for fight-or-flight, rather than our initially observing something fearful that then prompts the corresponding body response. These brain responses are accomplished automatically and unconsciously,

as are most activities associated with our pattern processing, even those attributed to the intellect.

Although not usually associated with intelligence per se, there are actually two quite different brain systems that have been theorized to permit us to interpret the world in different ways. The first is the so-called *What* system (as described by Chris Niebauer), which consists of the previously described pattern processing activities and the left-brain interpreter's constant separation and definition of the world that result in the portrayal of processes as things. This system serves the self and is contrasted with the *How* system that knows the location of objects or events but does not know what they are and, as such, cannot label or define them.

The *How* system is located in the right hemisphere of the brain and provides a less interpreted view of the world than the *What* system, allowing us to successfully navigate space and perceive happenings. The *How* system is neither verbal nor communicative, so it is usually drowned out by the constant chatter of the *What* system; however, it can be experienced in practices such as tai chi and by musicians or athletes who describe it as "being in the flow." Essentially, normal brain activity is suppressed or suspended, along with its incessant interpretation, permitting the *What* system to dominate a human organism's actions and experiences.

Learning to switch from the *What* to the *How* system is also viewed as a method to shift from seeing the world as things to seeing it as processes, as the latter system has no relationship to objects. The shift would also permit a view of the world as a happening, rather than as inferred causes and effects that our pattern-seeking brain relentlessly pursues, predominantly through the abstractions of categorization and language. Niebauer notes that the self is actually more similar to a verb (process) than a noun (thing) because it exists only when created by thinking, which may also be the basis for much of our perceived reality.

## Topic 5: Causality and Happening

For linear relationships, whereby a single cause directly precedes an effect of a similar magnitude, there may be some practical value to inferring causality—whether or not it reflects reality. However, for the vast majority of complex nonlinear relationships in the world, the brain's obligatory use of heuristics to reduce all events to a linear approximation presents enormous limitations. From a practical perspective, inferring causation—such as a rock dropped on one's foot and the resulting pain—is a useful hack, but for assessing the causes of most complex structures and events in the world, it is just a correlation-based guess.

The 18th century philosopher, David Hume, recognized that causality is not actually perceived, but rather inferred from temporal associations. Similarly, the postmodern philosopher Alan Watts suggested that causes and effects are just two phases of the same event, or two ways of viewing a single happening, that are divided into component parts and labeled by the brain. Cognitive scientist Eleanor Rosch challenged the truth of causality on the basis that its underlying logic is circular and a consequence of perceiving things as distinct objects instead of interconnected processes. She also noted that causality requires both time and an agent, which have been recently hypothesized to be human misinterpretations.

On a personal level, agency supports an illusion of the self's control over the human organism, thus reinforcing a world of intentionality and causality. Historian and systems theorist Joanna Macy noted that the concept of causality was not originally related to an agent (at least according to Buddhist traditions), but rather to the interactions among a multiplicity of different factors. As such, causes and effects were neither isolated nor unidirectional, thus affording the opportunity for novel or unpredictable outcomes because no effects were predetermined. The now familiar concepts of independent agents, isolated causes, and unconnected events seem to have arisen more recently in human thought.

Psychologist Daniel Wegner observed that the causal relationship between thinking and doing is just the brain's trick of selectively ordering the sequence of events (i.e., a single happening corresponds to both thought and action). He posits that the illusion of making choices may have been

useful in tracking our largely unconscious decisions and actions. Perhaps the brain's portrayals of causality and agency were selected as practical, rather than factual, interpretations for navigating our perceived reality.

Susan Blackmore suggested that everything we attend to or are aware of is already happening, and there is no discontinuity in happening when one's attention or subjective awareness returns to noticing it. If correct, any discontinuity is actually a shift in our focused attention, creating a gap in our subjective awareness. She noted that, as stuff is just happening, what arises is a kind of continuity; however, not one of a self, but instead one of happening in a way that one's subjective awareness is always dying and being born again. Although subjective awareness is generally considered to be intermittent, there is less agreement about what may be continuous (e.g., a universal happening, a shared infinite consciousness).

Philosopher Jiddu Krishnamurti described a process of freeing oneself from the content of consciousness as observing its dying in every moment and giving rise to newness. He posited that only the recurring death of the self, in the form of its beliefs, memories, experiences and conditioning, permits something new to emerge. It is this renewal that opens up a person to the unknown, which he considered to be a reality that is not simply an invention of thought. As such, the use of thought to conjecture about the unknown essentially precludes our truly knowing anything novel.

Consciousness researcher Peter Ralston observed that truly knowing anything (including oneself) must begin with not knowing; otherwise, our believing or intellectually knowing something blocks us from ever knowing it experientially. Additionally, a genuine not-knowing is a prerequisite to awakening or to recognizing the nature of our being. He asserts that we do not know the essence of awareness though we are aware, nor the truth of being though we exist, nor the source of thoughts or emotions though we have them, nor who we are apart from a thought-based self. Intriguingly, he posits that something incomprehensible to our intellect can be both true and accessible as an experiential insight.

The subjects of causality and happening as they relate to a subjective awareness are often controversial, such that a *physicalist* perspective posits our brain activity somehow creates this awareness or personal consciousness, which may or may not have an adaptive purpose or exist as a state or

condition independent of its content. By contrast, the *idealist* perspective is that a personal consciousness or subjective awareness is derived from, or is a limited perspective of, an infinite and universally-shared consciousness that is responsible for our perceptions of everything physical, including the brain and all its processes. These two *monistic* or *non-dualistic* perspectives differ from those that propose there are two or more distinct aspects or principles of reality (e.g., body and soul, brain and mind).

## Topic 6: Abstraction and Emergence

It is unlikely that the human brain evolved to cognize the intricacies of the universe, but instead to navigate the day-to-day challenges of living and procreating. This is especially true of traits acquired via natural selection and maybe even those acquired via sexual selection, unless such topics enticed potential mates. Instead, these forays into the unknown (perhaps as evolutionary *spandrels* or fortuitous traits arising from adaptively selected traits) may have served to impose order and predictability onto a perceived reality that otherwise appeared chaotic and incomprehensible. Eventually, the intellect's dismantling and then reconstructing the world according to a reliable set of abstracted rules (i.e., reductionism) enabled interpretations that have been conceptually and practically valuable.

Science's rules or laws are not absolute truisms, but instead are statements based on the interpretation of repeated observations of physical phenomena within discrete scales of spacetime. Based solely on inductive inference, these laws are neither logically valid nor always correct. Moreover, there are phenomena that do not conform to scientific laws (at least not to current ones) and cannot be predicted or explained by them.

The success in employing the intellect to predict, with sufficient reliability using simplified causal relationships, the effects of our actions on the body and environment has led us to believe that we could, given sufficient time and data, cognize the intricacies of a fundamental reality with our pattern processing. In doing so, we have buried ourselves beneath layers of abstraction that improved our predictions about what might

happen in the world, but may have done so by sacrificing a knowing participation in the happening that is the world. Ironically, abstracted models (e.g., mathematical) have led some scientists to surmise that the fundamental reality of our world is unknown as it gives rise to an interpreted version that we mistake for the real thing—or a no-thing.

At the crossroads of causality and happening exists a phenomenon that has been observed at almost all spatiotemporal scales within nature, but which currently lacks any scientific explanation. This phenomenon is known as *emergence* and it applies to complex natural systems whose components can self-organize into novel structures and processes via their collective interactions with each other and the environment. A new level of organization and complexity is created that cannot be predicted from the components alone or even their interactions.

For example, the emergent physical properties of liquid water cannot be predicted by studying its $H_2O$ molecules or the switching of connections (chemical bonds) among them. Water's anomalies are a function of its complex and dynamic molecular network that remains largely undescribed. Information is passed through the connected components of a system in a manner that generates the possibility of countless emergent outcomes, but which of them actually manifest cannot be predicted. Cognitive researcher Michelene Chi found that people often mistake causality for emergence and intention for interaction when assessing events or patterns in nature.

According to one of two popular theories, consciousness is considered to be emergent on the basis of a brain's connected and interacting neurons that, upon stimulation by sensory stimuli, initiate a pattern of global or long-range activity that excludes other (i.e., unconscious) patterns from subjective awareness. The other theorizes that the brain's architecture (e.g., feedback loops, cause-and-effect structures) governs the qualities of different experiences that emerge, thus reflecting the extent of integrated information among the brain's network components. Neurophysiologist Christof Koch noted the former theory predicts a digital computer could attain a form of consciousness, whereas the latter theory does not. He also considers consciousness to be an inherent property of living organisms.

Cognitive scientist David Chalmers maintains that consciousness invokes a *strong* emergence in which the resulting phenomena are not

deducible from underlying components, processes or scientific laws. By contrast, *weakly* emergent phenomena (e.g., the previous water example) are unexpected but scientifically deducible. The complexity of emergent self-organizing systems is due, in part, to the top-down and bottom-up influences on emergent phenomena. Top-down influences refer to the effects of an emergent system on the components, processes and maybe even the environment that inexplicably create it from the bottom-up.

Constraints on the system reduce the number of probable emergent phenomena and synchronize the previously independent components into a systemic whole via their interactive processes. Cognitive scientist Paul Nunez argues that science has undervalued the environment's role in emergence, such that information as a field or hidden reality may exist. Physicist David Bohm understood universal consciousness to take the form of a quantum field that stores information, whereas physicist John Wheeler hypothesized that the universe is a self-synthesized information system within which its perceived reality depends upon a conscious observer (as variously defined) who also facilitates its evolution.

Michael Gazzaniga theorized that the interaction of two or more human brains results in the emergence of new processes and behaviors that cannot be predicted from any single brain. His theory raises the question of whether social norms and fears are learned in a conventional manner or emerge within different contexts and timeframes depending on the brains that comprise a specific population. He also asks to what extent emergent properties (e.g., cultural traditions, societal movements) of a multi-brain entity or its processes could, in turn, affect component brains as top-down information. Accordingly, he suggests that personal responsibility emerges at the level of a social network, rather than a single brain.

Not surprisingly, some scientists dismiss the phenomenon of emergence because it is too broadly defined and there are as yet no demonstrated mechanisms—at least not any that are conventionally recognized. Perhaps expecting to identify the mechanisms underlying emergence mistakes that which emerges within our perceived reality to be confined solely to it. As previously noted, some researchers and philosophers posit that our perceived reality arises from more fundamental aspects of physical existence about which nothing is currently known and may not be knowable.

# Topic 7: Evolution and Information

Biological evolution is facilitated by natural selection acting on genes rather than on individuals. It is the survival of genes that result in observed changes to living organisms over evolutionary timescales. Biological evolution is not a process with an ultimate goal to create some kind of perfected organism, but rather it selects for adaptations that are best suited to ever-changing environmental conditions. Traits that were highly adaptive for a particular set of conditions can be poorly adapted to a subsequent set and, therefore, organisms continually face evolutionary pressures to adapt. Are there human traits that were once adaptive but are no longer so in an environment created, at least in part, via those traits?

According to astrophysicist Adam Frank, evolution is not confined to the biological form, but instead is a universal creative force that has the capacity to innovate and create novelty on all levels of physical existence. He also maintains that emergence and its holistic approach to science is replacing materialism and its reductionist approach, as the latter may not adequately explain the novelty that is observed in the world. If evolution is a universal creative force within which the biological version is just one expression, what might be the non-biological corollaries of mutation (change), genetic drift (chance events), and natural selection (adaptation)?

Perhaps these are just labels for artificially dividing up a single process. If evolution is a force that generates novelty on all levels of existence, then change, diversification, and adaptation may be just part of the same event—not the result of independent causal relationships. In any case, an example of evolution not driven by natural selection is what biologist Richard Dawkins referred to as *memes*, which are ideas, skills or behaviors that transfer intergenerational information and are culturally selected, imitated, and repeated among groups or populations. Similar to biology's genes, these memes can either benefit or harm individuals depending on the conditions under which they gain influence.

The evolution of traits that eventually become widespread in the human genome is slow process; however, if there are specific genes already present in everyone's genome that can be activated or deactivated, relatively rapid shifts in perceiving and behaving could ensue. Although one's

total genome is largely unchanged over a lifetime, which genes are actually expressed changes continually via the process of *epigenetics* that occurs naturally as a result of age, health, lifestyle, environment, emotions, and many other factors. Humans possess about 22,000 genes and the brain's complex functions are influenced by a vast number of them.

Perhaps some of the practices that have been taught historically by so-called awakened beings actually seek to create personal or environmental conditions that favor such epigenetic changes. Differences among introspective practices suggest that there may not be a unique set of conditions for enabling any such epigenetic changes. Curiously, the awakening process is often accompanied by various physical symptoms that could result from epigenetic changes. However, too little is scientifically understood about such symptoms to do more than speculate, and perhaps the changes are not induced by epigenetics—but only reflected by them.

For complex interconnected networks such as the brain, novelty may be reflected in emergent processes and their components as changing information states. In this context, information is a measure of possible states or arrangements of something, but not the thing itself. Physicist Paul Davies and some biologists theorize that the organization and flow of information may underlie all life processes. If so, are life forms simply manifestations of informational processes, and is novelty just a unique information state?

From a scientific perspective, information is nearly as controversial as consciousness because there is no consensus as to whether it is ontological (i.e., a real thing from which the physical world emerges) or epistemic (i.e., something known about the state of a real thing). Science writer Anil Ananthaswamy noted that there is some evidence for both explanations, which may never be resolved because scientists cannot have complete knowledge of a physical universe within which they are a part. According to idealism, there are no ultimately real things, so that information is just the content of consciousness. According to physicalism, the question of whether information or matter is fundamental remains unresolved or at least somewhat controversial.

## Topic 8: Neural Correlates of Awakening

Among the topics discussed thus far, neuroscience has the least to say about awakening or *enlightenment* because it is not a state that has been defined scientifically and because so few humans have attained it (actually or allegedly), even for a limited time. Thus, the techniques for investigating brain processes that have been applied to other human behaviors or capabilities possess a very limited track record for awakened states. Also, it is important to clarify that what research has been conducted is generally restricted to people who have had a temporary experience in the form of a brief *ah-ha* or realization that provided them a different way of perceiving themselves, others, or their environment.

This temporary awakened state is contrasted with enlightenment, as a permanent transformation that is often described as completely and irreversibly changing the relationship that one has to themself and to the entire world. Enlightenment was described by nonduality teacher Rupert Spira as a realization of the nature of our being. Spira's introspection and reasoning underlies his *idealist* view that our particular and limited experience of a universal or infinite consciousness is what underlies and gives rise to our subjective awareness and perceived physical reality. His introspective practices evidently led him to a different theory of consciousness than did those of Susan Blackmore, who attributes consciousness to a non-adaptive quirk or evolutionary spandrel of physical brain processes.

A temporary awakening is sometimes defined as shedding light upon a topic of inquiry, and limited research suggests that these smaller insights may induce brain changes sufficient to make enlightenment more probable. However, enlightenment is usually considered to be a rare event for which the critical parameters are unknown and could unexpectedly happen to any person, regardless of their training or life history. Mindfulness teacher Shinzen Young surmised that the reason most awakenings are only temporary is that people lack the ability to track how selfhood arises and then passes, as well as the equanimity to allow experiences to arise without suppression and to pass without identification. Similar to Krishnamurti, Young maintains that observing how the brain constantly seeks and interprets

patterns according to its conditioning, memory and experience is important for moving beyond a thought-dominated life.

Research psychologist Jessica Corneille investigated so-called spontaneous spiritual awakenings (SSAs) that are described as a sudden sense of nondual merging with a perceived ultimate reality. SSAs are typically of short duration (although longer-lasting effects on perception are possible), sometimes accompanied by physical sensations (e.g., tingling, involuntary movement, heat), and can be phenomenologically similar to states induced by psychedelic drugs (e.g., DMT, psilocybin). SSAs were reported by participants in her study to be overwhelmingly positive.

Physician Andrew Newberg found that brain changes observed in people experiencing temporary awakenings largely involved the neocortex; however, this has to be understood with the caveat that the brain exists as a totally interconnected network even though some regions appear to be more specialized in their functions. Brain changes associated with temporary awakenings generally produced a decrease, rather than an increase, in activity within specific brain regions, suggesting a suppression of routine brain functions. Some of the reported experiences that accompany those brain changes include the following:

- Decreased activity in the parietal lobe of the neocortex, producing experiences such as a reduced sense of self and a feeling of unity.
- Decreased activity in the neocortex's frontal lobe, resulting in greater acceptance or surrender and less worry or negative thinking.
- Decreased activity in the right hippocampus and caudate, leading to a reduced reliance on memory and abstract thought.

Based on these observations, one's attempting to attain an awakening experience may be counterproductive because the associated thinking, planning and anticipating engage brain functions that are correlated with disengagement. So, might one be closer to awakening when specific brain regions function minimally rather than normally—perhaps reducing the brain's substantial energy demands as well? And if drugs temporarily induce some of the reported experiences of awakening, might it be a function of neurochemistry; or is neurochemistry simply a physical correlate of recognizing (not just conceptualizing) the nature of our being?

Some researchers who investigate neural correlates of awakenings or enlightenment maintain that attaining awakened states (or removing the obstacles that block them) is somehow a predisposition for everyone. Although the actual mechanisms are rarely proposed, such states would not seem to enhance genetic fitness, which is how biological evolution selects for traits. If awakenings or enlightenment are not facilitated genetically, questions remain as to what kind of human evolution or predisposition is involved (e.g., cultural, personal, spiritual, informational) and, relatedly, why so few people have apparently attained such a state.

## Topic 9: Spacetime and Matter

There may be several reasons we assume time is real and passes at a constant rate, even though physical laws describing the universe (e.g., general relativity, quantum mechanics) either contain no time component or permit time to move both forward and backward. Only the second law of thermodynamics, or entropy (a statistical property), predicts the forward march of time in the form of decreased order or increased randomness within closed systems. But the movement from order to disorder (interpreted as a sequence of events connecting past and future) is based on the assumptions that the universe is a closed system and that a particular arrangement or pattern is more ordered than others; hence, it is comparative and subjective. Moreover, physicist Sharon Glotzer's research indicates that increased entropy can actually generate greater order.

What time apparently measures is change, which is relative to specific events. There is no flow of time without change. The world could be described by a collection of events or processes rather than by an assemblage of things or objects, as everything is constantly changing. Each event may simply represent a unique view of reality, revealing information about how it relates to all other events. If change is not recognized, we mistakenly interpret events or processes as things or objects.

Defining things by their appearance via pattern recognition cannot reveal a more fundamental reality consisting of nonlocal changes or events

in the present. As such, what we perceive as time may be a network of interrelations or interactions that are continually changing in the present, which is all there ever is. Past and future are just interpreted or projected patterns. David Bohm considered the world to be a cosmic process within which a hidden or *implicate* order of reality underlies a perceived or *explicate* order that unfolds via the information connecting everything.

Another reason we may believe time exists, as it seemingly flows from past to future, relates to our brain's encoding memories sequentially. Sequentially stored memories of events may also be mistakenly interpreted as causal relationships instead of correlations and assumed mechanisms. Although useful for the adaptively important tasks of [i] avoiding dangerous actions in the present, [ii] repeating actions that were successful in the past, and [iii] predicting probable outcomes of similar actions in the future, these causal relationships may have been oversimplifications of the world that were selected to enhance energy conservation and self-preservation.

Physicist Carlo Rovelli observes that our brain is a time machine, but the world is not. He posits that causes are based on interpreting a particular configuration of the world and on dubious notions of order and disorder. Moreover, he suggests that humans are essentially a collection of related processes and events, which are erroneously perceived as a self via the brain's interpretive mechanisms. Even the self's apparent sustained subjective awareness is interpreted from cyclic rhythms (as temporal patterns) of brain activity, suggesting that it is discontinuous but stitched together using time as the means for inferring continuity.

Whereas philosophers and scientists have questioned the reality of time for centuries, the reality of three-dimensional (3-D) space and the matter it apparently hosts has come under increasing suspicion more recently. Issues raised in several scientific fields have called into question whether space and matter are the components of a fundamental physical reality (as an axiom) or whether they are the brain's interpretations of a reality that we cannot otherwise access. Traditional scientists are holding steadfast to the *physicalist* view that what we observe is a relatively accurate, although biased and limited, version of what exists. Other computational inquiries into nature suggest that space and matter probably do not exist in the way that physics has long maintained.

If time is an illusion, Einstein's century-old theories of relativity suggest that space may be as well. The hypothesis is that 3-D space and matter are constructs of the human brain and that only conscious observers can perform measurements, regardless of the instruments used, to investigate natural phenomena. In essence, the universe is a set of relations and interactions, with information as the only "thing" that is ultimately real—and information may or may not be a thing. If spacetime and matter are just information-based relations or interactions, why do they seem real?

One theory is that spacetime and matter are mental constructs or abstract descriptions of our observing the behavior of the world from a particular perspective. If correct, it is not that scientists can influence the spin or location of particles by observing them, it is that the particles only exist in their minds. Similarly, it is not that entanglement links two particles that are far apart, it is that the distance, or space, separating two particles is as much a mental construct as the particles themselves. If spacetime and matter exist only in the perceptions of the human brain, they are not fundamental, but only a useful representation or interpretation of a perceived reality. What have long been considered the ultimate components of our perceived reality may instead emerge from something else.

If the ultimate components of reality are not spatiotemporal, how can we experience them? We may not experience the fundamental nature of reality because experience, as well as thought and sensation, are simply not modalities through which it is accessible. Thus, we experience changing forms as distinct patterns within a mentally constructed spacetime, rather than as the processes or events from which they are derived. We then erroneously assume that these forms and their spacetime backdrop are the ultimate components of reality. Relatedly, physicist Christopher Fuchs maintains that a quantum state does not represent physical reality, but instead a belief about the future content of one's experience.

Herein lies the interesting debate among physicists about the nature of physicality and among neuroscientists about the nature of consciousness. Most neuroscientists consider consciousness (as a personal or subjective awareness) to be strictly a product of physical processes within the brain because it has been correlated with neural patterns (spatial and temporal). To date, there are no plausible explanations for how neural processes create

awareness, prompting theories that consciousness, rather than physicality, is fundamental. If correct, our perceived world is derived from an infinite shared consciousness from which a subjective awareness is derived.

## Topic 10: A Fundamental Consciousness

Science philosopher Bernardo Kastrup posits that a universally shared consciousness (as contrasted with a more limited subjective awareness) is fundamental and gives rise to the physical world, including the brain and body. His version of *idealism* suggests that the brain localizes consciousness to the reference point of a physical body. When not subject to this localization, a being can hypothetically access unlimited consciousness. The brain excludes from unlimited consciousness anything that's not correlated with a body's perspective, similar to a radio tuner's limiting all possible broadcast frequencies to a single station. When this exclusion is removed (viewed physically as a cessation of certain brain processes), subjective experience delocalizes from the body's matter and spacetime backdrop.

His theory is that consciousness does not cease with death, but rather is not restricted by the brain. The body image dissolves similar to a whirlpool that vanishes as river conditions change; hence, the water itself does not disappear, but flows unrestrained when not locally confined to a vortex. According to his idealism, the outside world appears to unfold according to predictable laws and patterns, but we fail to realize those patterns exist as part of a universal consciousness because we identify ourselves with a tiny fraction of it that is related to egoic awareness. Thus, we mistakenly attribute causality and an ultimate reality to the physical objects and activities that simply reflect the perspectives of finite minds.

Kastrup observes that we live inside a limited conceptual reality that essentially insulates us from an infinite fundamental reality, which may be why the world is inexplicably emergent. We do not realize there is something more that we cannot access. Egoic awareness is self-reflective, thus creating a reinforcing loop that amplifies the ego so that we cannot see beyond it. The aspects of mind not amplified are relegated to our un-

conscious. Hence, it's not that we misinterpret a universal or unlimited consciousness, but instead that we access only a fraction of it. While deriving much of our humanness from this self-reflective awareness, he surmizes that we sacrifice most of what is available to us.

Neuroscientist Donald Hoffman has proposed a *conscious realism* theory that is based largely on his research into the evolution of visual perception in humans. He found that organisms that possess the most accurate perceptions of the world were outcompeted by those using shortcuts to navigate their world, despite those shortcuts being far less accurate. Natural selection favors simplified representations that conceal the complexity of nature, rather than detailed depictions that provide accurate interpretations of it. Consequently, organisms can be fooled by shortcuts if something sufficiently similar is presented to them.

Conscious realism echoes theories proposing that what we seem to objectively observe in the physical world is just a subjective representation. Hoffman's theory is that the universe consists of conscious entities as bits of information that interact via a vast network. Entities' interactions form new entities that emerge as novel events. A living organism selects a symbol for itself and other entities with which it interacts. Symbols hide the complexity and true nature of entities much like icons on a computer desktop conceal the hardware and software of a computer's reality. Our perceived spacetime is analogous to a computer desktop upon which icons, similar to spacetime's matter, are mistakenly interpreted as real, rather than as a useful interface for a reality we cannot access.

Idealism's postmodern revival has spawned other derivations such as physicist Wolfgang Baer's *conscious action* theory, which is based on interacting event cycles within which our own internal changes result in the subjective world of objects. Individual events are then a unique perspective on a universal happening that underlies our conscious experience and relegates matter and spacetime to interpretations of events occurring around a self. Every event provides information about its relationship to all other events, without which conscious experiences do not exist. As such, an independent physical reality is neither independent nor ultimately real.

Another idealism theory is *biocentrism*, whereby physician Robert Lanza adopts a quantum-based perspective in which both matter and

spacetime exist as waves in an undetermined state of probability until a conscious observer collapses the wave function. The properties of matter and the structure of spacetime depend on the observer and, ultimately, on the fundamental consciousness that we all share. He maintains that all we experience is information and everything that could occur actually does so in a multi-universe, where different realities are experienced.

If idealism or some derivation of it is valid, physical objects are just interface symbols or limited perceptions and interpretations possessing no causal capabilities. Thus, the *hard problem* of consciousness disappears. The hard problem is explaining how the brain's physical processes create phenomenal experiences, as contrasted with the *easy problem* of explaining how known neural processes correlate with specific brain functions. Idealism-based theories professedly do not represent either solipsism (i.e., one's personal mind is all that exists) or panpsychism (i.e., everything that appears physical has consciousness) and most accept the findings of science, though certainly not its conventional explanations.

Idealism challenges the assumptions upon which knowledge of ourselves and the world has been based. Its premise is that everything must be known or experienced through mind (e.g., thinking, experiencing, feeling), which requires investigating the mind's essential nature. Infinite consciousness is the axiom and takes the form of a finite mind by identifying with a body, permitting it to experience a finite world through spacetime and matter. Nonetheless, only consciousness exists and can know itself—a finite mind cannot know the infinite consciousness of which it is an aspect.

Rupert Spira observed that the mind is consciousness in motion and consciousness is the mind at rest. Consciousness is shared by all, but each finite body-mind has its own perspective that differs slightly. The mind knows experience only as a subject-object duality; therefore, believing the self to be a subject relegates everything else to objects. As infinite consciousness is contracted into finite minds, a tension is created that purportedly drives our search for happiness and enlightenment, thus underlying the predisposition for awakening.

# Topic 11: Reality and Practicality

Although there are innumerable nuances to the theories regarding the brain, consciousness and reality, most possess one of several assumptions. The first is that humans perceive a physical world that corresponds roughly to the fundamental reality of our existence. The second is that humans experience a physical world consistent with their inference of a reality that is extrapolated from memory and updated, as required, by the senses. The third is that humans know only a representational or symbolic physical world that serves to conceal a more fundamental or implicate reality that is not accessible via ordinary perceptual modalities. The fourth is that humans perceive a physical world that corresponds to a limited portion of, or a unique perspective on, a shared infinite consciousness. Regardless of which (if any) of these are valid, what appears to constitute the fundamental basis of our perceived reality almost certainly does not.

Why have researchers postulated these unconventional and controversial theories? The answer may be that they questioned the abstractions or representational constructs that provided reliable predictions about the observable world but offered very little or nothing about the reality they represent. These predictions have assisted in the creation of models and technologies that science has employed to understand and manage the perceived reality to which our brains have adapted evolutionarily, whether or not this observed reality is fundamental. Various scientific anomalies and a reliance on speculative physical phenomena (e.g., multiple universes, information fields, vibrating strings, dark matter and energy) prompted a consideration of and curiosity about reality and what is unknown.

Because descriptions and conceptions of things (or no-things) are abstractions, much of our perceived reality is essentially an artifact of thought. Whereas referencing consciousness, happenings, and realities in terms of components, connectivity, information and emergence may seem odd, it appears to be the perspective from which science can best describe the unknown. A challenge with grasping many of these theories is the obligatory use of metaphors and abstractions to describe realities that elude our experiences, senses, and familiar conceptual frameworks.

Although useful in many regards, another problem with abstractions is that working backwards from an abstraction or model to predict an actual experience or event exposes the simplifying assumptions and representations that frequently restrict its explanatory capabilities. If the physical world does represent some form of universal consciousness or the brain's interpretation of a fundamental reality, our explanations for observed phenomena (e.g., causal) are just correlations observed from different vantage points. As such, there is no objective truth to what is observed.

In addition to these abstract descriptions of reality, potentially practical activities have also been proposed for our perceived world—whether it is fundamentally real or not. Applied ecologist Tom Oliver observes that while an illusory self may be adaptive in some respects, it now underlies some of humanity's greatest challenges. He also notes that little can be done about the automatic and unconscious processes that are seemingly required to navigate our perceived reality and engage with others. So, how might we alter our reactions and other behaviors in adapting to a rapidly changing environment and its many demands?

Oliver believes that our next evolutionary step is recognizing the self as a useful illusion and, at the same time, realizing that we are intimately linked to everyone and everything. He and others propose meditating on empathy and interconnectedness, as well as spending time in nature, as a means of addressing our obsession with narcissism and control; however, shifting our perceptions involves the multifaceted and energy-demanding task of altering some well-worn neural pathways. Even so, our adapting behaviorally would be the quickest route to meeting those demands.

Another approach, as previously discussed, involves passively observing our reactions and thoughts without judging or blocking them. This option may be challenging for people who are unfamiliar with introspective or meditation practices, but it could minimize the involvement of the self. Guided or contemplative forms of introspection have been suggested by other researchers as a means of exposing the automatic, unconscious and conditioned processes employed by the brain.

Chris Niebauer offered various introspective techniques to glimpse the left-brain interpreter's ignoring emptiness and silence, as well as interpreting patterns to contrive continuity and certainty. He also suggested

practices designed to recognize one's less obvious right-brain activities. Peter Ralston suggested contemplative ways to explore the source of our awareness, to observe an object without knowing what it is, to know something from different perspectives (i.e., for ourself, for itself, as itself), and to consider not knowing who we are.

Rupert Spira observed that any effort on the part of the self to control the focus of attention precludes a knowing or awareness of our own being. As such, his proposed meditation is not something else to do, but instead something to quit doing so that we can simply be. His is a non-practice of just being aware of our awareness. Both Ralston and Spira note that asking, but not answering, the question of "Who am I?" could also facilitate returning to, or at least glimpsing, our true nature.

Revisiting the question of what might allow us to alter our perceptions and behaviors, the answer may be there is nothing we can do. Attempting to change may only bolster the self, and trying to elude the self may only empower it. However well-intentioned our actions and decisions, they are a product of thought, memory, conditioning and experience that may never produce genuine novelty, but only variations on what is already known. Knowledge that facilitated our invaluable modifications to the planet and its life forms has also enabled their unintended degradation.

Practicality (assuming the requisite endeavors are doable) may come down to the aforementioned practices of passively observing the brain's activities or simply accepting our not knowing, both of which may ultimately allow us to just *be* who we are—whatever that is or is not. The current state of our perceived world, including humanity, may be largely related to mistaken notions about who we are. If so, our perceptions and behaviors are unlikely to change appreciably until any such notions are actually observed and subsequently dispelled.

In the interim, perhaps the wisest course remains emulating nature's patterns and processes (as best we are able) in our inevitable doings, as we may never know the intricacies of the complex environmental and life-sustaining systems that we seek to comprehend and control. Psychologist Richard Alpert (a.k.a. Ram Dass) noted that information is just bits of data, knowledge is putting them together, and wisdom is transcending them.

## Closing Quotations

I conclude with several quotations from Alan Watts that are relevant to this presentation. He characterized the relationship among the self, the world, and awakening as a seemingly serious, but ultimately silly, game of hide-and-seek we play with our true being. Similarly, he pokes fun at our self-imposed quandary of explaining how things and events are related.

*Why do you want nirvana? The fact that you want to attain it is the one thing preventing you from achieving it. You already have nirvana. Of course, it's your privilege to pretend that you don't. If that's your game—to think you're just some ego—well, when you finally want to wake up, you will. Just like that. If you're not awake, it shows you don't want to be awake yet—you're still playing the hide part of the game. It's still just the self pretending it's not the self.*

*Why would you want to do all that? Only because you're trying to beat the game. Because you're still operating under the hypothesis that you are different from the universe, so you want to get one up on it… You still think there's a real difference between self and other, but the two are mutually necessary, just like the poles on a magnet.*

*The truth is that in looking at the world bit by bit we convince ourselves that it consists of separate things, and so give ourselves the problem of how these things are connected and how they cause and affect each other. The problem would never have arisen if we had been aware that it was just our way of looking at the world which had chopped it up into separate bits, things, events, causes, and effects.*

*That's what I'm talking about—there's this happening going on when you aren't doing anything about it; there's this happening going on when you aren't not doing anything about it. That's the point. It goes on despite anything you think or worry about.*

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