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Religion as a Spandrel

If you pay a visit to St. Mark’s Cathedral in Venice, someone will probably draw your attention to its great central dome. Look up and you will see beautiful mosaics covering not just the central circle of the dome but also the arches holding it up, along with the triangular sections where two arches meet each other at right angles. These sections are called spandrels, and two evolutionary biologists, Stephen Jay Gould and Richard Lewontin, once used them to illustrate an influential evolutionary theory. A spandrel doesn't, by itself, serve any purpose. It simply exists as an architectural byproduct of the arches that hold up the dome. But if someone looked at the beautifully decorated spandrels without knowing anything about architecture, they would see them as an integral part of the architectural design. The living world, Gould and Lewontin argued, is full of evolutionary spandrels: features or functions that seem to have evolved for a specific purpose but, on closer evaluation, turn out to have been a superfluous by-product of something else. ¹

For some cognitive anthropologists, religion is a spandrel. By religion, they mean not just the organized religions we know in the modern world, but the entire set of mythic constructions that virtually every culture has used from the earliest times to make sense of the universe. To understand how religion evolved, they believe you need to look at some of the key functions of the modern human mind, and you will find that religion developed as their byproduct. We’re
already familiar with several of these functions from what we know about the workings of the PFC, such as theory of mind, displacement (our ability for thinking about people even though they’re distant from us), and our capacity to hold counterfactuals in our mind: things we can consider even though we know they’re not true.  

To see how a religious spandrel arises, let’s consider an example, such as the ubiquitous belief that a spirit exists separately from a body. How could our capacity for displacement give rise to this idea? As infants, we quickly learn that people can disappear and then reappear, sometimes minutes, hours or even days later. From this, we realize that the person continues to exist even while she has disappeared. This soon becomes an essential ingredient of our social intelligence, allowing us to imagine, for example, about what the other person would feel or think if they were here. It’s a relatively simple step to apply the same practice of displacement to the thoughts and feelings of a dead person. Given the central role of social intelligence in human cognition, it may be easier for us to think of someone still existing but not being there in person, than to conceive of them ceasing to exist altogether. And the tendency for the deceased to reappear to us in dreams adds another important node to this particular pattern of meaning.  

To explore this, a group of researchers presented kindergarten-age children with a puppet show, where an anthropomorphized mouse was killed and eaten by an alligator. When the children were asked about whether he still needed to eat or relieve himself, they were clear that this was no longer the case. Yet when they were asked whether the dead mouse was still thinking or
feeling, most children answered yes, suggesting it may be our default cognitive position to believe that a dead person still exists in some form.  

Besides believing in spirits, little children also intuitively believe that everything exists for a purpose, a viewpoint known as teleology, which is inextricably intertwined with religious thought. Psychologist Deborah Kelemen has conducted studies of children’s intuitive beliefs with some intriguing results. When a group of 7- and 8-year olds were asked why prehistoric rocks were pointy, they rejected physical explanations like “bits of stuff piled up for a long period of time” for teleological explanations such as “so that animals wouldn’t sit on them and smash them” or “so that animals could scratch on them when they got itchy.” Similarly, the children explained that “clouds are for raining” and rejected more physical reasons even when told that adults explained them this way. 

As we get older, we may accept other reasons for pointy rocks, but we never completely overcome the powerful drive in our minds to assign agency to inanimate objects and actions. If we’re home alone on a dark, stormy night and hear a door creaking open in the other room, our first reaction is fear that it might be an intruder, not that it’s just the wind blowing the door open. We have, explains anthropologist Scott Atran, “a naturally selected cognitive mechanism for detecting agents – such as predators, protectors, and prey.” It’s clear how this served a powerful evolutionary purpose: if it was in fact just the wind blowing the door, there’s no harm in making a mistake; if however, it really was an intruder in your house but you assumed it was the wind, the mistake you made could possibly cost you your life. 

This agency-detection system is so deeply ingrained that it causes us to attribute agency to all kinds of natural phenomena such as faces in the clouds or voices in the wind, resulting in our universal tendency for anthropomorphism. Stewart Guthrie, author of *Faces in the Clouds: A New Theory of Religion*, argues that “anthropomorphism may
best be explained as the result of an attempt to see not what we want to see or what is easy to see, but what is important to see: what may affect us for better or worse.” Because of our powerful anthropomorphic tendency, “we search everywhere, involuntarily and unknowingly, for human form and results of human action, and often seem to find them where they do not exist.”

When our anthropomorphism is applied to religious thought, it’s notably the mind, rather than the body, that’s universally applied to spirits and gods. In the diverse cultures of the world, gods come in all kinds of shapes and sizes, but one thing they always share is a mind with the ability to think symbolically just like a human. This makes sense in light of the critical importance of theory of mind in the development of our social intelligence: if other people have minds like ours, wouldn’t that be true of other agents we perceive to act intentionally in the natural world?

Our patterning instinct, honed over millions of years to find meaning in the complex experience of daily life, plays a crucial role in this drive to imbue our own mental characteristics into the world around us. In pre-linguistic times, its powers helped early humans successfully navigate their increasingly sophisticated communities. With the emergence of language, it drove infants to impute meaning into the cacophony of sounds with which they were bombarded. With its unrelenting compulsion for patterning, its prowess was then applied to look for meaning in the otherwise seemingly chaotic occurrences of the universe.

The human patterning instinct used the intuitive reflexes of social cognition as scaffolding for a new mythic consciousness in much the same way that it had used embodied experiences as scaffolding for the metaphors that enabled abstract thought. The cognitive processes of tool-making, for example, by which things were designed and constructed for a particular purpose, may have inspired the
belief that natural objects were also created for a purpose. Similarly, the intuitive sense of fairness that was crucial to the stability of hunter-gatherer societies would have implied the need to maintain equally harmonious relationships with the spirits of the natural world. 

**Culture as Sculptor**

Powerful as our patterning instinct is, there is an even more potent force shaping the particular patterns we perceive around us. It's what anthropologists call culture. Just as language shapes the perception of an infant as she listens to the patterns of sounds around her; so the mythic patterns of thought informing the culture a child is born into will literally shape how that child constructs meaning in her world. Every culture holds its own worldview: a complex and comprehensive model of how the universe works and how to act within it. This network of beliefs and values determines the way in which each child in that culture makes sense of her universe.

To see how this happens, we need to understand how an infant’s brain matures. In recent years, neuroscientists have discovered that early brain development is essentially a pruning process. In the embryo and newly born infant, massive amounts of neuronal connections, known as synapses, form spontaneously. As the infant gets used to certain behaviors, such as grasping, nursing or cooing, the synaptic junctions that enable a successful behavior get strengthened by increased usage. The connections that are never used gradually wither away. As the infant grows, this synaptic reinforcement continues until some pathways are massively strengthened while countless others that turned out be useless have died out. A useful analogy is an uncultivated field of tall grass through which people begin walking to get to various places they need to go. At first, everyone’s beating about the bush, but after a while, certain trails appear in the grass, as the most successful routes become more popular causing the grass to get flattened down, until eventually clear pathways emerge through the field. The clearer the pathway, the more likely it is to be used by the next person, thus leading to a positive feedback cycle. 

Because of this process of synaptic pruning, a human born in the modern world might be virtually identical genetically to one of our ancestors born before the Upper Paleolithic revolution, but if a brain scan could be performed on both individuals at maturity, they would look very different. The differences would not be in the general layout and gross structure of the brain, but rather in the fine, dense mesh of synaptic connections that have been systematically pruned and shaped since infancy.
It’s through this process that we arrive at the notion of culture as sculptor. We can think of each distinct culture as the cumulative network of meaning constructed by countless generations of minds within a given tradition. The neural network of each person born into that tradition is sculpted by the previous accumulation of meanings, and then may contribute its own unique interpretations to modify the culture incrementally for the next generation. In this way, the relationship between an individual and their culture is, to a certain degree, mutually interactive, although the impact of the culture on an individual is far greater than vice versa.  

Every human interaction subtly shapes the neural network of a growing child as she learns to integrate into her culture. The words her parents speak to her, their responses to different behaviors, the games she plays, the rituals she participates in, are all continually sculpting her own perception of the world, shaping how she patterns meaning into the universe. This process takes place mostly below the level of conscious control. Rarely does someone consciously try to explain their worldview to the infant, and rarely does she consciously try to make sense of it all. However, in a process known as deep enculturation, she inevitably grows up with a set of beliefs and values about the world embedded within her unconscious, which shapes how she conceptualizes virtually every aspect of her experience.
We can thank this process of deep enculturation for the entire spectrum of human progress since *homo sapiens* first evolved. Without enculturation, no human being would be capable of staying alive for long, and even a community working together could barely survive without the inherited wisdom of its cultural traditions. The integration of symbolic meaning between individuals and their culture has allowed the human race to effectively “pool their cognitive resources” both from each other and from the past, and thus achieve the dominance over the rest of the world that we experience today.

**Culture’s Power Tool**

Culture has been sculpting the human brain ever since our earliest ancestors began living complex social lives millions of years ago. However, with the advent of the Upper Paleolithic revolution, it began using a new power tool that has transformed the human experience ever since. When humans arrived in Europe and constructed their first symbolic artefacts, they were crafting external manifestations of the network of meaning held by their collective mythic consciousness. Cognitive neuroscientist Merlin Donald calls this cultural power tool “external symbolic storage”: the entire set of physical objects constructed by humans to hold and communicate a symbolic meaning beyond mere utilitarian function. The most obvious examples include cave art, sculptures, personal ornamentation and musical instruments, but it can also refer to more subtle symbolic signaling such as stone-working styles and even the spatial patterns of how a campsite is used.

Through external symbolic storage, culture no longer resides merely in the shared network of people’s minds. It has taken up permanent residence in a set of concrete symbols that remain fixed, outliving those who constructed them, and communicating stable symbolic meaning to countless new generations.

The power of external symbolic storage to shape the human mind arises from its fixed and stable attributes: its nature is different from the meaning that arises solely within a human mind. The biological memory records created within the brain, Donald explains, “are impermanent, small, hard to refine, impossible to display in awareness for any length of time, and difficult to locate and recall… In contrast, external symbols give us stable, permanent, virtually unlimited memory records.”

Consider a common abstraction, such as patriotism. Each time you think of your country, your mind will produce something slightly different than the previous time. The concept arises within a
tangled, momentary web of feeling, emotion, symbol, memory and narrative. Now think of your nation’s flag. The information stored in this external symbol is far more stable. The next time the flag is unfurled it will store virtually the same symbolic information that it held the previous time. Over extended periods, even the information of external symbols may evolve or disappear. During the Vietnam era, war protesters burned the U.S. flag in a conscious effort to change its symbolic significance. We no longer know what the Lascaux cave paintings symbolize. But it is their relatively fixed nature that gives external symbolic storage the power to influence each new generation of human minds.

By stabilizing meaning within a group, external symbolic storage permits communities to expand massively in size and complexity while maintaining a cohesive framework of values and beliefs. Institutions that we take for granted in today’s society such as marriage, money or government, exist only because their reality is grounded in a common understanding that relies on external symbolic storage to maintain consistent meaning. In our modern world, the sheer volume of external symbolic storage has of course expanded vastly, incorporating virtually everything around us including books, newspapers, the internet, television, music, architecture, interior design, fashion, road signs… the list is endless. Without external symbolic storage, human civilization could never have developed. However, its power holds important implications for how much autonomy each of us has to construct our own pattern of meaning from the world.
“Ensnared in an Inescapable Web”

To what extent has our culture shaped our minds so that we can only think in the patterns we’ve inherited from the past? Donald warns that our cultural storage systems have “assumed a certain autonomy” and in many ways act like an organism with its own volition:

Our cultures invade us and set our agendas… Big Brother culture owns us because it gets to us early. As a result, we internalize its norms and habits at a very basic level. We have no choice in this. Culture influences what moves us, what we look for, and how we think for as long as we live.  

Like an alien force from a sci-fi movie, our culture maintains its existence outside any one of us, and yet at the same time pervades our minds. While its tangible expressions impact our daily lives, its ultimate power derives from the intangible conceptualizations that lie below, out of sight. The abstract concepts of culture have shaped the course of world history more profoundly than any of its physical manifestations. Beliefs in God, Heaven and Hell, liberty and progress, communism and capitalism, have all profoundly affected the human experience over the millennia. In the words of anthropologist Terrence Deacon:

The symbolic universe has ensnared us in an inescapable web. Like a ‘mind virus’, the symbolic adaptation has infected us, and now by virtue of the irresistible urge it has instilled in us to turn everything we encounter and everyone we meet into symbols, we have become the means by which it unceremoniously propagates itself throughout the world.

This hidden force has real and tangible implications for the future of the human race and the planet on which we reside. Far more powerful than any individual or group, its abstractions engender the values that drive our collective behavior, leading our global civilization on a trajectory that may not be of our choosing.

When one realizes the immense power our culture has had in shaping the very structure of our minds, it’s tempting to surrender to it and merely accept the network of meaning in which we’re enmeshed. However, daunting as the task may be, it’s not impossible to regain at least some autonomy. Even our brain’s neural network, sculpted from infancy by our cultural influences, can literally be reshaped to a certain degree. Modern neuroscience has demonstrated that the adult brain remains plastic, thus permitting us to consciously re-sculpt some of the structures of thought that our culture has instilled in us from infancy.
Going back to the analogy of the brain’s neural organization as a field of tall grass, even after the main thoroughfares have been laid down, it’s still possible to find new ways through the bush. Finding a different pathway through the tall grass can be inconvenient, messy and even scary, so it’s something you’d do only if you discover that the old paths lead you to places you don’t want to go.

It is only through a clear identification of these underlying structures that we can perceive them in our own minds, thereby gaining some freedom to disentangle ourselves from the “inescapable web,” and ultimately, perhaps, to influence the shape of the culture that will sculpt the minds of future generations.

ABOUT THE AUTHOR

Jeremy Lent is an author whose writings investigate the patterns of thought that have led our civilization to its current crisis of sustainability. He is founder of the nonprofit Liology Institute, dedicated to fostering an integrated worldview, both scientifically rigorous and intrinsically meaningful, that could enable humanity to thrive sustainably on the earth.

Born in London, England, Lent received a BA in English Literature from Cambridge University and an MBA from the University of Chicago. He pursued a career in business, eventually founding an internet startup and taking it public.

Beginning around 2005, Lent began an inquiry into the various constructions of meaning formed by cultures around the world and throughout history. His award-winning novel, Requiem of the Human Soul, was published in 2009. His most recent work, The Patterning Instinct: A Cultural History of Humanity’s Search for Meaning, traces the deep historical foundations of our modern worldview.

Lent is currently working on his next book provisionally entitled The Web of Meaning: An Integration
of Modern Science with Traditional Wisdom, which combines findings in cognitive science, systems theory, and traditional Chinese and Buddhist thought, offering a framework that integrates both science and meaning in a coherent whole.

In addition to his writing, Lent is a practitioner of meditation, qigong, and Tai Chi. He is a Level II certified teacher of Radiant Heart qigong. He holds regular community workshops in Liology to explore topics of integration through contemplative and embodied practices in the San Francisco Bay Area.

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Ibid., 12, 298-99.

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Someday

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Someday never came.
Her days were all the same.

Nothing bright or better
Ever came to get her.

Still she waits - letting today go by.
Never knowing that Someday is a lie.
I have spent the better part of my life making a study of pain. This began out of necessity, at age 19 when I was delivered a life sentence in the form of a spinal condition known as Spondylolisthesis. The day I received the news, I was flat on my back in an orthopedic surgeon’s office, X-ray slapped on the lit screen, panicked and in agony. My diagnosis was fraught with warning: no long travel, no active sports, beware certain sleeping positions, and the most emphatic: the likelihood of carrying a baby to term without serious injury was small to none. Having been a child who’d swaddled her baby dolls and stuffed animals with equal passion and purpose, this final piece of news hit me hard. A life without the big and vibrant family I had envisioned? Was this a life at all?

The spinal fusion surgery the doctors were recommending could wait they said - I was young and if I was very careful and followed their complex instructions, I might live until 40 without it. Even so, the reality lingered in my thoughts: a body cast, a long recovery, a limited life.

A contemplative soul by nature often pondering life’s secrets and complexity, I knew inherently that perhaps this wouldn’t be my fate. I didn’t at the time, however, know quite why, or how. A psychology student and a curious being, I opened myself to the possibility that there was more than one reason human beings experienced pain. Exposed to Dr. John Sarno’s theories of Mind/Body medicine, I made a bold gesture: I would do a psychology experiment, on myself.
Sarno’s theories posited that we live in a mind/body system. Although we may look damaged on Xray or MRI, these abnormalities are part of being alive, and do not account for the surge of chronic pain cases in our society. Instead, he espoused, repressed emotions are the root of human pain. To heal, we must consider not only our physical selves, but our emotional ones as well. We must boldly draw back the curtains of our lives, and peek within. We must walk into our darkest rooms, and turn on the light.

Following Sarno’s instructions, I dedicated myself to the excavation of my subconscious. Although a frightening concept at first glance, I embraced its necessity with appropriate desperation and surrender. If, as I contend, life is a choice between “what hurts” and “what hurts worse,” this journaling exercise was certainly a better option than a limited life of chronic pain and potentially catastrophic surgery.

In my efforts over the following months, I came to know myself on another level. I looked at a child who didn’t feel heard; a life driven by fear and shame and overblown expectations which were, as William Shakespeare so aptly put it, “The root of all heartache.” I sat with the sadness, the anger, the resignation and the grief. I sat, with patience and kindness for myself, and finally arose from the effort pain-free. Although still broken via MRI, I have traveled the world, surfed, skied and rollerbladed my way from one year to the next, and slept any way I’ve well pleased. My beautiful babies, Isabella, Oliver and Charlotte are 14, 12 and 9. I carried them to term, exercising until the day each was born. I am 44 years old and have never had a surgery.
As a psychotherapist who’s dedicated my private practice for years solely to the cure of chronic pain as I experienced myself, I have learned that in order to broach the pandemic of chronic illness we must first consider a most important query: Where does pain live? Is pain in our bodies? When we suffer from Irritable Bowel Disease, does it exist in within the stomach? Is fibromyalgia located in the nerves that run up and down our arms and legs - does pain live there? Do muscle groups, as they ache and spasm, carry the pain within them, isolated? How about the pain of the heart… where does that live? Do we not ache from loss in our physical bodies, our stomachs sick with the receipt of bad news, our skin awash with hives upon certain panic? We certainly feel pain in our bodies, but as modern medicine has shown us through the uncertain results of surgery and the epic disaster of opiate pain medications, perhaps we must search further for relief.

I have come to know with confidence through years of watching the most severe pain conditions resolve completely, that we have the power to rid ourselves of the symptoms associated with many and varied diagnoses through properly guided introspection, and simple unearthing of the matters in our lives which have been repressed out of necessity. There is no need to actually resolve any issue one is experiencing. It needs only to be genuinely known.

In order for you to embrace the concept of mind/body healing in full, allow me to explain how and why we channel emotional pain into physical suffering. Each of us has certain givens that we are taught from birth, by both our families and by society at large. We are taught to be good. We are taught to be polite. We are taught to “suck it up,” and be the person, or friend, or parent, or partner we are supposed to be. And we learn. You learn. You pride yourself on being a good person – pulling your weight, being fair, letting things go, having patience. Right? That’s you. Or maybe on your best day that’s you.
The problem with this very expected societal given is that you may not allow yourself to feel what is a very normal response to whatever difficult situation you have going on in your life, or your upsetting or conflictual memories from childhood, or your own inner critic created long ago who sits in constant judgment of your behavior. Emotionally, you don’t feel patient, or kind, or understanding, or loving. You don’t want to “let it go.” Inside, you are only 5-years-old. Think about a 5-year-old you know. She has no interest in being polite, or thoughtful, or humble when she is upset. She just wants to scream until she gets what she wants. She wants you to know exactly how she thinks and feels, and she is certain that she is right.

The problem here is that you are not actually 5-years-old, and that tantruming part of your mind is very inconvenient to the effort of getting through your day, being kind to your family and friends, and managing your life.

So, you have a reflex. It’s as natural a reflex as your leg popping up when the doctor taps your knee.

Without any conscious effort on your part, you push down feelings of anger or resentment because you know those feelings aren’t “nice.” They aren’t acceptable. The moment you even
begin to feel them, you become stressed, and your mind is in motion explaining to you all the reasons that thinking these dark thoughts will get you nowhere. So, you push them away. You shove them down.

Here’s what happens: These unfelt emotions build up, and the feelings reach critical mass, and finally refuse to be held down anymore. They start to rise to your consciousness, and threaten to inform you exactly how angry you are, or sad you feel, or ashamed you are.

Your brain says, “No! That’s not acceptable to feel those dark things. It does not assist in your survival!”

Remember, in some ways our brains are still primitive, operating in the same fight or flight techniques since the dawn of man. If the brain does not find something adaptive or imperative, it will do its best to protect us. Although feelings are actually safe to feel when given a voice in an appropriate manner, our minds do not understand this as of yet. When these feelings of anger, sadness, shame, embarrassment, regret, and fear threaten to rise into our conscious thoughts, the brain’s reaction is the same as if it is telling you to run from a woolly mammoth. You see, it thinks it is protecting you.

As the brain has this reaction in your subconscious, some place in your body seizes up, knots up, cramps up. Just like the headache you get when you’re stressed out, or the stomach ache you get when you’re about to give a big speech, or the hives you break into when you’re on the spot, your body is responding to frustration - a bigger frustration than you can even conceive at the moment. The pain appears somewhere in your body, and all of a sudden… The brain has done its job. It’s distracted you from the thoughts or feelings you didn’t want to have. They are naturally pushed back down as you have more important things to attend to, like making doctor’s appointments, researching alternative treatments, picking up medication, and fearing surgery.

So now, you are “safe.” You are back in the driver’s seat. You cancel your plans because you’re too uncomfortable to join the group. You lament tearfully to friends and family over the limits of your life. Although you can’t possibly know this at the moment, your system has calmed down amidst this unfortunate existence, and feels more comfortable keeping you right there.

The first law of thermodynamics, also known as Law of Conservation of Energy, states that energy can neither be created nor destroyed; energy can only be transferred or changed from one
form to another. In my work, I like to apply this law to our mind/body systems. When we are spending a portion of our energy (often a large portion) holding down these feelings which our brains deem unacceptable, we have little room for anything else. From the time we wake in the morning to the moment we retire at night, we have a finite amount of energy available to us. We can use it in many ways. When we are engaged in this struggle to not feel our feelings, however subconscious, we rob ourselves of the beautiful energy required to embrace our lives, and the joy which is our birthright as human beings. Also, often, we live in terrible pain.

The process of recognizing and listening to our emotions gives a steam valve to this entire system, allowing feelings to safely evaporate into the air. Even though one might worry at first that feeling potentially dark things about people and events in one’s life will hurt “worse,” it is strikingly the opposite. Patients consistently report, alongside pain elimination, feeling unburdened, lighter, and more at peace. Their relationships shift, as releasing repressed anger, fear and shame often renders conflict powerless. Also, and in my experience the most joyful result, once true feelings about a person or event are unearthed and examined, the whole situation transforms. My most painful wound, revealed during a tearful journaling session, turned out to be about me, not the other person. The relief was palpable. If I was actually angry at myself, that was something I had the power to change. Through patient introspection and contemplative practice, I was able to see how I had carried perfectionism like a shield, and gently put it down.
The process by which I teach people to heal is called JournalSpeak. In short, JournalSpeak is a language we must learn in order to give our very natural human emotions a voice. Most importantly, I teach that no one needs to hear this voice but you. There is no confrontation necessary, or change of situation imperative to heal. Since the pain is only necessitated by the repression of emotions, failure to repress disempowers the pain response completely. And this is good news, because JournalSpeak is not nice, or kind, or acceptable. It’s the 5-year-old having a breakdown, it’s winning every argument in which you’ve ever engaged, it’s telling your loved ones off in a fashion so epic it would not be mended easily. Yet, no harm comes to anyone. JournalSpeak lives only in your private journal or document, and once it is spoken, it can be discarded immediately. There is no need to ever re-read this journal; this is not the kind of memory which begs a leather-bound keepsake. JournalSpeak is simply a vehicle to peace and well-being. It is a life raft which brings you to shore.

Polite society is the world we live in, and there is nothing wrong with that. But the internal dialogue that is happening within us can paralyze us without an outlet. I often present the query to my clients: “If a tree falls in the forest and no one is there to hear it, does it make a sound?” I ask this to awaken them to the reality that even if we don’t acknowledge our repressed emotions, they will surface somewhere. Sometimes this is in the form of physical suffering, and sometimes it’s simply a feeling of being stuck, as if the world is for everyone else, and not for us. It makes a sound; it crashes with passion in each falling. You have a choice whether or not to pay attention to it, but either way it will resonate. When we have inconvenient feelings and very natural reactions to our lives, they make a sound within our mind/body systems. When we fail to listen and give them a moment of our attention, they build up in strength and eventually can cripple us in pain. Learning JournalSpeak and applying it to one’s life is the antidote to the damage of this falling tree. It allows you to safely hear the sound it is making, giving it a steam valve and releasing the need for your brain to protect you with physical pain. Hard to believe perhaps, but true.

From wheelchair bound, to playing 18 holes of golf. From hospitalization and hopelessness, to a life without limit. Common people are doing the uncommon every day in my practice, and in their lives. Pain is the great leveler - when we hurt, we hurt the same. It creates a situation, for a moment, when we are exactly alike, no matter our story. The mother grieving over the death of her child in a Syrian refugee camp, and the mother grieving over the death of her child in the best Manhattan hospital, feel the same pain in that moment. The man who cannot leave his bed as his back is in agony, is the same man whether he lives in a penthouse or public housing. We are human beings, animals in nature, and when we suffer, we suffer the same.
Pain has great power. It has greater power than any other force, because when we are in acute enough pain, we can literally do nothing else. It grabs our attention first, before anything joyful before us; before anything that would allow us to relax and be present. Through the simple witnessing of our own conflict and beliefs, the world opens to us; a life of consciousness is within our grasp. The path, formerly littered with branches and obstacles, is rather a passage of curiosity and hope.

As for me, I am overwhelmed daily with gratitude for my pain, my journey, and the bounty of my life as a result. It is my heartfelt wish that those walking this road open their minds, find their willingness born of surrender, and embrace the healing that is possible. As I always say, the life you save is your own.

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Nicole J. Sachs, LCSW is a writer and psychotherapist who has dedicated her work and her practice to the treatment of chronic pain and conditions. She is the author of The Meaning of Truth, and the online course: FREEDOM FROM CHRONIC PAIN. Through her personal journey, as well working with hundreds of clients, she's shaped and evolved theories which serve to teach those suffering how to heal themselves, completely, with no medication or surgery. She lives and works in coastal Delaware with her wife and five beautiful children. Learn more about Nicole's work at www.thecureforchronicpain.com.
Your Skillful Means, sponsored by the Wellspring Institute, is designed to be a comprehensive resource for people interested in personal growth, overcoming inner obstacles, being helpful to others, and expanding consciousness. It includes instructions in everything from common psychological tools for dealing with negative self talk, to physical exercises for opening the body and clearing the mind, to meditation techniques for clarifying inner experience and connecting to deeper aspects of awareness, and much more.

The 8-Circuit Model of Consciousness

Purpose/Effects

The 8-circuit model of consciousness is a way of understanding human consciousness first proposed by psychologist Dr. Timothy Leary in the late 1960s and developed further by author Robert Anton Wilson in the 1970s. This model proposes that consciousness is layered in eight stages, each the result of past evolution (the four in the left hemisphere of the brain) or lying dormant for our future evolution (the four in the right). These eight circuits are our brain's hardware, onto which we upload “software,” our experiences, beliefs, and imprints.
Method

The first four circuits are:

1. **The Oral Bio-Survival Circuit**: This circuit is imprinted by the mother or other nurturing figure; it is the part of us that is concerned with feeding, cuddling, trust, bodily security, and being taken care of. It is the part of us that runs away at anything that is scary, foul-tasting, suspicious, or worrisome, allowing us to survive infancy. People heavily imprinted on the oral bio-survival circuit are often overweight due to a fixation on food and the oral; they experience chronic anxiety and fear due to deep down worries about survival and often have very sensitive feelings. However, this circuit also helps us to be playful and affectionate toward others.

2. **The Anal Emotional-Territorial Circuit**: This circuit concerns the first experiences humans have with power struggles and territory issues. It is the part of the brain concerned with rituals of domination and submission, fighting, us vs. them, and, also, excrement (i.e. “kicking ass”); it evolutionarily helped us to find our place in the tribe. This circuit came about in our primate ancestors, who also use excrement to express anger. People heavily imprinted on the anal emotional-territorial circuit are often aggressive, obsessed with the pecking order, and suspicious of others. This circuit also helps us to enjoy the rush that physical activity brings and to properly navigate social situations.

3. **The Time-Binding Semantic Circuit**: This circuit has to do with the ways that humans deal with information and symbols; it is our intellectual and rational center that helps us to interpret our environment and to preserve our culture. People heavily imprinted on the time-binding semantic circuit privilege the rational to the exclusion of all else, which often means that they are blind to the ways in which the other circuits manipulate the third circuit to control them; they are also often frightened by the natural but primal instincts of themselves and others. Of course, the ability to reason is part of what makes us what we are, and this circuit is called by Carl Sagan the “human” one.

4. **The “Moral” Socio-Sexual Circuit**: This circuit is conditioned by early sexual experiences as well as a culture’s taboos. It processes “right” and “wrong” as well as sexual pleasure, familial obligations, and religion. It is the circuit that makes us worry about what Kinsey called “normal mammalian behavior.” People heavily imprinted on the “moral” socio-sexual circuit are often either sex-obsessed or extremely sex-negative (or both). This is the circuit that can help us to be good, upstanding parents and members of the community, so long as we don’t become too trapped in social taboo and restriction.
While the lower four circuits deal with “mundane,” “earthly” matters, the upper four seem to be more “spiritual” or “supernatural.” This, however, is wrong, according to 8-circuit theory, which states that the upper four circuits are simply parts of our brain that evolution has yet to take advantage of, but that will become part of all human consciousness in the future, rather than the small percentage of people who experience these circuits now.

**The last four circuits are:**

5. **The Holistic Neurosomatic Circuit:** This circuit is imprinted by ecstatic experience—the sorts of things that make us feel “high” by stimulating our endorphin production, sensory deprivation tanks, faith-healing, mystical experience, Tantra and Hatha Yoga, and some psychoactive substances. This is the circuit of bliss and rapture; most people have experienced it, but only a few people (yogis and the like) seem to have ready access to it in the same way we have access to the first four. It is the first step to illumination.

6. **The Collective Neurogenetic Circuit:** This circuit holds what psychologists call the collective unconscious, the collection of archetypes and symbols universal to all humanity. Leary and Wilson attribute this to a sort of “script” encoded in our DNA that leads people from different cultures to all have similar personifications of certain ideas—our “genetic archives.” Accessing this circuit allows us to see the “big picture,” all of humanity as a cosmic tribe, all of the world as an endless cycle of rebirth, and to thus analyze our trajectory. This circuit can be associated with the mass awakening of humanity.

7. **The Meta-programming Circuit:** This very advanced circuit consists of the ability to re-program our brains, allowing us to make completely conscious choices between reality tunnels (see Taking Other Viewpoints / Tunnel-Busting). It is the moment where the brain becomes aware of itself and can thus override any of the other circuits. It is the circuit of relativity and can be awakened with some intense forms of yoga.

8. **The Non-Local Quantum Circuit:** This is the circuit associated with most “supernatural” experience: ESP, out of body experiences, levitation, magic, and others. Leary and Wilson attribute these seemingly unlikely possibilities to quantum theory; that with sufficiently advanced mental capacity, we can use the more unusual laws of physics to our advantage.

To the proponents of the 8-circuit model of consciousness, the future is already written in our brains.
EXTERNAL LINKS

Robert Anton Wilson’s books *Prometheus Rising* and *Quantum Psychology* contain exercises to help the individual understand and move beyond her or his basic circuit-imprints and tunnel reality. If you are interested in exploring this subject further, read the article here on [Taking Other Viewpoints / Tunnel-Busting](#) and then seek out those two books if you wish.

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*Fare Well*

*May you and all beings be happy, loving, and wise.*