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Consciousness Began When the Gods Stopped Speaking

How Julian Jaynes' famous 1970s theory is faring in the neuroscience age.

BY VERONIQUE GREENWOOD
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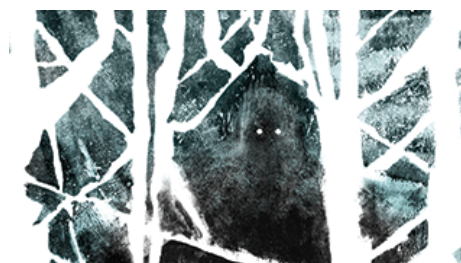
Julian Jaynes was living out of a couple of suitcases in a Princeton dorm in the early 1970s. He must have been an odd sight there among the undergraduates, some of whom knew him as a lecturer who taught psychology, holding forth in a deep baritone voice. He was in his early 50s, a fairly heavy drinker, untenured, and apparently uninterested in tenure. His position was marginal. “I don’t think the university was paying him on a regular basis,” recalls Roy Baumeister, then a student at Princeton and today a professor of psychology at Florida State University. But among the youthful inhabitants of the dorm, Jaynes was working on his masterpiece, and had been for years.

From the age of 6, Jaynes had been transfixed by the singularity of conscious experience. Gazing at a yellow forsythia flower, he’d wondered how he could be sure that others saw the same yellow as he did. As a young man, serving three years in a Pennsylvania prison for declining to support the war effort, he watched a worm in the grass of the prison yard one spring, wondering what separated the unthinking earth from the worm and the worm from himself. It was the kind of question that dogged him for the rest of his life, and the book he was working on would grip a generation beginning to ask themselves similar questions.

The Origin of Consciousness in the Breakdown of the Bicameral Mind, when it finally came out in 1976, did not look like a best-seller. But sell it did. It was reviewed in science magazines and psychology journals, *Time*, *The New York Times*, and the *Los Angeles Times*. It was nominated for a National Book Award in 1978. New editions continued to come out, as Jaynes went on the lecture circuit. Jaynes died of a stroke in 1997; his book lived on. In 2000, another new edition hit the shelves. It continues to sell today.

Jaynes was sent to prison, where he had plenty of time to reflect on the problem of consciousness.

In the beginning of the book, Jaynes asks, “This consciousness that is myself of selves, that is everything, and yet nothing at all—what is it? And where did it come from? And why?” Jaynes answers by unfurling a version of history in which humans were not fully conscious until about 3,000 years ago, instead relying on a two-part, or bicameral, mind, with one half speaking to the other in the voice of the gods with guidance whenever a difficult situation presented itself. The bicameral mind eventually collapsed as human societies became more complex, and our forebears awoke with modern self-awareness, complete with an internal narrative, which Jaynes believes has its roots in language.



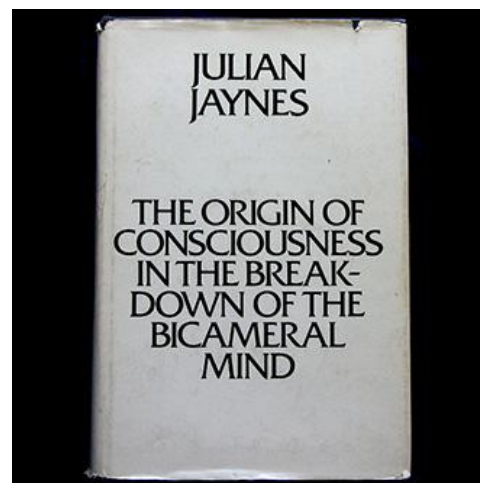
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By Carl Zimmer

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It's a remarkable thesis that doesn't fit well with contemporary thought about how consciousness works. The idea that the ancient Greeks were not self-aware raises quite a few eyebrows. By giving consciousness a cultural origin, says Christof Koch, chief scientific officer at the Allen Institute for Brain Science, “Jaynes disavows consciousness as a biological phenomenon.”



But Koch and other neuroscientists and philosophers admit Jaynes' wild book has a power all its own. “He was an old-fashioned amateur scholar of considerable depth and tremendous ambition, who followed where his curiosity led him,” says philosopher Daniel Dennett. The kind of search that Jaynes was on—a quest to describe and account for an inner voice, an inner world we seem to inhabit—continues to resonate. The study of consciousness is on the rise in neuroscience labs around the world, but the science isn't yet close to capturing subjective experience. That's something Jaynes did beautifully, opening a door on what it feels like to be alive, and be aware of it.



Jaynes was the son of a Unitarian minister in West Newton, Massachusetts. Though his father died when Jaynes was 2 years old, his voice lived on in 48 volumes of his sermons, which Jaynes seems to have spent a great deal of time with as he grew up. In college, he experimented with philosophy and literature but decided that psychology, with its pursuit of real data about the physical world, was where he should seek answers to his questions. He headed to graduate school in 1941, but

shortly thereafter, the United States joined World War II. Jaynes, a conscientious objector, was assigned to a civilian war effort camp. He soon wrote a letter to the U.S. Attorney General announcing that he was leaving, finding the camp's goal incompatible with his principles: "Can we work within the logic of an evil system for its destruction? Jesus did not think so ... Nor do I." He was sent to prison, where he had plenty of time to reflect on the problem of consciousness. "Jaynes was a man of principle, some might say impulsively or recklessly so," a former student and a neighbor recalled. "He seemed to draw energy from jousting windmills."

Jaynes emerged after three years, convinced that animal experiments could help him understand how consciousness first evolved, and spent the next three years in graduate school at Yale University. For a while, he believed that if a creature could learn from experience, it was having an experience, implying consciousness. He herded single paramecia through a maze carved in wax on Bakelite, shocking them if they turned the wrong way. "I moved on to species with synaptic nervous systems, flatworms, earthworms, fish, and reptiles, which could indeed learn, all on the naive assumption that I was chronicling the grand evolution of consciousness," he recounts in his book. "Ridiculous! It was, I fear, several years before I realized that this assumption makes no sense at all." Many creatures could be trained, but what they did was not introspection. And that was what tormented Jaynes.

A psychology based on rats in mazes rather than the human mind, Jaynes wrote, was "bad poetry disguised as science."

Meanwhile, he performed more traditional research on the maternal behavior of animals under his advisor, Frank Beach. It was a difficult time to be interested in consciousness. One of the dominant psychological theories was behaviorism, which explored the external responses of humans and animals to stimuli. Conditioning with electric shocks was in, pondering the intangible world of thoughts was out, and for understandable reasons—behaviorism was a reaction to earlier, less rigorous trends in psychology. But for much of Jaynes' career, inner experience was beyond the pale. In some parts of this community to say you studied consciousness was to confess an interest in the occult.

In 1949, Jaynes left without receiving his Ph.D., apparently having refused to submit his dissertation. It's not clear exactly why—some suggest his committee wanted revisions he would not make, some that he was irked by the hierarchical structure of academia, some that he simply was fed up enough to walk. One story he told was that he didn't want to pay the 24€ submission fee. (In 1977, as his book was selling, Jaynes completed his Ph.D. at Yale.) But it does seem clear that he was frustrated by his lack of progress. He later wrote that a psychology based on rats in mazes rather than the human mind was "bad poetry disguised as science."

It was the beginning of an odd peregrination. In the fall of 1949, he moved to England and became a playwright and actor, and for the next 15 years, he ricocheted back and forth across the ocean, alternating between plays and adjunct teaching, eventually landing at Princeton University in 1964. All the while, he had been reading widely and pondering the question of what consciousness was and how it could have arisen. By 1969, he was thinking about a work that would describe the origin of consciousness as a fundamentally cultural change, rather than the evolved one he had searched for. It was to be a grand synthesis of science, archaeology, anthropology, and literature, drawing on material gathered during the past couple decades of his life. He believed he'd finally heard something snap into place.



ONE-BOOK WONDER: Although Julian Jaynes, who died in 1997, never completed another book, *The Origins of Consciousness in Breakdown of the Bicameral Mind* will carry his name into eternity. John Updike wrote in *The New Yorker* that when Jaynes “speculates that until late in the second millennium B.C. men had no consciousness but were automatically obeying the voices of gods ... we are astounded but compelled to follow this remarkable thesis through all the corroborative evidence he finds in ancient literature, modern behaviorism, and aberrant psychological phenomenon such as hypnotism, possession, glossolalia, prophecy, poetry, and schizophrenia.”

Princeton University



he book sets its sights high from the very first words. “O, what a world of unseen visions and heard silences, this insubstantial country of the mind!” Jaynes begins. “A secret theater of speechless monologue and prevenient counsel, an invisible mansion of all moods, musings, and mysteries, an infinite resort of disappointments and discoveries.”

To explore the origins of this inner country, Jaynes first presents a masterful precis of what consciousness is not. It is not an innate property of matter. It is not merely the process of learning. It is not, strangely enough, required for a number of rather complex processes. Conscious focus is required to learn to put together puzzles or execute a tennis serve or even play the piano. But after a skill is mastered, it recedes below the horizon into the fuzzy world of the unconscious. Thinking about it makes it harder to do. As Jaynes saw it, a great deal of what is happening to you right now does not seem to be part of your consciousness until your attention is drawn to it. Could you feel the chair pressing against your back a moment ago? Or do you only feel it now, now that you have asked yourself that question?

Consciousness, Jaynes tells readers, in a passage that can be seen as a challenge to future students of philosophy and cognitive science, “is a much smaller part of our mental life than we are conscious of, because we cannot be conscious of what we are not conscious of.” His illustration of his point is quite wonderful. “It is like asking a flashlight in a dark room to search around for something that does not have any light shining upon it. The flashlight, since there is light in whatever direction it turns, would have to conclude that there is light everywhere. And so consciousness can seem to pervade all mentality when actually it does not.”

Perhaps most striking to Jaynes, though, is that knowledge and even creative epiphanies appear to us without our control. You can tell which water glass is the heavier of a pair without any conscious thought—you just know, once you pick them up. And in the case of problem-solving, creative or otherwise, we give our minds the information we need to work through, but we are helpless to force an answer. Instead it comes to us later, in the shower or on a walk. Jaynes told a neighbor that his theory finally gelled while he was watching ice moving on the St. John River. Something that we are not aware of does the work.

The picture Jaynes paints is that consciousness is only a very thin rime of ice atop a sea of habit, instinct, or some other process that is capable of taking care of much more than we tend to give it credit for. “If our reasonings have been correct,” he writes, “it is perfectly possible that there could have existed a race of men who spoke, judged, reasoned, solved problems, indeed did most of the things that we do, but were not conscious at all.”



Jaynes believes that language needed to exist before what he has defined as consciousness was possible. So he decides to read early texts, including *The Iliad* and *The Odyssey*, to look for signs of people who aren't capable of introspection—people who are all sea, no rime. And he believes he sees that in *The Iliad*. He writes that the characters in *The Iliad* do not look inward, and they take no independent initiative. They only do what is suggested by the gods. When something needs to happen, a god appears and speaks. Without these voices, the heroes would stand frozen on the beaches of Troy, like puppets.

Speech was already known to be localized in the left hemisphere, instead of spread out over both hemispheres. Jaynes suggests that the right hemisphere's lack of language capacity is because it used to be used for something else—specifically, it was the source of admonitory messages funneled to the speech centers on the left side of the brain. These manifested themselves as hallucinations that helped guide humans through situations that required complex responses—decisions of statecraft, for instance, or whether to go on a risky journey.

The combination of instinct and voices—that is, the bicameral mind—would have allowed humans to manage for quite some time, as long as their societies were rigidly hierarchical, Jaynes writes. But about 3,000 years ago, stress from overpopulation, natural disasters, and wars overwhelmed the voices' rather limited capabilities. At that point, in the breakdown of the bicameral mind, bits and pieces of the conscious mind would have come to awareness, as the voices mostly died away. That led to a more flexible, though more existentially daunting, way of coping with the decisions of everyday life—one better suited to the chaos that ensued when the gods went silent. By *The Odyssey*, the characters are capable of something like interior thought, he says. The modern mind, with its internal narrative and longing for direction from a higher power, appear.

Daniel Dennett likes to give Jaynes the benefit of the doubt: “There were a lot of really good ideas lurking among the completely wild junk.”

The rest of the book—400 pages—provides what Jaynes sees as evidence of this bicamerality and its breakdown around the world, in the Old Testament, Maya stone carvings, Sumerian writings. He cites a carving of an Assyrian king kneeling before a god's empty throne, circa 1230 B.C. Frequent, successive migrations around the same time in what is now Greece, he takes to be a tumult caused by the breakdown. And Jaynes reflects on how this transition might be reverberating today. “We, at the end of the second millennium A.D., are still in a sense deep in this transition to a new mentality. And all about us lie the remnants of our recent

bicameral past,” he writes, in awe of the reach of this idea, and seized with the pathos of the situation. “Our kings, presidents, judges, and officers begin their tenures with oaths to the now-silent deities, taken upon the writings of those who have last heard them.”

It's a sweeping and profoundly odd book. But *The Origin of Consciousness in the Breakdown of the Bicameral Mind* was enormously appealing. Part of it might have been that many readers had never thought about just what consciousness was before. Perhaps this was the first time many people reached out, touched their certainty of self, and found it was not what they expected. Jaynes' book did strike in a particular era when such jolts were perhaps uniquely potent. In the 1970s, many people were growing interested in questions of consciousness. Baumeister, who admires Jaynes, and read the book in galley form before it was published, says Jaynes tapped into the “spiritual stage” of the ascendant New Age movement.

And the language—what language! It has a Nabokovian richness. There is an elegance, power, and believability to his prose. It sounds prophetic. It feels true. And that has incredible weight. Truth and beauty intertwine in ways humans have trouble picking apart. Physicist Ben Lillie, who runs the Storycollider storytelling series, remembers when he discovered Jaynes' book. “I was part of this group that hung out in the newspaper and yearbook offices and talked about intellectual stuff and wore a lot of black,” Lillie says. “Somebody read it. I don't remember who was first, it wasn't me. All of a sudden we thought, that sounds great, and we were all reading it. You got to feel like a rebel because it was going against common wisdom.”

It's easy to find cracks in the logic: Just for starters, there are moments in *The Iliad* when the characters introspect, though Jaynes decides they are later additions or mistranslations. But those cracks don't necessarily diminish the book's power. To readers like Paul Hains, the co-founder of *Aeon*, an online science and philosophy magazine, Jaynes' central thesis is of secondary importance to the book's appeal. “What captured me was his approach and style and the inspired and nostalgic mood of the text; not so much the specifics of his argument, intriguing though they were,” Hains writes. “Jaynes was prepared to explore the frontier of consciousness on its own terms, without explaining away its mysterious qualities.”



Meanwhile, over the last four decades, the winds have shifted, as often happens in science as researchers pursue the best questions to ask. Enormous projects, like those of the Allen Institute for Brain Science and the Brain-Mind Institute of the Swiss Federal Institute of Technology, seek to understand the structure and function of the brain in order to answer many questions, including what consciousness is in the brain and how it is generated, right down to the neurons. A whole field, behavioral economics, has sprung up to describe and use the ways in which we are unconscious of what we do—a major theme in Jaynes' writing—and the insights netted its founders, Daniel Kahneman and Vernon L. Smith, the Nobel Prize.

Eric Schwitzgebel, a professor of philosophy at University of California, Riverside, has conducted experiments to investigate how aware we are of things we are not focused on, which echo Jaynes' view that consciousness is essentially awareness. "It's not

unreasonable to have a view that the only things you're conscious of are things you are attending to right now," Schwitzgebel says. "But it's also reasonable to say that there's a lot going on in the background and periphery. Behind the focus, you're having all this experience." Schwitzgebel says the questions that drove Jaynes are indeed hot topics in psychology and neuroscience. But at the same time, Jaynes' book remains on the scientific fringe. "It would still be pretty far outside of the mainstream to say that ancient Greeks didn't have consciousness," he says.

Dennett, who has called *The Origin of Consciousness in the Breakdown of the Bicameral Mind* a "marvelous, wacky book," likes to give Jaynes the benefit of the doubt. "There were a lot of really good ideas lurking among the completely wild junk," he says. Particularly, he thinks Jaynes' insistence on a difference between what goes on in the minds of animals and the minds of humans, and the idea that the difference has its origins in language, is deeply compelling.

"[This] is a view I was on the edge of myself, and Julian kind of pushed me over the top," Dennett says. "There is such a difference between the consciousness of a chimpanzee and human consciousness that it requires a special explanation, an explanation that heavily invokes the human distinction of natural language," though that's far from all of it, he notes. "It's an eccentric position," he admits wryly. "I have not managed to sway the mainstream over to this."

The broader questions that Jaynes' book raised are the same ones that continue to vex neuroscientists and lay people.

It's a credit to Jaynes' wild ideas that, every now and then, they are mentioned by neuroscientists who study consciousness. In his 2010 book, *Self Comes to Mind*, Antonio Damasio, a professor of neuroscience, and the director of the Brain and Creativity Institute at the University of Southern California, sympathizes with Jaynes' idea that something happened in the human mind in the relatively recent past. "As knowledge accumulated about humans and about the universe, continued reflection could well have altered the structure of the autobiographical self and led to a closer stitching together of relatively disparate aspects of mind processing; coordination of brain activity, driven first by value and then by reason, was working to our advantage," he writes. But that's a relatively rare endorsement. A more common response is the one given by neurophilosopher Patricia S. Churchland, an emerita professor at the University of California, San Diego. "It is fanciful," she says of Jaynes' book. "I don't think that it added anything of substance to our understanding of the nature of consciousness and how consciousness emerges from brain activity."

Jaynes himself saw his theory as a scientific contribution, and was disappointed with the research community's response. Although he enjoyed the public's interest in his work, tilting at these particular windmills was frustrating even for an inveterate contrarian. Jaynes' drinking grew heavier. A second book, which was to have taken the ideas further, was never completed.

And so, his legacy, odd as it is, lives on. Over the years, Dennett has sometimes mentioned in his talks that he thought Jaynes was on to something. Afterward—after the crowd had cleared out, after the public discussion was over—almost every time there would be someone hanging back. "I can come out of the closet now," he or she would say. "I think Jaynes is wonderful too."

Marcel Kuijsten is an IT professional who runs a group called [the Julian Jaynes Society](#) whose membership he estimates at about 500 or 600 enthusiasts from around the world. The group has an online members' forum where they discuss Jaynes' theory, and in 2013 for the first time they hosted a conference, meeting in West Virginia for two days of talks. "It was an incredible experience," he says.

Kuijsten feels that many people who come down on Jaynes haven't gone to the trouble to understand the argument, which he admits is hard to get one's mind around. "They come into it with a really ingrained, pre-conceived notion of what consciousness means to them," he says, "And maybe they just read the back of the book." But he's playing the long game. "I'm not here to change anybody's mind. It's a total waste of time. I want to provide the best quality information, and provide good resources for people who've read the book and want to have a discussion."

To that end, Kuijsten and the Society have released books of Jaynes' writings and of new essays about him and his work. Whenever discoveries that relate to the issues Jaynes raised are published, Kuijsten notes them on the site. In 2009 he highlighted brain-imaging studies suggesting that auditory hallucinations begin with activity in the right side of the brain, followed by activation on the left, which sounds similar to Jaynes' mechanism for the bicameral mind. He hopes that as time goes on, people will revisit some of Jaynes' ideas in light of new science.

Ultimately, the broader questions that Jaynes' book raised are the same ones that continue to vex neuroscientists and lay people. When and why did we start having this internal narrative? How much of our day-to-day experience occurs unconsciously? What is the line between a conscious and unconscious process? These questions are still open. Perhaps Jaynes' strange hypotheses will never play a role in answering them. But many people—readers, scientists, and philosophers alike—are grateful he tried.

Veronique Greenwood is a science writer and essayist. Her work has appeared in The New York Times Magazine, Discover, Aeon, New Scientist, and many more. Follow her on Twitter [here](#).

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wooter • 2 years ago

If I am understanding Jayne's premises correctly, it seems that, even after three thousand years, a mere blink in time for evolutionary changes, there would be those individuals in our current society who would continue to display this lack of consciousness, by Jayne's definition of the term. From my perspective and experience, I have indeed met people who, while functioning in society, exhibit a singular lack of awareness and introspection, and indeed, seem to be extremely reluctant to indulge in those activities, while, to all outward appearances, they are reasonably intelligent people.

I use the term "mindfulness" for the act of self-observation; effectively monitoring myself and analyzing and acknowledging the reasons why I behave the way I do. It is my personally held belief that "enlightenment" is not the striving for perfection, which is inherently impossible, but the acknowledging and acceptance of our true selves, replete with warts and skeletons in the closet. It is truly "knowing ourselves" and accepting our flaws as a part of who we really are.

17 ^ | ▾ • Reply • Share >



SteveAsat → wooter • 2 years ago

Intelligence and consciousness ought not to be mistaken for one another, unless you restrict intelligence to mean one narrow (but veery useful) way of problem-solving (i.e., the use of metaphor).

Jaynes' book (and its unfinished sequel) looked at such "throwback" individuals as you propose. He suspected that they might be diagnosed as schizophrenic, but that for the most part they wouldn't behave all that differently than conscious people. Homer, after all, composed the Illiad while bicameral. This emphasizes how easily we overestimate consciousness' contribution to our daily lives.

For a more extreme case, consider the state of feral children like "Genie" - kids neglected so severely that they've never acquired spoken language. Now, the bicameral model **DEPENDS** on language, so they are not examples of the bicameral mind but rather a grim reminder of just how little of human mindfulness is hard-wired into our (admittedly very sophisticated) neural biology. In a nutshell, even the slickest computer requires a society of programmers to develop and install software into it...after which it is qualified to create its own computers and pass on the software it received, down to the Nth generation. But lose that software along the line and all you're left with is an expensive box.

7 ^ | v · Reply · Share ›



Luke McTaggart → SteveAsat · 2 years ago

I understand the hardware/software metaphor, but I think putting a human being in an environment that disallows them the experience to learn language hardly diminishes their capacity to apprehend. A child raised by animals in the bush still learns to make associations and experiences states of emotion and comprehension even though they do not narrate the experience internally. I have had psychedelic experiences in which I have lost my grasp on the concept of language completely, and experienced an enhanced stage of awareness, not diminished. True mindfulness is not the experience of naming experiences, it is more aptly described from a Heidegger-esque POV as an immersion in the state of awareness.

It seems to me that one is first mindful of a mental event, and then names it.

Nor does it seem that you can separate consciousness from the unconscious processes that underly it, or vice versa.

I think the critics are right, from here I cannot see this idea as coming close to describing the nature of consciousness. That said, I have not read the book or studied the theory which may be more compelling in detail.

No doubt a person who learns to speak quite late in life would relate differently to their memories than pre-language, but would they come to the recognition that they weren't actually conscious during the earlier, non-narrated experiences?

1 ^ | v · Reply · Share ›



SteveAsat → Luke McTaggart · 2 years ago

Well, the first section of the book focuses on narrowing the definition of "consciousness", rejecting a lot of phenomena that get called by that name but don't stand up to some simple DIY examination. Nor does Jaynes ever (to my knowledge) try to explain fundamental awareness, the innermost self that observes what the brain does and thinks but contributes nothing whatever to it. This leaves a narrow middle range of inner activity that engages in a kind of linguistic play that has made humans unrivaled at problem-solving.

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Delroy Lando → wooter · 2 years ago

It's pretty clear to me as well that, in general, people are not nearly as "conscious" as they think they are, myself included. Even on my most conscious days, there's a lot of autopiloting going on. And I agree that there are a ton of people out there who are blissfully lacking in introspection and are pretty much the opposite of perspicacious. Some of these people are truly awful (as an example, religious fanatics who blindly harm others), but most are just regular human beings drifting along in a state of semi-awareness. Let's face it: As human beings, we think we're aware of ourselves and what's going on in the universe, but we are in reality not very conscious at all.

6 ^ | v · Reply · Share ›



carltjohnson → Delroy Lando · 2 years ago

I suggest that 'consciousness' originates in the mind, not in the brain. It is our identity, it is not physical, not vibrational, yet can control all of those things. We could take this pretty far and say it is our connection to the ether; although, that would seem right, we have no proof of it, it's just a feeling. Also, there are many in the quantum field saying that perhaps, only survival information, day to day stuff we need, is contained within the workings of the brain, but knowledge, wisdom, inspiration come from the mind. After mankind lost the voice from the left, it was replicated in the right and the left hemisphere now is only relegated to its organization...Both sides now integrated. That presents another problem because we are taught to learn, to specialize and that leads to the box, the cubical of compartmentalization. That sounds just like those that attempt to rule over us. I call them...parasitical humanoids.

1 ^ | v · Reply · Share ›



David Robert Genge → carltjohnson · a year ago

Perhaps this might help clarify. The brain is a physical thing but the mind is not. What kind of things exist but are not physical? Well, relationships exist but are not physical. Imagine two cups sitting on a table. They have a distance relationship. Now, if you move either or both of the cups then the relationship is changed and obversely, changing the relationship entails moving one or the other or both of the cups. Some subset of the very many active constantly changing relationships going on in the brain taken together IS the mind. Its not physical but its not metaphysical - its abstract. Does that help?

1 ^ | v · Reply · Share ›



carltjohnson → David Robert Genge · a year ago

Interesting, thanks for your input

Consciousness Began When the Gods Stopped Speaking: Julian Jaynes' Famous 1970s Theory

interesting...thanks for your input.

So Consciousness could not of occurred until the brain became aware of the change in these relationships and therefore the 'Mind' was born. Almost kind of a spacial thing...your place within the whole...maybe that's where one's sense of identity comes from.

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David Robert Genge → carltjohnson · a year ago

(Keep in mind (haha) that the body is a dynamic living thing in constant flux). In the same way that one is not directly conscious of the behavior or even the existence of any particular neuron, one is not conscious of any particular relationship or ANY relationships among them. What I contend is that the totality of these dynamic relationships IS the mind and consciousness is an ill defined metaphor for an aspect of the mind, an aspect that orders and is the ordering of much of the neural behavior that drives the whole organism towards a variety of goals (like sex (the primary goal) and eating, drinking etc. which are sub goals that exist only to enable realization of the primary goal). Nature doesn't care whether or not one reproduces but has evolved one with a configuration that practically guarantees it (and lucky for us nature chose sugar instead of the stick (although there is often a great deal of pain involved, unrequited love for example)). Like the example with the cups: if you alter the nature of the neurons enough the relationships among them are changed and the effects show up in consciousness. You can test this with a big glass of whiskey, or LSD or a baseball bat to the head or by dragging an electrically charged probe across the surface of your craniotomized brain.

1 ^ | v · Reply · Share ›



carltjohnson → David Robert Genge · a year ago

I am not sure the 'Mind' gets involved with the moment to moment, day to day things within the body. That seems to me to be the automatic, bicameral part of our brain; pre-programmed like any other mammal; However, that is not to say that at one moment or another the 'Mind' might be aware of some of these processes, especially where sex and eating is concerned, ex. choice.

I see bicameral man as having a bit more awareness than the animal kingdom but not much more than...let's say, somewhere between the 'Terrible two;s' and 'The Mystical Magical' stage of mental development. (spiral Dynamics). I also see, still, in today's world that many haven't progressed much beyond this stage, either by choice, poor mentoring or tragic disempowerments.

It is interesting that you, I and many others consider 'Identity', 'the I-ness', to be a result of developing a mind; in spite of observations that the brain alone can access the ether via vibrational frequencies, (quantum events); however, quite unaware of them. By the same token, I do think that awareness of the 'spacial changes' that you aptly describe, do require a connection to the mind, which I imagine to be the sub-conscious.

So, might this be the changes that took place that Jaynes is talking about.

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David Robert Genge → carltjohnson · a year ago

'I am not sure the 'Mind' gets involved with the moment to moment, day to day things within the body.'

The boundary between the mind and the body is nebulous. Meditators bend the contours of that boundary. But yes, most of the daily processes of life remain subliminal. (Google limen, see the nebulous boundary).

'That seems to me to be the automatic, bicameral part of our brain; pre-programmed like any other mammal;'

Well, yes, most automatisms are common to all mammals BUT the bicameral complex is distinct, human only, language based.

'I see bicameral man as having a bit more awareness than the animal kingdom but not much more than...let's say, somewhere between the 'Terrible two;s' and 'The Mystical Magical' stage of mental development.'

Here we encounter difficulty arising in part from the lack of a decent definition of consciousness. (Conscious, awake, aware, cognizant, knowing are all words with essentially the same meaning).

We are, each of us, imprisoned inside our own minds. I cannot know your mind (except a little (and only approximately) via the bridge built from the language we share). Now, how much more difficult is it for us to fathom a mind as different as the bicameral? A mind split in two, one part very much like our own, linguistically competent but lacking any sense of self and totally unable to make decisions in times of danger. The other part, able to analyze events, formulate an

[see more](#)

1 ^ | v · Reply · Share ›



carltjohnson → David Robert Genge · a year ago

The development of a 'sub-conscious' creating a direct personal path to the mind, the either or the 'Cloud' LOL Noticing your place within (your example) these spacial changes might have brought about self awareness. I know you were using this concept as a metaphoric example but I don't think you realize just what you stumbled upon, what you said, was profound to me, I could see it as if mankind had a vision of self within a space and his relationship to everything around him for the first time. I like being the camera and awareness of what it sees but not realizing that Your

Consciousness Began When the Gods Stopped Speaking: Julian Jaynes' Famous 1970s Theory

everything around him for the first time. Like being the camera and awareness of what it sees but not realizing that you the camera nor the camera's place with in it all.

I see the 'Mind', possibly, the results of the vibratory frequencies our brains transceive.

I once express in a short article that "with only a brain; absent a sub-conscious, accessing the ether (quantum event) would be like taking a shot in the dark." This still cracks me up.

I'll check out that link...thanks.

^ | v · Reply · Share >



David Robert Genge → carltjohnson · a year ago

Definition (for our purposes):

Narrative: language based thinking/writing/speaking (but not entirely excluding imagery).

The 'Future' and the 'Past' do not exist (by definition).

When we contemplate the past we are bringing memories to consciousness. When we contemplate the future we are bringing imagination to consciousness. When we contemplate the 'Present' we are bringing the stimulations of our senses to consciousness.

We imagine the 'Present' as a boundary between the 'Past' and the 'Future'. Can a boundary exit between one non-existent and another?

No!

And it is precisely here that we realize: Time is abstract.

Abstractions are ideas (by definition).

The 'time' abstraction is assumed, underlies and is fundamental to all of our narrative processes. We are talking about time and measuring it and incorporating it into our calculations of physics and arranging to meet at a particular and finding the concept so profoundly useful throughout our entire conscious lives that we are almost always wrapped in the delusion that time is as 'real' as any thing, this keyboard, this chair, this body, this painful ass that keeps prompting one to "go for a walk".

But time is not real. Time is abstract.

What else do we think real but after contemplation, turns out to be abstract? For your consideration I propose these candidates: relationships, mathematics, history, ideas, minds, spirits, souls, gods...

1 ^ | v · Reply · Share >



carltjohnson → David Robert Genge · a year ago

I once read a Doctorate dissertation that explained that 'Time' is only a measure of the interval between small and large events.

This supposes, the past does exist once one becomes aware of the outcome of one of these events. This was tried in our universities where some students were instructed to study as normal for an upcoming test and others were instructed to not study before but to study after the test was taken. Those students that studied after had better scores than the students that studied before; meaning that the students that studied after changed the past because they were unaware of the outcome. One an outcome is known, the past, that event, is now part of creations hard drive so to speak.

I posit, that the purpose of life and especially conscious life is to not only create value but to create order. Order perpetuates creation against chaos or 'Disorder'. One of the very basic natural ways order is created is by creating new DNA. DNA creates order within that organism for a determined interval between events.

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David Robert Genge → carltjohnson · a year ago

If 'Time' is only a measure of an interval' then time is a measurement? How IS time a measurement? And even there isn't measurement also an abstraction? Counting atomic oscillations between presses of a button on a stop watch does not help the understanding. In the one case we have a thing (an atom) moving and in the other we have a spring pushing on a gear train moving hands over a face. No time there. Just things, moving. Truly I find the hypothesis that time IS a measurement to be completely incoherent. Ask yourself, "What is time made of"? (and don't say nanoseconds). Do you see how we apprehend things and their movements and compare these to other things and their movements and how time is our abstract notion about these 'relationships'?

1 ^ | v · Reply · Share >



carltjohnson → David Robert Genge · a year ago

I think if that were My Dissertation I would have stated it this way: Time is an 'Interval' between small and large events represented as a measurement.

In other words; yes time is a concept, a concept that represents an interval of pause, a space, however small where nothing has happened between physical events from the movement of electrons around an atom to a thought between silence or from one willful action to it's response or reciprocal; even between bodies we perceive a solid.

However, I do remember a quantum article that stated that this concept of time moved in cycles perceived as slow or fast. They pictured an hour glass in this cycle where these intervals get compressed closer and closer with little or no pause between, then spread apart, presumably giving the impression of more space between events.

I agree that time is a concept, a metaphor, representing our conscious perception of how, when and the space between events occur, it grounds us and creates order. That awareness does not encompass everything that happens but exemplifies your original example that originally started this wonderful conversation...awareness of spacial changes.

Yes, we agree, time is not a physical thing nor a constituent of creation. Like many things these days...an abstraction.

^ | v · Reply · Share ›



David Robert Genge → carltjohnson · a year ago

First: pleased to meet you. This is my first Disqus experience. Must say I like the civility, it's so bad elsewhere. Please remain calm if I use the declarative form. It's just that I find the form natural, more efficient and I find it very hard work to come even close to saying exactly what I mean, stay on topic etc. Some words push to the fore even as they don't convey just the meaning I intend.(and my sense of humor is a dominant complex always skewing things up (I blame Looney Tunes, National Lampoon and George Carlin)).

I was lucky to catch Jaynes lecture in '76 as he toured NA to promote the book. Afterwards I got a copy on cassette and played it at a few pot parties but the results were disappointing. Managed to get one communist chick into bed but she was rather like Gabrielle on Two and a Half Men in the episode "Kinda Like Necrophilia" - "I am ready. Do what you have to do" (we didn't). I got the book and read it seven or eight times. Even tried to make it into a movie. Have you any idea how much time it costs to make a movie? Whew! Love to see Hollywood do it on the scale of Moses or The Matrix. Maybe a Kickstarter project? You in?

So to the point: I believe it to be impossible (at our present stage of linguistic development) to achieve a succinct and correct definition/understanding of consciousness. It WILL happen one day but to quote Jaynes closing statement from the lecture "This is only three thousand years old, this thing of introspecting in a mind space with an analog I and that, ladies and gentlemen, is less than a hundred generations and so, i think, from that, we can conclude that we are all, still, very young".

Useful to bear in mind these keywords/concepts 'nebulous', 'gestalt', 'holograph', 'chaos'(James Gleik type), 'Godel', 'reflection' in the following: Woops, i've gotta take a break... tomorrow!

1 ^ | v · Reply · Share ›



David Robert Genge → David Robert Genge · a year ago

Pardon me svp. Will resume tomorrow...

^ | v · Reply · Share ›



carltjohnson → wooter · 2 years ago

As I pose in my book, the folks you speak of, are those that wish to rule all, those attracted to government and indeed are not conscious in the same sense as most of us; they possess no discernible conscience and would surely fit into the 'humanoid' concept. Human with no identity, no I, no connection to a mind...they are only a brain; External, no accountability, everything is the fault of something outside of them...boy, doesn't that sound like early bicameral man?

1 ^ | v · Reply · Share ›



Adam Wykes → wooter · 2 years ago

Furthermore, you ought to be able to make those people conscious by inculcating in them whatever missing bit of "cultural software" seems to be the key.

^ | v · Reply · Share ›



johnmerryman → wooter · 2 years ago

Maybe that is their way of monitoring themselves?

^ | v · Reply · Share ›



EvelynU · 2 years ago

An interesting point to me is the idea of the gods going silent. Many religious people have an on-going sense of a God speaking to them, responding to them, loving them, etc. and at some point in their spiritual life, they lose this sense, and experience a shocking absense of this inner God-figure. Mother Teresa acknowledges such an occurrence, as well as Saint Therese of Lisieux, and presumably it is also what Jesus expressed when he cried, My God, my God, why have you forsaken me? (quoting a thousand-year-old Psalm of David. In Tibetan Buddhism (maybe Buddhism as a whole), this recognition that all the gods and demons you have struggled with are actually artifacts of your own mind is the ultimate goal of enlightenment, and I believe that Hinduism, with it's aphorism, You Are That (Tat Tvam Asi) is also saying the same thing. The prophets and shamans are the ones who continue to experience the voice of the gods, but as we grow past that stage, we find God's voice first in a book, then in our own souls, and finally, we recognize that the god that we thought of as separate, out there somewhere, can only be our own human self.

10 ^ | v · Reply · Share ›



JenM → EvelynU · a year ago



I read Jayne's book in 1978 and was utterly fascinated by it. Ten years later I was stunned to realize that my young son, who had no formal religious training to speak of, was terrified of God's judgement and of the commandments he was hearing in his mind. With psychological counseling, we came to understand this as an obsessive-compulsive disorder, but I kept thinking of the Jayne's bicameral mind and it's "vestigial" manifestations. What we now call mental disorders may once have been a very normal way of navigating the world.

2 ^ | v · Reply · Share ›



LouRich → EvelynU · a year ago

There is a light that shines in the eye of the living. As one passes from the living to the non-living, the light goes out. What is that? That is our soul, or spirit. The source of the spirit is "universal source energy" (God). When your soul departs your body, it goes back where it came from, and joins its source. Our soul occupies this physical body in part, while the larger part stays in the non-physical. The part of us here (the physical self here on earth) has a constant connection to source (God). If this interests you, see more at:

www.Abraham-Hicks.com.

^ | v · Reply · Share ›



David Robert Genge → LouRich · a year ago

The light is but the sky reflected and spirit is something they try to sell you in high school so the players on the field aren't lonely and start to think about the pointlessness of their goals or it comes in a bottle from the store down the street. I don't have a soul so I tend to think that folks who say they do are pulling my leg. When I was a child I believed that there was something called the spark of life. When I studied chemistry and physics and biology I realized my error. The realization in no way affected my libido.

1 ^ | v · Reply · Share ›



carltjohnson → David Robert Genge · a year ago

I think more precisely, what LouRich is speaking of, however in a common mystical way; is that I-ness or identity you and I have been discussing, that I think would represent the mystically refer to: Soul.

Spirit, again, is something unseen, like the soul, dark matter or metaphysics but like a quantum events, can be observed and noticed but unlike quantum events, can not be measured. I envision the 'spirit' as a consequence of a willful acknowledgement, awareness or an appreciation of one's connection to creation, (cosmos or everything that is, and as LouRich describes as 'God'...I prefer to say, Creator or it's consequence, Creation) through the ether; that sense of uniqueness, sovereignty, individuality, one's morality-(an acceptance of the laws of nature and creation) which could Not be realized without the Mind, (perhaps another consequence of how things have been designed) Somehow, we sense this in others.

Notice, no one senses this in mass murders, mass shooters, radical muslims, the ancient assyrians, hitler, stalin, mou, shavez, hiltery, the bushes or obama. We express it as "Their eyes are vacant", (lights on but nobody home); this may be inaccurate but still it is something we sense very deeply.

None the less, as I have noticed and you just expressed; the narrative is mystical, inaccurate and damaging to our ascension to higher levels of awareness.

1 ^ | v · Reply · Share ›



LouRich → carltjohnson · a year ago

I like what you say here, but don't necessarily agree. The light I'm talking about is most certainly the innate light of the spirit, not some reflection of the sky or metaphor for identity. I'm speaking of an actual spirit that exists in every living thing. Every living thing has it, even the Assyrians and Obama, lol. (What do you have against the ancient Assyrians, btw? Are they considered soul-less?) I'm not sure what narrative you're talking about in the last sentence. What's the inaccurate damaging narrative? If anyone decides to research the spiritual nature of our world, or life after death, or medium-ship, or whatever, there are reams written on these subjects. The research is there, but people who have already made up their minds against it won't look for it or at it.

^ | v · Reply · Share ›



carltjohnson → LouRich · a year ago

I am talking about vibratory frequencies that our brain transceive's, only with a conscious, subconscious, a conscience and a mind it is that which you speak of: spirit, the light, the spark in someone's eyes; it exists in only Conscious Humans. Spirit; the unseen vibrations that comes to the mind of conscious humans is very, very different than the vibrations that defines everything else, it is our connection to creation. We've really no need to humanize it, mystify it or deify it, but we best appreciate it profoundly. You see, this is a 'Conscious' explanation of it, not a bicameral mystical explanation. We are awake now...most of us anyway, LOL...It is most beneficial for us to engage it that way and embrace all the levels of awareness mankind has experienced; keeping the good of each and ascend to the next level and the next and the next. This is what we're made to do...not just stay in that bicameral mystical state.

And Yes, the one's I've mentioned are not of the 'spirit', do not reflect the image intended by the consequences of creation or perhaps directly from it's and our creator by consequence. In this respect, they are humanoid, no soul as you sav and they are parasitical in nature. This is self evident. There is no life in their eyes. no reflection. They are not

like us at all. The ancient assyrians were the MOST vial creatures on earth and their decedents even today, mostly humanoid and still vial, most have never awakened...obumer is no different except it is a coward and dainty by nature, not to mention, the dumbest among them.

For more background on these small groups that cause us, earth and creation much pain, chaos and hold us back is in my book, *The Fight for Conscious Human Life* at authorhouse.com It's a thumb nail sketch. The next book in the series will be much more comprehensive.

^ | v · Reply · Share >



LouRich → [carltjohnson](#) · a year ago

Interesting! But I still don't see it your way. I think ALL humans have a soul (or a spirit we call a soul). Some of us are more in touch with our inner spirit, than others, but we all have one, whether we want to believe it or not. But who knows?? You could be right and I could be wrong! lol ;-)

1 ^ | v · Reply · Share >



carltjohnson → [LouRich](#) · a year ago

You're right, it could be either way and recognizing that is an open mind that is only concerned about getting it right as opposed to being right.

Whats interesting about this issue is there is actually a phase each of us supposedly goes thru; (according to spiral dynamics) It's when you first realize that you are separate from those around you...'the terrible twos'. At this point a decision is made, maybe an unconscious one as to accept it and become an internally accountable person or deny it and become an external unaccountable person; surprisingly those that deny it or don't like it usually end up opposing the rest of us by 180° and blame everything on everyone else...sound like anyone you know? hahahah

That's not to say either, that there are those that bounce back and forth and this behavior can be taught through example...again, LOL, sound like anyone you know? LMAO

1 ^ | v · Reply · Share >



SocraticGadfly → [EvelynU](#) · 2 years ago

I think as writing spread, the "gods" were "interrogated" more.

^ | v · Reply · Share >



EvelynU → [SocraticGadfly](#) · 2 years ago

Yes, I agree. Catholicism is not based on a literate congregation, but a priesthood performing ritual which embodies its teachings. As the laity became literate, Protestantism was inevitable. But as the readers of the Bible developed critical thinking skills, and came to know other religious traditions, it became less and less possible to simply take the Bible at face value. It was never really meant to be a book; it is a written record of an oral tradition. I have recapitulated the history of western religious experience in my own life--first as Catholic, then as evangelical and charismatic, and now as a humanist. The internet has speeded up the loss of faith for many, I think. And those who don't lose faith become more belligerent in their belief, which they see as surrounded by enemies on all sides.

4 ^ | v · Reply · Share >



Delroy Lando · 2 years ago

Just wanted to chime in to wholeheartedly recommend Jaynes' book if you haven't read it. It's among the most unique and interesting books I've ever read, a compelling blend of many disciplines that almost miraculously congeals into a coherent argument about human consciousness. Time may erode some of Jaynes' conclusions, but that's almost beside the point. His insights are the kind that spur additional thought and scientific discovery. You can be "wrong," and still be right, if you follow. (Not to compare Jaynes' minor though powerful celebrity to the tower of Freud, but a big chunk of what Freud wrote has been disproven or at least sidelined, yet he remains one of the keenest observers of human nature in the last two centuries.) When you read Jaynes, you just know that even though he may be wrong in some specifics that he's still onto something. On top of everything else, *Origin of Consciousness in the Breakdown of the Bicameral Mind* is a really great read. A fun, insightful, powerfully well written, and thought-provoking exploration of who we are and how we see the world.

3 ^ | v · Reply · Share >



Andrew Robinson · a year ago

What Julian Jaynes said was nothing new and his work is incomplete because consciousness is still evolving. Take romantic love (a part of what is otherwise called "affectional systems" by scientists who study such things) for example. Before the 12th century, there was no such thing as romantic love...

"CAMPBELL: So the troubadours and their transformation of the idea of love got mixed up in religious life in a very complicated way.

MOYERS: The transformation of love? What do you mean?

CAMPBELL: The troubadours were very much interested in the psychology of love. And they're the first ones in the West who really thought of love the way we do now -- as a person-to-person relationship.

MOYERS: What had it been before that?

MOYERS: What had it been before that?

CAMPBELL: Before that, love was simply Eros, the god who excites you to sexual desire. This is not the experience of falling in love the way the troubadours understood it. Eros is much more impersonal than falling in love. You see, people didn't know about Amor. Amor is something personal that the troubadours recognized. Eros and Agape are impersonal loves.

MOYERS: Explain.

CAMPBELL: Eros is a biological urge. It's the zeal of the organs for each other. The personal factor doesn't matter.

[see more](#)

2 ^ | v · Reply · Share ›



cartljohnson → Andrew Robinson · a year ago

Awesome Andrew...thanks for posting.

My first book (or attempt-laughing) identifies the fear of and the intentions of, others to separate us from our incredibly useful "Minds", our new identity and our connection to something quantumly amazing. (Look up: a "Quantum Event".) Hence, I saw this quandary as a; Fight for Conscious Human Life.

My own assessment and observations agree with these assertions. Check out Spiral Dynamics...I read the one by Wilber. Wilber shows us that indeed Conscious awareness is expanding. In Fact he asserts that some of us have entered a second tier and a third is just around the corner. I myself identify with the second tier meme. Am I there? anyone's guess. Wilber also outlines the memes involved with each level of awareness; although many of us do not necessarily ascend in an orderly fashion, some of us get stuck in these memes. But there is no denying that many have evolved a higher state of awareness, thought, behavior and world views. The exciting part of it is that in the second and third tiers includes the values of all the other levels or memes.

I write much about the differences between "Brain" only states versus thinking and living in the "Mind" It would seem quantumly the Mind might be the results of the Transceptions of high frequency's of energy our brains do naturally...did our Brain always do this, maybe like the observations above show us it was sporadic and fragile but becoming steady in some.

I also feel quantumly that our connection to our minds might very well be our "Sub-Conscious" and provides a mechanism of control over the natural forces and temptations with our animal like, survival only Brain. One could also observe that the mind also provides a

[see more](#)

^ | v · Reply · Share ›



SocraticGadfly · 2 years ago

I think Jaynes missed the boat somewhat by not shoving his dating back another 1,000 years or so, and making ****written**** language a major break, while also allowing for lesser breaks before that. Indeed, the likes of a "Homer" putting a tale in written words is a key part of introspection.

2 ^ | v · Reply · Share ›



Roy Niles · 2 years ago

Consciousness is intelligent awareness. The higher or stronger its focus, the higher or stronger is the intelligence that uses it to connect with its surroundings. Jaynes made me aware of that.

2 ^ | v · Reply · Share ›



johnmerryman → Roy Niles · 2 years ago

The problem of focus is like shining a flashlight. It blinds you to everything not in the light. Use it judiciously and you will sense much more.

3 ^ | v · Reply · Share ›



Roy Niles → johnmerryman · 2 years ago

I disagree. The purpose of a focus is to clarify the picture or the sound, etc., and with biological creatures, the areas expected to be in focus are purposefully scannable. In biological creatures, purpose and intelligence are inseparable.

^ | v · Reply · Share ›



johnmerryman → Roy Niles · 2 years ago

Primates evolved for swinging around in trees. Not only did this give us opposable thumbs, but also binocular vision, in order to judge distances. Normally predatory animals, like cats, have fairly binocular vision as well, since they need it to stalk prey. Prey animals, on the other hand, are much more spatially oriented, given they not only have to be fully aware of dangers, but often function in groups, so they tend to have eyes spaced apart, generally on the corners, if not the sides of the face.

So we tend to be on the linear side of the equation. Now consider the potential intellectual biases this creates.

As I pointed out in a comment below, our thought process functions as a sequence of perceptions and so we think of

time as the point of the present moving from past to future, while the larger reality is a changing configuration which turns future into past. For instance, the earth is not traveling some fourth dimension from yesterday to tomorrow. Tomorrow becomes yesterday because the earth turns. So we function as individual points moving about in a broad thermodynamic medium. As Newton put it, "For every action, there is an equal and opposite reaction." Much of what we relate to, are opposing side of larger dynamics. Consider the surface of this planet on which life evolved is largely governed by thermodynamic processes and so consider how those dynamics largely define the world we create within it. Such as nations of people functioning similar to plate tectonics, with earthquakes on the boundaries, occasional fissures running through from forces pushing in different directions. The monetary medium acting like an economic circulation system and overwatering some areas, while leaving others in drought. Youth springing up like flowers, all full of energy and purpose. Then gradually hardening into ever more deliberate forms and set structures, that then slowly grind themselves down. So, yes, we do wander about, with our sight focusing on particular views and trying to tie it all together. Some focusing intently on the same circumstances, whether through obsession, profession, or religious conviction and grow very knowledgeable about a narrow frame of reality. While others scan constantly and see much but only on the surface. So my point is, sometimes you want to glance around at some of what you might be missing and that might require adjusting the focus of your beam of perception. Wide angle, or telephoto, or some range in between.

4 ^ | v · Reply · Share >



Roy Niles → johnmerryman · 2 years ago

Note also my reply to myself below.

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Roy Niles → johnmerryman · 2 years ago

With that, I can agree. It was the "blinds you" part I didn't.

^ | v · Reply · Share >



johnmerryman → Roy Niles · 2 years ago

We focus in lots of ways. Think love. Some of which will blind us and some enlighten us. It is who we are.

^ | v · Reply · Share >



Roy Niles → Roy Niles · 2 years ago

Actually, as a reply to myself, I don't agree with some of the other analytical bits of johnmerryman's response to my comment, but I don't know that I could win an argument or arguments as to why. I don't believe, for example that, as Newton put it, "For every action, there is an equal and opposite reaction." Reactions are much more complicated than that, and I'd propose that they are never equal. And I don't agree that predators are that much more inclined to develop wider spaces between their eyes, as the reason that he gave for this would apply more to the intelligent strategies of the prey, assuming that strategies direct evolution to begin with (which I do). And further, predators and prey are not fixed in those positions categorically. Life eats life with few exceptions, and seldom with cooperation between the eaters and the eaten. Or those are my opinions anyhow.

But as to the statement that "we think of time as the point of the present moving from past to future, while the larger reality is a changing configuration which turns future into past," it offers us two alternate definitions or descriptions of "time" which are really two different ways of describing how the same thing has to work. And that in effect, as I would have put it, the time is always now.

Edit: I should have added that a steady configuration would likely have needed a form of time as well, unless it had also caused nothing to evolve to "measure" it.

^ | v · Reply · Share >



johnmerryman → Roy Niles · 2 years ago

Actions are, pretty much by definition, linear. What is implied by the point is the reaction is non-linear and distributive, creating all sorts of feedback. Think water being pushed away by a passing ship and then filling in behind it. Ultimately the displacement of the ship has to move in the opposite direction, but because the ship creates much immediate momentum, it, the reaction, is distributed very widely.

"two alternate definitions or descriptions of "time" which are really two different ways of describing how the same thing has to work. And that in effect, as I would have put it, the time is always now."

And they balance out, because it is only really now. It is a bit like a tapestry being woven from threads pulled out of what had been woven. It is not that the past determines the present, as the past is really just a receding effect of the present and whatever residue remains is just clutter being blown around to suit the present.

^ | v · Reply · Share >



Roy Niles → johnmerryman · 2 years ago

Ok, if that was your original point about action, I can more or less agree. As to the determination of the present, it has to

Consciousness Began When the Gods Stopped Speaking: Julian Jaynes' Famous 1970s Theory

OK, if that was your original point about action, I can more or less agree. As to the determination of the present, it has to be that the present, which is in a constant state of change, must metaphorically "determine" itself by the reactions that it chooses to make to those changes. There are those who don't believe that the universal systems, for example, can choose, but the predictable consistency of what can only be their choices indicates that in ways that we don't yet understand, they can. Because of course if they couldn't, how would they have chosen to make us?

This 'evolutionary' process has not left residue, it has left whatever tweaks to the products of those systems have suited the universe's purposes - something else that we've yet to fully comprehend. Except to start to realize that they're not those of a God, they are of the operative systems of the universe itself.

^ | v · Reply · Share ›



Phaulonius J Knucklebones → Roy Niles · a year ago

Your statement "it has to be that the present, which is in a constant state of change" struck me as interesting....(I'm not challenging your argument per se but wondering)

ie: is the present constantly changing? or is it...the very millisecond of the present, always itself?

.... and change occurs in the transition from now (present) to ?then (or what to call it?...future?...meta-now, pseudo-present?)

It might be theoretical gobbledegook I'm spouting but I wonder if there's anything in it?

^ | v · Reply · Share ›



Roy Niles → Phaulonius J Knucklebones · a year ago

The "change" is a physical occurrence, brought on by what would appear to be the physical phenomenon of the universe.

All electrons for example being in a constant state of spin, with all elements in our physical world in effect constantly reacting to each other, yet controlled and regulated by what we've come to call our universal laws - laws which apparently regulate each other - something that physicists never seem to discuss. The "time" that we humans have invented is basically the measurement of change. The "time" however where you or I are standing in the midst of change is always "now." The past exists in our memories and the future in our expectations. The oddest thing to realize, with respect to our instinctive perceptions of the world around us, is that there is apparently no such thing as a constantly unchanging present.

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johnmerryman → Roy Niles · 2 years ago

"Residue" was a bit dismissive, though we generally agree.

We tend to equate temporal sequence with cause and effect, but they only seem that way from our point of view.

Yesterday doesn't cause today, as a batter hitting a ball causes it to fly away. The sun shining on a spinning planet is the cause of this effect called days. Cause and effect is only the transfer of energy.

So energy is "conserved," which really means that it only exists in and as the present. Given that any expression of energy amounts to "form," it is difficult to define a state of energy distinct from its form. Say waves are defined by the form of amplitude and frequency. Yet because it is dynamic, it is constantly changing form. This then is the effect of time, as these forms take shape, grow and dissolve, but since the manifesting energy is "conserved," as they pass into the past, all structure expressing them dissolves and the energy radiates away. As it is increasingly tattered remains of older forms, the term "residue" does seem to come to mind. Think how structures and objects from the past are constantly being passed around and repurposed, wearing them down further and only preserved by lack of friction, or deliberate maintenance.

One effort to describe this process has been Complexity Theory, but it might be better to describe the essential dichotomy as energy and form, rather than order and chaos. All chaos amounts to is disorder, which is essentially a random state of form, aka, noise. It doesn't provide the motivational factor of energy and energy operating on form/order creates disorder, by breaking structures apart at weak and pressure points, not where they are most solid. This creates the impression of this disordered and energetic state as peripheral to the larger state of order, but order is only the static surface of this underlying dynamic.

The essential point to distinguish energy from order, is that the arrow of time for the energy is from past to future forms, as the arrow of time for form is from future to past. Disorder is simply the initial state of order starting to express itself and not fully formed, or will only be peripheral, before dissolving back.

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Roy Niles → johnmerryman · 2 years ago

Cause and effect is much more than the transfer of energy, it's determined by the purpose that is either served by the transfer, or is the most proximate purpose behind that transfer, or a combination of both. You've basically described a system that operates by accident, and I'm a believer in a system that's the result of purposefully competing strategies. We live, in the opinion of some prominent physicists, in an indeterminate universe whose systems are predictable by what we've called the laws of random probability. Random accidents that our systems are prepared to appropriately react to. These universal systems have strategic purposes in other words. And all strategies require intelligence to operate and have evolved to serve competitive purposes and in turn have evolved systematic cooperative strategies

Consciousness Began When the Gods Stopped Speaking: Julian Jaynes' Famous 1970s Theory

operate, and have evolved to serve cooperative purposes, and in turn have evolved systematic cooperative strategies to compete with similar yet opposing cooperative sets as well.

There are a couple of good books on universal intelligence that explain all of this more fully, and more to come. And obviously I can't do that properly in this small space!

But in sum, our universe is neither chaotic or determinate, as in either case no life could have possibly evolved. And that would take another book to explain.

And if you want to understand biological cause and effect, read this paper: Cause and Effect in Biology. Ernst Mayr <http://isites.harvard.edu/fs/d...>

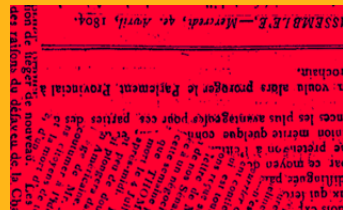
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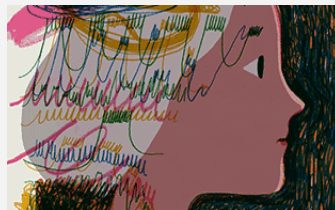
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