Neuromathematics of Consciousness: Tour of Consciousness, Week 11

Week 11

This week's presentations are by Cristof Koch, a neuroscience researcher and professor who has taught in Zurich, Jerusalem, Seoul, and currently works at Cal Tech. He also held a position at MIT for four years, and in 2013 spent a week with the Dali Lama.

Cristof had a long-term relationship with Francis Crick, who won the Nobel Prize as codiscoverer of DNA. Together, in a father-son type friendship, the two men investigated "consciousness" for over two decades. The pair was so close that on the last day of Crick's life, as he lay bedridden in a hospital, he hallucinated that he was in conversation with Koch on their recent work. Cristof once remarked on that episode, with tears in his eyes, struggling to contain his emotions, "[Crick] was a scientist to the very end."

In his book *Consciousness: Confessions of a Romantic Reductionist*, Koch writes, "Consciousness is a fundamental, an elemental, property of living matter." Like Susan Greenfield (*see* week 9), Koch is a fast-paced speaker. So,

there are two talks, similar in nature, with the second talk delving into more detail. Among other ideas, Koch speaks about the work of Giulio Tononi and his theory of integrated information and at 29:28 in the first lecture Koch remarks, "So, essentially each of your experiences, ultimately, in this theory is sort of, um, this geo-trope, this high-dimensional poly-trope in a very, very, high dimensional space. The theory says, ultimately, this equity is; this is the essence of consciousness."

The Neurobiology of Mathematics of Consciousness, Cristof Koch, Oct 24 2011: 58 minutes.

http://www.youtube.com/watch?v=6i9kE3Ne7as

The Integrated information theory of consciousness; Christof Koch, Oct 4 2014: 1 hour 17 minutes

http://www.youtube.com/watch?v=LGd8p-GSLgY

Roger N. Shepard could be considered the Isaac Newton of Cognitive Science. Unlike many scientists he finds it useful to employ geometric explanations rather than calculus. It was not usual for him to have hypnopompic (semi-dream state) visions of geometric forms. I could find no videos concerning his work. The article is based on a talk he gave in 2002, and is technical at times but worth the read.

How a cognitive psychologist came to seek universal laws; Roger N. Shepard, Psychonomic Bulletin & Review February 2004, Volume 11, Issue 1, pp 1-23, an article based on the keynote address presented at the November 2002 meeting of the Psychonomic Society in Kansas City.

http://link.springer.com/article/10.3758/BF03206455#page-1

by Michael McIntyre

< WEEK 12 >

Awaken at Any Age

If the base of a felled tree that has grown old in earth and rock "will bud at the scent of water … like a young plant" (Job 14:9), it is also possible for us to be awakened by the power of the Holy Spirit and to flower with the incorruptibility that is ours by nature, bearing fruit like a young plant, even though we have fallen into sin. Sometimes our soul grows despondent at the huge swarm of its sins and temptations, and says, 'Our hope is gone and we are lost' (Ezek. 37:11.LXX). Yet God, who does not despair of our salvation, says to us: 'you shall live, and you shall know that I am the Lord' (Ezek. 37:6). To the soul that doubts how it can ever give birth to Christ through great acts of holiness, these words are said: "The Holy Spirit shall come upon you" (Luke 1:35). ~The Philokalia

“I once cut down a tree in the back yard of the house where I was living in Virginia. There were just too many trees there and that one didn’t seem to be getting much sunlight. But after I cut it down, it quickly started to regrow sending out new shoots from the top of the stump. I decided if it was that determined to grow, I should leave it do so.

“During a drought, trees in some places may dry up and die and fall over. Other may be knocked over by hurricanes and tornadoes or burned down in forest fires. Yet when the conditions are better, some of them will grow again. In desert areas, some flowers and plants have adapted to the environment to the extent that they can become dormant for several years if necessary, then grow green, blossom, and produce seeds in a matter of a few days, or even hours when a rare rain occurs.

“Some people become spiritual at a fairly young age, and that is just fine. Others, however, do not see the value of it until they are in their fifties, sixties, or even older.”

< Read the entire blog online at spiritsun.net. >

by Harold Boulette

“Solar photons drive water off the moon”

Earth's Moon, as imaged by the Galileo mission. photo: NASA/JPL/USGS

"New research indicates that ultraviolet photons emitted by the sun likely cause water molecules on the lunar surface to either quickly desorb or break apart. The fragments of water may remain on the lunar surface, but the presence of useful amounts of water on the sunward side is not likely."

< Read the entire article posted June 17, 2014 by the Georgia Institute of Technology at sciencedaily.com. >

links submitted by Frieda Nelson

Sean Savoy interviewed by New Dawn on Andean expeditions

Douglas Eugene "Gene" Savoy (1927-2007) was an American explorer, author, religious leader, and theologian. He undertook a series of daring expeditions to the Andes and the Amazon jungle in search of the ancient mysteries of the Incas, Aztecs and Mayans. He is perhaps best known for bringing to light a number of Peru's most important archaeological sites, including Vilcabamba, the last refuge of the Incas during the Spanish Conquest.

Today Gene Savoy's work is continued by the religious community and the educational institution he founded. New Dawn recently spoke to Gene Savoy's son Sean about his father's remarkable discoveries and insights based on the lore of lost civilizations.

< Download a PDF of an abridged version of the New Dawn interview HERE. >

Services for the Week of May 30, 2015

Saturday, May 30, 2015
10:00 AM COMMUNION
Chapel of The Holy Child
RC Robert Petrovich
Lector: RC Elizabeth Reece
Cantor: Rev. Amanda Buchanan
Reader: Rev. Harold Boulette

Sunday, May 31, 2015
5:28 AM COMMUNITY SUNRISE
Church of New Pentecost
Leave: 4:30
Gate: 5:15
Sunrise: 5:43

OPEN-AIR COMMUNION

Church of the Christian Churches	RC Roger Weld
Church of the End Times	Rev. Vickie Hewlett
Church of the New Covenant	Rev. Karen Elliott

Wednesday, June 3, 2015
12:00 N COMMUNION
Chapel of the Holy Child
RM Carol Ann Crabb

Friday, June 5, 2015
9:00 AM PRAYER & FELLOWSHIP

Orch-OR: Quantum Consciousness: Tour of Consciousness, Week 10

Week 10

In week 10 we hear from Stuart Hameroff, who along with his partner, has developed a testable model for measuring consciousness as “qubits,” which when collapsed by a quantum gravity event can trigger tiny proteins within a neuron. They call the model Orch OR. These proteins have a digital processing characteristic that imprint thousands of engrams within the neuron; collectively, millions of these engram events have the potential to translate the “quantum wave of consciousness” into a collective neural episode, which becomes the physiological representation of “a thought.” This week’s videos present some of the work of Hameroff and Nobel-Prize candidate Richard Penrose, who together developed the Orch OR model. Hameroff is an anesthesiologist. Penrose is a British mathematician. The following are some excerpts from an article posted on Science 2.0 on February 2, 2014, concerning the Hameroff/ Penrose Orch-OR model:

"The origin of consciousness reflects our place in the universe, the nature of our existence. Did consciousness evolve from complex computations among brain neurons, as most scientists assert? Or has consciousness, in some sense, been here all along, as spiritual approaches maintain?" ask Hameroff and Penrose in the current review. "This opens a potential Pandora's Box, but our theory accommodates both these views, suggesting consciousness derives from quantum vibrations in microtubules, protein polymers inside brain neurons, which both govern neuronal and synaptic function, and connect brain processes to self-organizing processes in the fine scale, 'proto-conscious' quantum structure of reality."

"The evidence now clearly supports Orch OR," they claim. "Our new paper updates the evidence, clarifies Orch OR quantum bits, or "qubits," as helical pathways in microtubule lattices, rebuts critics, and reviews 20 testable predictions of Orch OR published in 1998—of these, six are confirmed and none refuted."

Stuart Hameroff, "Fractal Consciousness and Orch OR," University of Arizona Consciousness, February 17, 2013: 62 minutes.

http://www.youtube.com/watch?v=yp20eWejD6Q

Stuart Hameroff, "How Does the Brain Produce Consciousness?" Psychiatry Grand Rounds, January 8, 2003; posted on June 4, 2011: 58 minutes.

http://www.youtube.com/watch?v=Fb-5Pb9qmPE

by Michael McIntyre

< WEEK 11 >

The Blinders of Materialism

“With spherical-holographic perception, measuring attention isn’t important. You’re more interested in being responsive to the Flow … You don’t need to focus a long time since full awareness occurs in each moment. Therefore, you don’t need to use intention. … With spherical-holographic attention, you notice an idea you want to understand or materialize without having to attach special force to it. Instead of the hard focus of intent, you simply “be with” the idea softly. … When

an idea is on your wavelength, it remains alive in your field without you having to grip it to keep it in place. … With a softer, more expansive focus, you notice that your personal field itself is paying attention, that your soul is continually paying attention to creating your reality in the best possible way." ~Penney Peirce

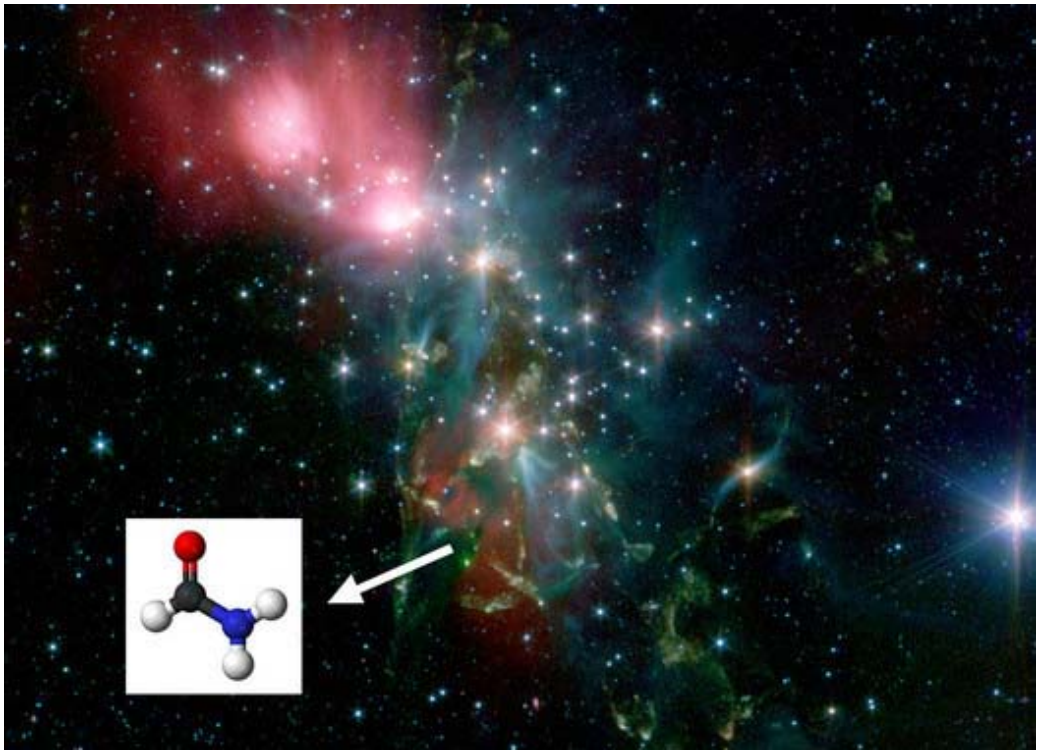
"You often see horses and donkeys wearing blinders, especially in urban areas. This is intended to keep the animal focused on the path in front of him and not get distracted or frightened by things off to the side. This may be a useful thing to do with these animals under the conditions found in a crowded city as long as there is someone controlling them who is not wearing blinders. Otherwise, the horse may be heading forward blissfully unaware that a runaway car is approaching from the side and about to hit him!

"The same is true of people who wear blinders. Of course, the blinders we wear are not so literal and not so obvious, but they are just as effective and just as dangerous."

< Read the entire blog online at spiritsun.net. >

by Harold Boulette

"Proto-suns teeming with prebiotic molecules"



Nebulosa NGC1333, one of the stellar formation regions where formamide has been detected. PHOTO: NASA

One of science's greatest challenges is learning about the origin of life and its precursor molecules.

Complex organic molecules such as formamide, from which sugars, amino acids and even nucleic acids essential for life can be made, have been found to appear in the regions where stars similar to our Sun are born.

< Read the entire article posted online April 16, 2015 at sciencedaily.com. >

link submitted by Frieda Nelson

“Nevada Prayer Breakfast a Success”

2015 Nevada Prayer Breakfast board members and dais PHOTO: Stephan Fuelling

The 2015 Nevada Prayer Breakfast, held at the Atlantis Resort “Paradise Room” Tuesday, May 12, 2015, from 7:00-9:00 am, was attended by an estimated 350 people with representatives from over 25 local religious and social organizations. The event is one of several annual events sponsored and promoted by the Nevada Clergy Association (NCA).

The NCA has been in existence for over two decades, and it has taken a lot of time and effort to bring the organization to the state it is now in. But it has been a blessing and

something that is dear to the hearts of many in the area.

NCA President Gene Savoy Jr. expressed the uncommon nature of this regional organization by quoting the words of an outgoing minister, Rich Smith, who had recently moved to Reno and became involved with the organization over the five years of his tenure as pastor at the First Congregational Church for the past five years:

> *"First, I wanted to say THANKS to you and the Nevada Clergy Association for the certificate that Pat Meidell presented to me a couple of weeks ago! It has been a great pleasure to be part of the Nevada Clergy Association for the last five years, and I must say I have never seen such a magnificent level of interfaith cooperation and respect anywhere I have served. And the Nevada Prayer Breakfasts are the ONLY such events I have attended that were so inclusive. When I went to the first one, where Gov. Sandoval spoke, and the Mormon introduced the Imam, and the female rabbi gave an award to the Greek Orthodox priest, I knew that the venue in which it was held, the "Paradise Ballroom," was very fittingly named! You have done much to create such a climate of interfaith partnership, and I will miss you all very much!"*

The Nevada Prayer Breakfast is a gathering of citizens – as well as civic, business, and community leaders – who wish to pray on behalf of our State and bring the spiritual resources of the community together to bear on issues that face Nevadans. Although members of the community may believe differently in their approach to the Divine, they gather at the Nevada Prayer Breakfast as equals. Together, they devote their energies to the good of the State of Nevada. And together, they pray.

The Nevada Clergy Association is a non-profit interfaith network of religious and spiritual leaders in Nevada. Programs include the Martin Luther King, Jr. Memorial Service, the

interfaith Nevada Prayer Breakfast, the Annual Interfaith Thanksgiving Eve Service, and the biannual Interfaith Clergy Luncheon. For information call (775) 786-1800 or visit www.NevadaClergy.net.

< Download or view a PDF of the 2015 Nevada Prayer Breakfast Program here. >

– Call to Assemble –

Call to Assemble: "Sounding of the Shofar" – Rabbi ElizaBeth Beyer, Temple Beth Or PHOTO: Stephan Fuelling

– Opening Remarks –

Opening Remarks: The Rt. Rev. Sean Savoy Emcee, Chancellor, International Community of Christ & Chair NPB Committee PHOTO: Stephan Fuelling

Presentation of the Community Service Award & Tribute to Toni de Salvo (posthumously) PHOTO: Stephan Fuelling

– Welcome –

Welcome: Oscar Delgado, Vice Mayor, City of Reno PHOTO: Stephan Fuelling

– Invocation –

All rise for invocation PHOTO: Stephan Fuelling

Invocation: The Rev. Shelley Fisher, Reno Buddhist Center PHOTO: Stephan Fuelling

– Breakfast Served –

View down row of three tables reserved by International Community of Christ. At front table (from left to right) Dave Asher, Sylvia Ontaneda, Gary Buchanan PHOTO: Stephan Fuelling

– NCA President’s Address –

NCA President’s Address: The Rt. Rev. Gene Savoy, Jr., Bishop, International Community of Christ PHOTO: Stephan Fuelling

The Rt. Rev. Gene Savoy, Jr. PHOTO:

Stephan Fuelling

– Presentation of Vision Awards –

Presentation of the Vision Award to Cherie Jamason, President & CEO, Food Bank of Northern NevadaPresenter: Rabbi Ethan Bair, Temple Sinai PHOTO: Stephan Fuelling

Presentation of the Vision Award to Col. Charles “Chuck” Fulkerson (posthumously)

Presenter: The Rev. Matthew Fisher, Reno Buddhist Center PHOTO: Stephan Fuelling

Presentation of the Vision Award to Northern Nevada HOPES Presenter: The Rt. Rev. Sean Savoy, International Community of Christ PHOTO: Stephan Fuelling

— Keynote Address —

Keynote Address: Dr. Anthony Slonim, President & CEO, Renown Health PHOTO: Stephan Fuelling

– Expressions of Faith –

Expression of Faith: Nevada Gay Men's Chorus, "Steal Away" (Traditional Spiritual), Ted Owens, Director PHOTO: Stephan Fuelling

Expression of Faith: Brian Melendez, Paiute American Indian Spirituality Scholar PHOTO: Stephan Fuelling

Expression of Faith: Sabrina Alcasas, Taoist practitioner PHOTO: Stephan Fuelling

Expression of Faith: Muryum Sulahria, Youth Member, Northern Nevada Muslim Community PHOTO: Stephan Fuelling

— Special Announcement —

Special Announcement on the Interfaith Spiritual Center at Renown: Patricia Meidell, Director of Public Relations, LDS Church, Reno Stake PHOTO: Stephan Fuelling

— Benediction —

Benediction: Rajan Zed, President, Universal Society of Hinduism PHOTO: Stephan Fuelling

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Services for the Week of May 23, 2015

Saturday, May 23, 2015
10:00 AM COMMUNION
Chapel of The Holy Child
RC Robert Petrovich
Lector: RC Ted Staver
Cantor: Dea. Shane Grady
Reader: Sonya Savoy

Sunday, May 24, 2015
5:28 AM COMMUNITY SUNRISE
Temple Mount
Leave: 4:30
Gate: 5:15
Sunrise: 5:43

OPEN-AIR COMMUNION
Church of New Philadelphia Rev. Robert Anderson
Church of New Qumran Dr. Tom Lee

Wednesday, May 27, 2015
12:00 N COMMUNION
Chapel of the Holy Child
RC Roger Weld

Friday, May 29, 2015
9:00 AM PRAYER & FELLOWSHIP
Chapel of the Roses
(Service Suspended due to Remodeling)