**OCTOBER 19, 2008 THESKEPTICARENA.COM**

**PART 2 OF 2**

**Oleson believes there are probably acupuncture microsystems in other parts of the body as well. Dr. Ralph Alan Dale, the director of the Acupuncture Education Center in North Miami Beach, Florida, agrees. After spending the last two decades tracking down clinical and research data from China, Japan, and Germany, he has accumulated evidence of eighteen different microacupuncture holograms in the body, including ones in the hands, feet, arms, neck, tongue, and even the gums. Like Oleson, Dale feels these microsystems are "holographic reiterations of the gross anatomy," and believes there are still other such systems waiting to be discovered. In a notion reminiscent of Bohm's assertion that every electron in some way contains the cosmos, Dale hypothesizes that every finger, and even every cell, may contain its own acupuncture microsystem.**

**Richard Leviton, a contributing editor at East West magazine, who has written about the holographic implications of acupuncture microsystems, thinks that alternative medical techniques - such as reflexology, a type of massage therapy that involves accessing all points of the body through stimulation of the feet, and iridology, a diagnostic technique that involves examining the iris of the eye in order to determine the condition fo the body - may also be indications of the body's holographic nature.**

**WINSTON, REFLEXOLOGY AND IRIDOLOGY. THOSE ARE RIGHT UP YOUR ALLEY. LIKE ACUPUNCTURE, NEITHER HAS BEEN ABLE TO EVEN ACCIDENTALLY ACCUMULATE ANY EVIDENCE. THEREFORE, THEY MUST BE TRUE.**

**Leviton concedes that neither field has been experimentally vindicated (studies of iridology, in particular, have produced extremely conflicting results)**

**WINSTON, “CONFLICTING RESULTS” IS THE CODE PHRASE THAT IS USED IN ALTERNATIVE MEDICINE CIRCLES WHEN THERE IS NO EVIDENCE AT ALL.**

**but feels the holographic idea offers a way of understanding them if their legitimacy is established."**

**WINSTON, THAT IS ONE BIG “IF.”**

**More recently, an experiment described in Discover magazine revealed that neurological evidence from MRI scans of the brain supported Acupuncture.**

**WINSTON, APPARENTLY THE EVIDENCE DIDN’T SUPPORT IT VERY WELL. IN THE 10 YEARS SINCE THAT ARTICLE CAME OUT, NO ONE HAS ACCEPTED THOSE RESULTS.**

**"Cho's unexpected relief prodded his professional curiosity. As a physicist working in radiology, Cho develops ways to image the complex inner workings of the body; one of his inventions was a prototype PET scanner around 1975. How, he wondered, could inserting needles into seemingly random points on the body possibly affect human health?**

**THEY DON’T WINSTON.**

**So he decided to take a closer look, and what he found astounded him. While sticking needles into a few student volunteers, he took pictures of their brains and discovered that by stimulating an acupuncture point said to be associated with vision-but that is nowhere near anything known to be connected to the eyes-he could indeed trigger activity in the very part of the brain that controls vision.**

**WINSTON, I CAN DO THE SAME THING BY KICKING YOU IN THE NADS.**

**There just might be something to this acupuncture thing, he figured……**

**WINSTON, HE FIGURED WRONG.**

**To test that premise, Cho strapped student volunteers into an fMRI (functional magnetic resonance imaging) machine. While standard MRI provides static cross-sectional pictures of structures in the body, functional MRI goes further to reveal how those structures are working. It measures minute changes in the amount of oxygen carried in the blood, which is presumably a rough measure of glucose uptake by various tissues and thus a good indicator of which tissues are active; the results can be viewed as colorful fmri brain activation maps.**

**Cho first stimulated the eyes of the volunteers through traditional means: he flashed a light in front of them. The resulting images, as expected, showed a concentration of color-an increase in activity-in the visual cortex, the portion of the brain that is known to be involved in eye function. Then Cho had an acupuncturist stimulate the acupoint VA1. In one person after another, the very same region of the brain-the visual cortex-lit up on the fMRI image.**

**As odd as it seemed, sticking a needle into someone's foot had the very same effect as shining a light in someone's eyes.**

**WINSTON, THAT IS EXACTLY WHAT I WAS GOING TO POINT OUT: IT DIDN’T MATTER WHERE THE NEEDLE WAS PLACED. YOU CAN GET THE SAME EFFECT BY RUBBING SOMEONE’S FOOT.**

**And this was not the generalized analgesic effect, produced by the primitive limbic system, that was seen in the pain studies; this was a function-specific response occurring in the brain's cortex, the area responsible for such sophisticated functions as speech and hearing, memory and intellect. Moreover, the magnitude of brain activity seen on acupuncture stimulation was nearly as strong as that elicited by the flash of light.**

**"It was very exciting," recalls Cho. "I never thought anything would happen,**

**WINSTON, THAT SHOULD TELL YOU SOMETHING: CHO DIDN’T EVEN THINK ANYTHING WOULD HAPPEN AND HE’S SUPPOSEDLY AND EXPERT. ONCE HE FOUND THIS SURPRISE THOUGH, HE KNEW HE COULD BANK IT.**

**but it's very clear that stimulating the acupuncture point triggers activity in the visual cortex."**

**WINSTON, SO DOES RUBBING THE FOOT.**

**To eliminate the possibility of a placebo effect, Cho also stimulated a nonacupoint, in the big toe. There was no response in the visual cortex.**

**Next, Cho tried each form of stimulation over time, twisting the needle for a moment or flashing the light, resting, then repeating. As before, the fMRI images were remarkably similar for acupuncture and for light stimulation. The time-course study was also done using the three other vision acupoints on the foot. The results were again consistent: except in the case of VA2, each acupoint lit up the visual cortex exactly as the light stimulation had done. This time, however, Cho noticed something else. When the activation data were graphed to show the intensity of the response over time, he saw that there were two distinct reactions among the dozen volunteers. During the acupuncture phase, some showed an increase in activity, while others showed a decrease. In other words, in some people, oxygen consumption in that brain region increased, while in others, it decreased.**

**WINSTON, YOU ARE NOW BACK TO SQUARE ONE.**

**"I figured we must have made a mistake," says Cho. Repeating the experiment, however, he saw the same results every time. "Finally one of the acupuncturists mentioned, 'Oh, yes, it's yin and yang.'" Cho asked him which subjects were yin and which were yang, and without seeing the data, the practitioner correctly pointed out who had shown an increase in activity (yang) and who had had a decrease (yin) in 11 of 12 cases. "I don't know how to explain it," Cho says.**

**WINSTON, HE DOESN’T NEED TO KNOW HOW TO EXPLAIN IT, HE ONLY NEEDS TO KNOW HOW TO BANK IT.**

**Like many preliminary scientific reports, Cho's small study raises more questions than it answers.**

**NOT FOR PEOPLE LIKE YOU WINSTON. FOR IRRATIONALS, “QUESTIONS” MAGICALLY BECOME “ANSWERS” - AS LONG AS THEY SUPPORT WHAT YOU WANT TO BELIEVE.**

**Still, he has demonstrated new functional effects of acupuncture.**

**SEE WHAT DID I TELL YOU. WINSTON, YOU ARE SO PREDICTABLE.**

**JUST AS IN RELIGION, EVERY VICTORY IS A WIN AND EVERY LOSS IS A WIN. BELIEVERS, WHETHER RELIGIOUS OR OTHER, ALWAYS DESIGN EVERYTHING SO THAT THERE IS NO WAY THEY CAN LOSE. THEY ALREADY HAVE THEIR ANSWERS; THEY ARE ONLY TRYING TO FIGURE OUT HOW TO MAKE THE EVIDENCE FIT THEIR CONCLUSIONS. IT IS THE EXACT OPPOSITE TO THE WAY THAT RATIONALS THINK.**

**"Classically, acupuncture was the ultimate in experimentation; people collected data for thousands of years," says Joie Jones, professor of radiological sciences at the University of California at Irvine and coauthor of the study. "They noticed that when you applied a needle in one position, it would have an effect in another part of the body. But the connection through the brain was never made. With these studies, we've demonstrated that for at least some acupuncture points it goes through the brain."**

**WINSTON, LET ME SAVE YOU A LOT OF TIME. ACUPUNCTURE DOESN’T GO THROUGH THE BRAIN - IT GOES THROUGH THE WALLET.**

**Yet even if it does go through the brain, how does stimulating a specific point on the foot trigger activity in the part of the brain that controls vision? There is no explanation for that either, says Cho, although he suspects that the path is along the nervous system.**

**WINSTON, WHEN SCIENCE DOESN’T HAVE ALL THE ANSWERS YOU USE THAT FACT TO ATTACK THEM. YET WHEN YOUR ACUPUNCTURIST ADMITS HE DOESN’T KNOW WHAT’S GOING ON, YOU SEE NO PROBLEM WITH THAT. THAT IS BECAUSE YOU APPLY DIFFERENT STANDARDS, DEPENDING ON WHAT YOU WANT TO BELIEVE. THAT IS CALLED THE LOGICAL FALLACY OF “INCONSISTENCY.”**

**If that proves to be true, it's probably not the same pathway by which acupuncture causes the release of endorphins, says Pomeranz. "That endorphins are released by stimulating certain types of nerves in fibers anywhere in the body, that's understood. But that there is a specific connection between your toe and your visual system is really bizarre. That's really mind-boggling."**

**WINSTON, YOU’VE HEARD THE EXPRESSION “EYES IN THE BACK OF YOUR HEAD.” YOUR FRIENDS HAVE CERTAINLY OUTDONE THAT ONE: “EYES ON THE ENDS OF THEIR TOES.” IT’S CREEPY JUST TO THINK ABOUT IT.**

**Despite the absence of clear-cut explanations, acupuncture's clinical results are attracting interest from mainstream medicine.**

**WINSTON IS CORRECT, SADLY ENOUGH. LIKE A SHARK SMELLING BLOOD, MAINSTREAM MEDICINE SMELLS THE MONEY. MANY OF THE ALTERNATIVE MEDICINE PRACTICES MENTIONED BY WINSTON ARE OFFERED IN HOSPITALS AND HEALTH PLANS AROUND THE COUNTRY.**

**SKEPTICS FIGHT ALMOST IN VAIN AGAINST THE EVER-INCREASING EXPLOITATION OF THE IGNORANT. AS LONG AS IRRATIONALS CONTINUE TO OUTNUMBER RATIONALS 10-1, THE BATTLE WILL BE UPHILL INDEED. ONLY WHEN SOCIETY LEARNS TO APPLY CRITICAL THINKING SKILLS AND THE SCIENTIFIC METHOD TO ITS WAY OF THINKING, WILL INDIVIDUALS STAND A CHANCE OF DEFENDING THEMSELVES AGAINST IRRATIONALITY.**

**A panel of independent experts convened last year by the National Institutes of Health concluded that acupuncture is indeed effective in treating nausea due to anesthesia and chemotherapy drugs.**

**WINSTON, THAT IS ONE REASON WHY I REMOVED THE N.I.H. FROM MY WEBSITE. THEIR SUPPORT OF ALTERNATIVE MEDICINE THERAPIES HAS SHOWN ME THAT THEY ARE MORE MOTIVATED BY PROFIT THAN BY SCIENCE OR TRUTH.**

**It is also helpful in treating post-surgical and other forms of pain.**

**ACTUALLY WINSTON MAY HAVE A POINT HERE. WHILE ACUPUNCTURE ITSELF HAS NEVER BEEN PROVEN TO HAVE ANY EFFECT ON ANYTHING, ITS ABILITY TO ENABLE THE PLACEBO EFFECT IN PEOPLE SEEMS TO BE REAL. EVEN THOUGH IT IS THE PLACEBO EFFECT THAT IS RESPONSIBLE FOR THE IMPROVEMENT, THE FACT THAT ACUPUNCTURE SEEMS TO BE ABLE TO PROVOKE IT CANNOT BE DISMISSED.**

**Moreover, the panel noted, despite the pervasive belief in the superior clinical effects of Western medicine, plenty of conventional treatments for chronic pain show the same success rate as acupuncture-and often with harmful side effects.**

**One of the more provocative acupuncture studies used SPECT (single photon emission computed tomography) to record images of the brains of patients with chronic pain. That study, by Abass Alavi, chief of nuclear medicine at the University of Pennsylvania Hospital, measured blood flow to the brain structures that are suspected of releasing endorphins in response to acupuncture stimulus-the thalamus, hypothalamus, and brain stem. Comparing baseline images of people who were in pain with images taken after they received acupuncture treatment, Alavi found clear evidence of increased blood flow in the thalamus and the brain stem. He also found that treated patients felt less pain.**

**WINSTON, THAT WOULD BE THE PLACEBO EFFECT IN ACTION.**

**Like Cho, Alavi was not a believer in acupuncture or other forms of Chinese medicine before doing this study. "I thought acupuncture was more or less psychological, not an objective effect," he says. "I did this study just for fun. I figured nothing would show up."**

**Some skeptics have agreed that Acupuncture may be effective for some things, but they maintain that the theory of chi and meridians on which acupuncture is based, has no merit. Skeptic Bob Carroll of The Skeptics Dictionary emphasized this in his entry on Acupuncture. What they don’t understand about chi though is that it not only works and gets results, but those using it also feel its effects too, the same way you would feel heat from a fire.**

**POOR WINSTON - HE WANTS TO BELIEVE SO BADLY. HE WILL ACCEPT ANYTHING THAT SUPPORTS HIS BELIEFS AND WITHOUT QUESTION; AND HE WILL DISMISS ANYTHING THAT CONTRADICTS WHAT HE WANTS TO BELIEVE NO MATTER HOW STRONG THE EVIDENCE IS - THAT IS BECAUSE IT IS ONLY CONSIDERED EVIDENCE IF IT SUPPORTS HIS BELIEF.**

**In fact, this was shown on one episode of Bill Moyers’ Healing and the Mind series. Moyers himself experienced this firsthand. A chi gong healer put his finger near Moyer’s arm and Moyer smiled and said he definitely felt the heat go into his arm. I too have had this experience when I was in Taiwan. In the same episode, a chi master was also shown to be able to remain stationary while lots of other people tried to move him. Chi practitioners can see and test chi at work just like we see gravity at work.**

**WINSTON, GO TO “YOU TUBE” AND FIND THE VIDEO OF THE CHI PRACTITIONER WHO USED THE POWER OF HIS CHI TO PROTECT HIS ARM FROM A MACHETE CUT - IT IS ABSOLUTELY HYSTERICAL.**

**OH, BY THE WAY, WHILE YOU ARE ON “YOU TUBE,” SEE IF YOU CAN FIND THE VIDEO OF THE CHI MASTER WHO KNOCKS HIS STUDENTS DOWN WITHOUT EVEN TOUCHING THEM. HE MADE THE MISTAKE OF AGREEING TO FIGHT A GUY WHO WASN’T ONE OF HIS STUDENTS. THE RESULTS AGAIN ARE ABSOLUTELY HYSTERICAL.**

**AFTER WATCHING THESE TWO VIDEOS, SEE IF YOU STILL AGREE THAT CHI IS AS RELIABLE AS GRAVITY.**

**Chi has been used by martial artists, tai chi practitioners, and quigong practitioners, to heal, move objects/people without touching them, strike hard body blows with a light touch, remain stationary when groups of strong burly men try to move them, snuff out candles from across the hallway, and other feats.**

**WINSTON - GO TO YOU TUBE!**

**I KNOW YOU WON’T BELIEVE IT BECAUSE IT CONFLICTS WITH WHAT YOU DESPERATELY NEED TO BE TRUE. BUT I JUST WANT THE PEOPLE AROUND YOU TO SEE THE LOOK ON YOUR FACE WHEN YOUR CHI MASTERS GET THEIR ASSES KICKED.**

**While everyone supposedly has chi, learning to control it takes years, though some seem to be able to summon it naturally. All a skeptic has to do to learn about chi is to visit a martial arts dojo where chi is taught and used.**

**WINSTON: CHI VERSUS LEFT HOOK. CHI WILL BE ON THE FLOOR EVERY TIME.**

**If they ask, a demonstration of chi can be made either on them or one of the students. I have done this myself and seen demonstrations such as masters sparring striking blows onto students (apparent by the painful grimace on the students’ faces) without barely even touching them, if at all.**

**WINSTON - YOU ARE A SALESMAN’S DREAM COME TRUE.**

**I have also seen chi practitioners in Taiwan bend long metal steel poles with just their necks, and I inspected the poles afterward and they were made of steel alright. (I was told this was a common chi feat in Asia.)**

**WINSTON, EVEN SUPERMAN CAN DO THAT AND HE’S NOT EVEN REAL.**

**One time in a dojo, I held chopsticks in my own hands while a student used the paper the chopsticks were taken out of, to break them. (I still have the broken chopsticks today.) It would really be poetic justice I think, for a skeptic to feel the effects of chi firsthand.**

**WINSTON, THAT WAS REALLY NASTY - EVEN FOR YOU. MAYBE ALL THIS KARATE TALK HAS RAISED YOUR TESTOSTERONE LEVEL. BUT BEFORE YOU GET TOO BRAVE, REMEMBER 1) YOU ARE NOT IN ONE OF YOUR VIDEOGAMES NOW, AND 2) A GOOD LEFT HOOK WILL BEAT CHI EVERY SINGLE TIME.**

**Finally, I would like to share some good advice on how to approach alternative medicine and supplements that I’ve gotten from a doctor who lives in our neighborhood, Dr. Frank James (who volunteers his time to treat patients in India and Tibet as part of humanitarian projects). With alternative medicine we should keep one thing in mind. Although certain types of alternative medications, herbal supplements, nutritional supplements, etc. may not be proven by double-blind studies to work on the population at large, it doesn’t mean that it’s not effective for individual people.**

**BUT WINSTON, THAT’S NOT A GOOD REASON TO RISK TAKING SOMETHING THAT MIGHT HAVE OTHER EFFECTS THAT AREN’T SO GOOD. THAT IS WHY WE HAVE AN FDA. EVEN WITH AN FDA, DRUGS AND MEDICINES SLIP THROUGH THAT CAUSE HARM THAT IS NOT DISCOVERED UNTIL MANY YEARS LATER.**

**For example, some supplements, such as herbs, grapeseed extract, or anti-oxidants, may have phenomenal health benefits for some people, yet only proven to be as effective as placebos in most scientific studies.**

**WINSTON, HOW DO YOU KNOW THEY HAVE PHENOMENAL HEALTH BENEFITS FOR SOME PEOPLE? THE REASON THAT THESE THINGS FAIL IN STUDIES WITH THE GENERAL POPULATION IS THAT THEY DON’T WORK AND MAY EVEN HAVE HARMFUL EFFECTS. HOW WOULD YOU KNOW WHICH PEOPLE MIGHT GET THESE PHENOMINAL EFFECTS?**

**What works well for some people may not in studies that measure effects on the population at large.**

**WINSTON. THIS IS THE SAME POSITION YOU TAKE ON EVERYTHING (AT LEAST YOU ARE CONSISTENT IN YOUR IRRATIONALITY). ALL YOUR BELIEFS FAIL IN SCIENTIFIC TESTS, SO YOU EITHER REJECT THE TESTS OR MAKE EXCEPTIONS TO ALLOW YOUR BELIEF TO SURVIVE. YOU ARE TRULY THE POSTER CHILD OF IRRATIONAL THINKING).**

**Therefore, each person has to try out different medications and supplements (as long as they’re safe of course) to see what works for them.**

**WINSTON. HOW WOULD YOU KNOW IF IT WERE SAFE UNTIL IT WAS TOO LATE? AND WHO HAS THE TIME TO TRY OUT EVERY MEDICINE AND SUPPLEMENT ON THE SHELF ? THAT WOULD TAKE A LIFETIME AND BY THE TIME YOU FOUND OUT, IT WOULD BE TIME TO DIE. THAT’S WHY SCIENCE CONDUCTS THESE MASSIVE TESTS THAT YOU DISMISS.**

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**THE SCIENCE SEGMENT**

**MORE PHYSICS FACTS**

**Elements heaviest: seborgium.**

 **densest: osmium.**

**Forces RELATIVE STRENGTH**

 **1) strong atomic: holds quarks together. 1,000**

 **2) electromagnetic: gives charges to quarks and electrons 1**

 **3) weak atomic: decay of heavier particles into electrons. .1-11**

 **4) gravity: pull or attraction. .1-39**

**Grand Unification Theory:**

**all pushing & pulling is done by gravity & electromagnetism,**

 **and on the sub-atomic level, the weak & strong forces.**

**All forces worked together during the Big-Bang creating an imbalance of matter over anti-matter. Matter and anti-matter have been destroying each other since the Big-Bang. Due to the miniscule excess of matter over anti-matter, that is what now exists in the Universe.**

**Fusion The source of fuel for fusion is hydrogen.**

 **Energy is released when deuterium nucleus touches tritium nucleus.**

**Since both have electrons, which repel each other, a temperature of 100C million degrees is required to overcome natural repulsion and force a nuclei fusion. Then the plasma is held in a magnetic field container. Fusion fuels are deuterium and tritium (they are the heavy isotopes of hydrogen).**

**Heat required for fusion (Lawson #) = density of particles x period of confinement.**

**At 100C million degrees the break-even point is 6013 (seconds x density).**

 **At Lawson # 6014 plasma ignites and requires no outside heating**

**but remains hot from it's own reactions (like the sun fusing hydrogen).**

**Gravity speed of: most physicists believe that gravity moves at the speed of light in the form of gravitons.**

**According to Einstein, gravity exists because massive objects curve the space around them.**

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**THE ARENA GOES ABROAD**

**THAILAND**

**Fortunetelling, always a big part of Thai culture, is bigger business than ever now, the Wall Street Journal reports. As political unrest buffets the country, an automated telephone astrology service run by a seer known as Mr. Luck is flourishing. "Every time there's a crisis in Thailand, it's a glorious time for astrologers," Mr. Luck says. But some say he's corrupting an ancient tradition.**

**In Thailand, it's common to consult an astrologer—top politicians and military leaders do it. And Mr. Luck makes it easy. Callers enter their birth dates, pick a topic, and get a prediction. But old-school astrologers are critical. "Before, it took years to build up a reputation as an astrologer," gripes one of Mr. Luck's rivals, who wants to regulate the industry.**

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**FAMOUS QUOTES**

**David Suzuki (born March 24, 1936) 72 Years old**

**He is a Canadian science broadcaster and environmental activist. Since the mid-1970s, Suzuki has been known for his TV and radio series and books about nature and the environment. He is best known as host of the popular and long-running CBC Television science magazine, The Nature of Things, seen in syndication in over 40 nations. He is also well known for criticizing governments for their lack of action to protect the environment.**

**A long time activist to reverse global climate change, Suzuki co-founded the David Suzuki Foundation in 1990, to work "to find ways for society to live in balance with the natural world that sustains us." The Foundation's priorities are: oceans and sustainable fishing, climate change and clean energy, sustainability, and David Suzuki's Nature Challenge. He also served as a director of the Canadian Civil Liberties Association from 1982-1987.**

**SUZUKI’S QUOTE:**

**"Education has failed in a very serious way**

**to convey the most important lesson science can teach:**

**skepticism"**