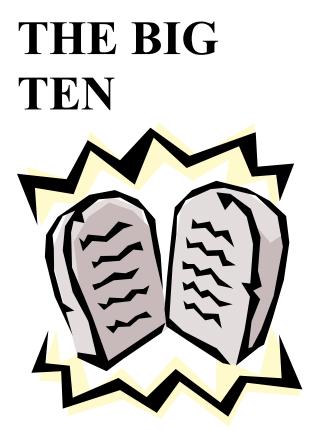


## THE NEWSLETTER FOR FREETHINKING OKLAHOMANS

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Thanks to the political grandstanding of Alabama Chief Justice Roy Moore, we have of late heard a great deal of talk about Ten Commandments. Aside from the legal debate over whether it is constitutional for the government to promote displays of religious writings and/or iconography, it is surely worth asking whether there is any truth to Moore's fundamental claim that the Ten Commandments constitute "the moral foundation of law" in our society. Let us consider each of them in turn:

1. "Thou shalt have no other gods before me." This would, of course, preclude the worship of any deities other than the god of the Hebrews, such as those worshipped by Hindus, Pagans, Zoroastrians, and those few Native Americans who never converted to the religion foisted upon them by the conquistadors and subsequent European colonists. This commandment bans every religion but for the handful which sprang forth from ancient Judaism. Such religious prohibition is unheard of in our society, as it would be a clear violation of the free exercise clause of the first amendment.

2. The second commandment prohibits the creation of "any graven image, or any likeness of any thing that is in heaven above, or that is in the earth beneath, or that is in the water under the earth." Whether this commandment is narrowly or broadly construed, it is surely the case that such images are generally considered to be protected under the free speech clause of the first amendment.

3. "Thou shalt not take the name of the LORD thy God in vain." Another biblical law specifically intended to curb freedom of expression, and which would likely be considered unconstitutional even under the most literal interpretation of the first amendment's clause regarding free speech.

4. "Remember the Sabbath day, to keep it holy." Even a brief overseas trip to the state of Israel should clear up any misconceptions we might have about America enshrining the concept of an entirely work-free Saturday. We do have two-day weekends, however, thanks to the ongoing confusion over whether the Sabbath should be celebrated on Saturday or Sunday. We can give Moore half-credit on this one.

5. "Honour thy father and thy mother..." Generally, a good idea, but not one which has manifested itself overmuch in our statute law or jurisprudence. In ancient Hebrew society, a defiant son would be stoned to death (Deut. 21:18-21) whereas in ours he may file for legal separation from his parents.

6. "Thou shalt not kill." Every human society has proscriptions against murder, because no society could last very long without them.

7. "Thou shalt not commit adultery." As C.S. Lewis noted in *Mere Christianity*, every society has institutionalized marriage and marital fidelity in some form or another.

8. "Thou shalt not steal." Yet another universal moral principle, without which no society could hope to function.

9. "Thou shalt not bear false witness against thy neighbour." See above.

10. "Thou shalt not covet thy neighbour's house, thou shalt not covet thy neighbour's wife, nor his manservant, nor his maidservant, nor his ox, nor his ass, nor any thing that is thy neighbour's." If we Americans truly believed this, MasterCard would be out of business along with all the mortgage companies and banks. All such companies are driven by human covetousness and the practice of usury.

[Continued on back page]

# The Ghost in Your Clock Radio

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Because neurophysiologic processes mediate our conscious experiences, for over 150 years scientists have tried to identify the brain properties responsible for spiritual or mystical experiences. Today scientific inquiry is uncovering the biological underpinnings of religious experiences, revealing much about the origins of religion. Michael Persinger, a professor of neuroscience at Laurentian University in Sudbury, Ontario says he has identified the processes responsible for religious experiences in the electrochemistry of the brain.

Brain modules must translate neural events in other modules. When communication among the modules is thwarted, the brain goes haywire. Witness the posterior superior parietal lobe, which orients humans to time and space and enables us to distinguish between the self and the nonself. Using a brain-scanning technique called SPECT (Single Photon Emission Computed Tomography), two researchers, Andrew Newberg and Eugene D'Aquili, found that the electrochemical activity in that lobe is attenuated when deprived of stimuli, as happens during prayer or meditation. The lines between self and nonself are blurred, and the sense of self expands into whatever the brain senses, yielding those transcendent senses of timelessness and oneness with the universe meditators dreamily describe.

For nearly three decades, Persinger has taken research into the link between mental states and mystical experiences to a new level. Persinger has artificially induced mystical experiences in 80% of the thousand or so subjects he has studied, demonstrating that mystical experiences are not supernatural phenomena but natural creations of the brain. Persinger places a *Transcranial Magnetic Stimulator*—in the form of helmet retrofitted with electrodes—on the heads of seated subjects, their eyes covered, in a quiet and dark room designed to minimize neuronal stimulation. Into the subject's brain, Persinger directs faint pulses of a mild magnetic field, which in turn triggers electrochemical activity in neurons, or "microseizures" in the subjects' temporal lobes that result in instable neuronal firing patterns therein. These microseizures yield a variety of experiences: a sensed presence, an out-of-body experience, religious visions, distorted body parts, visitations. Rather than assigning some ethereal value to these experiences, Persinger dubs them "temporal lobe transients."

At the heart of the most intense religious or mystical experiences is the sense of self. Several theories posit that our sense of self is an artifact of our language capability—a capability derived from neuronal systems in the (linguistic) left hemisphere temporal cortex whose pathways generate the "forty-hertz component" of the brainwayes (as shown in electroencephalogram readouts) that is always present whenever we have a sense of self, i.e., when we are awake or are in REM sleep but inactive during non-REM (dreamless) sleep. Whereas a dominant sense of self is found in the left hemisphere a subordinate and supportive homologue is in the right hemisphere, a homologue with which it maintains communication. When Persinger disrupts the left temporal lobe, suppressing the forty-hertz component, the right "self" desynchronizes with the left "self," and the former is misinterpreted as a separate and conscious presence. That "presence," Persinger theorizes, is a fleeting homologue traveling along the conduit interconnecting the left and right hemispheres-the corpus callosum. Among Persinger's subjects, the rational tend to interpret these as endogenous to the brain-hallucinations, lucid dreams, etc.-whereas the fantasy prone interpret that presence as exogenousangels, demons, aliens, ghosts, out-of-body experiences, god, etc., with emotionally

intense experiences, replete with smells, tastes and tingling sensations, resulting from involvement by the amygdala, which governs emotions, and the hippocampus, which coalesces new memories. One subject even tore off the helmet and sprinted out of the room, screaming; other subjects have wept. "That's in the laboratory," Persinger has observed. "They know they are in the laboratory. Can you imagine what would happen if that happened late at night in a pew or mosque or synagogue?" Indeed some subjects say that their experiences were profoundly intense enough to have changed their lives had they not understood the mechanisms responsible for their experiences.

"People with sensitive lobes have experiences resembling those of epileptics," says Persinger. "Also, they're creative and sensitive to the electromagnetic environment." Epileptic foci in the temporal lobe is known to cause hallucinations with supernatural overtones during seizures—it's not uncommon for people suffering from this brain dysfunction to report visitations by Mary or Jesus, or report being impregnated by the Holy Spirit. Surgical destruction of the epileptic foci cures sufferers not only of their seizures but also of their religious hallucinations.

Geomagnetic phenomena that can generate the weak magnetic field that causes transient events include pressure exerted on crystals where tectonic plates come into contact with one another, solar flares, meteor showers, and earthquakes. Theorizing a link between earthquakes and UFO sightings, Persinger has found that reports of luminous in the sky rise concomitantly with a rise in seismic activity.

Sleep deprivation, high altitudes, fasting, oxygen deprivation, dramatic changes in blood sugar levels, etc. can also induce temporal lobe transients. "The deep structures of the temporal lobe are electrically unstable and sensitive to all sorts of things," Persinger notes. In many spiritual traditions, fasting, high mountaintops, and intense rituals are employed to induce mystical experiences.

Does neurotheology deliver a Copernican blow to religion's eroded status? Whereas Persinger concludes that religious experiences are artifacts of a Paleolithic brain designed to delude us into believing we are under the gaze of powerful spirits, some theists have rationalized, perversely, Persinger's work as the discovery of a channel to the spiritual realm. Since most theists don't base their religious beliefs on mystical experiences, Persinger's work may only gainsay the beliefs of the more fanatical of the faithful whereas the less fanatical may have to explain their being gulled by delusional epileptics. Temporal lobe epilepsy may account for the bombast of religious fanatics who assert tangible contact with skygods or angels—neuroscientists speculate that Paul, Joseph Smith, Martin Luther, and any number of ancient religious personalities were epileptics. Ellen White, the principal founder of the Seventh-Day Adventist movement, claimed she was divinely inspired by religious visions; she suffered from temporal lobe epilepsy, the result of being struck with a rock as a child.

A Canadian couple sought Persinger's counsel after their daughter claimed to be visited by a poltergeist. The girl had a sensitive temporal lobe, Persinger found, having years earlier suffered a brain injury, making her highly susceptible to temporal lobe transients, transients she interpreted as frightening paranormal events. Using a copper spool and a milk crate, Persinger tried to detect a source of either a weak electromagnetic field or a man-made electrical field, perhaps an underground fault line, or a pylon above. He found that source, a source that was surrounding the girl's bed by a pulsed magnetic field—a clock radio inches from the girl's pillow.

Now go and relocate your clock radio away from your pillow, into a shrine.

#### **THE BIG TEN** (continued from front page)

Usury, that is, the practice of lending at interest, is explicitly forbidden throughout the Hebrew Scriptures (e.g. Exodus 22:25-27, Leviticus 25:35-37, Psalm 15:5, Ezekiel 18:13). Considering that our own economic engine is largely driven by the extension of credit to those who (indulging their covetousness) desire to buy now and pay later, it seems rather odd to claim that we have in any sense modeled our thriving and prosperous society on the Hebrew scriptures in this respect.

#### In summary, then, we have the following:

The first three commandments are flagrantly authoritarian and blatantly unconstitutional, flying directly in the face of the first amendment. Our lawmakers and justices have (thankfully) repudiated them in favor of liberty and justice for all.

The fourth commandment is the primary reason that we Americans get drunk on Friday and Saturday nights, rather than during some other part of the week. Truly, then, we may "Thank God It's Friday!"

The next five commandments are all perfectly good ideas, but no special credit should be given to the Hebrews or their god for coming up with them since they are (to a greater or lesser extent) to be found in every human society.

The final commandment, taken to heart, would utterly destroy the system of creditdriven capitalism which drove the U.S. to become the preeminent economic and technological force on the face of the planet. Happily, our covetousness continues unabated and our standard of living continues to rise.

Given these findings, should we pay any credence to Justice Moore's claims that our entire system of American law is somehow derived from the Ten Commandments engraved upon his darling monument?

That, dear reader, I leave to you.

## September 2003 Events

#### Sept 12<sup>th</sup> – God Debate – 2:00 pm

Dr. John Miller faces off with Dr. John George on the God question. In the Pegasus Theater of the Liberal Arts building at the University of Central Oklahoma.

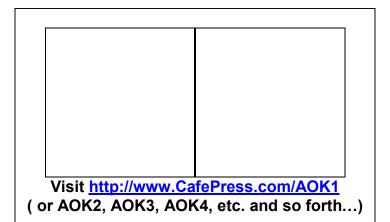
## Sept 16<sup>th</sup> – Atheists meetup – 7:00 pm

Please vote for your favorite location at http://atheists.meetup.com

## **Sept 26<sup>th</sup> – Labyrinth Deli – 7:06 pm** Food, fellowship, fun! 3214 N. Classen Blvd.

## Sept 27<sup>th</sup> – Agnostics meetup – 1:00 pm

Please vote for your favorite location at http://agnostic.meetup.com



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