

Answering the New Atheists – A Christian Addresses Their Arguments

Kerby Anderson counters the claim by popular new atheists that Christianity (along with other religions) is blind, irrational and without any evidence. Kerby demonstrates that contrary to the atheists' claims God is not an invention of mankind, that faith is not dangerous, and that science and Christianity support one another. From a Christian point of view, the new atheists are bringing out tired old arguments that don't stand up to rational scrutiny.

Is Faith Irrational?

Many of the best selling books over the last few years have been written by the New Atheists. I'd like to consider some of the criticisms brought by these individuals and provide brief answers. You may never meet one of these authors, but you are quite likely to encounter these arguments as you talk with people who are skeptical about Christianity.

✖ For our discussion, we will be using the general outline of the book *Is God Just a Human Invention?* written by Sean McDowell and Jonathan Morrow.[\[1\]](#) I would encourage you to read the book for a fuller discussion not only of the topics considered here but of many others as well.

You cannot read a book by the New Atheists without encountering their claim that religion is blind, irrational, and without any evidence. Richard Dawkins makes his feelings known by the title of one of his books: *The God Delusion*.

Why does he say that? He says religions are not evidentially based: "In all areas except religion, we believe what we

believe as a result of evidence.”{2} In other words, religious faith is a blind faith not based upon evidence like other academic disciplines. So he concludes that religion is a “nonsensical enterprise” that “poisons everything.”{3}

Each of the New Atheists makes a similar statement. Dawkins states that faith is a delusion, a “persistent false belief held in the face of strong contradictory evidence.”{4} Daniel Dennett claims Christians are addicted to blind faith.{5} And Sam Harris argues that “Faith is generally nothing more than the permission religious people give one another to believe things without evidence.”{6}

Is this true? Do religious people have a blind faith? Certainly some religious people exercise blind faith. But is this true of all religions, including Christianity? Of course not. The enormous number of Christian books on topics ranging from apologetics to theology demonstrate that the Christian faith is based upon evidence.

But we might turn the question around on the New Atheists. You say that religious faith is not based upon evidence. What is your evidence for that broad, sweeping statement? Where is the evidence for your belief that faith is blind?

Orthodox Christianity has always emphasized that faith and reason go together. Biblical faith is based upon historical evidence. It is not belief in spite of the evidence, but it is belief because of the evidence.

The Bible, for example, says that Jesus appeared to the disciples and provided “many convincing proofs, appearing to them over a period of forty days and speaking of the things concerning the kingdom of God” (Acts 1:3).

Peter appealed to evidence and to eyewitnesses when he preached about Jesus as “a man attested to you by God with mighty works and wonders and signs that God did through him in your midst, as you yourselves know” (Acts 2:22).

The Christian faith is not a blind faith. It is a faith based upon evidence. In fact, some authors contend that it takes more faith to be an atheist than to believe in God.[\[7\]](#)

Is God a Human Invention?

Human beings are religious. We are not only talking about people in the past who believe in God. Billions of people today believe in God. Why? The New Atheists have a few explanations for why people believe in God even though they say God does not exist.

One explanation that goes all the way back to Sigmund Freud is projection. He wrote that religious beliefs are “illusions, fulfillments of the oldest, strongest, and most urgent wishes of mankind.”[\[8\]](#) In other words, we project the existence of God based on a human need. It is wish fulfillment. We wish there would be a God, so we assume that he exists.

As Sean McDowell and Jonathan Morrow point out in their book, there are five good reasons to reject this idea. One objection is that Freud’s argument begs the question. In other words, it assumes that there is no God and then merely tries to find an explanation for why someone would believe in God anyway.

The projection theory can also cut both ways. If you argue that humans created God out of a need for security, then you could also just as easily argue that atheists believe there is no God because they want to be free and unencumbered by a Creator who might make moral demands on them.

Perhaps the reasons humans have a desire for the divine is because that is the only thing that will satisfy their spiritual hunger. C.S. Lewis argued that “Creatures are not born with desires unless satisfaction for those desires exists. A baby feels hunger: well, there is such a thing as food. A duckling wants to swim: well, there is such a thing as water. Men feel sexual desires: well, there is such a thing as

sex. If I find in myself a desire, which no experience in this world can satisfy, the most probable explanation is that I was made for another world. Probably earthly pleasures were never made to satisfy it, but only arouse it, to suggest the real thing.”[{9}](#)

Some atheists suggest that perhaps we are genetically wired to believe in God. One example would be the book by Dean Hamer entitled *The God Gene: How Faith is Hardwired into Our Genes*. It is worth noting that even the author thought the title was overstated and at least admitted that there “probably is no single gene.”[{10}](#) Since the publication of the book, its conclusions have been shown to be exaggerated. Francis Collins served as the director of the Human Genome Project and has plainly stated that there is no gene for spirituality.

Richard Dawkins believes that religious ideas might have survived natural selection as “units of cultural inheritance.”[{11}](#) He calls these genetic replicators *memes*. Although he has coined the term, he is also quick to acknowledge that we don’t know what memes are or where they might reside.

One critic said that “Memetics is no more than a cumbersome terminology for saying what everybody knows and that can be more usefully said in the dull terminology of information transfer.”[{12}](#) Alister McGrath perceives a flaw: “Since the meme is not warranted scientifically, we are to conclude that there is a meme for belief in memes? The meme concept then dies the slow death of self-referentiality, in that, if taken seriously, the idea explains itself as much as anything else.”[{13}](#)

There is another explanation that we can find in the Bible. Why do most people believe in a God? The writer of Ecclesiastes (3:11) observes that it is God who has “set eternity in the hearts of men.”

Is Religion Dangerous?

The New Atheists contend that religion is not just false; it's also dangerous. Sam Harris believes it should be treated like slavery and eradicated.[\[14\]](#) Christopher Hitchens wants to rally his fellow atheists against religion: "It has become necessary to know the enemy, and to prepare to fight it."[\[15\]](#) Richard Dawkins is even more specific: "I am attacking God, all gods, anything and everything supernatural, wherever and whenever they have been invented."[\[16\]](#)

Much of the criticism against religion revolves around violence. We do live in a violent world, and religion has often been the reason (or at least the justification) for violent acts. But the New Atheists are kidding themselves if they think that a world without religion would usher in a utopia where there is no longer violence, oppression, or injustice.

Sean McDowell and Jonathan Morrow point out in their book on the New Atheists that details matter when you are examining religion. Injustices by the Taliban in Afghanistan ought not to be used as part of the cumulative cases against religion in general or Christianity in particular. The fact that there are Muslim terrorists in the world today does not mean that all Muslims are dangerous. And it certainly doesn't mean that Christianity is dangerous.

Alister McGrath reminds us that "all ideals—divine, transcendent, human or invented—are capable of being abused. That's just the way human nature is. And that happens to religion as well. Belief in God can be abused, and we need to be very clear, in the first place, that abuse happens, and in the second, that we need to confront and oppose this. But abuse of an ideal does not negate its validity."[\[17\]](#)

Religion is not the problem. People are the problem because they are sinful and live in a fallen world. Keith Ward puts

this in perspective:

No one would deny that there have been religious wars in human history. Catholics have fought Protestants, Sunni Muslims have fought Shi'a Muslims, and Hindus have fought Muslims. However, no one who has studied history could deny that most wars in human history have not been religious. And in the case of those that have been religious, the religious component has usually been associated with some non-religious, social, ethnic, or political component that has exerted a powerful influence on the conflicts.[*{18}*](#)

The New Atheists, however, still want to contend that religion is dangerous while refusing to accept that atheism has been a major reason for death and destruction. If you were to merely look at body count, the three atheistic regimes of the twentieth century (Hitler in Nazi Germany, Stalin in Russia, and Mao in China) are responsible for more than 100 million deaths.

Dinesh D'Souza explains that "Religion-inspired killing simply cannot compete with the murders perpetrated by atheist regimes." Even when you take into account the differences in the world's population, he concludes that "death caused by Christian rulers over a five-hundred-year period amounts to only 1 percent of the deaths caused by Stalin, Hitler, and Mao in the space of a few decades."[*{19}*](#)

Religion is not the problem; people are the problem. And removing religion and God from a society doesn't make it less dangerous. The greatest death toll in history took place in the last century in atheistic societies.

Is the Universe Just Right for Life?

The New Atheists argue that even though the universe looks like it was designed, the laws of science can explain

everything in the universe without God. Richard Dawkins, for example, says that "A universe with a creative superintendent would be a very different kind of universe from one without."[{20}](#)

Scientists have been struck by how the laws that govern the universe are delicately balanced. One scientist used the analogy of a room full of dials (each representing a different physical constant). All of the dials are set perfectly. Move any dial to the left or to the right and you no longer have the universe. Some scientists have even called the universe a "Goldilocks universe" because all of the physical constants are "just right."

British astronomer Fred Hoyle remarked, "A commonsense interpretation of the facts suggests that a super intellect has monkeyed with physics, as well as chemistry and biology, and that there are no blind forces worth speaking about in nature."[{21}](#)

McDowell and Morrow provide a number of examples of the fine tuning of the universe. First is the expansion rate of the universe. "If the balance between gravity and the expansion rate were altered by one part in one million, billion, billion, billion, billion, billion, there would be no galaxies, stars, planets, or life."[{22}](#) Second is the fine tuning of ratio of the electromagnetic force to the gravitational force. That must be balanced to one part in 10 to the 40th power. That is 1 with 40 zeroes following it.

Scientists also realize that planet Earth has extremely rare conditions that allow it to support life at a time when most of the universe is uninhabitable. Consider just these six conditions: (1) Life must be in the right type of galaxy, (2) life must be in the right location in the galaxy, (3) life must have the right type of star, (4) life must have the right relationship to the host star, (5) life needs surrounding planets for protection, and (6) life requires the right type

of moon.[{23}](#)

Scientists (including the New Atheists) are aware of the many fine tuned aspects of the universe. They respond by pointing out that since we could only exist in a fine-tuned universe, we shouldn't be surprised that it is fine tuned. But merely claiming that we could not observe ourselves except in such a universe doesn't really answer the question why we are in one in the first place.

Richard Dawkins admits that there is presently no naturalistic explanation for the fine-tuning of the universe.[{24}](#) But he is quick to add that doesn't argue for the existence of God. And that is certainly true. We know about God and His character from revelation, not from scientific observation and experimentation. But we do see the evidence that the design of the universe implies a Designer.

Are Science and Christianity in Conflict?

The New Atheists believe that science and Christianity are in conflict with one another. They trust science and the scientific method, and therefore reject religion in general and Christianity in particular.

Sam Harris says, "The conflict between religion and science is unavoidable. The success of science often comes at the expense of religious dogma; the maintenance of religious dogma always comes at the expense of science."[{25}](#)

Richard Dawkins believes religion is anti-intellectual. He says: "I am hostile to fundamentalist religion because it actively debauches the scientific enterprise It subverts science and saps the intellect."[{26}](#)

Are science and Christianity at odds with one another? Certainly there have been times in the past when that has been the case. But to only focus on those conflicts is to miss the

larger point that modern science grew out of a Christian world view. In a [previous radio program](#) based upon the book *Origin Science* by Dr. Norman Geisler and me, I explain Christianity's contribution to the rise of modern science.{27}

Sean McDowell and Jonathan Morrow also point out in their book that most scientific pioneers were theists. This includes such notable as Nicolas Copernicus, Robert Boyle, Isaac Newton, Blaise Pascal, Johannes Kepler, Louis Pasteur, Francis Bacon, and Max Planck. Many of these men actually pursued science because of their belief in the Christian God.

Alister McGrath challenges this idea that science and religion are in conflict with one another. He says, "Once upon a time, back in the second half of the nineteenth century, it was certainly possible to believe that science and religion were permanently at war. . . . This is now seen as a hopelessly outmoded historical stereotype that scholarship has totally discredited." {28}

The New Atheists believe they have an answer to this argument. Christopher Hitchens discounts the religious convictions of their scientific pioneers. He argues that belief in God was the only option for a scientist at the time.{29} But if religious believers get no credit for the positive contributions to science (e.g., developing modern science) because "everyone was religious," then why should their negative actions (e.g., atrocities done in the name of religion) discredit them? It is a double standard. The argument actually ignores how a biblical worldview shaped the scientific enterprise.{30}

The arguments of the New Atheists may sound convincing, but once you strip away the hyperbole and false charges, there isn't much left.

If you would like to know how to answer the arguments of the New Atheists, I suggest you visit the Probe Web page at

www.probe.org and also consider getting a copy of the book by Sean McDowell and Jonathan Morrow. You will be able to answer the objections of atheists and be better equipped to defend your faith.

Notes

Is God Just a Human Invention? (Grand Rapids, MI: Kregel Publications, 2010).

2. Richard Dawkins, "The Faith Trap," 20 March 2010, bit.ly/fFvLLJ.

3. Ibid.

4. Richard Dawkins, *The God Delusion* (New York: Houghton Mifflin, 2008), 28.

5. Daniel Dennett, *Breaking the Spell: Religion as a Natural Phenomenon* (New York: Penguin, 2006), 230-231.

6. Sam Harris, *Letter to a Christian Nation* (New York: Vintage Books, 2008), 110.

7. Norman Geisler and Frank Turek, *I Don't Have Enough Faith to Be an Atheist* (Wheaton, IL: Crossway, 2004).

8. Sigmund Freud, *The Future of Illusion* (New York: Norton, 1989), 38.

9. C.S. Lewis, *Mere Christianity* (New York: Simon and Schuster, 1996), 119-122).

10. Quote of Dean Hamer in Barbara Bradley Hagerty, *The Language of God: A Scientist Presents Evidence for Belief* (New York: Free Press, 2006), 263.

11. Dawkins, *The God Delusion*, 316.

12. Victor Stenger, *God: The Failed Hypothesis* (Amherst, NY: Prometheus, 2007), 257.

13. David Berlinski, *The Devil's Delusion: Atheism and Its Scientific Pretension* (New York: Basic Books, 2009), 26-27.

14. Harris, *Letter to a Christian Nation*, 87.

15. Christopher Hitchens, *God Is Not Great: How Religion Poisons Everything* (New York: Twelve, 2007), 283.

16. Dawkins, *The God Delusion*, 36.

17. Alister McGrath, "Challenges from Atheism," in *Beyond*

- Opinion*, ed. Ravi Zacharias (Nashville: Thomas Nelson, 2007), 31.
18. Keith Ward, *Is Religion Dangerous?* (Grand Rapids: Eerdmans, 2007), 73.
19. Dinesh D'Souza, *What's So Great About Christianity* (Washington, D.C.: Regnery, 2007), 215.
20. Dawkins, *The God Delusion*, 78.
21. Quoted in Paul Davies, *The Accidental Universe* (Cambridge: Cambridge University Press, 1982), 118.
22. Mark Whorton and Hill Roberts, *Holman QuickSource Guide to Understanding Creation* ((Nashville, TN: B&H Publishing, 2008), 308.
23. Sean McDowell, "Is There Any Evidence for God? Physics and Astronomy," *The Apologetics Study Bible for Students*, gen. ed. Sean McDowell (Nashville: B&H Publishing, 2010).
24. Dawkins, *The God Delusion*, 188.
25. Harris, *Letter to a Christian Nation*, 63.
26. Dawkins, *The God Delusion*, 321.
27. "Origin Science," www.probe.org/origin-science/.
28. Alister McGrath and Joanna Collicutt McGrath, *The Dawkins Delusion* (Downers Grove, IL: InterVarsity, 2007), 46.
29. "The Jewish God, the Christian God, or No God?" Debate between Christopher Hitchens, Dennis Prager, and Dinesh D'Souza, 1 May 2008.
30. Nancy Pearcey and Charles Thaxton, *The Soul of Science* (Wheaton, IL: Crossway Books, 1994).

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The Spiritual Brain

Heather Zeiger keys off The Spiritual Brain by Beauregard and O'Leary to critique the materialist position that belief in

God is simply in the neurons of the material brain. The Christian worldview is non-materialist and recent experiments bear out its power of explanation over and against the materialist worldview.

The Worldview of Neuroscience

The popular worldview held in neuroscience, or the study of the brain, is materialism. Materialism says that humans are only physical beings, which means there is no possibility of an immaterial mind or a soul. On the other hand, non-materialists would say that humans have both a physical aspect and a spiritual aspect. As Christians, we are non-materialists, and would say that we are both physical and spiritual because God, a spiritual being, created us in His image. However, our physical bodies are important because God gave us bodies suited for us.

But what if materialism were true? First, self-consciousness would just be an evolutionary bi-product; something that randomly evolved to help our species survive. Secondly, we would just be a product of our genes and our environment, so free will or the ability to make decisions would be an illusion. This implies that our thought life, our prayers, and everything that dictates our identity is nothing more than neurons firing.[\[1\]](#) And from this we can conclude that our beliefs are unimportant because we really can not trust them anyway. They might be caused by a misfiring neuron. But is this what the data shows us?

In this article we will be looking at some examples in neuroscience that seem to contradict materialism, and to guide us we will be using the recently released book, *The Spiritual Brain* by Mario Beauregard and Denyse O'Leary. We will look at some experiments materialists have tried to do to explain religious experiences and their effects on the body. Then we will look at some experiments that can only be explained from a non-materialistic worldview. Finally, we will see how the

data from neuroscience fits within a Christian view of the mind and brain.

The Spiritual Brain does not take a distinctly Christian perspective. So while the studies within this book do not necessarily confirm or deny that Christianity is the “best” religion, it is still useful for apologetics. First, it allows us to break through the language barrier between a materialist and a Christian by looking at data in general neuroscience terms. Second, science studies the world around us, which is God’s general revelation, and while this gives us truths about the character of God and His creation, our interpretation of the data must be filtered through the lens of the special revelation of God’s Word.

Is God All in Our Heads?

Is there a part of our brain that creates God? Are some people genetically predisposed to being religious? A materialist would say “yes” to these questions. However, as the book *The Spiritual Brain* shows us materialists have not been successful in proving this.

Dean Hamer, geneticist and author of the book *The God Gene*, proposed that some people are more religious than others because they have one DNA letter that is different from non-religious people.[\[2\]](#) While this story was touted as a breakthrough in the media, the scientific community was not amused. Hamer’s experiments were not well-defined, and no one could replicate them.[\[3\]](#)

Another popular theory is that people that have a religious experience may be suffering from mild forms of temporal lobe epilepsy. Basically, a misfiring in the brain causes people to be obsessive about something, like religion. These scientists speculate that people like Mother Teresa, Joan of Arc, and the apostle Paul are likely candidates for temporal lobe epilepsy.[\[4\]](#) Epilepsy specialists, however, do not believe

that religious experiences are characteristic of temporal lobe epilepsy, and usually seizures are not associated with peace, tranquility, or religious visions. Also, temporal lobe epilepsy is quite rare, yet over sixty percent of Americans have reported having some kind of religious or mystical experience. And as we will see, many parts of the brain are involved in religious experiences, while temporal lobe epilepsy is much more centralized.[{5}](#)

Perhaps one of the strangest experiments to hit the popular media was that of the God Helmet. Neuroscientist Michael Persinger claimed that religious people were more sensitive to magnetic fields, and that electromagnetic radiation was what prompted religious experiences. He developed a helmet that produced strong electromagnetic waves. Several people who tried on the God Helmet reported having a religious or mystical experience of some sort. However, there were some fundamental flaws in the whole setup, including the fact that Persinger never published his results and did not have brain scans to back up his statements. Eventually, a group of scientists from Sweden, using a double-blind test, proved that the God Helmet was really the power of suggestion. The electromagnetic waves didn't cause the religious experiences.[{6}](#)

Experiments That Don't Mind

All of these failed experiments presumed that there is no God and there is no spiritual component to people. We have shown, however, how the evidence from neuroscience doesn't seem to fit the materialistic worldview. As we will see, some experiments reported in *The Spiritual Brain* cannot be explained from this worldview. What we will find is that they fit nicely within a Christian worldview.

The first example is obsessive compulsive disorder therapy. Obsessive compulsive disorder, or OCD, occurs when a person has distressing or unwanted thoughts that dominate their

thinking, and these obsessions trigger an urge to do some kind of ritual behavior, also known as a compulsion. The interesting thing about OCD is that the person knows that the obsession is irrational and the ritual won't really fix it, but their feelings tell them otherwise. Scientific studies have shown that the brain is actually misfiring. The part of the brain that tells a person, "There's a problem, do something to fix it," is firing at the wrong times. OCD is a clear case of a healthy mind and a malfunctioning brain.

A materialistic worldview would say that the only way to treat OCD is by *physically* fixing the bad neurons. However, the treatment that actually works involves the patients *mentally* fixing the bad neurons. Patients learn to take control of their OCD by recognizing when their brain is misfiring, and try to starve the urges to do the ritual. After treatment, brain scans show that the brain of an OCD patient is starting to fix itself. The patient is changing his physical brain with his mind!{7}

Similar kinds of therapies have been applied to depression and phobias.{8} In both cases, *The Spiritual Brain* reports instances where a patient's brain chemistry was directly affected by their mind.

Another phenomenon that can't be explained from a materialist's worldview is the placebo effect. The patient is given a medicine that they are told will help them, but in actuality they are given a sugar pill. Interestingly, the patient's belief that the sugar pill will help them has caused measurable, observable relief from symptoms. Many doctors say that a patient's attitude oftentimes can help or hinder real medicines or therapies from working.{9}

The ability of the mind to change the brain's chemistry does not fit within a materialistic worldview. But as Christians we know that our minds are very real and can have a very real effect on our physical bodies.

Can We Take a Brain Scan of God?

As noted previously, the popular worldview among neuroscientists is materialism, which essentially means they do not account for or acknowledge spiritual effects on the brain nor do they believe that there is a spiritual component to the person. This would mean that even religious experiences are just our neurons firing. Materialists would claim that either the effects of religious experiences, including prayer, are neurons misfiring, or the person is faking it.

On the other hand, Christians believe that there is a spiritual realm, and there is a spiritual component to human beings that we call the mind or the soul. We believe that when we pray that we are actually praying to God who is real and separate from us, not just a figment of our imagination.

Mario Beauregard, one of the authors of *The Spiritual Brain*, took brain scans of Carmelite nuns while they were remembering the deepest and most poignant religious experience they had had.^{10} Using functional MRI and QEEG he hoped to see what parts of the nuns' brains were active.^{11}

Dr. Beauregard and his lab found that religious experiences involved many brain regions at once, which rules out materialists' suggestion that there is some kind of "God spot" in the brain.^{12} They also found that brain scans during these religious experiences were very complex and consistent with something other than merely an emotional state. Lastly, they determined that the data did not have any of the markers one would expect to see if the nuns were faking it or lying.

This is all that the data can tell us. Physical machines cannot prove the existence of a spiritual God. But as the authors of *The Spiritual Brain* point out, what these experiments do show is that certain explanations, namely materialistic ones, are inadequate for explaining the data in neuroscience. The nuns are experiencing something beyond what

materialism can account for.

Prayer is complex and more than just emotional contrivances, so from a Christian worldview, the results are not surprising.

The Christian View of the Mind and Brain

Experiments such as the God Helmet and theories about temporal lobe epilepsy did not work because their premise was that God was something we made up ourselves. However, as Christians we know this is false. The Bible says that God is the creator and is distinct from His creation, not made from it.

The results of experiments with OCD, phobias, depression, and the placebo effect do not make sense to materialists because the mind seems to affect the physical brain. However, we know from Scripture that the mind, or the soul, is an essential part of our being. James 2:26 and Luke 8:55 show us that when the soul leaves, the body is dead, and when the soul returns, the body is alive. Also, passages such as Matthew 26:41 and Romans 8:10 and 11 tell us that our spirit can affect what our bodies do and keep us from sinning. Passages about the resurrection such as in 1 Corinthians 15 discuss the distinction between our spirit and our physical body.

Lastly, the experiment with the Carmelite nuns showed that during a deeply prayerful experience, their brains display signs of a very complex interaction that is going on. As Christians, we believe prayer is a way to interact with the Creator Who is separate and distinct from us. While this experiment does not prove God's existence, it is reasonable to conclude that it is the level of complexity we would expect to see if someone were interacting with something distinct from themselves.

At one time people feared that neuroscience would be the death of God. The fear was that science might prove that everything that we do, including prayer and worship could be reduced to

neurons firing in our brains. Hopefully, you are convinced that neuroscience actually points us towards God. There is evidence for a spiritual component of the human self. And, the evidence is consistent with what we would expect from a Christian worldview.

Notes

1. Mario Beauregard and Denyse O'Leary, *The Spiritual Brain* (New York: Harper Collins, 2007) 3, 4.
2. Ibid., 48-50.
3. Ibid., 51, 52.
4. Ibid., 58, 64.
5. Ibid., 72, 71.
6. Ibid., 79-100.
7. Ibid., 126-130.
8. Ibid., 133-140.
9. Ibid., 141-142.
10. For a detailed account of the Carmelite nun experiment see Beauregard and O'Leary, *The Spiritual Brain*, 255-288.
11. Two things we must keep in mind. First, usually the brain will take the same pathways when it remembers an event as when the event actually happened. Second, this experiment can't tell us what the nuns were actually thinking, but it can tell us what kind of brain activity was occurring.
12. Beauregard and O'Leary, 42-44.
13. For more articles and information on the subjects covered in *The Spiritual Brain* see Denyse O'Leary's blog, Mindful Hack, at mindfulhack.blogspot.com.
14. See also Kerby Anderson's article "Mind, Soul and Neuroethics" at www.probe.org/mind-soul-and-neuroethics/.