

Neuroscience in the Service of Religion

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How are educated people supposed to decide on what, if any, religious beliefs they should hold? This is a special problem for scientists like me who find that the scriptures of most faith traditions have conspicuous errors about the nature of creation. Some other claims seem unreasonable or implausible. Given that most scripture has its roots in oral traditions in multiple languages dating back to the dawn of civilization and well before the advent of science, scripture alone does not seem an adequate guide for righteous living. In forming religious worldview, we should not exclude reason and the lessons of life experience.

Case Study: Rationally Encountering Religion

For me, the quest in search of a transcendent belief began, like with most people I suppose, as a child when I heard other kids and adults talk about God, their places of worship, and such. I went to children's Sunday-school classes in a local Methodist church, where I was exposed to the Bible and ideas about God and Jesus. I have little recollection of how I felt about the teachings then. Surely, like most children, I was entranced by some of the stories and comforted by the idea that life could have meaning and purpose. However, I have no idea how I grappled with issues of biblical literalism and inerrancy. No doubt, I had limited understanding of allegory and metaphor. It is not likely that I understood the parables in the way explained by Webster's on-line dictionary: In the parables that many of us encounter in childhood, "characters often personify abstract concepts or types, and the action of the narrative usually stands for something not explicitly stated." In several of the gnostic gospels, the recitation of some of Jesus' sayings makes it clear that the adult writers did not understand the parables either.

No doubt, however, I was moved by some of the stories about Jesus and his parable teaching style. If nothing else, the Bible was different from the teaching in public school, which never occurred in parable form.

I grew up in Florida, Alabama, and mostly Memphis, Tennessee. These are parts of the country where Baptist theology is widely embraced, but in my limited Methodist experience I was never pressured to think that I had to believe all of the Bible had to be taken literally. I did, and still do, have reservations about scripture being the "literal word of God."

As a young adult, I went off to college (three in fact), but never had much confrontation with religious issues during those years. I eventually became a scientist, specializing in neuroscience, which integrates diverse specialties such as neuroanatomy, neurophysiology, neuropharmacology, psychology, psychiatry, and neurology. I spent over 50 years on the faculty at Texas A&M University, which is located in the heart of Baptist bible-belt country. Though the university is definitely secular, many of the people I know believe strongly that the Bible is to be taken literally and regarded as inerrant.

Such a perspective is unacceptable to most scientists. Science is based on documentable and testable evidence. Religion is not. Of course, absence of evidence is not evidence of absence. There can be religious truths that we cannot verify with scientific. Indeed, there are scientific truths that scientists don't fully understand (quantum mechanics, relativity, dark matter, dark energy, expanding universe, multi-verses, and consciousness). Some of these likely have spiritual implications.

So, where do scientists start with the existential questions and answers? Where did I start? My first question was: Was there a creator of the physical world or did it create itself? There is no compelling evidence for either possibility. Because there are only these two options, the choice seems simple. Human experience, and science in particular, taught me that whatever has been created has had a cause. The idea that anything is the cause of itself is an anathema. A naturalistic explanation for creation of the universe, such as the Big Bang or any other event, cannot account for the laws of chemistry and physics that were pre-requisite to creation. Where did such laws come from?

Also, our human nature steers us in a direction of seeking to learn what is true, good, and beautiful. The idea that the world created itself seems sterile and inconsistent with values of "good" and "beautiful." On the other hand, our aesthetic needs are more likely to be satisfied if we believe that the universe had a benevolent creator.

Next, I have to decide the question of whether there is one God or many. I readily concluded that the plethora of ancient gods deserved to be called pagan. However, I can accept, but don't fully understand the Christian view of a coherent Trinity. Next I have to decide if God was some kind of magician waving a wand to create the world or a creator who devised an intelligent system of sustainable evolution that could produce creatures who could have meaningful relationship with the creator. The latter idea seems most plausible to a scientist weaned on Occam's razor and the appeal of parsimonious explanations. Next, I choose to believe that God loves and wants the best for his creatures. Is it not irrational to think God prefers to hate and damn human creatures who are beyond redemption?

Existential Angst, the Role of Religion and of Neuroscience

Why do humans have this innate preference for the aesthetics of good, beautiful, parsimony, and the like? Other animals do not seem so obsessed. This is hard to answer outside of spiritual perspectives, and it is clearly human nature to seek transcendental beliefs that typically lead to speculation about spiritual matters.

Cognitive neuroscientists have uncovered two mental capabilities that seem unique to humans: 1) scenario simulation in a mental theatre, and 2) deliberate practice. Humans imagine transcendent thought that generates various scenarios about God, creation, and God-human interactions. Associated with such scenarios is the desire to refine and perfect it, which humans have pursued for millennia in the deliberate practice of religion. The founder of Methodism, John Wesley (1703-1791), presciently created the notion of "prevenient grace," which he viewed as the desire of the creator God to pursue relationship with humans and directs people to the message and work of Christ.

The majority of people in the world embrace some form of religion. However, the number of atheists is substantial and probably growing. For atheists, life has no meaning other than whatever each person can fabricate.

The theme of a new book, *Neuroexistentialism* (Caruso and Flanagan, 2018), is that neuroscience has birthed a new branch of existential philosophy. Existential philosophy in general seems to hold that human life inevitably engenders angst over issues of morality, meaning and purpose of life, and personal fulfillment. The book editors proclaim as fact the claim of a founder of existential philosophy, Jean Paul Sartre, that existentialism is necessarily atheistic. This assertion speciously frames a definition as a fact, a classic rhetorical deceptive device by which alternatives are excluded by definition. *Neuroexistentialism* is basically an atheist manifesto gilded with the glitter of a neuroscience that presumably can rescue us from existential angst.

Compounding this fallacy is the appalling scientific hubris that only neuroscience, not religion, can reasonably allay the angst caused by a realization that human life has no meaning. Worse yet is the belief that humans are inevitable victims of their genes and experiences, without capacity to freely ameliorate their existential angst. Neuroscience is said to claim that humans have no free will to do anything, much less to generate creative ways to cope with existential angst. Actually, the neuroscience community is not unified over the view that free will is an illusion. I recently published a book that summarized the design and interpretive flaws in free-will research (Klemm, 2016).

Yet, traditional existentialists insist that we must make choices in how to be and how to live. Freely determined or not, these choices are the yardsticks by which we measure our sense of success, happiness, and fulfillment as conscious agents. Many existentialists, especially Sartre, argue that we have free will to make such choices. The idea that we are the source of such choices is terrorizing, because if we have such freedom, we must hold ourselves accountable for the choices and their consequences.

Meaning in one's life is constructed by one's choices. The range of choices seems infinite and overwhelming in a godless universe, whereas in a God-centered religion, the range of viable choices shrinks to manageable proportions. This constrains our freedom, but it is a constraint we can freely choose. I contend that being religious is therefore a rational choice. Religious belief and doctrine should make it easier to construct life's meaning. Existential angst in a religious framework is further reduced to the extent that neuroscience informs us of mentally healthy ways to construct meaning and purpose.

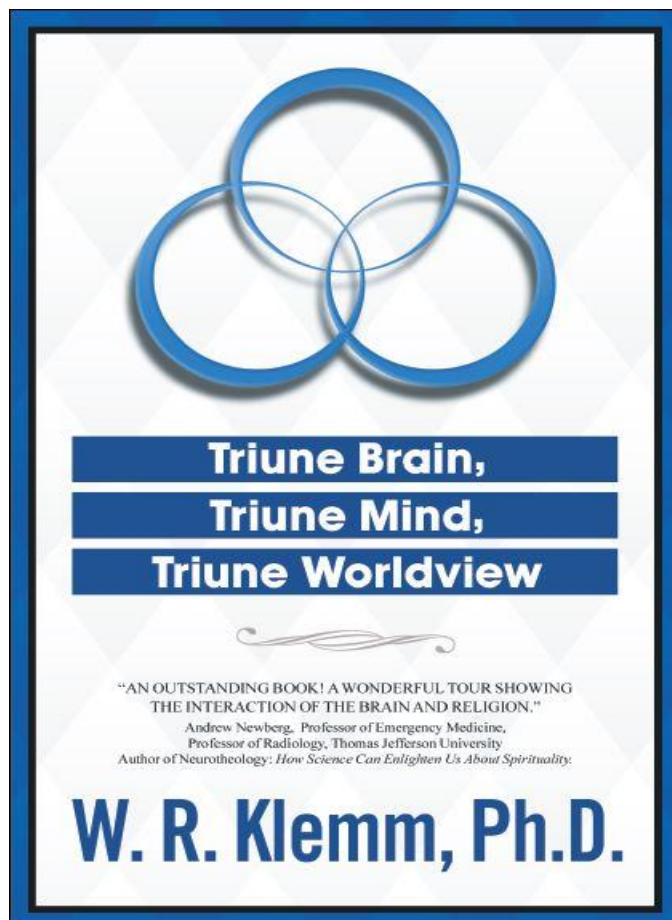
Neuroexistentialists present an atheistic argument that neuroscience provides the only rational explanation for all the mental aspects of our evolved animal nature. However, this is opinion, not evidence-based fact. In fact, as noted above, humans are more than just smart animals, and we don't really know why we imagine simulated scenarios that lead to creation of religions.

Deliberate practice does have an obvious natural-selection advantage of promoting the development of adaptive skill sets. But what is the evolutionary advantage of a mind that generates scenarios about God? In fact, because humans have widely conflicting religious scenarios, the species has endured innumerable wars and devastation over religious incompatibilities. That seems maladaptive.

Religion evolved in large part to address the existential angst over meaning and purpose of life. Now, however, neuroexistentialists hold that religious belief is unjustified, and thus we are left to rely on neuroscience to provide remedies for existential angst.

Neuroscience, in this view, becomes our God, substituting for the imagined God of religions that we should not have been believing in all along. I do not see neuroscience as a defense or mental salve for atheism. However, the fact that neuroexistentialists see neuroscience as valuable for their purposes adds support for my idea that perhaps neuroscience could be even more beneficial for enriching a religious view of life.

A Triune Worldview of Neuroscience, Mental Health, and Religion



I see neuroscience as an essential component of a triune worldview that includes mental health and religion. If neuroscience helps us to make adaptive choices on being and living, how much more so can it support those same objectives of religion? Paradoxically, neuroexistentialists reinforce my point that neuroscience can help humans develop a reasoned sense of morality, meaning of life, and personal fulfillment, especially when it joins forces with religion.

Rather than a substitute for religion, neuroscience could become its ally. Neuroscience can help us think through such matters as morality, love and other emotions, self-hood, autonomy, consciousness, free will, and the meaning and purpose of life. The existential power of neuroscience magnifies when integrated into mental health and religion. This view is explained in my new book, *Triune Brain, Triune Mind, Triune Worldview* (Klemm, 2019).

In this unique book, I as a neuroscientist lucidly explore trinities of perspectives, based on the intimate interfaces of:

- The *Triune Brain* (an oversimplified view of our evolved reptilian brain, primitive mammalian brain, and newly evolved primate brain),
- The *Triune Mind* (consisting of conscious, unconscious, nonconscious processes), and
- A *Triune Worldview*, (where neuroscience, mental health, and religion overlap and mutually inform each other).

My book is for all of us who are concerned, conflicted, confused, and anxious about our life's meaning and purpose. I see neuroscience as a way to enlighten and assist people in working out a more reasoned and mature religious faith that was inaccessible to the primitive societies in which religion emerged. My book examines how to address the issues of the alternatives in religious beliefs and doctrines. I intend this book to encourage and help us think and feel anew in a mentally healthy way in our pursuit of happiness, fulfillment, and spiritual wholeness. The eternal human quest for a happy and fulfilled life can now enter a new phase as we create new understandings from the interactions of mental health, neuroscience, and religion.



Figure 1. A triune worldview. Interrelationships among neuroscience, religion, and mental health. Together, they can eliminate existential angst and become the basis for a life of fulfillment and joy.

Regius Professor of Divinity Emeritus at Oxford, Keith Ward, says my book “Addresses the need for a revitalized approach to religious thought.” A founder of the discipline of the new discipline of neurotheology, Andrew Newberg, says the book “has a unique emphasis showing how neuroscience can enrich our understanding of the road map by which we travel on our existential journey of self-examination, personal growth, mental health, and, yes, even religious beliefs.” The current president of the Religious Education Association, Kathy Winings, says the book “Opens the conversation ... to recognize the dynamic interrelationship between our amazing brain, our beliefs and our mental health if we are to live a truly fulfilled and happy life.”

My book, based on over 400 peer-reviewed scholarly papers that have implication for reciprocal relationships between neuroscience and religion, shows new ways to re-examine ancient doctrines and help us think anew about the likely nature of God, our proper religious obligations, and how to “gird our loins” in the pursuit of righteous living.

The book explains that neuroscience relates most obviously to religion in the sense that the brain's mind decides which moral and religious standards will guide our beliefs and living. The relationship is reciprocal: our brain determines what we believe and how we act, and our beliefs and actions program our brain for how it should respond in the future. Neuroscience elucidates and extends the duties and "thou shalt nots" of religion by explaining the why and how to live out religious doctrine. Neuroscience tells us how to be mentally healthier, and that can inform and be informed by religious beliefs and practice.

Beyond basic enlightenment, there are many practical reasons to link these worldviews. They share many aims. Though the motives and means in each field different, both neuroscience and religion have the shared goals of helping people. Some examples of overlap include the desire to help people:

- Know and value the nature of creation and life.
- Respect the body and brain.
- Value the sanctity of life.
- Adopt lifestyles that promote health of both body and brain.
- Learn and grow in understanding of others and ourselves.
- Know the basis for human agency and self-control.
- Prevent and cure maladaptive ideas, emotions, compulsions, and addictions.
- Program the brain for mentally healthy thinking, emotions, and behaviors.
- Overcome personal weakness and limitations.
- Minimize mental anguish, anxiety, despair, and depression.
- Nurture oneself and others.
- Promote mental calm, rest, and rejuvenation.
- Heal broken minds and spirit.
- Live healthy, fulfilled, and happy lives.

Neuroscience's Possible Contribution to Religion

Neuroscience shows us how to identify religious beliefs that drive us into anxiety, stress, depression, learned helplessness, and self-hate. We should now recognize that religion has obligations to nurture mental health, not aggravate mental dysfunction. My book explains how certain religious doctrines, such as original sin and predestination, can be mentally harmful. Some religious teachings program us to think of ourselves as helpless and unworthy by a constant harping on our fallen nature, our inability to live by God's standards, and God's displeasure with us. Religious beliefs that magnify negative emotions overstimulate the fear and aversion modules in the brain's limbic system, cripple neocortical regulation of this system, and lead to impaired reasoning, anxiety, panic disorders, depression, and other forms of dysfunctional behavior. Persistent stress induces dysregulation of neurohormonal systems, leading to an excessive release of cortisol that physically damages brain via destruction of synapses. Neuroscience can inform religion of more mentally healthy ways to promote spirituality.

Neuroscience helps us to recognize, understand, and repair spiritual deficiencies. Neuroscience can teach us ways to develop our emotional intelligence, to reason more clearly, to remediate mental abnormalities, and to modulate our behaviors toward less sinfulness.

Most religions conduct mission activities that go beyond proselytizing. Mission activity typically aims to help people in the practical difficulties of daily living. Below is a list of some mission areas where I think neuroscience can be of great help.

- Religious teaching (methods and content)
- Spiritual reasoning and decision making
- Mental health
- Attitude and behavioral choices
- Child development
- The nature of tribalism, peer pressure
- The effects of personal space
- Mindfulness, meditation
- Sense of self, willfulness
- Emotional functions
- Mental epigenetics

Space limitations on this essay preclude exploration of these possibilities here. Each of these mission areas should be explored by spiritually minded neuroscientists and religious leaders working together to identify and develop practical mission activities.



Neuroscience's relationship to religion is inevitably reciprocal. Religion can help identify areas of religious concern that need the enlightenment of new neuroscientific research. Such areas include consciousness, selfishness, narcissism, free will, self-control, intolerance, racism, war, addiction, abortion, homosexuality, and transgenderism. Spiritually guided neuroscience research might even lead us to develop more nurturing spiritual religious beliefs and practices.

In short, the current preponderance of sinfulness in the world and the general decline of membership and participation in various religions indicate that religion needs to seek help from somewhere. Neuroscience is one fine place to look.

References

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Triune Brain, Triune Mind, Triune Worldview can be purchased in paperback or e-book form at [Amazon](#) or [Barnes and Noble](#).

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