

Does Neuroscience Leave Room for God?

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1. The Presumption of Materialism.

- Many scientists today **presume** materialism will provide the right answers **prior** to investigating the facts.
- Are they **open** to following the evidence wherever it leads?

Why is philosophy important?

- “If anything extraordinary seems to have happened, we can always say that we have been the victims of an illusion....

What we learn from experience depends on the kind of philosophy we bring to experience.”

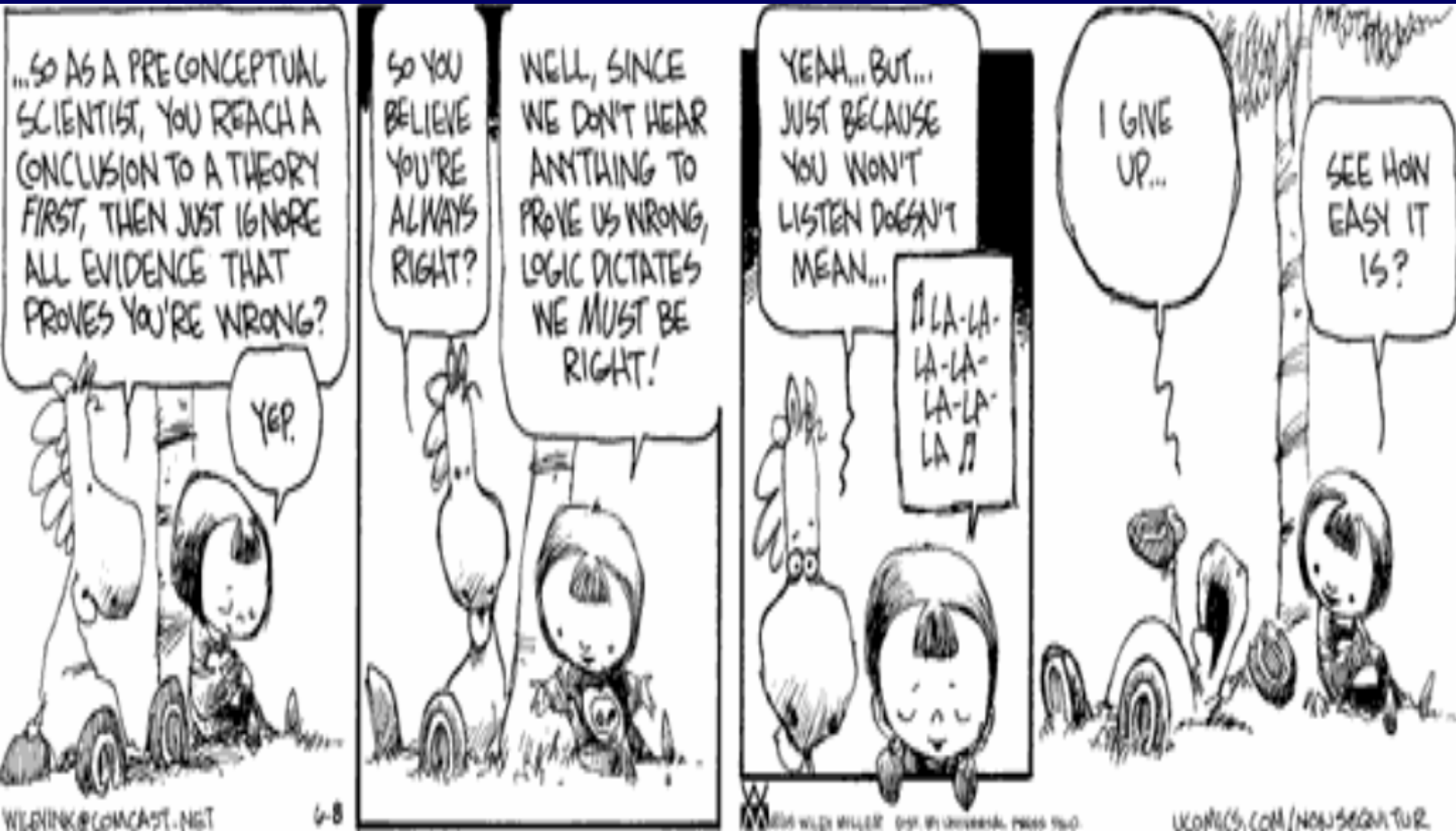
--C. S. Lewis, *Miracles*, 2nd Edition (New York: Macmillan, 1978), 3.

An A Priori Bias.

- “It is not that the methods and institutions of [empirical] science somehow compel us to accept a material explanation of the phenomenal world, but on the contrary, that **we are forced by our a priori adherence to material causes.... Moreover, that materialism is absolute, for we cannot allow a Divine Foot in the door.**”

--Richard Lewontin, “Billions and Billions of Demons,” review of *The Demon-Haunted World: Science as a Candle in the Dark* by Carl Sagan, *New York Review of Books*, January 9, 1997, pp. 28-32.

Preconceptual Science:



Materialism is NOT the same as Science

Only a bad detective argues “The murderer can’t be in the basement—because I’m afraid to look there.”

“[A] rule of thinking which would absolutely prevent me from acknowledging certain kinds of truth if those kinds of truth were really there, would be an irrational rule.”

---William James, *The Will to Believe*.

What happens if we don't allow competition for materialism?

- “If competing hypotheses are eliminated before they are evaluated, remaining theories may acquire an undeserved dominance.”

---Stephen C. Meyer, “The Scientific Status of Intelligent Design,” in eds. Michael Behe, William Dembski and Stephen Meyer, *Science and Evidence for Design in the Universe* (San Francisco, CA: Ignatius Press, 2000), 195.

Compare runners in a race—the significance of winning depends on the pool of competitors.

Does the success of Materialism create a presumption in its favor?

- Some materialists admit that Materialism cannot be shown to be valid a priori.
- Instead, they claim that Materialism has had such an impressive track-record in solving problems, we should assume it will continue to succeed.
- **But Materialism does NOT have such an impressive track-record.**

2. The Case Against Materialism.

- **A) Historical fact:** Christian theology, not materialism, gave birth to modern science.
- **B) Materialism conflicts** with the rationality of science.
- **C) Theism supports** the rationality of science.
- **D) The failure of materialism to account for the mind.**

A) Modern Science and Theology

- The rise of modern science depended on theology, **NOT** materialism.
- Kepler and Galileo thought of nature as a book written by God in the language of mathematics.
- Kepler described himself as a priest in the book of nature.

Providence and Science

- Kepler believed “he had discovered the part of God’s providential plan that embodies the pattern of the cosmos, and the divine laws by which God regulated its moving parts.”

---Peter Barker and Bernard Goldstein, “Theological Foundations of Kepler’s Astronomy,” *Osiris* 16 (2001), 113.

Why Expect Laws of Nature?

- “*a priori* one should expect a chaotic world which cannot be grasped by the mind in any way... [T]he kind of order created by Newton’s theory of gravitation...is wholly different. Even if the axioms of the theory are proposed by man, the success of such a project presupposes a high degree of ordering of the objective world.... That is the “miracle” which is being constantly reinforced as our knowledge expands.”

--Albert Einstein, *Letters to Solovine* (New York: Philosophical Library, 1987), 131.

Beauty as a Guide to Truth.

- Steven Weinberg, a Nobel-prize-winning atheist physicist, says **we would not accept a final theory “unless it were beautiful.”**
[Dreams of a Final Theory (Vintage Books, 1994), p. 165].
- This beauty includes simplicity, symmetry elegance, and what Eugene Wigner called **“the unreasonable effectiveness of mathematics.”**

A supernatural plan.

- “By definition, the laws and fundamental structures of nature pervade nature. Anything that causes these laws to be simple, anything that imposes a consistent aesthetic upon them, must be supernatural.”

---Robert C. Koons, “The Incompatibility of Naturalism and Scientific Realism,” in *Naturalism: A Critical Analysis*, ed. Craig and Moreland (London: RKP, 2000), 55.

Fine-tuning of the universe.

“Astronomy leads us to a unique event, a universe which was created out of nothing, one with the very delicate balance needed to provide exactly the conditions required to permit life, and one which has an underlying (one might say 'supernatural') plan.”

---Arno Penzias (Nobel prize winner in physics). In Margenau, H. and R.A. Varghese, ed., *Cosmos, Bios, and Theos* (La Salle, IL, Open Court, 1992), 83.

B) Materialism Conflicts with the Rationality of Science.

- The Argument from Reason against Evolutionary Naturalism (C. S. Lewis, Alvin Plantinga, Victor Reppert):
 1. If evolutionary naturalism is true, then our minds are equipped with useful gadgets for survival, but cannot be relied on for truth, especially on theoretical matters.
So:
 2. If evolutionary naturalism is true, no-one can have a good reason to accept scientific explanations, or evolutionary naturalism itself.

C) Theism supports the rationality of science.

1. If theism is true, then the same divine logos is reflected both in human minds and in nature.

So:

2. If theism is true, human minds are attuned to laws of nature.

So:

3. If theism is true, science is possible

Is Design Useful in Science?

- Design leads scientists to expect:
 - 1) universal laws;
 - 2) elegant mathematical forms;
 - 3) coherent mechanisms.
- **Materialists who rely on all these ideas are living on borrowed capital.**

Methodological Design.

“We treat organisms—the parts at least—as if they were manufactured, as if they were designed, and then try to work out their functions. End-directed thinking—teleological thinking—is appropriate in biology because, and only because, organisms seem as if they were manufactured, as if they had been created by an intelligence and put to work”—Michael Ruse, *Darwin and Design*, 268.

D) The failure of materialism to account for the mind.

Materialists claim that the mind reduces to the brain. However, they face major difficulties.

The “hard problem” of consciousness:

All neuroscientific descriptions of the brain are in the third person, yet consciousness is characterized by a first person experience---
what it is like to be in pain, afraid, in love, etc.

What do the best philosophers think?

- “The most striking feature is how much of mainstream [materialistic] philosophy of mind is obviously false....[I]n the philosophy of mind, obvious facts about the mental, such as that we all really do have subjective conscious mental states...are routinely denied by many...of the advanced thinkers in the subject.”

-- John Searle, *The Rediscovery of Mind* (Cambridge, MA: MIT Press, 1992), 3.

Subjectivity is something new.

- “No explanation given wholly on physical terms can ever account for the emergence of **conscious experience.**” --David Chalmers, *The Conscious Mind* (New York: Oxford University Press, 1996), 93.
- “It is not that we know what *would* explain consciousness but are having trouble finding the evidence to select one explanation over the others; rather, we have no idea what an explanation of consciousness would even *look like.*” --Colin McGinn, *The Mysterious Flame: Conscious Minds in a Material World* (New York: Basic Books, 1999), 61.

Materialism in Critical Condition.

- “We don’t know... how a brain (or anything else that is physical) could manage to be a locus of conscious experience. This last is, surely, among the ultimate metaphysical mysteries; don’t bet on anyone ever solving it.”

--Jerry Fodor, *In Critical Condition: Polemical Essays on Cognitive Science and the Philosophy of Mind* (Cambridge, MA: MIT Press, 1998), 83.

How about the scientists?

- *“if mental phenomena are in fact nothing more than emergent properties and functions of the brain, their relation to the brain is fundamentally unlike every other emergent property and function in nature.”*
--B. Allan Wallace, *The Taboo of Subjectivity: Toward a New Science of Consciousness* (Oxford: Oxford University Press, 2000), 136.
- No other emergent property (e.g. liquidity) has subjectivity.

Is consciousness reducible to matter?

- “Nowhere in the laws of physics or in the laws of the derivative sciences, chemistry and biology, is there any reference to consciousness or mind.”

--John Eccles and Daniel Robinson, *The Wonder of Being Human: Our Brain and Our Mind* (New York: Free Press, 1984), 37.

Do neuroscientists need consciousness?

- If they're going to operate, I hope so...
- “The whole foundation of my experimental studies of the physiology of conscious experience . . . was that externally observable and manipulable brain processes and the related reportable subjective introspective experiences must be studied simultaneously, as independent categories, to understand their relationship.”

--Benjamin Libet, in *The Volitional Brain: Towards a Neuroscience of Free Will*, ed. Anthony Freeman, Keith Sutherland, and Benjamin Libet (Exeter, England: Imprint Academic, 2000), 55.

Is consciousness localizable?

- “No single brain area is active when we are conscious and idle when we are not. Nor does a specific level of activity in neurons signify that we are conscious. Nor is there a chemistry in neurons that always indicates consciousness.”

--Mario Beauregard and Denyse O’Leary, *The Spiritual Brain: A Neuroscientist’s Case for the Existence of the Soul* (New York: HarperCollins, 2007), 109.

Mind-Body interaction.

- Materialists point out that brain damage affects the mind (bottom-up causation).
- This does not show that the mind reduces to the brain: compare dropping a phone when someone is speaking. The phone does not generate the voice, it transmits it.
- The brain is necessary to transmit thoughts. It does not follow it generates them.

Correlation is not identity.

- Water comes from pipes (correlation).
- If the water pipes are damaged, there is less or no water.
- Yet the pipes do not **generate** water. Water is **not identical** to a property of the pipes.
- The pipes are **conduits** of water.
- **Likewise the brain is a conduit of consciousness.**

Top-Down Causation.

- The mind cannot be the same as the brain, because **the mind ALSO has a top-down causal influence on the brain** (cognitive therapies exploiting neuroplasticity) **and the immune system** (psychoneuroimmunology).

Cognitive Therapy for Neural Disorders.

- “willful, mindful effort can alter brain function, and...such self-directed brain changes—neuroplasticity—are a genuine reality... In other words, the arrow of causation relating brain and mind must be bidirectional.”

--Jeff Schwartz, *The Mind and the Brain*, 94-95.

Obsessive Compulsive Disorder (OCD).

- Mindfulness-based cognitive therapy for OCD using **conscious selective attention** to **relabel** and **reattribute** the disorder (e.g. obsessive hand-washing) and **refocus** on an alternative behavior (e.g. gardening).

The mind changed the brain.

- “PET scans after treatment showed significantly diminished metabolic activity in both the right and left caudate... There was also a significant decrease in the abnormally high, and pathological, correlations among activities in the caudate, the orbital frontal cortex, and the thalamus in the right hemisphere....[T]herapy had altered the metabolism of the OCD circuit. Our patient’s brain lock had been broken.”
--Jeff Schwartz, *The Mind and the Brain*, 89-90.

Systematic neuroscientific study of the power of the mind.

- “the results of these [neuroimaging] studies strongly supports the view that the subjective nature and intentional content...of mental processes (e.g. thoughts, feelings, beliefs, volition) significantly influence the functioning and plasticity of the brain...mentalistic variables have to be seriously taken into account to reach a correct understanding of the neurophysiological bases of behavior in humans.”

--Mario Beauregard, “Mind does really matter: Evidence from neuroimaging studies of emotional self-regulation, psychotherapy and placebo effect,” *Progress in Neurobiology* (2007), doi:10.1016/j.pneurobio.2007.01.005. ,” 2.

Problems addressed by mind-based therapies, verified by brain-scans.

- (1) Depression and sadness.
- (2) Tourette's syndrome.
- (3) Stroke rehabilitation.
- (4) Focal hand dystonia.
- (5) Dyslexia.
- (6) Panic disorder.
- (7) Spider phobia.
- (8) Stress reduction.
- (9) Follow up care for cancer patients.

The Placebo effect.

- A placebo is: “any treatment—including drugs, surgery, psychotherapy and quack therapy—used for its ameliorative effect on a symptom or disease but that is actually [physically] ineffective or not specifically effective for the condition being treated.”

---A. K. and E. Shapiro, *The Powerful Placebo: From Ancient Priest to Modern Physician* (Baltimore: MD: Johns Hopkins University, 1997), cited in Mario Beauregard, “Mind does really matter,” 10.

Does it work?

- “The placebo effect depends on a patient’s trust in the physician. I’ve become convinced that this relationship is more important, in the long run, than any medicine or procedure. Psychiatrist Jerome Frank of Johns Hopkins University found evidence for this belief in a study of ninety-eight patients who had surgery for detached retinas. Frank assessed the subjects’ independence, optimism, and faith in their doctors before the operations, and found that those with a high level of trust healed faster than the others.”

--Bernie S. Siegel, M.D., *Love, Medicine and Miracles: Lessons Learned About Self-Healing From a Surgeon’s Experience with Exceptional Patients* (New York: Harper & Row Publishers, 1986), 37.

Does Hope Help?

- “Drs. Sheldon Greenfield and Sherrie Kaplan of the UCLA School of Public Health, conducted four separate studies on the health status of patients with ulcer disease, hypertension, diabetes, and breast cancer. Drs. Greenfield and Kaplan found that increased patient control, more expression of affect by doctor and patient, and greater information provided by the doctor in response to patient questions, were related to better patient health status as measured by audiotapes of office visits, questionnaires, and physiological measurements.”

---Norman Cousins, *Head First: The Biology of Hope* (New York: E. P. Dutton, 1989), 234.

Placebos and Parkinson's Disease (PD).

- “the magnitude of the placebo response was comparable to that of the apomorphine... **These results constitute...evidence for considerable release of endogenous dopamine in the striatum of PD patients in response to placebo...** Garris et al. (1999) have provided evidence that it is **the expectation of reward that elicits dopamine release**”

---Mario Beauregard, “Mind does really matter,” 10-11.

Psychoneuroimmunology (how mental states influence health).

- A study by Dr. Arthur Stone of the State University of New York at Stony Brook revealed that:
- “mental stress tasks caused measurable increases in cardiovascular and psychological stress and lymphocyte stimulability was significantly lower for one hour immediately following the stressful tasks.”

---Norman Cousins, *Head First*, 236.

Cancer Care and Mindfulness Based Stress Reduction (MBSR).

- A 2004 study explored the affect of MBSR on cancer patients who are hospitalized for a long time with stem cell / autologous bone marrow transplants, and found “a statistically significant decrease in pain...and increases in the levels of relaxation...happiness...comfort...reduced heart rate...and respiratory rate.” Other studies have shown benefits from MBSR in “decreasing anxiety, depression, anger, demoralization, and symptoms of somatic fatigue in male and female cancer patients.”

---Mary Jane Ott, Rebecca L. Norris and Susan M. Bauer-Wu, “Mindfulness Meditation for Oncology Patients: A Discussion and Critical Review,” *Integrative Cancer Therapies* 2006; 5; 98, DOI: 10.1177/1534735406288083, p. 106.

Near Death Experiences (NDEs).

- Starting in 1988 a physician, Pim van Lommel did a study of 344 heart attack survivors who were temporarily clinically dead. (Clinical death means all vital signs have ceased: no fibrillation in the heart, no electrical activity on the cortex of the brain, and no brain-stem activity.) **18% of the patients reported an experience from the time they were clinically dead.**

--Pim van Lommel, "About the Continuity of Our Consciousness," in *Brain Death and Disorders of Consciousness*, ed. Calixto Machado and D. Alan Shewmon (New York: Kluwer Academic / Plenum, 2004)

Near Death Experiences (NDEs).

- These experiences include:
- 1) details of the operating room at the time of brain death that could only be accessed by consciousness;
- 2) dissociation from the body (sometimes seen from above);
- 3) a review of one's life actions;
- 4) encounter with deceased relatives and friends;
- 5) return to the body;
- 6) disappearance of the fear of death;
- 7) a transformed life showing more concern for others.

---See Beauregard and O'Leary, *The Spiritual Brain*, 153-166.

3. Materialistic “explanations” of religion.

- Materialists assume without serious investigation of the facts that all supernaturalist religions are false.
- Then they offer a range of materialistic explanations to “explain away” religious beliefs and experience.

1-way skepticism leads to atrocious science.

- “The culture of popular science is one of **unidirectional skepticism**... It is skeptical of any idea that spirituality corresponds to anything outside ourselves, but surprisingly gullible about any reductionist explanation of it.”

--Mario Beauregard and Denyse O'Leary, *The Spiritual Brain*, 91.

The “God” Gene [VMAT2] (Dean Hamer).

- **A better title:** “A Gene That Accounts for Less Than One Percent of the Variance Found in Scores on Psychological Questionnaires Designed to Measure a Factor Called Self-Transcendence, Which Can Signify Everything From Belonging to the Green Party to Believing in ESP, According to One Unpublished, Unreplicated Study.”

--Carl Zimmer, “Faith-Boosting Genes: A Search for the Genetic Basis of Spirituality,” review of Dean Hamer’s *The God Gene* in *Scientific American* (September 27, 2004).

Temporal Lobe Epilepsy: religious experiences are hallucinations.

- Michael Persinger's "God helmet" results derive from suggestion. His results were not replicated by Granqvist and associates at Uppsala University in Sweden.
- Using Single Positron Emission Computed Tomography (SPECT) scans, **Andrew Newberg** showed:
"The mind remembers mystical experience with the same degree of clarity and sense of reality that it bestows upon memories of 'real' past events. The same cannot be said of hallucinations, delusions or dreams."

--Andrew Newberg, Eugene D' Aquili, and Vince Rause, *Why God Won't Go Away: Brain Science and the Biology of Belief* (New York: Ballantine Books, 2001), 113.

No “God Spot” in the Brain explains Religious Spiritual and/or Mystical Experiences (RSMEs).

- “[M]any brain regions, not just the temporal lobes, are involved in mystical experiences. These include the inferior parietal lobule, visual cortex, caudate nucleus, and left brain stem as well as many other areas. **Our findings demonstrate that there is no single ‘God spot’ in the brain located in the temporal lobes. Rather our objective and subjective data suggest that RSMEs are complex and multidimensional and mediated by a number of brain regions normally implicated in perception, cognition, emotion, body representation, and self-consciousness.**”

--Beauregard and O’Leary, *The Spiritual Brain*, 272.

The God Delusion (Dawkins).

- “Natural selection builds child brains with a tendency to believe whatever their parents and tribal elders tell them. Such trusting obedience is valuable for survival: the analogue of steering by the moon for a moth. But the flip-side of trusting obedience is slavish gullibility. The inevitable by-product is **vulnerability to infection by mind viruses...** [T]he truster has no way of distinguishing good advice from bad.”

--Richard Dawkins, *The God Delusion* (New York: Houghton Mifflin, 2006), 176.

All in the “selfish” genes?

- “The fact is, not a single study of personality traits in human populations successfully disentangles similarity because of shared family experience and similarity because of genes.... [N]o one has ever measured in any human population the actual reproductive advantage or disadvantage of any human behavior. All of the sociobiological explanations of the evolution of human behavior are like Rudyard Kipling’s *Just So* stories of how the camel got his hump and the elephant got his trunk. They are just stories.”

--Richard Lewontin, *Biology as Ideology: The Doctrine of DNA* (New York: HarperCollins, 1991), 96, 100.

Non-existent studies.

- “we have no...way of knowing how many surviving offspring our recent human ancestors would have had if they exercised no voluntary control over procreation... the population studies...on whether people who have RSMs are better or worse adapted...cannot even be done.”

Beauregard and O' Leary, *The Spiritual Brain*, 224.

Viruses of the Mind?

- Dawkins suggests our beliefs arise from collections of memes (discrete memorable units, like catchphrases, slogans and rules), and that religious beliefs are viruses of the mind.
- **But Dawkins is throwing a universal acid only at non-materialists.**

Hoist by his own petard.

- “If all ideas are memes or the effects of memes, Dawkins is left in the decidedly uncomfortable position of having to accept that his own ideas must be recognized as the effects of memes.”

--Alister McGrath, *Dawkins's God: Genes, Memes, and the Meaning of Life* (Oxford: Blackwell, 2005), 124.

Special pleading.

- If ideas arising from memes are unreliable, then **not only religion, but also materialism, science and reason are undermined.**
- If scientific ideas arising from memes **can still be true**, why can't the same be said for religious claims?

Inconsistent Intellectual Imperialism.

- “Anyone familiar with intellectual history will spot the pattern immediately. Everyone’s dogma is wrong except mine. My ideas are exempt from the general patterns I identify for other ideas, which allows me to explain them away, leaving my own to dominate the field.”

---Alister McGrath, *Dawkins’s God: Genes, Memes, and the Meaning of Life* (Oxford: Blackwell, 2005), 124.

A matter of interpretation?

The Primacy of the Interpreter: In the case of all proposed examples of memes, it is obvious that the interpretation of a meme makes a difference to its effects e.g. “Just Do it.”

- **Therefore:** It is self-defeating to use memes to explain away the conscious interpreter.

Religion arises from a Hyperactive Agent Detection Device [HADD] (Dennett).

- “The first thing we have to understand about human minds as suitable homes for religion is how our minds understand *other* minds!.... [I]f you don’t startle at the dangerous motions, you’ll soon be somebody else’s supper.”

--Daniel Dennett, *Breaking the Spell: Religion as a Natural Phenomenon* (New York: Viking Penguin, 2006), 108-109.

You've been HADD?

- Someone might have a hyperactive arithmetic detector, and think virtues can be multiplied, or tastes subtracted.
- Would that show arithmetic is false?
- Materialists seem to have a Hyperactive Agent Suppressor Device, denying the human self, free will etc.

The Underlying Fallacy.

- “you must first show *that* a man is wrong before you start explaining *why* he is wrong. The modern method is to assume without discussion *that* he is wrong and then distract his attention from this (the only real issue) by busily explaining how he became so silly... I call it **Bulverism**. ...Assume that your opponent is wrong, and then explain his error, and the world will be at your feet.”

-- “Bulverism” in *God in the Dock*, 273.

Evading the Substance of Religion.

- “It will be plain that Dennett's approach to religion is contrived to evade religion's substance.... This is a very revealing mistake. You cannot disprove a belief unless you disprove its content. If you believe that you can disprove it any other way, by describing its origins or by describing its consequences, then you do not believe in reason.... The power of reason is owed to the independence of reason, and to nothing else. Evolutionary biology cannot invoke the power of reason even as it destroys it.”
- --Leon Wieseltier, “The God Genome,” review of Daniel Dennett’s *Breaking the Spell*, The New York Times, February 19, 2006.

Poisoning the well.

- It is not an objective approach to science to **presume** that supernatural religious belief and experience are illusions to be explained away.
- If the approach were unbiased, we would expect equal research on the neurology and psychology of atheists, and on believers in the naturalistic religion of secular humanism.

Religious, Spiritual and/or Mystical Experiences (RSMEs) are psychologically normal.

- [P]eople who have RSMEs, far from being out of touch, are typically mentally and physically healthy. RSMEs are normal experiences that are positively associated with physical and mental health, because they express a natural spiritual function of the human being.”

---Beauregard and O'Leary, *The Spiritual Brain*, 278.

Functional citizens.

- “persons who are ‘highly spiritually committed’ are far less likely to engage in antisocial behavior than those less committed. They have lower rates of crime, excessive alcohol use, and drug addiction than other groups.”

--George Gallup, “Dogma Bites Man,” *Touchstone*, December 2005, 61.

What about secularism?

- “secularism is very maladaptive biologically. We [secularists] are the ones who at best are having only two kids. Religious people are the ones who...are living longer and having the health benefits.”

--David Sloan Wilson, quoted in “Where angels no longer fear to tread,” *The Economist*, March 19th, 2008.

Evading the issue of truth.

- Suppose we don't like mathematicians, assume there is something wrong with them, and demonstrate what's going on in their brain when they do math.
- Would that show that mathematics was false?
- Would it show mathematics had no connection to objective reality?

Independent reasons.

- We have independent reasons to think mathematics contains substantial truth.
- Likewise, religious believers can provide **independent** reason to believe in God.
- Neuroscience is being co-opted by materialists as a diversion from the truth issue.

Focus on the Truth.

- “One of the great difficulties is to keep before the audience’s mind the question of Truth. They always think you are recommending Christianity not because it is *true* but because it is *good*. And in the discussion they will at every moment try to escape from the issue ‘True – or False’ into stuff about a good society, or morals, or the incomes of Bishops, or the Spanish Inquisition, or France [or neuroscience]...—or anything whatever. You have to keep forcing them back, and again back, to the real point.... One must keep on pointing out that Christianity is a statement which, if false, is of no importance, and, if true, of infinite importance. The one thing it cannot be is moderately important”
--C. S. Lewis, *Christian Apologetics* in *God in the Dock* p. 101.

Conclusion.

- 1) Materialism is not a rational presumption for science.
- 2) Consciousness and the power of mind over matter refute materialism.
- 3) Materialist “explanations” of religion are poorly motivated and implausible.
- 4) The real issue should be objective truth.