

The God Virus

**How Religion Infects
Our Lives and Culture**

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**IPC Press
Bonner Springs, Kansas**

CHAPTER 1: RELIGION AS A VIRUS

"We despise all reverences and all objects of reverence which are outside the pale of our list of sacred things and yet, with strange inconsistency, we are shocked when other people despise and defile the things which are holy for us."

-Mark Twain

Overview

In this chapter, we will examine the remarkable parallels between the propagation methods of some biological systems and the strategies of religion.

A Thought Experiment

Imagine this scenario: You have a serious conversation with a deeply Christian friend. Your friend is intelligent, well educated and knowledgeable. You agree to record the session. The topic is Islam. During the session, you discuss that Mohammed was a self-appointed prophet and that he claimed he talked to Allah and angels. He wrote a book that he claimed is infallible, and he flew from Jerusalem to heaven on a horse.

During the conversation, you agree that Mohammed was probably delusional to think he could talk to god. You agree that the Koran was clearly written by Mohammed and not by Allah. It is ludicrous for him to claim that he is the last prophet and that all others are false. Neither you nor your friend can believe that he flew to heaven, let alone on a horse. It all sounds too crazy, and you both agree it is difficult to see how someone could believe such a religion. At the end of the conversation, you say that Muslims did not choose their religion; they were born into it. Anyone who was exposed to both Christianity and Islam would see that Christianity is the true religion.

Over the next few days, you transcribe the recording onto paper. Then you change all references to Mohammed and make them Jesus. Now the document reads something like this:

During the conversation, you both agree that Jesus was probably delusional to think he could talk to Jehovah. The Bible was clearly written by men and not by Jehovah. You both agree it is ludicrous for Jesus to claim that he is the last prophet and that all later ones are false. Neither of you can believe that he rose from the dead, nor flew to heaven. It all sounds too crazy, and it is difficult to see how someone could believe such a religion. At the end of the conversation, you both agree that Christians did not choose their religion; they were born into it. Anyone who was exposed to both Christianity and Islam would see that Islam is the true religion.

Now, tell your friend, "I made a transcript of our conversation about Islam and would like to go over it with you." As you read it, watch her reaction. How does she respond to each statement? How soon does she get defensive? How quickly does she start making elaborate arguments that have no more factual basis than the first conversation? If you persist in this line of parallel reasoning, how long before she gets angry or breaks off the conversation? Could this conversation damage your friendship?

You can do the same experiment with other prophetic religions. For example, substitute Joseph Smith for Mormonism or Moses for Judaism. This experiment illustrates the god virus at work. It infects the brain and alters critical thinking skills. It leaves the skill intact for other religions but disables critical thinking about one's own religion. Keep this thought experiment in mind as we explore the virus-like behavior of religion in individuals and in society.

Religious Conversion Syndrome

Have you ever observed somebody go through a religious conversion? The person seems perfectly reasonable to you and has no particular concern for religion. Then a parent, friend or child dies or he gets a serious illness or is involved in a car accident. In just a matter of weeks, he seeks out and finds the answers to all of life's questions and starts studying and spouting all sorts of doctrine. During such a window of vulnerability, religion can commandeer a person's brain. In many cases, the person will join some kind of fundamentalist or charismatic group.

An associate of mine recently lost his father to cancer. Before this family trauma, he was a non-religious person. After his father's death, he got a severe case of religion that changed his personality dramatically. An evening spent over a good meal in a restaurant became an ordeal in Jesus references. There was no way to have a conversation with him on any subject without religion creeping in. It became very tiresome. Soon I stopped seeing him altogether.

Religious visions and conversions have been reported for centuries. They bear remarkable similarities regardless of religion or culture. William James noticed the similarities over a century ago in his book, *The Varieties of Religious Experience* (1902). What would make an Islamic conversion look and sound like a Christian one? Why would a Hindu epiphany bear a close resemblance to a native American vision quest?

Neurological science has shown that such experiences can be created with brain stimulation. Thus, simple neurological stimulation can evoke mystical experiences. Native Americans using Peyote, or Dr. Timothy Leary using LSD, demonstrated this long ago. We know that experiences that appear mystical are very likely neurological responses to any number of naturally occurring things in the environment or the brain. The near-death experiences reported by people for centuries and across all cultures have remarkable similarities to those reported in neurological stimulation experiments.

Dr. Olaf Blanks, a neurologist at Ecole Polytechnique in Lausanne, Switzerland, concludes from his research on brain stimulation, "It may be tempting to invoke the supernatural when this body sense goes awry, the true explanation is a very natural one, the brain's attempt to make sense of conflicting information."¹

What has been called "mystical" for centuries can now be reproduced in Dr. Blanks' laboratory with electrical probes of the brain.

Who Are You and What Did You Do With My Friend?

Some people who experience a religious conversion seem to undergo a personality change. They can be quite congenial and easygoing when talking about mundane things, but when they start talking about their "faith," their demeanor changes. Their tone of voice modifies, their smile becomes tense, and they become defensive when questioned about their evidence for belief. It becomes difficult to have a friendly conversation with them. It looks like a scene from the cult movie *Invasion of the Body Snatchers* (1978), where alien pods take over the brains and bodies of people and change them into emotionless automatons.

Once a person has converted to a religion, it is difficult to have a rational conversation about the irrational aspects of his religion. It is as though something invaded the person and took over a part of his personality. You can no longer talk to him directly. Instead, it seems as if communication is channeled through a religious being that lives inside of him. Well-rehearsed answers come out of his mouth. Things like, "It is a mystery and we are not meant to understand it." Or "God expects us to follow his commands

¹ Sandra Blakeslee, "Out-of-Body Experience: Your Brain Is to Blame," *The New York Times*, 3 October 2006 and Shahar Arzy, et al, "Induction of an illusory shadow person," *Nature*, 443 (21 September 2006): 287.

without question." "Jesus spoke to me and I know he is in my heart." It is quickly evident that rational analysis of these statements is not permitted.

Religious Infection

Richard Dawkins and others have noted the similarities of religions to parasitic behavioral control of certain animals. For example, Daniel Dennett writes about religion as a parasite in *Breaking the Spell*. I don't intend to replicate their work but to build on the idea of the parasitic nature of religion in a way that gives us guidance on how to live in a religious world.

For the balance of this chapter, we are going on a tour of religion using the metaphor of viruses. I make no claim that this metaphor works in every way, but it has remarkable power to explain much about individual and group religious behavior and gives religious skeptics a framework by which to understand the subtle influences of religion. Those familiar with Richard Dawkins' revolutionary idea of *memes* will quickly see the viral metaphor as another way to talk about a religious meme. I chose to use the "virus" concept instead of "meme" because viruses are well known to most people, and the biology of viruses creates a useful parallel for our discussion. In either case, I owe a great deal to Dr. Dawkins and his pioneering work, especially in his groundbreaking books, *The Selfish Gene* and *The God Delusion*.²

Parasitic Programming

Science fiction is full of examples of aliens taking over the minds and bodies of humans to further their own ends, but where did science fiction get the idea? Fact can be stranger than fiction.³ There are many examples in biology of parasites, pathogens and viruses infecting the brain of a host and controlling the animal's behavior. To understand our model of viral religion, let us first look at some examples in biology:

- Grasshoppers infected with the hairworm (*Spinochordodes tellinii*) are more likely to jump into water where the hairworm

² For a quick and enlightening read on the viral idea, I would encourage you to read Richard Dawkins' essay "Viruses of the Mind" at <http://cscs.umich.edu/~crshalizi/Dawkins/viruses-of-the-mind.html>; Internet. This notion is foundational for much of what we will examine in this book.

³ See the novel by Robert Heinlein, *The Puppet Masters* (Doubleday, 1951) or the movie by the same title directed by Stuart Orme starring Donald Southerland (1994). Invader parasites take over humans to rule the world. This was perhaps the first of the alien parasite books and it spawned many more.

reproduces. Thus, the parasite makes its host suicidal to further its own reproduction.

- The rabies virus infects very specific neurons in the brain of the mammal host to create aggressive behavior. This induces the host to attack and bite animals it might otherwise avoid or ignore. The virus takes over the brain of the host for its own purposes without regard for the well-being of the host, who usually dies.
- The lancet fluke (*Dicrocoelium*) infects the brain of ants by taking control and driving them to climb to the top of a blade of grass where they can be eaten by a cow. The ingested fluke then lays eggs in the cow gut. Eventually, the eggs exit the cow, and hungry snails eat the dung (and fluke eggs). The fluke enters the snail's digestive gland and gets excreted in sticky slime full of a seething mass of flukes to be drunk by ants as a source of moisture.

In these and many more examples, we see that parasites, viruses and many other pathogens literally take over parts of the brain and "control" the host. They reprogram the organism in the best interest of the parasite, to the detriment of the host.

A particularly interesting example is the parasitic protozoa *Toxoplasma gondii*. This protozoa causes infected rodents to lose their inborn aversion to cat smells. This behavior is beneficial to *toxoplasma*, because it reproduces in cats that have eaten infected mice and rats. Infected cats in turn spread toxoplasma through their droppings. Robert Sapolsky, writing in the March 2003 edition of *Scientific American*, says: "The infected rodents can still distinguish between all other kinds of smells but selectively lose their fear of cat pheromones, making them much easier for the cat to catch."

Sapolsky goes on to say,

This is akin to someone getting infected with a brain parasite that has no effect whatsoever on the person's thoughts, emotions, SAT scores or television preferences but, to complete its life cycle, generates an irresistible urge to go to the zoo, scale a

fence and try to French-kiss the pissiest-looking polar bear. A parasite-induced fatal attraction...⁴

Taking this well-established strategy in biology, we can apply the viral concept to religion. While the parasite takes over the perceptions of the ant, religion similarly seems to take over the perceptions of those it infects.

Imagine that a religion is a virus⁵ with its own unique mix of properties. Just as the HIV virus is different than a cold virus, both infect and take over the mechanisms of the body in ways that allow them to reproduce. Religions have five useful properties that are present in different degrees, including the ability to

1. Infect people.
2. Create antibodies or defenses against other viruses.
3. Take over certain mental AND physical functions and hide itself within the individual in such a way that it is not detectable by the individual.
4. Use specific methods for spreading the virus.
5. Program the host to replicate the virus.

Every religion is more or less effective in each of these areas. Let us take a closer look at each of these properties.

Infecting People

Virtually all religions rely upon early childhood indoctrination as the prime infection strategy. Other infection strategies include proselytizing, offering help and financial aid with strings attached, providing educational opportunities at religious institutions and many other approaches which we encounter frequently in the media and in daily exposure to religion.

Creating Defenses Against Other Religions

When a religion infects a person (a "host" in biological terms), it immediately begins creating antibodies against competing viruses. For example, newly minted Baptists will get Bible study that is full of verses and justifications for the rightness of their religion and a host of arguments against other

⁴ An essay by Robert Sapolsky, "Bugs in the Brain," *Scientific American* (March, 2003): 94.

⁵ For purposes of our discussion, I will use the term "virus" although parasite might be more appropriate in some cases. I want to avoid the totally negative connotations of the word "parasite." Most people realize that viruses can be benign, even beneficial, in some cases. That is not the general understanding of a parasite.

interpretations. In the early stages, it is a race to get as many antibodies as possible into the new convert so the host will have defenses against the rest of the world, and especially competing religions. Once a person is infected with Catholicism, he is rarely tempted to become a Muslim. Once a person is infected as a Baptist, she rarely becomes a Buddhist. Generally speaking, when children are infected with a specific god virus, they stay reasonably close to that religion for the rest of their lives. A Baptist may become a Lutheran or Presbyterian, but rarely Catholic, Muslim or pagan.

Religious immunity is a powerful program designed to ensure that the children are protected from outside influence. In a pluralistic society, this is important. The virus cannot control contact with other religions in the environment, so it takes prophylactic measures to keep people blind or unreceptive to other religions. This is especially important for children whose immunity is not yet complete.

Childhood religious infection is so strong that it seems to have the power to create a permanent imprint in most people. Imprinting was first identified by Konrad Lorenz and Niko Tinbergen, who won the 1973 Nobel Prize for Physiology and Medicine.⁶ In their work with birds and other animals, they showed that many animals learn to identify their parents remarkably fast after birth. In a famous experiment with geese, they demonstrated that substituting a parent figure like a human led to imprinting on the substitute. After imprinting was complete with the substitute, they reintroduced the real parent goose. To their surprise, the goslings could not be reprogrammed to follow the true parent; instead, they followed the substitute figure.

This powerful and rapid learning is strong in many animals and appears to be non-reversible most of the time. Perhaps religious infection is similar. Once a person has imprinted to a given religion, he does not easily change religions. The rituals, songs, ceremony, etc., have a way of sticking with some people so that they do not feel complete unless they are in that particular ritual environment.

Taking Over Certain Mental and Physical Functions and Hiding Within the Individual

Even an adult host who is not overtly religious can act as if the virus is alive and well in his brain. Inquire about religious beliefs, and the host will

⁶ Nobelprize.org, *The Nobel Prize in Physiology or Medicine 1973* [article on-line] (accessed 20 November 2008); available at http://nobelprize.org/nobel_prizes/medicine/laureates/1973/index.html; Internet.

recite many of the doctrines he learned at age 5 or 10. Just as the chicken pox virus continues to live quietly in the body after the disease is gone, the god virus may live quietly in the host until something evokes it.

Stress can activate the chicken pox virus in adults, leading to the condition known as shingles. Similarly, stress tends to activate the god virus in many people. If they have a traumatic experience, they may reactivate their childhood religion. They start attending church, receiving more “antibodies” to help them stay on the straight and narrow. The virus takes over their mental functions, as illustrated by the display of new guilt-based behavior.

The god virus also has the ability to take over physical functions. For example, many religions attempt to take over sexuality, as with celibacy or abstinence vows. We will discuss this in detail in Chapter 5. To a lesser degree, the virus may change eating and dietary functions, requiring fasts or dietary restrictions.

Finally, the god virus has the ability to hide from internal detection. Once infected, the individual cannot detect major contradictions in his beliefs and behavior. Belief systems become self-evident to him, and no amount of logical discourse will move him from his belief. If a Mormon and Catholic were to debate the merits of their respective religions, neither could see his own inconsistencies and logical fallacies, but would see the other’s quite clearly.

Using Specific and Efficient Vehicles to Spread the Virus – The Vector

In biology the organism that spreads disease is called a vector. A mosquito is a vector for malaria, and a tick is a vector for Lyme disease. In malaria, the mosquito bites a person with malaria and ingests the plasmodium parasite. The plasmodium then moves through the mosquito by creating a perforation in the mosquito’s gut and passing to the salivary glands. When the mosquito bites the next person, she (only females bite) injects the plasmodium into the new person.

Vectors are critical in the life cycle of many parasites. The vector may or may not be harmed in the process of transferring the parasite. Bats seem less affected by rabies than raccoons, but both can be vectors. The flea that carries the *Yersinia pestis* bacteria for the infamous bubonic plague will die in its effort to infect the next rat or human. The bacteria literally block the flea’s digestive tract to force it to regurgitate the *Y pestis* bacteria into its victim. It renders the flea incapable of digesting what it eats.

In a similar fashion, god viruses also need vectors: People can be programmed, even reengineered, to be effective carriers of the virus. We call these people priests, ministers, imams, rabbis, popes, televangelists, shamans, apostles, nuns, Bible professors and, to a lesser degree, elders, deacons or Sunday school teachers. The virus may reengineer these vectors significantly. Reengineering may include years of study in a seminary and learning massive amounts of sometimes obscure and far-fetched ideas as well as many tricks for passing the virus along. It may also include training in how to be celibate and not pass one's genes along to be less encumbered with reproductive overhead (spouse and children) and, therefore, more efficient as a vector for the virus. Delusion is employed in the sense of priests and nuns believing that they are married to an invisible god or to the church.

Programming the Host to Replicate the Virus

Finally, the god virus must activate a program for replication in any host. Certain behaviors are programmed to ensure that the virus is passed on to others, especially the host's children. These may include guilt-inducing ideas that create a sense of security in rituals. Examples include first communion, baptism, Bar Mitzvah, confirmation, daily prayer or Bible reading and confession.

Religious Immunities

In 1796, Edward Jenner demonstrated that infecting a person with the cow pox virus effectively immunized the person from the dreaded small pox virus. In other words, one virus immunizes against another.

Religions function in a similar manner. An infected Baptist is generally immunized against Catholicism or Islam. The religion creates a series of defenses within a host to prevent him from seriously considering any other religion. For example, a Baptist would rarely think of studying the Koran as diligently as the Bible. Many Catholics would not spend time studying the writings of John Wesley. A Shiite Muslim would not think to study St. Paul. A Sunni Muslim may find Buddhism unfathomable.⁷ The god virus builds a wall so formidable that many people can't conceive of another religion, let alone understand it.

⁷ Evidence is seen in the Taliban destruction of the Buddhas of Bamyan, one of the cultural treasures of the world. In 2001, with the help of Saudi and Pakistani engineers, these giant sixth century statues were blown up.

From an outside observer's view, the behavior of members of the various religions looks and sounds remarkably similar. Listen to the preaching of Osama bin Laden and Pat Robertson, for example. Both say natural disasters are a god's judgment for some evil. Both denigrate the role of women in their respective religions. Both see Satan at work in the world. From a high-level view, all the major religions look and sound alike in many ways. With a few word changes, a Pat Robertson sermon could easily be turned into something bin Laden might preach.

I use examples of well-known religious leaders, but the analyses could be taken from local churches or mosques just as easily. From years of listening to fundamentalist ministers, I can attest to the incredible statements they make from the pulpit with not a whisper of objection from an otherwise intelligent and reasonable congregation.

Both bin Laden and Robertson have fully functioning brains with all the capabilities for logic, reason, study, learning and critical thinking, but the god virus has disabled some of these functions as effectively as *Toxoplasma gondii* disables the rat's fear of cat pheromones. Nothing else needs to be changed! Simply disabling specific critical thinking skills is all that is necessary for the god virus.

Inhibitions and Prohibitions

An important part of viral control may be found in inhibitions and prohibitions, which keep the believer focused on rituals and actions that reinforce the religion on a daily, even hourly basis. These are often seen in sexual prohibitions: no sex before marriage, no sex during menstruation, no homosexuality, etc. Many religions also have food prohibitions and rules: Fish on Friday, no pork, fasting during certain holidays. Each religion takes a different approach, but all share the same objective: Keep the infected focused on their own religion and protect the unit of propagation – the family. Muslims accomplish this by severely prohibiting female freedoms and expanding male power to control the female and the family. Catholics accomplish it by requiring parents to raise their children as Catholic and mandating sex as strictly a procreative activity with all extramarital sex prohibited.

The prohibition is seen most dramatically in the celibacy of Catholic priests and nuns. Here the virus self-propagates by forcing the host to forgo procreation in service of passing the virus along to as many other people

as possible. Just as the rabies virus takes over the brain of the raccoon and reprograms it to bite other animals – even at the cost of its own life – the Catholic virus directs the priest to spend all his discretionary energies propagating the virus. This is genetic suicide for the priest's genes, but gives the Catholic Church a powerful tool for propagation.

Vector Infection Techniques

Religious vectors use sophisticated methods of preparing and opening potential hosts of the religion. Religious vectors learn preaching techniques that emotionally open up the potential host. (We will discuss this in detail in Chapter 7.) Vectors are expensive for the virus to produce, so they are protected and supported, often to an extreme degree as seen in the protection of priests and preachers in the many recent sex abuse scandals.

Vectors can actually be more efficient as vectors when dead. Examples of efficient dead vectors include Jesus, Paul, Ali (son-in-law of Mohammed), V. I. Lenin (founder of the Soviet Union), Che Guevara (Latin American revolutionary) and Joseph Smith (founder of Mormonism). In the case of Joseph Smith, his death was a fortunate event for the whole movement. His usefulness to the virus had probably run its course, and he was less and less successful as a leader. But once dead, he became a martyr around whom the charismatic and brilliant leader Brigham Young could rally the faithful and establish Paradise in Utah.

Charity Only for the Virus

The god virus programs the host in very specific ways. All god viruses program charity into its followers, but it is a carefully defined charity. I learned this the hard way one Christmas when I was 19 years old. I was a

"Ministers say that they teach charity. That is natural. They live on alms. All beggars teach that others should give."

-Robert Ingersoll, 1833-1899

poor college student who paid my own tuition at a private university and worked hard for every dollar I earned. My mom and dad were proud when I budgeted 20 hard-earned dollars for charity that Christmas. I didn't mention what charity I had chosen, but they assumed it was our church or some church-related charity. Weeks after Christmas my mom

was dying of curiosity and finally asked, "Where did you give your \$20?" I told her I gave it to the ACLU defense fund for draft resisters.

I quickly learned that the ACLU is not a charity, and that god would not count that gift. I learned that you always give to the church or a religious charity or it didn't count. Until then, I didn't realize that there was an accounting department in heaven. From reading the Bible, I thought I had learned that you weren't supposed to advertise your giving like the Pharisees (Matthew 6:1-4).⁸ I figured any giving I did was between god and me. If god didn't like it, he would let me know. I was feeling pretty good about my choice until then.

Charity and giving are clearly defined by the god virus. Since the survival of the virus depends on regular feeding, it does little good for the virus if you give resources to a non-viral entity, which is therefore not acceptable.

Infected individuals are also programmed to feel guilt if they do not give, or if they give to a charity that does not support the god virus. Catholics generally don't give to the Baptist college fund. Baptists don't give to Catholic Charities. No Nazarene gives to the mosque-building fund. No Islamic philanthropist writes a fat check to Jerry Falwell's Liberty University. In short, if you and your money are not in service to the virus, it doesn't count and may even count against you

A Good Vector Is Hard to Find

When I was growing up, in the course of 10 years, three ministers in our church were caught having sexual affairs with members. In two other churches of our denomination, five other ministers were caught in affairs, all within one tiny denomination in the Bible belt city of Wichita, Kansas.

It is especially interesting when vectors engage in prohibited behavior since they probably have the highest dose of the virus. Even more interesting are the excuses others make for that behavior. All too often, the behavior is excused with "he just made a mistake" or "he is only human." When the senior minister of my church was caught in an affair, he was allowed to keep his position! He repeated the "mistake" three times over a 10-year period before he was finally fired. I have seen this occur many times within churches.

⁸ "...that your alms be in secret; and your Father who sees in secret will repay you" (Matthew 6:4).

Why were these folks allowed to stay? Because good vectors are hard to find and expensive to develop. As long as a vector can efficiently feed the virus with money and hosts, the vector will generally remain. Scandal is a small price to pay for a highly effective vector.

Catholic priests are among the most expensive of all vectors. When the Catholic Church learns that a priest is sexually misbehaving, molesting children, having affairs with women or other men, the investment is threatened. That is largely why the church protects the priest-vector rather than the parishioners. It is easier to deal with parishioners than to find and develop a new vector.

The Catholic problem with pedophile priests is a major case in point. I would venture to guess that the Protestant religions have an equally large problem of clergy sexual violations. But because Protestants are more decentralized than the Catholic Church, violations are more easily hidden or violators transferred to another church.

Mutating Religions

Just as in biological systems, religions mutate frequently. Mutations occur constantly, but most never develop into new religions. The Baptists deal with mutations by simply letting the mutation form a new Baptist movement. It is an easy way to keep the main DNA of the movement close without losing it altogether.

Catholics deal with mutations by eliminating them. The Catholic strategy is to keep the DNA as pure as possible and minimize mutations. Thus, threat of excommunication is a primary method of cleansing, and burning at the stake was once popular.⁹ The strategies of both Baptists and Catholics work reasonably well.

In biology, occasionally, mutations are so powerful they overwhelm

⁹ While many in the United States are familiar with the Salem Witch trials of 1692, there was a much bigger witch and heresy hunt going on in Europe in the 16th and 17th centuries. Historians estimate that 200,000 people were burned at the stake for various heresies during this time. Mary Tudor (Bloody Mary in England) was responsible for 274 executions by burning over her five-year reign, including the Archbishop of Canterbury in 1556. Burning was particularly favored by the Spanish Inquisition because it did not involve shedding the victim's blood, which was disallowed under the prevailing Roman Catholic doctrine, and because it ensured that the condemned had no body to take into the next life (which was believed to be a very severe punishment in itself). It was also thought at that time that burning cleansed the soul, which was considered important for those convicted of witchcraft and heresy. Capital Punishment U.K., *Burning at the Stake* (accessed 20 November 2008); available from <http://www.capitalpunishmentuk.org/burning.html>; Internet.

even the strongest defenses and infect entirely new populations. This can happen when the virus encounters a susceptible population. The same goes for religion – in the 1500s, Martin Luther's god virus swept through the largely uneducated and ignorant populations of northern Germany.

Luther's god virus was so powerful that it swept through the European population far faster than the original Catholic virus had done a thousand years before. Once let loose, the Protestant virus mutated rapidly. The Calvinist virus was a direct mutation from the Lutheran. The Anabaptist movement blossomed (Mennonites, Hutterites, Church of the Brethren) along with the French Huguenots, Quakers, German Baptists and many more.

A population that is isolated from other religions and largely uneducated is susceptible to the right kind of mutation or a totally new god virus. Buddhism, a mutation of Hinduism, swept through India from 480 BCE to 180 BCE and became the largest god virus in the world at the time. Islam accomplished a similar feat in the Middle East in only 200 years, from 600-800 CE.

Revive Us Again

If you are familiar with fundamentalist church services, you probably know that old hymn, "Revive Us Again." It is a clear call by the infected that they need a booster shot. Revivals are largely aimed at those who already have the virus. When I was a kid, our church had a revival every year. A guest preacher would preach rejuvenation and recommitment. Most of the people who "got saved" were already related to the church in some way. Rarely did someone come off the streets and get saved.

The revival phenomenon is an adaptive method for keeping the local beliefs strong and preventing outside forces from invading or getting a foothold. It could be seen as mutation prevention. It helps keep people on the straight and narrow. My years growing up in a fundamentalist tradition gave me many opportunities to witness revivalism at work. The focus is much more emotional than the regular church services. A charismatic guest preacher generally leads the revival. The best preachers create an emotional high in the congregation that results in more dedication to the god virus and more money to the church. While sacrifice and giving are most often the themes of a revival, the preacher also spends a lot of time preaching against various "temptations" in the world and against the latest things that might

lead the flock astray, like popular television shows, movies or books. One could see the whole exercise as a “keeping the virus pure” process.

Other religious groups have their own methods of viral purification. Catholics tend to use retreats and marriage renewal as well as a tight bureaucracy that keeps close track of the flock. Mormons and Jehovah's Witnesses have well-organized hierarchies that keep all in line while sanctioning or expelling those who go astray.

Freethinkers, A Mutation out of Control

Sometimes a mutation can get out of control. The Protestant emphasis on reading the Bible allowed people to draw their own conclusions without priestly interpretation or central ecclesiastical control. As a result, dozens of mutations sprang up in Europe after Lutheranism began. When people were able to read for themselves, inevitably some of them concluded that the whole enterprise was a house of cards. Most kept their mouths shut to avoid losing their heads, but others made the leap to openly criticize religion and its role in society. These early critics of religion were the forebears of today's freethinkers and the freethinking movement.¹⁰

Freethinkers are interested in examining the world without the blinders of religious infection. They generally are non-religious or less religious. Some are spiritual or hold to some kind of spirituality. In many ways, freethinkers have reduced or eliminated their god virus infection.

Summary

Biological virus strategies bear a remarkable resemblance to methods of religious propagation. Religious conversion seems to affect personality. In the viral paradigm, the god virus infects and takes over the critical thinking capacity of the individual with respect to his or her own religion, much as rabies affects specific parts of the central nervous system. A simple thought experiment reveals how the god virus works to dull critical thinking. The god virus infects an individual and then inoculates against other viruses. Vectors in biology carry a parasite, virus or pathogen from one reservoir to another. Religious vectors act in similar ways. Priests, imams, ministers, etc.,

¹⁰ Giordano Bruno is often cited as one of the earliest proponents of freethinking. He lived from 1548 until he was burned at the stake by the Inquisition in 1600. Over the centuries, he was followed by many who questioned the suppositions of religion at their peril, including Galileo, Voltaire, Molyneux and Diderot.

carry the virus and infect new people. The virus carefully directs resources toward it and creates taboos against giving to competing viruses. Sometimes vectors fail. The expense of developing a vector makes it imperative to protect it even in failure as in the case of priest pedophilia. Mutations are constantly produced. Occasionally one breaks out, as in the case of Martin Luther, to infect vulnerable people and cultures.