THE MENTAL DISORDER THAT INDUCED THE WESTERN RELIGIONS
(TEMPORAL LOBE EPILEPSY/GESCHWIND'S SYNDROME)

Why do so many believe, with such passionate conviction, ancient ideas that are so palpably false? Especially in the face of the current upwelling of religious war in the Middle East, this seems to be a key question. We are not addressing, in this article, what the benefits of religious belief are. For many people they are substantial.

That epilepsy may be at the bottom of the founding of much religious belief is not a novel idea.¹ But we have pulled together and documented the startling fact that the founders of Christianity, Islam and Protestantism were men who shared this same mental disorder, specifically a form of temporal lobe epilepsy called Geschwind’s Syndrome which actually encourages the formation of new religions.

THE FOUNDING OF CHRISTIANITY, ISLAM AND PROTESTANTISM

An amazing aspect of Western religions is the extent to which hundreds of millions, and even billions, of people follow for long periods of time the views of individuals—the individuals who founded or shaped their religion—even when these views are quirky indeed and illogical. Religious followers are faithful indeed.

¹ Why God Won't Go Away, Andrew Newberg, M.D., Eugene D'Aquili, M.D., Ph.D. and Vince Rause, Ballantine Books, pg. 111. The authors allude to St. Paul and Mohammad but not, as we contend, Martin Luther. (They also refer to Joseph Smith, founder of the Mormons. In our view he was likely not epileptic but deliberate in his actions, for which see the biographies of Fawn Brody and also of David Persuitte referenced later). And they do not refer to Geschwind's Syndrome.
Even more astonishing is the evidence that the most active architects/founders of the largest three Western religions--Paul, Muhammad and Luther--were all epileptics. Particularly bizarre is the strong likelihood that two of them, Paul and Luther, became epileptics because of lightning.

Still more striking is the evidence that all three were epileptics who shared, in addition, several conditions of Geschwind Syndrome.

But most amazing of all is the important fact that these conditions of Geschwind Syndrome are a powerful stimulus to, and enabler of, the creation of new religions.

In other words, the origin of these religions may have been stimulated by a specific abnormality in the brain of their founders/architects without which these religions might never have gotten their start or taken the form they originally took. (Needless to say, the religions all evolved in varying degrees and ways over time.)

What follows then is, first, a look at the common medical condition of these three men. Subsequently, we look into an aspect of human psychology and neurology that makes it feasible to herd humans into religions, namely the fact that belief is enhanced by prayer until, eventually, the beliefs produce a kind of neurological reality that is independent of physical reality.

A disclaimer. If your religion works for you, you ought not to abandon it simply because you come to accept historical facts about how it came about. This article is not an effort to persuade believers to abandon their religions or give up the psychological support they secure from their belief in God.
But a general community understanding of the origins of a religion can lead to improvements in the way the religion is implemented. It can, for example, become less dogmatic and more tolerant of other religions. In the current era, this is becoming absolutely essential to peace and the survival of civilization.

COMMON MENTAL DISORDER OF PAUL, LUTHER AND MUHAMMAD

St. Paul (the chief architect of early orthodox Christianity), Muhammad (the founder of Islam) and Martin Luther (the founder of Protestantism) all appear to have had epilepsy.

We take Paul to be the chief architect of Christianity. As has so famously been observed, Christianity is not the religion of Jesus, which was Judaism. It is a religion about Jesus. It was Paul who shaped and spread what came to be the winning form of Christianity in an early struggle between different views of what Christianity should mean. Indeed, 38% of the New Testament chapters, and 28% of its words are attributed to Paul.

As developed below, all three seem to have had, also, most or all of the conditions of Geschwind syndrome:

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2 For example, Paul's Christianity abandoned the multiple laws of the Talmud, including dietary rules and rituals and circumcision. And Paul's Christianity replaced the emphasis of Jesus on good works necessary for salvation with an emphasis on faith in Jesus being sufficient for salvation. See The New Testament: A Historical Introduction to the Early Christian Writings (third edition); Bart D. Ehrman, Chapter 17 (From Jesus to the Gospels), especially page 275 and Chapter 18, pages 294-300).

3 See http://www.biblebelievers.com/believers-org/kjv-stats.html
a) A religious conversion or newly discovered strong religious commitment;

b) Hyperreligiosity (increased interest in philosophical and religious concerns);

c) Hypergraphia (tendency to write or preach at great length);

d) Aggressiveness;

e) Hyposexuality. 4

Persuasive medical analyses described below suggest that Paul's epilepsy and that of Muhammad were in the temporal lobe. Often linked to temporal lobe epilepsy is depression, 5 from which Paul, Muhammad and Luther all suffered. Epileptic seizures can induce blinding flashes and visions, which were experienced by both Paul and Muhammad.

Luther's epilepsy, which seems not to have been present in his early life, may have been triggered by a nearby flash of lightning in a storm that induced him to make his famous pledge to enter a

4"Common behavioral alterations associated with epilepsy include increased interest in philosophical and religious concerns [hyperreligiosity], increased and extensive writing of a cosmic or philosophical nature [hypergraphia], changes in sexual behavior, and aggressiveness....there is a heightened emotional response to many stimuli as well as a decrease in sexual responsiveness [hyposexuality]." Interictal Behavioral Changes in Epilepsy; Norman Geschwind; Article first published online: 5 NOV 2007 in Epilepsia; DOI: 10.1111/j.1528-1157.1983.tb04640.x

5 Individuals suffering from TLE have a high prevalence of depression (see Garcia CS, Depression in Temporal Lobe Epilepsy: A Review of Prevalence, Clinical Features, and Management Considerations. Epilepsy Res Treat, Volume 2012).
monastery. Luther also had obsessive-compulsive disorder,\textsuperscript{6} which is often associated with temporal lobe epilepsy.

Of course, not all epileptics have Geschwind syndrome.\textsuperscript{7} Norman Geschwind's contributions to this concept included 11 articles, chapters, editorials, and commentaries published between 1973 and 1984 and were summarized in 2009.\textsuperscript{8} One scientific controlled study that compared normal religious patients with the religious epileptics said: "the patients with epilepsy and religiosity conform to those who William James referred to as having, with respect to religion, 'an acute fever.'\textsuperscript{9}

Geschwind's syndrome is not listed in the International Statistical Classification of Diseases and Related Health Problems (ICD) of the World Health Organization (WHO). Indeed, some clinicians question the existence of this syndrome. Interestingly, according to one review, the "strongest support stems from the many clinicians who have

\textsuperscript{6} They sometimes have obsessive-compulsive disease (OCD) linked to it. (Waxman SG, Geschwind N. The interictal behavior syndrome in temporal lobe epilepsy. Arch Gen Psychiatry 32:1580-6, 1975. PMID 1200777)

\textsuperscript{7} A museum on epilepsy lists a dozen famous people that had epilepsy, including: Vincent van Gogh, Julius Caesar, F.M. Dostoevsky, Napoleon Bonaparte, Alfred Nobel, Lord Byron, Alexander the Great, Joan of Arc, Moliere, Vladimir Lenin, Socrates and Cardinal Richelieu. © German Epilepsymuseum Kork - Museum for epilepsy and the history of epilepsy


described and attempted to manage seizure patients with these personality features".  

But for the purposes of this article, prepared by an author trained not in psychiatry but mathematics, it may not matter how strong the consensus is in the psychiatric profession for giving this combination of psychiatric features a standard approved ICD designation. The relevant point is that these three founders of the major Western religions appear to have had much the same characteristics identified by Geschwind--whatever they are called--and that these characteristics strongly lend themselves to the creation of religions. The evidence follows.

Needless to say, Geschwind's syndrome did not shape the form these religions took; indeed, these three religions have different doctrines. What TLE/GS seems to have done is to energize these three individuals to think deeply, about religion, to play a role in shaping a new religion, to write and speak about their ideas at great length and to show great determination in persuading others to their view.

**PAUL: EPILEPSY WAS CALLED ST. PAUL'S DISEASE FOR CENTURIES**

In 1930, Albert Schweitzer summarized the life of Paul and concluded “The most natural hypothesis is therefore that Paul suffered from some kind of epileptiform attacks....”

This was further developed in a medical article, "St. Paul and Epilepsy," in the journal Neurology. D. Landsborough made the case

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that Paul's "ecstatic visions" and his conversion on the road to Damascus were "manifestations of temporal lobe epilepsy (TLE)."\(^\text{12}\)

**Temporal Lobe Epilepsy (TLE) and Visions**

In his diagnosis, Landsborough put special stress on Paul's repeated ecstatic visions. Paul wrote the Church in Corinth of an ecstatic personal experience in which he felt "caught up to paradise" and mentions other "visions". Thus he wrote the Corinthians about himself in the third person:

"I will go on to visions and revelations...I knew a man...who fourteen years ago was caught up to the third heaven. In the body or out of the body? That I do not know...I simply know that in the body or out of the body (God knows which) this man was caught up to paradise and heard sacred secrets which no human lips can repeat. Of an experience like that I am prepared to boast...." (2 Corinthians 12:1-9)

Paul had other visions as well. Luke writes that in one vision, Paul saw a Macedonian standing before him appealing to him to cross over from Troy to Macedonia to help (Acts 16:9); in another, Jesus spoke words of encouragement to him (Acts 19:8:9); in a third, while praying in Jerusalem, he fell into a trance and saw Jesus (Acts 22:17-21).

In Acts, the Bible reports that Paul saw a blinding light on the road to Damascus;\(^\text{13}\) endured three days of blindness afterwards; had


\(^{13}\) Acts: 9:3-6,8,9. As he neared Damascus on his journey, suddenly a light from heaven flashed around him. He fell to the ground and heard a voice say to him, “Saul, Saul, why do you persecute me?”[Saul was Apostle Paul's original Jewish name.]

“Who are you, Lord?” Saul asked.

“I am Jesus, whom you are persecuting,” he replied. “Now get up and go into the city, and you will be told what you must do.”
hallucinations of seeing Jesus return from the dead; and suffered a religious conversion of an extreme kind, from anti-Christian to Christian leader.

Landsborough writes:

"Some [temporal lobe epileptic attacks] began with a flash of light seen in both eyes, followed by a psychic state in which the predominant force was one of intense religious experience, of resounding elation in which [a patient] would feel compelled to proclaim the glories of God."

Consistent with the visions reported above, he concludes that he [Paul] may have had an attack of TLE on the road to Damascus, followed by post-ictal blindness--this taking place while he was undergoing a profound spiritual change, his conversion to the Christian faith."14

But what caused the attack of temporal lobe epilepsy? It seems more likely that Paul’s epilepsy was induced by lightning rather than an existing epileptic condition combined with ongoing “profound spiritual change.”

After all, in Acts 9, it says “a light from heaven flashed around him”. This means it was not just something that only Paul saw in his mind’s eye. In fact, his companions also saw this light!

What was this light? The seismologist, Dr. John Derr, suggests the light may have been “lightning of some kind, possibly earthquake lights

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The men traveling with Saul stood there speechless; they heard the sound but did not see anyone. Saul got up from the ground, but when he opened his eyes he could see nothing. So they led him by the hand into Damascus." Acts 9:3-8 of the New International Version (NIV)

14 Ehrman, op.cit., pp. 294-300. Paul believed that the vision on the road to Damascus meant that Jesus had returned from the dead and that, accordingly, the second coming of the Lord was at hand. But two thousand years have passed without Paul's vision being realized, suggesting it was not a revelation but a hallucination.
induced by seismic faults in the region or stroke lightning or the less likely ball lightning. Survivors exhibit a variety of temporary and permanent nervous system effects.” It is common for victims of lightning to survive and to have personality change.¹⁵

Derr’s hypothesis that the epilepsy was induced by lightning is supported by the seeming historical absence of any indications that Paul had epilepsy before the event.

And since Geschwind’s syndrome—which Paul had after the incident as part of his epilepsy—itself induces religious conversion, there is no need to postulate that Paul had on-going “profound spiritual change” as Landsborough suggested. Further, there seems no historical basis for believing that he was struggling beforehand with his anti-Christian beliefs.

“Thorn in the Flesh”: Epilepsy, Sexual Issues or Appendicitis?

Paul complained about a "thorn in his flesh"; he prayed three times to God to relieve him of it:

"My wealth of visions might have puffed me up, so I was given a thorn in the flesh, an angel of Satan to rack me and keep me from being puffed up: three times over I prayed the Lord to relieve me of it, but he told me, 'It is enough for you to have my grace: it is in weakness that my power is fully felt.' “(2 Corinthians 12:1-9)

There are three theories about this thorn. Consistent with his theory of epilepsy, Landsborough concluded that the thorn in his flesh

¹⁵" Lightning tends to be a nervous system injury and may affect any or all parts of the nervous system: the brain, the autonomic nervous system, and the peripheral nervous system. When the brain is affected, the person often has... personality change.... Many may suffer personality changes because of frontal lobe damage.... Survivors of lightning and electrical injury usually have a characteristic pattern of deficits.... Lack of libido and impotence are often reported." University of Illinois at Chicago; Lightning Injury Research Program; Mary Ann Cooper, MD. http://www.uic.edu/labs/lightninginjury/overview.htm
was the "occasional supervention of grand mal attacks". And in support of his theory, he observes in his paper that Paul's letter to the Corinthians thanking them for not spitting on him confirms Paul's awareness of his epilepsy. Landsborough concluded that Paul had had a seizure while preaching to them and wrote to them later: "Although my flesh was a trial for you, you did not scoff at me nor spurn me." Landsborough notes that the word "spurn" is the translation of a verb in the original which literally means "to spit out at me." The spitting was the superstitious reaction of a witness to an attack of epilepsy to ward off the devil.16

However, this argument about the Corinthians seeing him in distress is not critical to Landsborough's case for St. Paul having epilepsy, which is based primarily on Paul's visions and out-of-body experiences.

In fact, another theory makes a strong case that Paul had chronic appendicitis from shells and fish bones stuck in his appendix. This condition could also have been responsible for his distress during his speech to the Corinthians. In this case, Paul's thanking the Corinthians for not spurning him may have been ironic--which, indeed, is more likely than an admission of epilepsy in those days. This very plausible theory was championed by a medical doctor, by Dr. Matthew Woods of Harvard University, one hundred years ago.17

A third explanation for the "thorn in my flesh", believed by the Protestant Calvin, was that Paul had a sexual problem. Indeed, more recently, Bishop John Shelly Spong went further in this direction and diagnosed Paul's condition, from his writings, as a problem of repressed homosexuality. For example, Paul said: "I see in my members another law at war with the law of my mind and making me captive to the law of sin that dwells in my members." (Rom. 7:23). He also said: "I am carnal, sold under sin. I do not understand my own actions." (Rom. 7:14, 15).

16 Ibid, pg. 660.
17 Dr. Matthew Woods; "Was the Apostle Paul An Epileptic?" 1913 ; RareBooksClub.com, 2012.
But neither temporal lobe epilepsy nor a sexual condition is likely to produce the profound stabbing pain Paul felt. This kind of pain suggests that appendicitis was the thorn in his flesh. However, Spong may still be right about Paul's repressed homosexuality.\textsuperscript{18}

In sum, based on different writings by Paul, three different medical assessments of Paul's reference to "thorn in my flesh" have been made. I consider the chronic appendicitis to be the thorn and epilepsy to be quite certain. But he may also have been a repressed homosexual.

\textbf{Geschwind’s Syndrome of Paul: Conversion, Religiosity, Hypergraphia, Hypososexual, Aggressive, and Depressive}

The nature of Paul's personality is consonant with Geschwind syndrome. It includes voluminous writings and preaching (hypergraphia), obsession with philosophical, moral and religious issues, and extreme religiosity.

Also consistent with this syndrome, he was aggressive and depressive. Oxford Professor G. G. Caird, an expert on Saint Paul, said:

"He was...a man of immense vitality and determination. At everything he must excel...he could also be a relentless opponent".\textsuperscript{19}

C.H. Rieu had a similar appraisal.

"He was...a whirlwind of passions. Hate, anger, depression jostle with tenderness, love and hope, and all in extremes".\textsuperscript{20}

\textsuperscript{18} According to Spong, Paul's religious tradition would regard gay males as "aberrant, distorted, evil and depraved". He was never married and said: "It is well for a man not to touch a woman" (1 Cor. 7:1). Spong's argument appears in Rescuing the Bible from Fundamentalism, Harper San Francisco, see pages 110-1.


With regard to hyosexuality, Paul may have been married before his epileptic seizure on the road to Damascus, but he was not afterwards, according to this Biblical statement:

“I say to the unmarried and to widows that it is good for them if they remain even as I.” (Emphasis added). 1 Corinthians 7:8

**PAUL'S EPILEPSY SEEMS ASSUMED FOR CENTURIES!**

It appears that this learned view of Dr. Landsborough about Paul was a governing assumption for centuries! A German museum on Epilepsy says:

"In old Ireland, epilepsy was known as 'Saint Paul's disease.' The name points to the centuries-old assumption that the apostle suffered from epilepsy."²¹

This museum website has a page about Paul with reasoning quite similar to that of Landsborough, and it adds:

"Saul's sudden fall, the fact that he first lay motionless on the ground but was then able to get up unaided, led people very early on to suspect that this dramatic incident might have been caused by a grand mal seizure. In more recent times, this opinion has found support from the fact that sight impediment—including temporary blindness lasting from several hours to several days--has been observed as being a symptom or result of an epileptic seizure and has been mentioned in many case reports."

A study discussed below with regard to Abraham, Moses, Jesus and St. Paul on "The Role of Psychotic Disorders in Religious History Considered" mentions a number of possible mental disorders for Paul.

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²¹ [http://www.epilepsiemuseum.de/alt/paulusen.html](http://www.epilepsiemuseum.de/alt/paulusen.html) © German Epilepsymuseum Kork - Museum for epilepsy and the history of epilepsy
It says it is "not necessary to invoke epilepsy as an explanation" (italics added) for Paul's experiences but goes on to provide support for the Geshwind thesis by saying:

"Paul does, however, manifest number of personality characteristics similar to the interictal personality traits described by Geschwind such as deepened emotions; possibly circumstantial thoughts; increased concern with philosophical, moral and religious issues; increased writing, often on religious or philosophical themes; and, possibly, hyosexuality (1 Corinthians 7:8-9)." 22

Since Geschwind's syndrome is particularly associated with temporal lobe epilepsy occurring in the left hemisphere of the brain, this list of Paul's Geschwind's syndrome characteristics lends support to the notion that Paul was indeed epileptic as appears to have been believed for many centuries.

**MUHAMMAD: TLE/GS; RELATED CONDITIONS**

The first attribution of epileptic seizures to Muhammad comes from the 8th century Byzantine historian Theophanes, who wrote that Muhammad’s wife "...was very much grieved that she, being of noble descent, was tied to such a man, who was not only poor but epileptic as

22 "It has been speculated that his religious experiences resulted from temporal lobe epilepsy. We would argue that it is not necessary to invoke epilepsy as an explanation for these experiences. St Paul’s mood in his letters ranged from ecstatic to tears of sorrow, suggesting marked mood swings. He endorsed an abundance of sublime auditory and visual perceptual experiences (2 Corinthians 12:2–9) that resemble grandiose hallucinations with delusional thought content. He manifested increased religiosity and fears of evil spirits, which resembles paranoia. These features may occur together, in association with primary and mood disorder-associated psychotic conditions...."

The Role of Psychotic Disorders in Religious History Considered; Evan D. Murray, M.D.; Miles G. Cunningham, M.D., Ph.D.' Bruce H. Price, M.D. *The Journal of Neuropsychiatry and Clinical Neurosciences* 2012; 24:410-426. doi:10.1176/appi.neuropsych.11090214
well."23 This means that epilepsy was understood at that time and that Muhammad, who had many visions and convulsions, must have known he was an epileptic.

As was the case with Paul, a careful medical article makes the case that Muhammad is likely to have had, in particular, temporal lobe epilepsy. In his 1976 article "A Differential Diagnosis of the Inspirational Spells of Muhammad the Prophet of Islam," Frank R. Freemon concludes: "Although an unequivocal decision is not possible from existing knowledge, psychomotor or complex partial seizures of temporal lobe epilepsy would be the most tenable diagnosis."24

23 Temkin, O. The Falling Sickness (Baltimore: John Hopkins Press)

24 Frank R. Freemon, A Differential Diagnosis of the Inspirational Spells of Muhammad the Prophet of Islam. Epilepsia, 17 :423-7, 1976. The abstract of this article says:

"This paper reviews the spells of Muhammad, the Prophet of Islam. During these spells, Muhammad sensed the approach of a figure whom he thought to be the Angel Gabriel. The inspirational message transmitted to Muhammad during these spells helped form the religion of Islam. This is a review of the historical details of these spells and an attempt to reach a medical diagnosis..."
In reaching this conclusion, he considers a wide range of other possibilities.\textsuperscript{25}

Indeed, Muhammad is reported to have had mysterious seizures at the moments of inspiration. According to Philip Schaff, during his revelations, Muhammad "...sometimes growled like a camel, foamed at his mouth, and streamed with perspiration."\textsuperscript{26}

So there is reason to believe that Muhammad was an epileptic and one with temporal lobe epilepsy. Did he show evidence of having the other characteristics of Geschwind syndrome and some of the other medical conditions associated with it?

DEPRESSION, VISIONS, HALLUCINATIONS, RELIGIOUS CONVERSION, HYPOSEXUALITY AND DETERMINATION

\textit{Depression, Visions and Hallucinations}: Born around 552 C.E., he had an early prophetic experience as a child concerning two men clothed in white who reached into his chest and removed his heart.\textsuperscript{27} Aslan writes that Muhammad was extremely successful in running his wife's business and was relatively affluent, but that he frequently went on "solitary retreats of self-justification." For 15 years, he struggled with the incongruity between his lifestyle and his beliefs; by his fortieth year, he was an "intensely troubled man". [This would suggest depression; JJS.]

\textsuperscript{25} Freemon's differential diagnosis considered but rejected schizophrenic hallucinations, drug-induced mental changes, transient ischemic attacks, hypoglycemia, labyrinthitis, Meniere's disease and other inner ear maladies.


Then, one night in 610 C.E., while meditating, he found himself struggling to break free from an invisible presence. As he lay unable to breathe, a terrifying voice washed over him and commanded that he "recite." He felt these words stamped upon his heart:

Recite in the name of your Lord, who created,

Created humanity from a clot of blood.

Recite, for your Lord is the most Generous One

Who has taught by the pen;

Taught humanity that which it did not know.

Religious Conversion: This revelation occurred when he was somewhere in his early 40's and climaxed after a series of smaller, indescribable supernatural experiences. He thought he saw the Angel Gabriel. According to a companion (Aisha), the first signs of prophet hood occurred long before the experience at Mt. Hira and came in his dreams, which were so disturbing that they made him increasingly seek solitude. He also had "aural and visual hallucinations in which stones and trees spoke to him, saying 'Peace unto three, O Apostle of Allah'."28

So Muhammad did have visions, supernatural experiences, aural and visual hallucinations and a religious conversion. His translation of his visions that resulted in the Quran, and his preaching about them, can be considered, one supposes, hypergraphia and hyperreligiousity.

Determination: He did also show determination. He began with only a few followers and not only overcame the hostility of some Meccan tribes but, with 10,000 followers, united the tribes after eight years of fighting with them. By the time he died, in 632, most of the Arabian Peninsula had converted to Islam.

**Hyposexuality:** With regard to hyposexuality, Muhammad, at age 25, married a 40-year-old widow. Aslan writes: "The most shocking aspect of Muhammad's marriages is not his ten years of polygamy in Yathrib, but his twenty-five years of monogamy in Mecca, something practically unheard of at the time."\(^{29}\)

Accordingly, from age 25 to age 50--when his wife was 65--he appears to have had relatively little interest in sex. This period might represent the hyposexuality of Geschwind syndrome but, as indicated below, he seems to have become hypersexual in later life.

Perhaps the most complete and interesting treatment of Muhammad's TLE/Geschwind's Syndrome is found in "Sword and Seizure: Muhammad's Epilepsy & Creation of Islam by Dr. Abbas Sadeghian, an Iranian born neuro-psychologist, well-versed in the history of the Middle East, and a reader in Arabic of the original sources. He called the evidence that Muhammad was suffering from temporal lobe epilepsy "overwhelming".\(^{30}\)

Using various Hadiths (i.e., contemporaneous reports about Muhammad) he notes that Muhammad had several other characteristic symptoms associated with complex partial seizures: olfactory hallucinations that led him to use perfume and avoid people with bad breath; nausea accompanied by a bitter taste that led him to favor sweets and brush his teeth constantly even during fast periods when this is normally prohibited; sweating profusely during revelations even on a freezing day; auditory and visual hallucinations such as hearing a bell and seeing the Angel Gabriel when others with him could not; and shaking so vigorously during a revelation that the animal he was riding bellowed and twisted its legs; grimacing and making noises during revelations.\(^{31}\) Indeed, using an especially detailed Hadith showing

\(^{29}\) Ibid, pg. 65.
\(^{30}\) p. 69 and 72.
\(^{31}\) p. 73; p.75; p.77; p.79; p.80; p.81; p.82
several of Muhammad's symptoms, he concludes that the origin of the seizure was in the left hemisphere of the brain.\textsuperscript{32}

Dr. Sadeghian noted that Muhammad did not marry until he was 25 years of age--much older than other men of his time who were marrying at age 16--and was reported to have been a virgin when married. He had no other wife until his first wife, Khadijeh, died when he was 53. At this point everything changed. In time he had 15 wives and had nine at home at the time of his death. He attributed his potency to food given to him by the Angel Gabriel which gave him the sexual potency of 40 men.\textsuperscript{33}

It is possible however that the power he gained as Prophet was responsible for his potency. Henry Kissinger has famously opined that "Power is the greatest aphrodisiac". Research has linked sex to power.\textsuperscript{34}

\textbf{LUTHER: LIGHTNING CONVERTS HIM TO A MONK}

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\textsuperscript{32} pp.84-85.
\footnotesize\textsuperscript{33} op. cit. pg. 91-93
\footnotesize\textsuperscript{34} "Sex and power are linked as they both cause a surge in the hormone testosterone in both sexes. Testosterone in turn ramps up activity of the chemical messenger dopamine in the brain's 'reward network'...This is why power is an aphrodisiac – by ramping up the reward system it also increases appetite for other reward-rich activities such as sex. The high testosterone levels which high political office triggers can therefore further increase sexual appetites..." Ian H. Robertson, Ph.D. in Petraeus, Sex and the Aphrodisiac of Power, November 13, 2012 in Psychology today: http://www.psychologytoday.com/blog/the-winner-effect/201211/petraeus-sex-and-the-aphrodisiac-power-0.
Martin Luther attributed his decision to become a monk to a lightning bolt event: on 2 July 1505, he was on horseback during a thunderstorm and a lightning bolt struck near him as he was returning to the university after a trip home. Later, telling his father he was terrified of death and divine judgment, he cried out, "Help! Saint Anna, I will become a monk!" He came to view his cry for help as a vow he could never break.

The brain works on small amounts of electricity, and a nearby lightning bolt can affect "any or all parts of the nervous system: including the brain" and can result in "personality changes", and, in particular, "lack of libido" (i.e., hyposexuality) is often reported. Indeed, flashing or flickering lights can trigger epilepsy. Furthermore, if not the lightning itself, the fear that Luther reported may have induced a seizure. Stress may trigger a seizure.

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36 Lightning tends to be a nervous system injury and may affect any or all parts of the nervous system: the brain, the autonomic nervous system, and the peripheral nervous system. When the brain is affected, the person often has... personality change.... Many may suffer personality changes because of frontal lobe damage.... Survivors of lightning and electrical injury usually have a characteristic pattern of deficits.... Lack of libido and impotence are often reported." University of Illinois at Chicago; Lightning Injury Research Program; Mary Ann Cooper, MD. http://www.uic.edu/labs/lightninginjury/overview.htm
because it affects the hormone cortisol. Stress can also affect the part of the brain that regulates emotion.\(^38\)\(^39\)

That the lightning bolt was the key element in Luther's decision to enter the monastery seems generally agreed. The difference between scholars lies in whether the lightning induced the conversion by itself or whether it brought out an underlying religious attitude in Luther.\(^40\)

In any case, there seems no indication that Luther had epilepsy before the thunderstorm, i.e., as a child or adolescent, and little indication that he had obsessive traits earlier, which he certainly did after he joined the monastery shortly following the thunderstorm. So the lightning strike led to a personality change, and this suggests that it was at the moment of the lightning strike that he became epileptic. (There are alternative psychoanalytic analyses for Luther's marked change from youth that do not mention epilepsy by the famous Freudian, Erik H. Erikson and from other psychiatrists he quotes but they seem quite unpersuasive.)\(^41\)

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\(^{40}\) A basic work on Luther, "Luther and His Times", by E. O. Schwiebert, says that one modern group concluded that Luther's decision to enter the monastery was a "sudden, spontaneous, unpremeditated act, the direct outgrowth of his great fright in the thunderstorm two weeks earlier. It was, Luther had said: "A terrifying call from heaven." (p. 141). Another group of biographers take the line that "The stroke of lightning merely made him aware of what was already in his soul." (p. 142). (See also pp. 137-44).

\(^{41}\) In a psychoanalytic biography of Luther, Erik H. Erikson compares Luther to Sigmund Freud, talks of "marked differences" between the young Luther and the one later in the monastery. He says:

"We must conclude, that Luther's use of repudiative and anal patterns was an attempt to find a safety-valve when unrelenting inner pressure threatened to make devotion unbearable
LUTHER HIMSELF SAID HE HAD EPILEPSY

In any case, in a letter of April 12, 1541, Luther wrote that he was "surprised" that he had not been carried away by the various illnesses he felt he had, one of which was "epilepsy."42

Luther had seizures. A German scientific paper "Martin Luther's Anfallsleiden"43 said that Luther himself and his friends considered these seizures to be no "natural disease", but Satan punching his flesh, and he compared them to St. Paul's disease (2. Cor. 12) wherein Paul refers to "a thorn in his flesh." In principle, this could refer to an unknown "thorn in his flesh," but since Luther thought epilepsy was one of his diseases, it seems to be an illusion to epilepsy. Indeed, as noted earlier, it had been a "centuries-old assumption" that Paul suffered from epilepsy, and presumably Luther knew this.

One of his friends, Crotus Rubeanus, compared Luther's situation to that of St. Paul, writing in 1519 to Luther himself that Luther had been reacting to "a bolt of lightning like another Paul and sublimity hateful--that, when he was again about to repudiate God in supreme rebellion, and himself in malignant melancholy. The regressive aspects of this pressure, and the resulting obsessive and paranoid focus on single figures such as the Pope and the Devil, leave little doubt that a transference had taken place from a parent figure to universal personages, and that a central theme in this transference was anal defiance." pg. 247, Young Man Luther, Norton 1962.

He also reports: "Some biographers state without hesitation that Luther's father beat into him that profound fear of authority and those pervading streaks of stubbornness and rebelliousness which allegedly caused Luther to be sickly and anxious as a boy, "sad" as a youth, scrupulous to a fault in the monastery, and beset with doubts and depression in later life; and which finally made him pursue the question of God's justice to the point of unleashing a religious revolution." pg. 63.


(sic), and compelled to withdraw from our sorrowing company... into the monastery."  

Luther had visions. In his later years, according to Mark U. Edwards, Jr., Luther had "visions of and contests with the devil". He had "nighttime bouts with the devil". He had outbursts of rage and vilification, spiritual temptations and doubt, desire for death, and contempt for the world. He even once said publicly "I wish that I and all my children were dead"

He compared his depressions to that of Paul: "Anxiety, doubt, and temptation were, Luther believed, requisite for a proper understanding of the Scripture and had afflicted many men of God before him, including S. Paul."  

A German museum on epilepsy lists Luther as one of about 40 famous people with epilepsy.  

Luther considered epilepsy to be a "demonic disease," something that demons did to the wicked. Indeed, Luther appears to have called

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44 op.cit. p. 141.  
45 Luther's Last Battles: Politics and Polemics; 1531-1546. p. 15-18. " Edwards said: "The older Luther did firmly believe that he was living on the eve of the Last Judgment. Once the papacy had been exposed by the Reformation as the antichrist seated within the church, the final battle had been joined. Satan had unleashed all his minions in a last desperate attempt to defeat the servants of Christ. Luther's polemics were part of this final struggle."

47 In ancient times, epilepsy was known as the "Sacred Disease" (as described in a 5th century BC treatise by Hippocrates) because people thought that epileptic seizures might be visions sent by the Gods. (See "Epilepsy: historical overview." Health Topics A To Z). Once the Dark Ages set in people abandoned the idea that brain damage caused the condition and went back to believing that demons created it as a punishment to the wicked. Even the great revolutionary Martin Luther called epilepsy "the demonic disease." Seizures and
on God to afflict the Catholic Church with a long list of illnesses, including epilepsy. But this is not inconsistent with his belief that he was virtuously working out God's will against Catholicism because he often considered that he was a sinner--as did Paul who stated that the "thorn in his flesh" was kept there by God.

Edwards is writing about Luther's last 15 years and notes that scholars have attributed the polemical excesses of the older Luther to ill health and aging that pervert or distort his often admirable qualities of the younger theological genius. But a few scholars think that these perverse qualities were "always present" and "may even lie at the heart of Luther's original break with Rome." For them, the Reformation "from its beginning was the product of a psychologically as well as physically sick man."49

Luther viewed the history of his own time as a realization of the apocalyptical predictions of Daniel and Revelation. The papacy was the antichrist alluded to in the eleventh chapter of Daniel and the Turk was the small horn that replaced three horns of the beast in the seventh chapter.50 He considered himself a "true prophet and preacher". He saw the world engaged in a metaphysical struggle between good and evil.

His likely epilepsy is well known as a result of John Osborne's play "Luther", which takes the view that Luther's visions were the result of epileptic seizures.

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Epilepsy at: http://home.roadrunner.com/~thenhmaddens/Patty/SeizuresAndEpilepsy.htm

49 Edwards, op.cit. p. 8. He mentions such scholars as Harmann Grisar, Paul Reiter and Erik Erikson.
50 Edwards, op cit. p. 97
LUTHER'S HYPER-RELIGIOUSITY AND HYPERGRAPHIA

In Luther's Last Battles: Politics and Polemics, 1531-1546, Mark U. Edwards has graphs and tables of Luther's "enormous" productivity writing:

In 1531, he was ill for 6 months and still produced 180 sermons, wrote at least 100 letters and 15 treatises, lectured on Galatians, and work on his translations of the Old Testament. And in 1537, when he suffered his most severe and debilitating stone attack, he preached some 90 sermons, lectured, wrote at least 55 letters, and produced some 25 treatises.  

OBSESSIVE-COMPULSIVE DISEASE (OCD) & TEMPORAL LOBE EPILEPSY

Luther also showed symptoms of OCD. Robert M. Sapolsky states:

"He defined his disease with the German word 'anfechtung,' which he defined as a sense of being utterly lost, a sense of anxious lack of mooring in every circumstance. He carried out each monkish ritual to perfection, urging himself to ever greater concern for detail, ever greater consciousness of God throughout the act.... And once he said: 'The more you cleanse yourself, the dirtier you get.'" This obsessive-compulsive disorder is quite common in temporal lobe epilepsy, with about 25% of TLE patients exhibiting OCD features. 

51 p. 10, see also p.11, Fortress Press, 2005.
53 P.W. Kaplan of Johns Hopkins reports: "There is a long-recognized association between obsessive-compulsive disorder (OCD) and chronic epilepsy, most notably refractory temporal lobe epilepsy (TLE)...almost a quarter of patients with TLE exhibit OCD features... " See "Obsessive-compulsive disorder in chronic epilepsy". Epilepsy Behav. 2011 Nov;22(3):428-32 ; see also doi: 10.1016/j.yebeh.2011.07.029. Epub 2011 Sep 1.P.K. pkaplan@jhmi.edu
LUTHER'S HYPOSEXUALITY AND DEPRESSION

Luther married with great reluctance, at age 42, the last of some nuns he had freed from a convent; his wife was not physically attractive. He wrote a friend he had invited to his wedding banquet, Nicholas von Amsdorf, on June 27, 1525 that "God has willed and brought about this step. For I feel neither passionate love nor burning desire for my spouse."54 Accordingly, Luther appears to have suffered from hypossexuality--a common aspect of Geschwind Syndrome.

On depression, one author writes, "Besides observing mental difficulties in others, Luther had a compelling reason to affirm their reality. Luther himself endured many instances of depression. He described the experience in varied terms: melancholy, heaviness, depression, dejection of spirit, downcast, sad, and downhearted. He suffered in this area for much of his life and often revealed these struggles in his works. Evidently he did not think it a shameful problem to be hidden."55

PAUL, MUHAMMAD AND LUTHER BENEFITED FROM TEMPORAL LOBE/GESCHWINDS SYNDROME (TLE/GS)

From the foregoing, it seems clear that the three great religious off-springs of Judaism and its Old Testament --Christianity, Islam and Protestantism--were all catalyzed by epileptics with Geschwind syndrome.

54 Quoted from "Out of the Storm", Derek Wilson, page 234. She is described in what must be a mistranslation as "comely (perhaps even plain)". This probably means "homely (perhaps even plain)".

55 http://morethancoping.wordpress.com/2009/08/17/martin-luther-on-depression/
It seems, also, that Geschwind syndrome can give epileptics highly valuable characteristics for catalyzing new religions. In all three cases, it provided a heightened interest in religion--a religious conversion or conversion to a religious career (hyperreligiosity). It provided a great impulse to write and preach about their ideas (hypergraphia). It gave them aggressiveness in pursuing their goals. And in two of these cases (Paul and Muhammad), it gave them the conviction arising from repeated religious visions that they considered to be revelations. Also, in the third case, that of Luther, it appears to have been the source of a correlated medical condition, obsessive-compulsive intensity in pursuing his work.

**Ellen White, Founder of the Seventh Day Adventists**

Another more recent case of a religion induced by a similar epileptic condition involves the Seventh Day Adventists, founded by Ellen White. Here the medical condition appears to have arisen from a head injury.

A severe head injury can result in one or more seizures that can occur immediately after the fact or even a significant amount of time later. This could be hours, days, or even years following the injury.

In the case of Ellen White, she had a severe head injury at age 9, followed by three weeks of limited consciousness. Her future visions involved loss of consciousness, upward eye deflection, visual hallucinations, affective changes, gestural automatisms, preservation of speech, in a post-ictal-like period.
Further, she meets several criteria for Geschwind syndrome: extreme religiosity, hypergraphia (100,000 pages in 4,000 articles), repetitiveness, hypermoralism, and hyposexuality.

J. N. Loughborough, who had seen her having visions fifty times after 1852, and her husband James White noted that the visions were marked by various characteristics:

“In passing into vision, she gives three enrapturing shouts of “Glory!” which echo and re-echo, the second, and especially the third, fainter but more thrilling than the first, the voice resembling that of one quite a distance from you, and just going out of hearing.”

"For a few seconds she seemed like a person in a swoon with no strength. Then she was instantly filled with superhuman strength, sometimes rising at once to her feet and walking about the room. She frequently moved hands, arms, and head in gestures free and graceful. But in whatever position the hand or arm may be placed, it could not be hindered nor controlled by the strongest person." 56

During her lifetime Dudley M. Canright, a former Seventh-day Adventist minister, said she had a “complication of hysteria, epilepsy, catalepsy, and ecstasy” and said her “visions were merely the result of her early misfortune”. 57 Some neurologists later commented that her early injury may have caused partial complex seizures and hallucinations that led her to believe that she had visions of God. 58 Ellen White was posthumously diagnosed as having symptoms of

58 Samples, Kenneth (2007). "Evangelical Reflections on Seventh-day Adventism: Yesterday and Today". Questions on Doctrine 50th anniversary conference
temporal lobe epilepsy in 1981 by the pediatrician Delbert H. Hodder and again in 1984 by Molleurus Couperus, a retired dermatologist.\(^\text{59}\)

**OLD TESTAMENT FIGURES AND THEIR RELIGIOUS DELUSIONS**

Clearly not all new religions are induced by epileptics with Geschwind's disease, but mental disorders of other kinds appears to be common in great religious figures.

The painting below is of Abraham, who felt he had been commanded by God to sacrifice his son and is seen being dissuaded by an angel from committing this terrible act. So the founder of the Abrahamic religions was someone who, today, would have been immediately institutionalized as a dangerous psychotic that threatened the life of his son and was speaking to imaginary figures.

**DID ABRAHAM, MOSES AND JESUS HAVE PSYCHOTIC SYMPTOMS?**

A study by four Harvard professors on psychotic disorders in religious history observed that: "As many as 60% of those with schizophrenia have religious grandiose delusions consisting of believing they are a saint, God, the devil, a prophet, Jesus, or some other important person." Diminished insight about having a mental disorder is part and parcel of the condition, occurring in 30%–50% of persons with schizophrenia.\(^\text{60}\)

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\(^{60}\) The Role of Psychotic Disorders in Religious History Considered Evan D. Murray, M.D.; Miles G. Cunningham, M.D., Ph.D.; Bruce H. Price, M.D. The Journal of Neuropsychiatry and Clinical Neurosciences 2012;24:410-26
Schizophrenics gain conviction by being unaware of their mental disorder, which gives them a leg up, psychologically, in persuading others.

This paper concluded that Abraham, Moses, Jesus and St. Paul had "experiences that resemble those now defined as psychotic symptoms, suggesting that their experiences may have been manifestations of primary or mood disorder-associated psychotic disorders". They suggested that such persons with primary and mood disorder-associated psychotic symptoms may have had "monumental influence on the shaping of Western civilization."

Abraham: On Abraham, they concluded: "Abraham’s auditory and visual perceptual experiences and behaviors could be understood as auditory hallucinations (AH), visual hallucinations (VH), delusions with religious content, and paranoid-type (schizophrenia subtype) thought content."

Moses: "Moses had perceptual experiences and behaviors that find closest parallel today with...command auditory hallucinations, visual hallucinations, hyperreligiosity, grandiosity, delusions, paranoia, referential thinking, and phobia (about people viewing his face)... mood disorder-associated psychoses remain quite viable in the case of Moses."

They said "a diagnosis of paranoid schizophrenia (PS) would be fulfilled by the predominance of delusions and hallucinations in the absence of disorganization, negative psychiatric symptoms, or cognitive impairment. ...An increased propensity for violence has been observed in some individuals with PS. Moses’ increased propensity for violence could be viewed as corroborative for a diagnosis of PS. Reasonable diagnostic alternatives might include PD NOS [Psychotic Disorder, Not Other Specified], bipolar disorder, and schizoaffective disorder. If the first five books of the bible are credited to Moses’ authorship, then a

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doi:10.1176/appi.neuropsych.11090214View Author and Article Information. This article also discusses St. Paul.
bipolar disorder or perhaps schizoaffective disorder would be more compatible with his writing abilities."

Jesus: "The New Testament (NT) recalls Jesus as having experienced and shown behavior closely resembling the DSM-IV-TR [Diagnostic and Statistical Manual of Mental Disorders] defined phenomena of auditory hallucinations, visual hallucinations, delusions, referential thinking paranoid-type (PS subtype) thought content, and hyperreligiosity."

Ezekiel: It has been suggested that the person described by the Book of Ezekiel may have suffered from temporal lobe epilepsy and even Geschwind syndrome.

CHRISTIAN SCIENCE AND ITS MIRACULOUS RECOVERY

Mary Baker Eddy, founder of the Christian Scientists, experienced what Christian Scientists call "the fall in Lynn," the birth of their religion. Eddy said it was a revelation – not a communication from a deity, but what she called "human and divine coincidence."\(^6^1\) She slipped on some ice, injuring her spine, and became unconscious. Two women declared her paralyzed. A few days later, Eddy arose after reading about one of Jesus' healings. This was considered a miracle and an example of Christian Science healing.

Her injury and cure have been disputed... A homeopathic doctor who treated her after the fall, Alvin M. Cushing – when asked by McClure's in 1907, over 40 years later – said the injury had not been a serious one, and that Eddy had responded to a homeopathic remedy (highly diluted arnica) and some morphine that he had given her.\(^6^2\)

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\(^6^1\) Bloom 1992, p. 133, cited in Fraser 1999, p. 35.

INNER VOICES: QUAKERS, SOCRATES, SHAKERS

Of course, not all religious denominations were founded by individuals who were epileptic, much less ones who had Geschwind syndrome. Most denominations within a religion were founded over doctrinal differences by stubborn men or by men who differed over how to implement the Bible.

Nevertheless, some religious leaders heard inner voices.

GEORGE FOX, founder of the Quakers, heard an inner voice saying, "Thou seest how young people go together into vanity, and old people into the earth; thou must forsake all, young and old, keep out of all, and be as a stranger unto all." Driven by his "inner voice," Fox left Drayton-in-the-Clay in September 1643 and went to London mentally upset. He said:

And when all my hopes in them and in all men were gone, so that I had nothing outwardly to help me, nor could tell what to do, then, oh, then, I heard a voice which said, "There is one, even Christ Jesus, that can speak to thy condition"; and when I heard it my heart did leap for joy.63

SOCRATES: In Plato's *Apology of Socrates*, Socrates claimed to have a daimonion (literally, a "divine something") that frequently warned him—in the form of a "voice"—against mistakes but never told him what to do.

ANN LEE, founder of the Shakers, preached the imminence of a second coming. She spoke of visions and messages from God, claiming that she had received a vision from God, the message that celibacy and confession of sin is the only true road to salvation, the only way in which the Kingdom of God could be established on the earth. She was

63 Quaker Faith and Practice §7
frequently imprisoned for breaking the Sabbath by dancing and shouting, and for blasphemy.\textsuperscript{64}