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**THE NEVOUS SYSTEM:
AN OVERVIEW IN THE CONTEXT
OF THE COSMIC CONFLICT**

by

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Abstract

This essay investigated the human nervous system (NS) in the context of Cosmic Conflict. Two opposing forces, good and evil, were found to influence human thoughts. It was revealed that because the nervous system is the control center for bodily functions, the spiritual force that controls the NS, rules society. Genetic determinism, naturalism, and neurological correlates to behavior facilitate an understanding that DNA and neurotransmitters influence human conduct. Every thought, influenced by good or evil, stimulates a biological reaction that affects physiology, mood, and behavior. The mind (thought-substance) and brain (physical-substance) are separate mechanisms, but there is an interdependent relationship between them. The brain is the organ and instrument of the mind and controls the whole body. A healthy nervous system is necessary for the proper transmission of signals from the brain through neurons. The brain will not properly respond to the promptings of God if the nervous system is malfunctioning. The nervous system is the only avenue through which the Holy Spirit can work and effect conversion. If compromised, Satan will inhabit it and destroy souls. As important as good nutrition is to neurological signals, only the power of God can heal and restore compromised and demonically infested nervous systems.

Introduction

Science has played important roles in facilitating an understanding of the human nervous system (NS). It has helped Christians to realize that the nervous system is the neurological battleground for the Cosmic Conflict (controversy between good and evil). Considering it is the control center for bodily functions and behavior, the spiritual force that controls it, rules society. Every thought, positive or negative, stimulates a neurological reaction that influences physiology, mood, conduct, and eternal destiny.

The Etymology of the Cosmic Conflict

And war broke out in heaven: Michael and his angels fought with the dragon; and the dragon and his angels fought, But they did not prevail, nor was a place found for them in heaven any longer. So the great dragon was cast out, that serpent of old, called the Devil and Satan, who deceives the whole world; he was cast to the earth, and his angels were cast out with him. (Revelation 12:7-9)

Satan uses human nervous systems as instruments to effect the Cosmic Conflict when humans choose to serve him. As in the case of Eve in Eden, he can only access the nervous system through the sensory motor. He appealed to Eve's following senses to deceive her:

- She heard the serpent's melodious voice (hearing)
- She saw that the tree was good for food (vision)
- She took the fruit (touch)
- She ate the fruit (taste)

Jesus, through the Holy Spirit, also employs human nervous systems as instruments to affect the Cosmic Conflict. Paul says, "What? Know ye not that your body is the temple of the Holy Ghost which is in you. . . ye are not your own? (I Corinthians 6:19). Paul further states, "Do not present your members (sensory motor skills) as instruments of unrighteousness to sin, but present yourselves unto God. . . and your members as instruments of righteousness to God (Romans 6:13). The epitome of the Cosmic Conflict on the neurological level is revealed when the Apostle pinned this phrase, "I find then a law, that, when I would do good, evil is present with me. For I delight in the law of God after the inward man: But I see another law in my members, warring against the law of my mind" (Romans 7:21-23)

The form of verb Paul used to describe his conflict between good and evil implies the engagement of a military campaign. The law of his mind is combating against the law of his sensory motor, causing him to do evil while desiring to do good (SDA Bible Commentary, vol. 6, p.557). It is a fierce war. At times he appeared to have been suffering from dissociative disorder, or schizophrenia.

Assumptions

There are seven basic assumptions that were used to guide this research:

- God is Creator/Intelligent Designer of the nervous system

- Humans are subjects of a Cosmic Conflict between good and evil
- God gave humans freewill to choose good or evil
- The Holy Spirit influences humans to choose good
- Satan tempts humans to choose evil
- Violators of God's immutable law give reign to demons by default
- Scientific methodologies and Christianity can work together to discover truth about how supernatural forces operate in the nervous system

This essay will explore and present an overview of the following learning objectives:

- (1) The mind and brain—channels of salvation or damnation.
- (2) Genetic determinism, naturalism and God's power.
- (3) Neurological Correlations of behavior and the salvific implications.
- (4) The developing of the nervous system and its influence on our eternal destiny.
- (5) Neural nutrition and its influence on our relationship with God.
- (6) The Holy Spirit, the nervous system, and transformation.
- (7) The nervous system, demon possession, and deliverance.

I. The Mind and Brain—Channels of Salvation or Damnation

There is a unique connection between the brain and the mind. Philosophers named it dualism. This philosophy divides the material of the natural world from the contents of consciousness. The mind is (meta-physical) thought-substance and the brain is physical-substance (Kalat 2004). In computer metaphors, the brain is the hardware and the mind is the software. They both must amalgamate to affect behavior. White (1932) suggested:

The brain is the organ and instrument of the mind, and controls the whole body. In order for the other parts of the system to be healthy, the brain must be healthy. And in order for the brain to be healthy, the blood must be pure. If by correct habits of eating and drinking the blood is kept pure, the brain will be properly nourished. (p. 291)

The Mind

Although the human body is integrated (mind, body, spirit) the above quote by White seems to suggest that the mind and brain are dualistic. Paul expounds further on the topic and says, "Let this mind be in you, which was also in Christ Jesus" (Philippians 2:5). The apostle was not suggesting a lobotomy, or brain transplant. He is alluding to a renewed psyche, or mind that interacts with the brain and produces psychomotor habits that are reflective of Jesus. The noun form of the Greek word for mind is "nous." It refers to reflective thought. The mind networks with neural activities and influences perception, understanding, judgment, knowledge, and the will. The Hebrew renders the word "nephesh" for mind. Its literal translation is inner-self, or inner-man (Vine, Unger and White, 2000).

Douglas and Tenney (2008) implied that the conversion of mind, soul, or psyche is used synonymously in Scripture. When God mysteriously transforms the mind through

a divine encounter, He changes the cognitive activities of the soul, or psyche as well. If a transformation has not taken place before death, God will unfortunately condemn that soul to eternal damnation. “The soul that sinneth, it shall die” (Ezekiel 18:4). On the other hand, God will grant eternal life to transformed minds. Scripture says, “And be not conformed to this world: but be ye transformed by the renewing of your mind, that ye may prove what is that good, and acceptable, and perfect, will of God” (Romans 12:2).

Due to sin, all of humanity is born with unconverted minds. “The whole head is sick, and the whole heart faint. From the sole of the foot even unto the head there is no soundness in it; but wounds, and bruises, and putrefying sores” (Isaiah 1:5, 6). Before conversion, humanity’s power of reason, the mind is under a satanic dominion. For over six thousand years, Satan has experimented with the properties of the human mind. He has learned to know it well. He is subtly working in the eschaton (last days) to link the human mind with his own and imbue it with his thoughts. He is doing this work in so deceptive a manner that those who accept his guidance know not that they are being led by him at his will. The great deceiver has a strategy to confuse the minds of men and women to the point that they are totally under his influence and none but his voice is heard (White, 1932).

At transformation, the mind or thoughts are under the influence of the Spirit of God. The outcome is that converts take on the mind of Christ and learn to think His thoughts after Him. Using the concepts of nurture and nature arguments, the mind is influenced by nurture because environmental stimuli, which are prompted by supernatural forces, work together to convert it. The brain is nature because it develops by using inherited DNA and ingested nutrients in the preconception and prenatal environments.

The Brain

“The brain is the organ and instrument of the mind.” One cannot be healthy without the other. They operate in interdependent relationships. If the neurotransmitters are in deficit or not transmitting neural messages properly, and the dendrites are not branched correctly, the brain is less capable of making a conscientious choice for salvation. The development of every part of the brain is vital for physical, spiritual, and mental health. Each area of the brain has a unique function. Kalat (2007), Amen (1998), Mash and Wolfe (2002) suggested the following regarding the areas and functions of the brain:

- The cingulate gyrus: Allows you to shift attention and thoughts (transmission of the brain). If damaged you can get stuck on thought (obsessions), get stuck on behaviors (compulsion), worry chronically, hold on to hurts from the past, develop argumentative reactions, and cognitive inflexibility.
- The thalamus: Greek for inner chamber. It filters sensory information (touch, taste, hearing, seeing, etc) and allows proper bodily orientation.
- The mamillary body: Is implicated in emotions, sexual behavior, and memory.
- The hippocampus: Records memories. People with hippocampus problems, do not lose old memories, but have problems storing new memories.
- The amygdala: regulates arousal, emotional responses, hormonal secretion, and autonomic responses.
- The olfactory bulb: smell mechanism.

- The frontal lobes: A part of the brain involved in planning, organizing, behaving, judging, solving problems, moral reasoning, spirituality, and a variety of higher cognitive functions. They are the control center for the entire brain. Some scientists refer to them as the “crown” of the brain.
- The temporal lobes: responsible for auditory activities, expressive behavior, language, and information retrieval.
- The parietal lobes: responsible for processing of sensory input, sensory discrimination, and body orientation.
- The occipital lobe: allows visual interpretation. Refer to figure 1:1 to see where the areas of the brain are located.

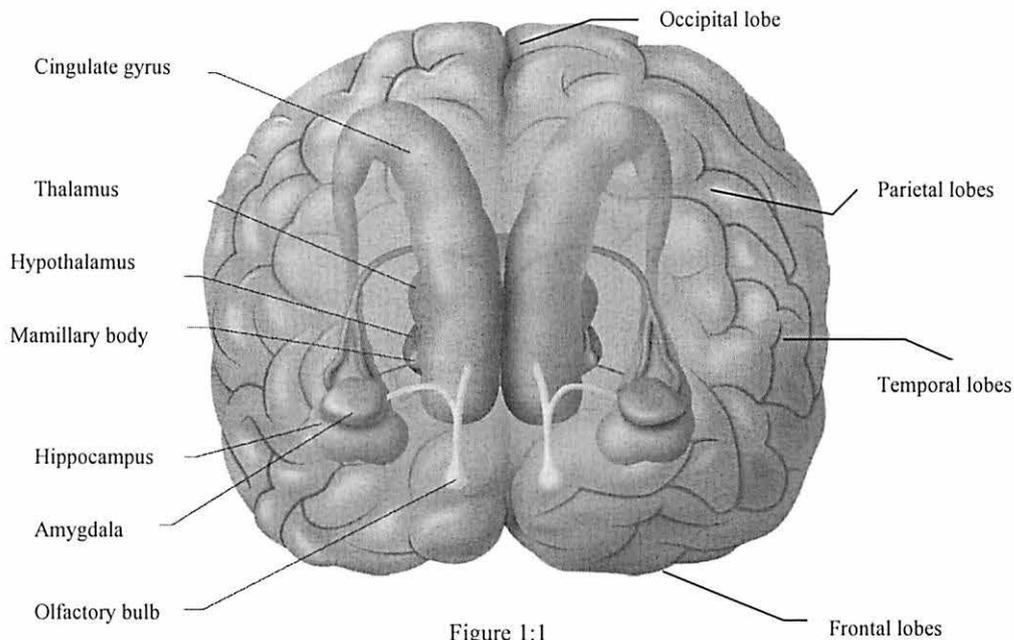


Figure 1:1

White (1980) commented, “All who name the name of Christ need to watch and pray and guard the avenues of the soul, for Satan is at work to corrupt and destroy if the least advantage is given him” (p. 402). Supernatural forces operate through the avenues of the soul (the nervous system). Demons are working through natural means, the preconception environment (the lifestyle of future parents) to program offspring for eternal damnation. Atheists, for example, perpetuate anti-God propensities biologically, socially, and environmentally. Before conception of their offspring, they program their own DNA by promoting and cherishing a belief-system that denies God. After birth, they socialize their offspring to become atheists in the neonatal environment. Alcoholic parents do the same. They put their children at risk for drinking and using other drugs by their lifestyle (Kalat, 2007). Thus, the condition of many before the Second Advent will resemble people who lived in the era of Jesus’ First Advent. White (1999) stated, the bodies of human beings, made for the dwelling place of God, had become the habitation of demons. The senses, the nerves, the passions, the organs of men, were infested with satanic supernatural agencies and men indulged in the vilest lust. The very stamp of demons was impressed upon the countenances of men. See table 1:1 below for explanations of the five primary avenues to the soul through which spiritual forces gain access.

Five Primary Avenues of the Soul

Functions and Affects

<p>The olfactory bulb</p>	<p>Smell mechanism.</p> <ul style="list-style-type: none"> ❑ Jacob used to deceive his father. “And he smelled the smell of his raiment, and blessed him. . .” Gen 27:27 ❑ God used to punish Judah. “And it shall come to pass, that instead of sweet smell there shall be stink.” Isa. 3:24 ❑ Multibillion dollars a year perfume industries used to gain wealth. Which is indicative of how powerful smell is and how it affects behavior.
<p>The temporal lobes</p>	<p>Auditory activities and verbal expressions, information retrieval.</p> <ul style="list-style-type: none"> ❑ Serpent deceived Eve. “Now the serpent was more subtle than any beast of the field. . . And he said unto the woman, Yea, hath God said, Ye shall not eat of every tree of the garden?” Gen 3:1 ❑ God called Samuel. “Therefore Eli said unto Samuel, Go, lie down: and it shall be, if he call thee, that thou shalt say, Speak, LORD; for thy servant heareth.” 1 Sam 3:9 ❑ The success of the music industries helps us to understand how auditory and verbal expressions in music can influence moods.
<p>The parietal lobes</p>	<p>Responsible for processing sensory input—touch.</p> <ul style="list-style-type: none"> ❑ Jesus used touch to heal. “And he cometh to Bethsaida; and they bring a blind man unto him, and besought him to touch him.” Mark 8:22 ❑ Cain used touch to kill. “And Cain talked with Abel his brother: and it came to pass, when they were in the field, that Cain rose up against Abel his brother, and slew him.” Gen. 4:8 ❑ Touch in certain areas can activate mood-altering neurotransmitters and help relax the body, or lower our defenses and render us helpless to seductive influences.
<p>The occipital lobe.</p>	<p>Allows for visual interpretation.</p> <ul style="list-style-type: none"> ❑ Jesus used vision to communicate to prophets. And he said, Hear now my words: If there be a prophet among you, I the LORD will make myself known unto him in a vision, and will speak unto him in a dream. Num 2:6 ❑ David was seduced by vision. “David arose from off his bed, and walked upon the roof of the king's house: and from the roof he saw a woman washing herself; and the woman was very beautiful to look upon.” 2 Sam 11:2 ❑ The visual apparatus is attracted to beauty, and repelled by unsightly objects. Beauty is used to market homes, automobiles, appliances, and fashion.
<p>The thalamus</p>	<p>Filters sensory information—taste.</p> <ul style="list-style-type: none"> ❑ Satan used to deceive Adam and Eve. “When the woman saw that the tree was good for food, and that it was pleasant to the eyes. . . and she took of the fruit thereof, and did eat, and gave also unto her husband with her; and he did eat.” Gen 3:6 ❑ God used to describe the Christian experience to John. “. . . It was in my mouth sweet as honey: and as soon as I had eaten it, my belly was bitter.” Rev. 10:10 ❑ Certain additives are placed in foods that will excite taste buds and cause overeating.

Table 1:1

The brain integrates sensory information and directs motor responses, thus playing a major role in vital instinctive and moral activities. The scenario of Phineas Gage points out how a malfunctioning brain (frontal lobes) can interrupt moral behavior. Gage was honest and well liked by friends and fellow workers. He was a young man of exemplary character and promises until one day in September 1848. While tamping down the blasting powder for a dynamite charge, Gage inadvertently sparked an explosion. The one inch-thick tamping rod penetrated his cheek, obliterated his left eye, pierced through the frontal area of his brain, and out the top of his skull. The rod landed several yards away, and Gage fell back in a convulsive heap. Moments later, he stood up and spoke. His fellow workers watched in amazement, then drove him by oxcart to a hotel, where a local doctor, John Harlow, dressed his wounds. As Harlow stuck his index fingers into the holes in Gage's face and head until their tips met, Gage inquired, "When will I be able to return to work?"

Within two months, Phineas Gage had completely recovered--he could walk, speak, and demonstrate normal awareness of his surroundings. However, his character did not survive the tamping rod's journey through his brain. In place of the diligent and dependable worker stood a foulmouthed, ill-mannered, and pathological liar given to extravagant schemes. "Gage," said his friends, "was no longer Gage." Scientific interest in Gage's case began with John Harlow. After hearing of Gage's death in an epileptic fit 13 years after the accident, Harlow persuaded the family to exhume the remains and donate the skull to medical research. Harlow believed that the change in Gage's personality had been caused by damage to the frontal lobes of the brain. Nineteenth-century science had a hard time accepting the notion that a dollop of gray jelly could govern something as transcendent as social behavior. Researchers discovered that damage to an area under the frontal lobes called the ventromedial region, especially on the left side made Gage antisocial (Amen 1998). Gage was susceptible to every temptation that beckoned him. His quality of life eroded. His family suffered tremendously because of his behavior. The good news is, although Gage's injury weakened his resistance to immoral deeds, he was not beyond the reach of grace. If he repented, God saved him.

Nolen-Hoeksema (2007) believed that in order for the brain to function normally, it must be protected from emotional and physical traumas, and develop correctly from conception. The embryo's neural plate must undergo proliferation (production of new cells), migration (follow a specific chemical pathway to final destination), differentiation (forming distinctive axons and dendrites), myelination (axon forming fatty sheaths to accelerate transmission of sensory information), dendritic branching (lining up synaptic receptors to receive neural information). If the brain does not develop properly through the abovementioned process due to toxins or malnutrition, infants are born with neurological deficits and predispositions to disorders that Satan can easily manipulate.

II. Genetic Determinism, Naturalism and God's Power

Kalat (2004) records various studies showing that identical (monozygotic) twins are more likely to exhibit similar tendencies toward criminality than fraternal twins (dizygotic) are. These studies showed that the rate of criminality was higher among

adopted twins with one biological parent, who was criminal. Those who had one adoptive parent who was a criminal but whose biological parents were not had lower criminality rates. These studies implied that humans do not have free will and behavior is hardwired into the genes as instincts are in animals.

Considering that Neurological Psychology explains human behavior through naturalistic genetic concepts, certain divisions tend to ignore supernatural influences. According to Watson (2002), genetic determinism is an area of contemporary science and Neurological Psychology, which suggests that human freedom does not exist and behavior is genetically determined. This behavioral concept, Watson believed, is linked directly to the genes in the DNA. Genetic profiling (using genes to predict behavior) is derived from this same concept. Science has discovered that aberrations in certain genes are the cause of various forms of physical and mental diseases in humans. Using this line of reasoning, people's genes physically determine their behavior. In this school of thought, we are victims of our genetic inheritance. All activities, including moral choices, are completely predetermined, which preclude free will and the possibility that humans could have acted otherwise. This theory overlooks choice and the new birth experience that Christ has promised to those who come to Him. Although the entire human race has hereditary tendencies to sin, Jesus can set us free if we surrender our will to Him. "As the will of man co-operates with the will of God, it becomes omnipotent."(White, 1941, p.333)

Those who put their trust in Christ are not to be enslaved by any hereditary or cultivated habit or tendency. Instead of being held in bondage to the lower nature, they are to rule every appetite and passion. God has not left us to battle with evil in our own finite strength. Whatever may be our inherited or cultivated tendencies to wrong, we can overcome through the power that He is ready to impart (White 1973, p. 254)

Paloutzian (1996), Brand and Jarnes (2006), postulated that in related ways, naturalism is a theory that correlates scientific methods to philosophy by affirming that all beings and events in the universe (whatever their inherent character may be) are natural. Consequently, individual characters are helpless products of heredity and the environment and are motivated by strong instinctual drives from within, and harassed by social and economic pressures from without.

In the book *Desire of Ages*, White (1999) took a position that the natural and supernatural work interdependently to produce a divine outcome. She suggested that in feeding the five thousand, Jesus lifted the veil from the world of nature, and made known the power that is constantly in operation for our good (Matthew 14: 18-21). God works a miracle in the production of Earth's harvests. Through natural methods He is performing the same work that was done in the feeding of the multitude. Humans prepare the soil and sow the seed, but it is the power of God that causes the seed to germinate. It is God's rain and air and sunshine that cause it to bring forth, "first the blade, then the ear, after that the full corn in the ear." (Mark 4:28). Men and women co-operate with God in the care of the grain and the preparation of the loaf but do not always ascribe credit to Him. Because of this, they lose sight of the divine agency. "They do not give God the glory due unto His

holy name. The working of His power is attributed to natural causes, or to human instrumentality” (White 1999, p. 343).

III. Neurological Correlations of Behavior and the Salvific Implications

Prayer and Neurological Correlates to Behavior

Surwillo and Hobson (1978) Spilka, Hood, Hinsberger, and Gorsuch (2003) postulated that when we pray or meditate a neural slowing takes place in the brain. Rayel (2005) and Benson (1975) used electroencephalograms (EEGs) to confirm that this slowness is associated with the production of alpha brain waves, which precipitate a feeling of wellbeing and tension reduction. During this process powerful brain chemicals, endorphins, which have the same effects as morphine, heighten pleasure and reduce discomfort. These results suggest a correlation between prayer and consolation. Technological scientific advancement in the areas of Polygraphs, Magnetic Resonance Imagery (MRI), Computerized Axial Tomography (CAT), and Electroencephalogram (EEG), has enabled us to correlate nervous system activities with behavior.

Deception and Neurological Correlations to Behavior

Polygraphs or lie detector tests illustrate how the nervous system reacts to deception and every thought that is entertained by the mind. The equipment that law officials use in a lie detector test measures blood pressure, breathing rate, muscle tension, hand temperature, heart rate, and hand perspiration. In general, it gauges the activity of the sympathetic nervous system (fight or flight reactions), and the parasympathetic nervous system (resting or relaxing responses).

If the testers ask a bank robber, “did you rob that bank”? The robber’s body will encounter a nervous tension response. His heartbeat will accelerate, his blood pressure will increase, his breathing will speed up, and his muscles will tighten, which is a fight or flight reaction. If he is innocent, the parasympathetic nervous system remains in a relaxed state. These responses occur immediately. Every thought produces a neurological reaction, which influences conduct. This is why Christians should entertain pure, clean, and noble thoughts. This mode of thinking produces positive behavior and a relaxed nervous system, which the Holy Spirit can easily access, thereby sealing it for eternity. If we learn to train our thoughts to focus on truth, we will find that anxiety will subside and peace will increase. The Apostle Paul admonishes:

Finally, brethren, whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report; if there be any virtue, and if there be any praise, think on these things. Those things, which ye have both learned, and received, and heard, and seen in me, do: and the God of peace shall be with you. (Philippians 4:8, 9).

Function of the Nervous System

The nervous system guides stimuli from sensory receptors to the brain and spinal cord, which conduct impulses and commands back to other parts of the body. The human nervous system has two main parts: (1) the central nervous system, which consists of the

brain and spinal cord, (2) the peripheral nervous system, which is nerves that bi-directionally transmit impulses through the central nervous system (*Britannica Encyclopedia*, 2003). Obviously, if the brain sends negative thought commands through the spinal cord, negative behavior is the result. If it sends positive commands, moral conduct is the result. In addition, if the brain is abnormally developed during the embryonic or fetal stages due to teratogens (environmental toxins, drugs, alcohol, medication, etc.), or malnutrition, eccentric behavior, which Satan can employ to lead souls to eternal ruin is the result. When the brain and spinal cord are not properly transmitting impulses bi-directionally through the central nervous system, salvation is at risk (White 1999).

VI. The Developing Nervous System and its Influence on our Eternal Destiny

If humans are to reproduce offspring with the mental, physical, and spiritual resources to live as Christians, an encounter with God is vital. Furthermore, proper nutrition is equally important. White (1999) said, when Jesus was on earth the people clung to His gracious words. His words were so simple and so plain that they were as the balm of Gilead to their souls. The healing of His divine hand brought gladness and life to the dying, and ease and health to those suffering with disease. Proper neurological development starts when parents continuously invite the life-giving power of Jesus to facilitate the developmental process.

The Importance of Avoiding Teratogens

The avoidance of toxins is also imperative to the developing nervous system. Both the preconception and the post-conception environments of the fetus are important. Watson (2004) posited that because of certain lifestyles, human beings pass on genetic glitches and predispositions to good or evil to succeeding generations. Is it possible that a predisposition to Christianity is inheritable? The saga of Samson highlights the importance of avoiding teratogens and protecting the developing nervous system. According to the Bible:

There was a certain man of Zorah, of the family of the Danites, whose name was Manoah; and his wife was barren, and bare not. And the angel of the LORD appeared unto the woman, and said unto her, Behold now, thou art barren, and bearest not: but thou shalt conceive, and bear a son. Now therefore beware, I pray thee, and drink not wine nor strong drink, and eat not any unclean thing. (Judges 13:2-4)

God had an important work for Samson to do. To predispose him with the qualifications necessary for this work, God ordered Manoah to carefully regulate the habits of both the mother and the child. The child's predisposition for good or evil will be influenced by the habits of the mother. The mother herself must live a principled life and practice temperance and self-denial, if she would seek the welfare of her child (White 1952).

Neurons that are synthesized during prenatal development are not replaced by new neurons during neonatal life. Morphologically, the visibility of the nervous system

first appears about 18 days after conception, with the genesis of the neural plate. Once developed, predispositions are fashioned as well. Functionally, in the womb, embryos begin to display their temperaments with frequent or infrequent moves, kicking, or avoidance-withdrawal response (*Britannica Encyclopedia*, 2003). If the parents of the child ingested teratogens in amounts that can interrupt the correct development of neural plate, reflexes would be improper, behavior becomes atypical, and the physical representation of God distorted.

To protect the nervous system, first we need to seek God in prayer and ask the Holy Spirit to transform our minds. Second, we must practice health reform. Third, we have to wear proper safety gear suitable for the activity in which we are engaged. A healthy neurological system is important because through it, the Holy Spirit transforms behavior and effects salvation. If it is unhealthy, through it, demons inhabit neurons, enslave lives, and effect an eternal demise.

IV. Neural Nutrition and its Influence on our Relationship with God

Neurotransmitters are chemical messengers in the nervous system that are synthesized from ingested nutrients. Good nutrition is essential to mental and spiritual health. The etymology of impulsivity, irritability, frustration, anger problems, and alcoholism are imbalances in glucose levels and neurotransmitters in the brain (Rosenbluh, 1997). Such behavioral problems work contrary to the fruit of the spirit; "love, joy, peace, longsuffering, gentleness, goodness, faith, meekness, and temperance" (Gal 5:22, 23).

Healthy neurotransmitters are necessary for the proper transmission of signals from one neuron to the next. Kalat (2007) recorded that there are numerous of these chemical messengers in the nervous system: (1) Acetylcholine, which is responsible for the stimulation of muscles, including the muscles of the gastro-intestinal system. It is found in sensory neurons and in the autonomic nervous system, and along with melatonin, has a part in scheduling REM (dream) sleep. Acetylcholine is synthesized from choline, which is found in cauliflower, green foliage vegetables. (2) Norepinephrine is important for bringing our nervous systems into "fight or flight mode. It is prevalent in the sympathetic nervous system, and it increases heart rate and blood pressure. Our adrenal glands release it into the blood stream, along with its close relative, epinephrine. Considering that it is also important for forming memories, dementia is related to a deficit of this transmitter. (3) Dopamine is strongly associated with reward mechanisms in the brain. Schizophrenia is a mental illness that is associated with excessive amounts of dopamine in the frontal lobes. On the other hand, Parkinson's disease, which involves uncontrollable muscle tremors, is correlated with a deficit of dopamine in the motor areas of the brain. (4) Serotonin is an inhibitory neurotransmitter that is intimately involved in emotion and mood. A deficit in serotonin leads to depression, problems with anger control, obsessive-compulsive disorder, and suicide. In addition, a deficit leads to an increased appetite for carbohydrates (starchy foods) and trouble sleeping, which are associated with depression and other emotional disorders. It has also been tied to migraines and irritable bowel syndrome. Serotonin is made from tryptophan, which is synthesized from soy product, protein, and complex carbohydrates. It increases after meals rich in protein (Kalat, 2007).

Good nutrition is fundamental for creating an environment in the bodily temple that responds appropriately to the wooing of God's spirit. Paul inquired, "What? know ye not that your body is the temple of the Holy Ghost which is in you, which ye have of God, and ye are not your own?" (1 Corinthians 6: 19). An undernourished nervous system imperils the soul. Our Christian duty is to guard the physical and moral constitutions so that the nervous system may be well balanced and the soul not be endangered. (White, 1980).

The misuse of our physical powers shortens the period of time that God can use us in His work. It unfits us to accomplish the work God has entrusted to us. By forming wrong habits, keeping late hours, gratifying the appetite at the expense of health, we lay the foundation for feebleness. By neglecting physical exercise, by overworking mind or body, we unbalance the nervous system. Those who thus shorten their lives and unfit themselves for God's service by disregarding nature's laws are guilty of robbery toward God and their fellow men (White, 1982). The Holy Spirit functions more effectively in an uncompromised nervous system.

VI. The Holy Spirit, the Nervous System, and Transformation

The brain nerves that communicate with the entire body are the only avenues through which Heaven can communicate to individuals and affect their inmost life (White, 1999). God regulates peace that passes all understanding through brain chemicals. When the reuptake of dopamine, norepinephrine, and serotonin are prolonged at the synaptic site, we experience peace. Which means, the effects of these neurotransmitters are protracted (Nolen-Hoeksema, 2007). Peace is among the fruit of the spirit (Galatians 5:22). Pharmaceuticals such as Selective Serotonin Reuptake Inhibitors, cocaine, or amphetamines can temporarily mimic similar effects. However, the peace that Jesus gives through His Spirit is everlasting. He mysteriously regulates our moods, the reuptake process, hereditary traits, and our genes so a desired behavior is effected. A power from on high takes possession, bringing the natural tendencies into harmony with divine principles.

By prayerful sincere invitations, Jesus abides in the hearts of all who serve Him. Spilka, Hood, Hunsberger, and Gorsuch (2003) suggested that praying in this manner alleviates depression, reduces tension, slows breathing, lowers blood pressure, and counters the use of narcotics, alcohol, and tobacco. When we give the Holy Spirit permission, he restores equilibrium, frees from addictions, and creates a sound mind. To the converts at Corinth Paul pontificated, "Know ye not that ye are the temple of God, and that the Spirit of God dwelleth in you?" (I Corinthians 3:16) "For God hath not given us the spirit of fear; but of power, and of love, and of a sound mind" (2 Timothy 1:7). "Only those who yield control of their minds to God can, in the full sense of the word, have a sound mind and enjoy true and complete mental and emotional stability. No one who makes a choice to serve God will be left to the disturbance of Satan's power (SDA Commentary pp. 575).

VII. The Nervous System, Demon Possession, and Deliverance

Everyone who persistently refuses or neglects to obey the promptings of the Holy Spirit, yielding instead to the control of Satan, develops a character that more and more closely resembles his (*SDA Commentary vol. 5 p. 575*). The conscience and the power of choice of those who persistently reject Jesus develop a pattern of conduct based on Satan's principles. "Let not sin therefore reign in your mortal body, that ye should obey it in the lusts thereof. Neither yield ye your members as instruments of unrighteousness unto sin: but yield yourselves unto God, as those that are alive from the dead, and your members as instruments of righteousness unto God (Romans 6:12, 13).

"Demon possession cannot occur except through the nervous system, for through it Satan gains access to the mind, and in turn controls the body" (White, 1999 p. 568). *The Seventh-day-Adventist Bible Commentary* declared:

Inasmuch as the nervous system itself is the first part of the being to be affected, various nervous disorders, such as epilepsy and psychoses of various kinds, are to be expected in connection with demon possession. Such disorders are often the result of yielding, in one way or another, to the influence and suggestions of Satan. However, these disorders do not necessarily accompany demon possession, nor are they necessarily a mark of demon possession any more than deafness and dumbness, which also, at times, accompanied demon possession. . . . To whatever degree or in whatever form demons gain control of a human being, they do so through the sensory nervous system. Through the higher powers of the mind—the conscience, the power of choice, and the will—Satan possesses the person. Through the motor nervous system the evil one exercises control over his subjects (*SDA Bible Commentary vol. 5, p. 576*).

Mark's gospel recounts:

And when he came to his disciples, he saw a great multitude about them, and the scribes questioning with them. And straightway all the people, when they beheld him, were greatly amazed, and running to him saluted him. And he asked the scribes, What question ye with them? And one of the multitude answered and said, Master, I have brought unto thee my son, which hath a dumb spirit; And wheresoever he taketh him, he teareth him: and he foameth, and gnasheth with his teeth, and pineth away. . . . And they brought him unto him: and when he saw him, straightway the spirit tare him; and he fell on the ground, and wallowed foaming. . . . And oftentimes it hath cast him into the fire, and into the waters, to destroy him (Mark 9:14-23).

This narrative in Mark confirms that the human nervous system is the neurological battleground for the Cosmic Conflict. When the boy was brought to Jesus, the Savior's eyes fell upon him. The evil spirit seemed to short-circuit his neurons and cast him to the ground in convulsions of agony. As an epileptic, he lay wallowing and foaming, rending the air with unearthly shrieks. The Prince of life and the prince of the powers of darkness once again met on the field of battle,—Christ in fulfillment of His

mission to "preach deliverance to the captives, . . . to set at liberty them that are bruised" (Luke 4:18), Satan seeking to hold his victim under his control by overriding the nervous system. Angels of light and the hosts of evil angels, unseen, were pressing near to behold the conflict. For a moment, Jesus permitted the evil spirit to display his power, that the beholders might comprehend the deliverance about to be wrought. Jesus turns to the young man and says, "Thou dumb and deaf spirit, I charge thee, come out of him, and enter no more into him." There is a cry, an agonized struggle. The demon, in passing, seems about to rend the life from his victim. Then the boy lies motionless, and apparently lifeless. The multitude whisper, "He is dead." Jesus takes him by the hand, and lifting him up, presents him, in perfect soundness of mind and body, to his father (White, 1999).

Conclusions

This paper researched the human nervous system in the context of Cosmic Conflict. The forces of evil have no new method. Satan is working today through the nervous system (sensory motor) as he did in Eden. Because the nervous system is the control center for bodily functions, spiritual forces that control it rule society. Genetic determinism, naturalism, and neurological correlations to behavior facilitate an understanding that DNA and neurotransmitters influence human conduct and affect eternal destiny. Every thought, influenced by God or Satan, stimulates a biological reaction that affects physiology, mood, behavior, and spirituality. The mind and brain are separate mechanisms, but there is an interdependent relationship between them. The brain is the organ and instrument of the mind and controls the whole body.

A healthy nervous system is necessary for the proper transmission of signals from the brain through neurons. The brain will not properly respond to the promptings of God if the nervous system is malfunctioning. The nervous system is the only avenue through which the Holy Spirit can work and effect conversion. Maximum spiritual and physical fitness allows the Holy Spirit to work through the nervous system and affects conduct. Contrarily, poor fitness allows Satan to inhabit neurotransmitters and possess the soul. Even if he does infiltrate our biological chemicals due to incorrect lifestyle, Jesus has power to banish, heal, and restore.

References

- Amen, Daniel (1998). *Change Your Brain Change Your Life*. New York, Radom House.
- Benson, H., (1975). *The Relaxation Response*. New York: Morrow
- Brand, Leonard and David James (2006). *Beginnings*. Idaho, Pacific Press Publishing Association.
- Britannica Dictionary (2003). Deluxe Edition.
- Douglas, J.D, and Tenney, Merrill (2008). *The Zondervan Bible Dictionary*. MI, Zondervan Publishing House.
- Elkind, David (1970). *The Origins of Religion in the Child*. *Review of Religious Research*, 12, 35—42.
- Holy Bible, King James Version.
- Holy Bible, New King James Version.
- Kalat, James (2007). *Biological Psychology*. California, Wadsworth/Thomson Learning.
- Nolen-Hoeksema, Susan (2007). *Abnormal Psychology*. NY, McGraw Hill.
- Paloutzian, Raymond (1996) *Invitation to Psychology of Religion*. Massachusetts, Allyn and Bacon.
- Rayel, Michael (2005). *American Academy of Neurology*. Clearenville Newfoundland Canada.
- Rosenbluh, Edward (1997). *Elements of Behavioral Nutrition*. KY, Future Health Academy, Ltd.
- Seventh-day-Adventist Bible Commentary Vol. 5, p. 576.
- Spilka, B., Hood, R., Hunsbeger, D., Gorsuch, R. (2003). *The Psychology of Religion* NY, Guilford Publishing, Inc.
- Surwillo, W.W., and Hobson, D.P. (1978). *Brain Electrical Activity During Prayer*. *Psychological Reports*, 43, 135-143.
- Vine, W.E, Unger, M.F., White, W (2000). *Vine's Complete Expository Dictionary of Old and New Testament Words*. New York, Thomas Nelson Publishers.

Watson, James (2002) DNA The Secret of Life. UK, Arrow Books

White, Ellen (1952) Adventist Home. Washington, DC.
Review and Herald.

White, Ellen (1999). Counsels on Diets and Foods. Washington, DC
Review and Herald.

White, Ellen (1980). Child Guidance. Washington, DC
Review and Herald.

White, Ellen (1999) Desire of Ages. CA, Pacific Press Publishing Association.

White, Ellen (1941). Christ's Object Lesson, Washington, DC, Review and Herald.

White, Ellen (1932) Medical Ministry. Washington, DC, Review and Herald.

White, Ellen (1973). God's Amazing Grace. Washington, DC, Review and Herald.