

LIFE MODEL NEUROTHEOLOGY

BEYOND A SLOW SOUL WITH A RADIATOR

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Beyond a Slow Soul with a Radiator

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The limits of neurotheology

Neurotheology is the study of the intersection of theology and the nervous system – including the brain. There are many theological subjects outside the neurotheology field. For example, the Bible quickly mentions the sun, moon and stars making them a proper topic for theology. However, as far as we know, celestial bodies do not have nervous systems, so they do not fall under neurotheology.

Not mentioning the sun in neurotheology is not a denial of its existence. The silence only represents the assumption that the sun has no nervous system to study. In the same way, neurotheology has nothing to say about our eternal existence during the time we lack bodies with a nervous system. This is not a denial of our eternal selves but rather the expectation that no nervous systems (as we know and study them) are involved.

When does neurotheology apply? Human beings carry a great deal of responsibility for their own maturity and that of their communities. Human maturity is closely tied to the development of our bodies and nervous systems – systems that need care and training. Damage, deformity and bad training is quite common when it comes to developing maturity. Unlike an experienced driver who buys a working car to drive, the human spirit starts with a cell and must participate in growing a working body with whatever ingredients and toxins are available. Missing nutrients, drugs like alcohol or cocaine, injuries and defective DNA all contribute defects that impact the human spirit trying to learn how to live. These problems do not disappear at birth.

Most people do not mature into who God created them to be. This problem was addressed in the Life Model book, *Living from the Heart Jesus Gave You* by saying that our eternal heart/soul/spirit/mind/ eternal self was the true guide to our identity when it was perceived through the new heart that Jesus gives. From that point on, the normal human maturity system in the brain has to learn this larger and more complete identity that is perceived not by our brain but by our heart. The brain must learn to follow Jesus who is now living in our hearts. This is basic neurotheology for the Life Model.

Life with a nervous system

The other side of the neurotheology picture is the expectation that God had a reason and design for the brain and the way it operates. Things that are wired together in the brain are designed to function together. Brain patterns that are prioritized in the brain are intended to have priority. Faster thinking is designed to guide slower thinking. Things that come first in a brain sequence were designed to influence the processes that follow. When loving God is placed first by theology, it is not a coincidence that loving attachment comes first in the brain processes that create and maintain our identity.

Our brains are designed to run the way God tells us to live. The problem is that many things have gone wrong in how the brain is trained by other humans and the world. Some problems are genetic, some come from environmental toxins, some from poverty, some from evil spirits and some from sin and its effects. The Christian life involves overcoming the impact of this damaged development and retraining the brain to live from the heart Jesus gave us.

As we will see below, theology (not neurotheology) shows us that the human spirit learns. The body has a strong effect on what the human spirit learns about the world, but no account is given of the mechanisms by which the human spirit learns. Interpersonal neurobiology shows us that the human nervous system and body learn as well. We all know of amazing people where the human spirit has shown through terribly disrupted bodies and other cases where physical damage to the body or toxic experiences has all but extinguished the human spirit within. If this were a car and driver, we would say that sometimes the driver never learned to drive, other times the driver built the car incorrectly while other times both the car and driver have been badly damaged in a wreck.

A basic assumption of Life Model neurotheology is that we should teach the brain in the way the brain learns. For example, if I want to give information to my computer I can do so over my Wi-Fi. The same Wi-Fi signals pass through my brain as those that reach my computer, but my brain does not learn from Wi-Fi. My brain can learn from books, while my computer learns nothing from them even if I leave the books on top of the computer all night. But my brain only learns from books that I have been trained to understand. Thus, a copy of *Biblia Germanica 1545* goes unread for most Americans.

The brain thinks about different things at different speeds. No one might object to teaching the brain the way the brain learns if it were not that the brain learns some things faster than conscious thought. Slow conscious thought (including using words) is what you are using to read this paper. Your identity (without words) is thinking much faster than conscious thoughts and directing your attention. It might remind you that the trash needs to be taken out this morning and you should stop reading for a bit and take care of other duties. This reminder comes into your thinking at a slow conscious speed so you can notice.

Meanwhile, the brain and the body are communicating at speeds that are often much slower than conscious thought and, as is usually the case, giving your conscious mind very little idea of the communication that is in progress. These slow systems control sleep, immune system functions and many other responses to the world that we do not track consciously until our body reacts. This slower-than-conscious-speed thought rarely gets theological attention.

Most theologians and philosophers only track how God and life work by using their own slow, conscious-speed thinking. Their explanations and proofs are often built around conscious speed observations and conclusions. This tendency dates back at least 2,300 years to Aristotle (more than 300 years before Christ) and his explanations about how the human mind works. His model of the mind is the basis for much Christian theology. Aristotle explained that the mind was made up of FACULTIESⁱ while the brain was a radiator set on top of the body to cool the blood.ⁱⁱ Using this understanding of how humans work, theologians built most of the Christian theological anthropology that is still in use today.

You may be surprised to learn that Aristotle and his explanations are still believed by many theologians. You may be less surprised to hear that most neurotheology does not think Aristotle knew what was under his hat. In addition, Aristotle did not know that his brain was doing a lot of thinking at speeds faster than his conscious mind could follow or notice. Therefore, faster brain processes were not included in his view of people or the theologies that followed.

Thanks to Aristotle, some philosophers and theologians place all human mind characteristics in a spookyⁱⁱⁱ external soul made with FACULTIES. For Aristotle the soul was riding a machine. All the aspects of being a person and processing experience take place in the soul. The body only finds out when the sensory FACULTY passes its process to the body. The real puzzle with this spooky soul model is why the soul has to tell the body anything. Why does the brain have to be updated on what each soul FACULTY is doing, and what for? After all, the body just gets orders and moves muscles to carry out what the soul ultimately decides. Why would a machine care or know?

We see the brain responding to situations with many thoughts including many that don't lead to action. As the brain responds it learns. Life Model neurotheology proposes that we update theological anthropology to include a brain learns, thinks and how that happens. No analogy works well as an explanation. For starters, rather than riding a machine, the human spirit is riding a horse and that must learn as much as the rider. This analogy breaks down quickly when we realize that no rider grows their own horse as they learn how to ride. Rather than a spooky soul operating a mechanical body (perhaps remotely but who can tell) we have a unified body and soul together.

The soul also learns

While it is not in the field of neurotheology, theology does teach that the soul (without a nervous system) also learns. Let us consider three examples from Scripture: Jesus' activity while his body was in the grave, John's visit to heaven and the story of the rich man and Lazarus.

In 1 Peter 3:19 we read that, after Jesus was crucified and buried, he went and proclaimed the news to the spirits of those who had perished in the great flood of Noah's time. It is evident from this account that the spirits didn't know that Jesus would be crucified and that they learned something by his coming to make that announcement. Human spirits don't know everything and can learn after death.

In Revelation 1:10 we learn that John was in the spirit and experienced life in heaven where his spirit learned something while his body was still alive. In this spiritual state, John saw the souls of the martyrs under the altar crying loudly, "How long oh Lord?" (Rev. 6:9-10) It is evident that these souls did not yet know "how long" and that they expected to be able to learn the answer at some point.

In Luke 16:19-31 we find a story where the soul of the dead rich man is learning how things work in its new spiritual condition. His soul expects the effects of chemicals (water on his tongue) to still function in his current state. (He is confused about his reality.) This reveals that his soul was aware and impacted by the effects of chemicals on his body (both of which are no longer part of the soul's current existence). This strongly hints that the soul learns through the body's physical experiences and its sense of reality is shaped accordingly.

In all three examples from Scripture, the soul or spirits are described as learning under conditions that involve time, space and motion that closely resemble the physical conditions and perceptions that would apply to physical bodies. Even molecular motion (temperature) and sound are used to describe the soul's experiences suggesting a very tight association between body experiences and what the soul learns and expects without a body.

As you will remember, Life Model neurotheology proposes that the design for the brain/body intended for it to work seamlessly with the eternal human spirit/soul/heart. Much went wrong in the synchronization process that is being made right again through the Spirit of Christ. Our eternal being (that scripture sometimes calls the soul and other times the spirit) is not observable by any known science and therefore not the subject of neurotheology. But the operation of the brain in harmony (or not) with our eternal selves is observable and much can be learned.

The first observation of consequence is that the brain can think much faster than conscious thought. Neurotheology has no reason to believe that the physical brain should be able to think faster than the eternal soul. However, Aristotelian theological anthropology has limited the eternal soul to thinking and deciding at the slower conscious speed. The answer is not to question the brain's speed (which we can demonstrate) but to ask if there is any theological reason to believe that the soul can only think at slow-conscious speeds? Certainly, a soul with many different FACULTIES and wills would need to bring all those separate streams together but does any of this have a speed? Being non-physical, what accounts for the soul speed? Why is all soul thinking not instantaneous? Why should the soul not have a full, lucid, instantaneous knowledge and decisions? What would force these things into steps and slow it down?

Consciousness should be super-fast track if the soul does it. Only if the brain is involved could there be slower slow tracks at all. Certainly God "thinks" much faster than we can. Would God design a brain that could think much faster than the soul God gave to humans? We have no theological reason to believe that the soul is slow or has limited access to the brain. Life Model neurotheology would propose that the brain and soul can both think fast.

The slow, one-speed soul with a radiator

Much of the discussion of human choice (or agency as it is called) has been centered around conscious thoughts. Most likely, this focus on conscious thoughts and consciousness itself is a byproduct of philosophers and theologians who use their own conscious thoughts as the basis for their arguments.^{iv} Conscious thought, however, is relatively slow as brain processes go and can take anywhere from a half second to a second and a half to form. Some conscious thoughts (in philosophy and theology for example) can take hours, months or even years to form. Only after much thinking do we understand.

The aspect of consciousness that attracts non-empiricist philosophers is an "inner dialogue" where thinking is manifest as language. In the brain, language is a function of Slow Track thinking.

Dependence on conscious reasoning and language seems to give rise to the unexamined assumption that the soul plods along. But how can that be? Dualists answer that the soul must be a substance. It lacks hardness and extension, so it differs from physical substances, but it is parallel to physical substances in its nature. That is why, through the 19th century, the non-materialists hoped that

eventually accurate science could identify it. Defending substance dualism, is not the same thing as arguing that thought does not take place in the brain. You could have a dualism where the brain does all the active work.

Spiritual substance, of course, cannot be examined. Philosophers attribute whatever qualities they need to explain the result they want. Soul substance must be capable of the many activities a philosopher wants so they can explain what Aristotle's FACULTIES are made of. For FACULTIES to work and dialogue without using the brain the soul substance must have serial execution, with speed limitations. Why? Only then does the action of the spooky soul match the properties that consciousness shares with physical substances. Therefore, this spiritual substance is contrived to be "physical like," as a substance, to account for what physical brain could explain if the processes are actually physical ones. In other words, this elaborate explanation of the soul does not explain why the soul must be slow. Slow conscious thought fits the physical brain. The brain does have to be slow because it has to secrete chemicals and do things in a certain order. Why is a soul slow unless we are mistakenly explaining the Slow Track in a physical brain by attributing its characteristics to the soul?

Due to a dependency on consciousness and conscious thought as the basis for proving agency and choice, a peculiar assumption has developed that is shared by most reductionist and dualist philosophers. The assumption is that anything in the brain that runs faster than conscious thought is determined by chemistry. These faster reactions are labeled "pre-conscious." Since it is assumed that slow conscious thought is the only speed at which the soul can think, or exercise agency (make choices and have volition), any thinking faster than the conscious brain can match must be caused by chemistry and physics. The soul would be unable to think that fast. We do not agree. We see no evidence or reason that God (and the spiritual side of humans) cannot keep up with the fast systems in the brain. In fact, these fast-thinking circuits show much evidence of having agency as the slower conscious ones.

The Fast Track thinking in the brain is and always will be faster than conscious thinking. For that reason, slower conscious thinking will always appear "behind." The Fast Track lead should not be described as "pre-conscious" even if it always happens first. Light travels faster than sound so it arrives first but light is not some form of pre-sound even if we see lightning before hearing thunder.

For those who believe in the slow soul, this time difference becomes a problem. Academic scoffers about human agency, use anything faster than conscious awareness that exerts influence or dominance to prove that we do not have free choice. Their argument only has a chance if the soul is slow and only has agency at conscious speed. Learning and thinking happens at multiple speeds in the brain so why limit the soul to one speed?

Neurotheology cannot study the heart/soul/mind/spirit/eternal self when it lacks a body and nervous system. However, when the soul has a nervous system, Life Model neurotheology claims that the brain learns. Physical systems can learn and change themselves. Extreme reductionist theology does not believe that the brain and physical systems can learn and change so there is no need to teach the brain. We need to move beyond the slow, one-speed, conscious-only model of being human where our thinking takes place somewhere outside the body while the radiator on our necks keeps our blood cool.

Extreme reductionist theology

Aristotelian theology (with a radiator for a brain) can become extremely reductionist when mixed with some modern science. The brain becomes a set of fully predictable chemical and physical reactions. Secular thinkers who share this reductionist logic offer it as proof that people have no will or choice. With this deterministic version of the brain, no meaningful change is possible. Physical systems, this extreme view insists, cannot learn or change themselves. It is only the soul that can learn and change because it is not physical. They imagine the soul to be composed of some unknown and indescribable substance known only to Aristotle and philosophy but not to science. Only soul substance is able to change itself in non-deterministic ways and learn. They further insist that soul substance creates consciousness. Consciousness becomes the proof that soul substance exists, and that the soul has agency/choices. In this framework, the soul is tied to slow, conscious-speed thought only. Since how consciousness works is not known by anyone at this point, the battle lines are drawn over the unknown reason for conscious thought and certainty is claimed by both theological and secular reductionists.

Attributing the ability to learn and choose only to the slow soul creates a lot of theological problems. Do nematodes (flat worms) need souls? We can demonstrate that nematodes can learn so must they therefore have souls? Even lower life-forms than flat worms learn. The logical conclusion for extreme theological reductionists that anything that learns and changes must have a soul leads them to conclude that animals must have souls.

Concluding animals have souls so they can learn and change raises more questions. Since soul substance is what spontaneously generates the FACULTIES then do animals have all the faculties? If not, what is it that prevents animal souls from having faculties? Is it their physical bodies? If the soul substance is said to direct the formation and operation of the physical body, doesn't it start to look like it is the physical body controlling the development of the soul substance?

There is a simpler solution to the problem. Physical systems can learn and change themselves. As a physical system, the brain can learn and change. What is needed for physical systems to learn and change themselves is the presence of a value system. The brain, for example, has five fast value systems plus a number of slower value systems it shares with the rest of the body. Since this discussion of value systems will be new to most people (and all reductionist philosophers) let us describe value system operation.

What a value system (algorithm) does is say that certain experience/input/data are more important (higher value) than others. In the computer and internet world this value system is called an algorithm. So, on social media if I click on a certain singer that click has higher "value" to a watching algorithm and soon I will be flooded with options to hear more songs by that singer. Because the internet has more than one algorithm (more than one value system) I will soon be receiving song choices from other singers with the same style as the one I chose. Before long, advertisements for items purchased by people who liked that music style will be given "value" on my feed and the internet has changed itself by learning what I like. Due to the algorithm (value systems) in the software, the internet has learned and changed its behavior.

Artificial intelligence allows computer systems to build their own algorithms. Even a vacuum cleaning robot can learn and change. Do we need to propose that computers and the internet now have souls? Science fiction loves to go that theological direction.

The brain science team of Tononi and Edelman have shown how the brain contains and uses organic value systems. Edelman, who received the Nobel Prize for his work on the reentry (feedback) circuits in the brain (another way the brain changes its own responses), concluded with Tononi that small clusters of nerve cells in the brain with extensive distribution to the rest of the brain changed the value the brain gave to current experiences. When the value system nerves fired, the rest of the brain processed the moment differently – much like my click influenced the internet. One value system had the effect of, "Everybody be quiet for a second. Something important is happening." Another value system conveyed, "Hey! This is personal" while another signaled, "Watch carefully. We were not expecting this."

Incorrect levels of these value systems are associated with many medical conditions that impact our thinking. The acetylcholine value system, for example, signals, "What we are thinking about is not actually happening right now. We are remembering. This is not a new experience happening now." Alzheimer's disease is one medical condition associated with low acetylcholine levels.

It is obvious, once we know the connection, how these value systems in the brain can be off and how errors impact our ability to think and perceive the world. However, if all our thinking is going on in a separate non-physical soul, why should that soul care about the chemical levels in the brain? The two must be connected somehow.

The brain learns

The brain limits what the soul can learn. Chemicals such as alcohol impact the brain's learning and memory. Not learning algebra, history, current events are just a few of the casualties of being passed out drunk. In addition, the acetylcholine value system takes over brain function after we fall asleep so that whatever the brain is processing during sleep is not recorded as a new experience. The acetylcholine value system blocks sleep learning. When we are sleeping in class, we do not accumulate new learning. What kind of whimsical soul, if it were not impacted by chemicals, would choose to avoid learning while asleep in class?

Alcohol is not the only drug to interfere with consciousness and memory, in fact, there are many. If consciousness is in the soul alone then how is it that the soul reacts to drugs? The drug epothilone B has been shown to change how quickly mice become unconscious due to anesthesia. The same effect of epothilone B has been observed in how quickly humans become unconscious. The impact has been traced to the drug binding on intracellular microtubules in nerve cells. See <u>ENEURO.0291-24.2024.</u>^v Why would a whimsical soul (that has no part with the physical universe) decide to stay conscious longer if it had some epothilone B? Even more peculiar, why do all souls (even the souls of mice as proposed by reductionist theology) seem to make the same choice? Why would the soul do that to itself? If Aristotle had an answer to this loss of consciousness he kept it under his hat. It seems more probable that the brain limits the soul.

The impact of drugs makes sense if the brain is an essential part of learning and consciousness. In that case, the brain needs to be taught under the right conditions for the brain to learn. Teaching the brain the way the brain learns makes sense and should benefit the soul as well.

Neurotheology proposes that the brain states impact learning and limit what the soul knows and understands. For example, the brain must learn certain skills, such as speaking and reading if the soul is to understand written material. To test this theory, here is a quote from the *Hutngin Kamkabat si Káláu*.

"A támin muswan ngo ái sinih a longra pasi kak pinpidan mák ruruna i Koner a tarwa iau, ái ákte atur páptai má á liu muswan er a kis áklis, má káp ina te oboi nagogon on. A ngoro ákte láklák sorliwi minat má ák tangra pasi sál uri liu muswan Mái sár ái rung er kápte be di er. ruruna, a ngoro taniá di a mat pagas. Má a támin muswan ngo bung er na hut má ákte hut má mul, wa bung da longrai kaungán Natun ái Káláu. Má ngo da longra pasi, ki dák liu. Ái Kákán sang ái á káplabin liu. Má ngorer mul ái Natun. Ái Kákán ákte tari singin á rakrakai suri ái Natun mul na káplabin liu. Mái Kákán ákte tari si Natun, má ngorer ái Natun a mon i kán nokwan suri kátlán matananu kabin ái á Natun Kálámul.

Life Model neurotheology would predict that to know these are words you will need to have had a certain kind of educational experience. To see the words, you will need to have a certain level of light – either from your screen or on a page. In addition, neurotheology will predict that almost no readers of this paper will have had the personal experience to make any meaning from what they see as words. The meaning going into the soul is blocked. Paul makes this case about truth spoken in tongues – something that could have meaning for the soul is blocked because of what the brain doesn't know. The same effect is produced when the language or sight centers in the brain are damaged.

Not only does neurotheology predict that without training the reader will not know the meaning of the paragraph in either their soul or brain, but it also predicts that readers will not be able to pronounce the words correctly. Even if readers knew the meaning and their souls understood it well, if they have not learned to speak the language before their brain went through its apoptosis at age four and twelve, their brain will not be able to pronounce the words without a noticeable accent. Thus, the soul's ability to express itself is also limited by whatever the brain has been trained to do. For both the traffic going in and out, the brain must learn and develop skills. Therefore, the brain should be trained in the way that the brain learns.

Brain development limits what the human spirit can express

We have all noticed how a fetus, infant, child or adolescent differ in their ability to understand their sense of self. We know the limitations in thinking and acting that characterize all those ages. We can see that their brain grows during their development. If the spirit/soul comes into existence at conception, how is it that the expression of the soul is limited by the state of the brain development? If the soul can perceive directly and act independently of the body, then why the delay?

One explanation that is accepted by many belief systems is that a soul needs to be fed food and grow. For this reason, food is placed in tombs and offered to the spirits of the ancestors. But, if it is the body and brain that are growing, then the limits of a soul's expression are tied to the brain growth during the time a soul has a nervous system. It that case, the soul and the brain should be taught in the way the brain learns and at the speeds that the brain thinks. What the brain learns faster than conscious thought should be taught as speeds faster than conscious thought speed.

As the brain is growing and changing, the areas of the brain that respond to the senses develop and the infant can begin seeing and hearing clearly – unless there is damage to the nervous system. If the soul has independent and non-physical FACULTIES (as Aristotle proposed and much theology adopted) then the soul has some very whimsical habits. If the soul has all the sensory control through the sensory FACULTY, why does it wait for the infant to develop a radiator?

As the identity center in the brain develops, infants increase their capacity to make choices. A fouryear-old will have many more decisions to make than a four-month-old when hungry or needing to defecate. If the soul has all the choices through the FACULTY of the will, why wait for a radiator to get bigger?

The range and intensity of an infant's emotions also develops as the brain grows and myelinates. If the soul's emotional FACULTY has no physical component, why does it whimsically wait to manage those emotions?

What a child understands tracks very closely with the growth of language and reasoning areas of the brain. If the soul contains the FACULTY of the intellect, why does the soul wait for this physical system to develop and learn?

People don't function the way the ancient philosophers thought they did. Aristotle knew nothing about such things 2,300 years ago when he explained the soul based on his conscious, pagan, adult thinking. Life Model neurotheology proposes that the brain is designed to learn and must be taught in the way that the brain learns. Perhaps it is time for theology to stop accepting Aristotle as gospel.

The problem of many wills

Since the Enlightenment, much of philosophy and theology has been focused on the human will. Psychology joined the debate, particularly with *Beyond Freedom and Dignity* by B. F. Skinner, insisting that people had no will or choice. On the other side stood the Christian voluntarists^{vi} who asserted that the FACULTY of the will provided human agency (ability to make a choice) and that the FACULTY of the will produced the human response that received salvation from sin. Some theologians believed that only the FACULTY of the will would be saved although others argued that without the will of the FACULTY of the intellect the will could not believe or choose to be saved. Thus, the intellect and the will should be included in the saved soul.

Voluntarist philosophy became the mainstay of American Christian thought through the influence of William Ames (1576-1633) and his book, *The Marrow of Theology*. The sad consequences of Voluntarist thought on Christianity are detailed in *The Solution of Choice*.^{vii} What matters at this point is that theology had come to mean "conscious speed choice" when speaking of the will (and the soul) as Voluntarists had no idea that the brain could think a great deal faster than conscious thought. But we are only limited to conscious speeds if we believe Aristotle used his radiator correctly when speaking of the FACULTY of the will and limiting the will to conscious-thought speed. While the debate over agency does not go away at faster speeds of thinking, there is no reason to believe that the soul cannot keep up with faster brain processes.

The speed of the will is not the only problem. The nervous system also has many wills. Not only do we have more than one system in our bodies (like the sympathetic system that wants to go one way and the parasympathetic system that wants to go another), but the cortex of the brain can also have different wills. Sometimes what one part of the brain wants another part of the brain greatly opposes.

But it is not simply the brain that has many wills. Aristotle's FACULTIES also have many wills. Each FACULTY, as described by philosophy and adapted by theology has agency – some form of self-determination. The intellect, for example, must come to its own conclusions and make its own choices thus demonstrating its own will. The same holds true for each of the FACULTIES who must operate independently with wills of their own.

A solution to this problem, proposed by Aristotle during the intertestamental period, conceived of the one will that would rule them all. One will to find them. One will to bring them all. One will to bind them. As theology emerged from the dark Middle Ages and medieval thought, the belief in this one will dominated much of theology. And this one will in the soul was slow, operating only at conscious speeds.

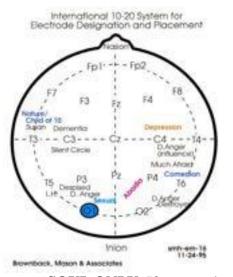
On the other hand, the brain has many wills in the cortex operating at different speeds, and in different locations as we will demonstrate. Consider this case history.

A simple example

Mary was a dissociative person with a number of different personalities. Her personalities were a variety of ages, with different names and identities. These personalities developed because of traumas during her brain's early development and before different areas of her brain had a chance to learn to work together. Mary's age at the time of many traumas was confirmed by medical exams, X rays and surgeries to repair the sequelae of the injuries she had suffered.

Most of Mary's personalities did not know of the existence of the others and vehemently denied that they themselves were any part of Mary. Some personalities knew of Mary but insisted they did not share the same body. Some personalities believed they lived in England, and some believed they lived in the USA. Some were married and some knew nothing about a husband. Some personalities differed by gender. Blood tests taken minutes apart when different personalities were in charge showed contradictory results. Mary also had as many wills as she had personalities. Each personality had its own will that was generally at variance with all the other personalities.

BRAIN: From a brain perspective, this phenomenon is easily explained. Before her brain was sufficiently developed to stay synchronized during intense events, the amygdala responded to the intensity of the trauma by shutting down regions of the brain. The remaining active regions learned about and responded to the intense situation while the deactivated regions did not. While no brain study was done with Mary, Brownback and associates recorded the brain activity of a similar patient. The brainwave activity for different personalities was consistently mapped in the same area of the brain each time the personality was active. Here is a chart of the brain with the locations of the various personalities during their activity.



SOUL ONLY: If we use the perspective of a soul that has unhindered access to life without needing a brain that learns, we suddenly have many problems explaining Mary. Is each personality a different soul? Is the soul also splintered by trauma? What keeps the soul (or part of it) from knowing about the other parts? How is it that the memory from one part of the soul is not available to other parts? But these problems become more complicated if we consider claims about the transparency of the soul. Philosophers use the term "transparency" to describe how clearly the soul/mind can see its own mental state. (See the addendum to this paper for more.) Proponents of the slow soul believe that its own mental state is transparent to the soul and it sees what is really happening. Mary and her many parts were not clear at all about the distortions of their mental states.

On more than one occasion, one of Mary's personalities we will call Julie would write messages on paper to other personalities about a trauma they had all endured. Many personalities denied that anything bad had happened to them including one named Tender. However, when the Tender personality looked at the page from Julie, the paper appeared blank as though it had no writing on it at all. Tender was frustrated because the therapist was showing her what she saw as blank papers. When the therapist read the message aloud, Tender heard no sound and asked when the therapist would start reading what the paper said.

BRAIN: Once again, from a brain perspective, this problem with sense and perception is quite resolvable. The brain has a gating function that redirects attention and blocks perceptions. The

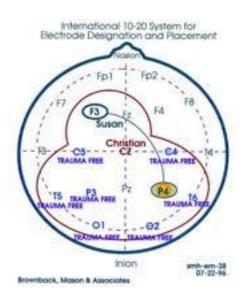
Fast Track in the brain is much faster than conscious thought. This capacity is frequently exploited by stage hypnotists. Why or how a soul would want to play that trick on itself would be difficult to explain.

SOUL ONLY: If we adopt the view that the senses are a FACULTY of the soul, there are suddenly many difficult problems with explaining why one personality can see the paper but not the writing and hears no sounds when the words are read aloud. The supposed transparency of the soul's experience (believing the soul can clearly see what is going on in its conscious mind) seems doubtful. While she could read any neutral materials easily, she had no idea how she learned to read or any memory of schools or learning anything from teachers. The Tender personality believed she was very conscious, present and engaged with the reading of this important paper. At the same time, she was fundamentally unaware of the distortions and blanks in her conscious experience.

But the soul-based explanations become more difficult when we consider Mary's spiritual life. Mary (and some of her personalities) believed in and worshiped Jesus. Other personalities knew nothing about Jesus. Some were occultists with a declared hatred of Jesus. Over time in therapy, the occultist personalities converted to worshipers of Jesus. A number of the personalities had attachments to evil spirits and those spirits were then sent away. This can be easily explained since evil spirits exist and they are not part of Mary's soul or identity. As such, they can be removed once a personality is ready to part with them.

When the traumas associated with each personality were resolved, Mary and other personalities (like Tender) began to share thoughts, memories, beliefs, time and function in unison. Previously distinct characteristics were now shared. Mary now acted and worshipped as one person with all the separate memories and characteristics of different parts now shared in a unified way.

BRAIN: Since the brain learns but different parts of the brain will not share information if they are not active at the same moment (and synchronized with each other), one identity can have different knowledge and beliefs from another. These desynchronizations will decrease and disappear as traumas to brain function are resolved. The brain is now needing to learn how to function and stay synchronized and this takes some time to learn. Once again, Brownback demonstrates with his map of brain activity how the different regions of the brain that previously were independently activated now function together. This brain map was obtained after a year of trauma resolution for the patient we saw previously. The encircled area shows the new unified brain function.



SOUL ONLY: The most likely explanations for the souls that are saved and the souls that do not believe in Jesus and follow wicked spirits would be that these are different souls but that creates many theological problems. The explanation that these are not souls but rather evil spirits creates problems when they unite to worship and follow Jesus. There are problems caused by different wills, different intellects and a pervasive lack of shared reality that does not fit with how souls are said to operate. A spiritual FACULTY which is simple and unified cannot account for Mary's changes.

Mary's brain is obviously more damaged in its development than most. This damage helps illustrate what is wrong with all human learning. We are running defective brains that have been damaged and also modeled themselves after the dysfunctional and sinful minds around them. This defective development has kept our brains from thinking the way God wants us to think. Our souls are also misguided. To correct the brain side, we need to address and teach the brain in the way the brain learns.

Mary's brain belatedly learned to think as a unified mind when the training and capacities that were missing earlier in her development were introduced and practiced during her counseling and spiritual family experiences. When the traumas were resolved, it still took her months to learn how to live a normal life and consider all her different perspectives and emotions simultaneously. Until her recovery those thoughts had been disconnected. She was learning lessons and skills she could have learned as a child in a less toxic environment. As she learned, her spiritual life, maturity and relationships improved. Her brain learned her relational identity through love from both God and God's people giving evidence that the brain needs to be taught in the ways the brain learnes.

Objections to neurotheology are more apparent than real

A published critique of the neurotheology of Jim Wilder and Curt Thompson was written by Stan Wallace and fully approved by J. P. Moreland. The Wallace/Moreland critiques have been widely read as a rejection of neurotheology by people who do not realize that Moreland has written a neurotheology book of his own titled *Finding Quiet*. Moreland uses the neuroscience of HeartMath while Wilder uses

the interpersonal neurobiology of Allan Schore. Wilder does not teach the HeartMath approach because of their tendency toward New Age pseudoscience.

Wilder and Moreland also differ when it comes to the heart. Moreland favors training the heart segment of the nervous system. The human nervous system in the heart (as Moreland points out) "thinks" separately from the brain without becoming conscious. He believes that this smaller nervous system is what the Bible calls the heart. Wilder does not believe that this separate nervous system is what that Bible means by the heart. Wilder does not associate the biblical terms for heart, mind or soul with any parts of the brain or body.

The main claim by Wallace and Moreland is that neurotheology (as taught by Wilder) amounts to physicalism that denies the existence of the soul. This claim is simply false. Wilder believes in, writes and teaches extensively about the life in the spirit, spiritual warfare and the Immanuel lifestyle with the active presence of the Spirit of God engaging the human spirit AND the human brain.

Unfortunately, Wallace understanding of Wilder is limited to one half of one of Wilder's books. Wallace's bibliography lists no other work or teaching by Wilder. Wallace makes his case based on what Wilder didn't say (rather than what he did say) and failed to look at most of what Wilder has written.

Moreland created his own neurotheology in 2019

Using the neuroscience of HeartMath, Moreland created his own neurotheology, published in 2019 that was immediately endorsed and promoted by the spiritual formation group Renovare. The Renovare website^{viii} says, "Moreland explores the spiritual and physical aspects of mental illness, pointing readers toward sound sources of information, treatment, and recovery." Moreland's version of neurotheology was endorsed by Richard Foster, Jan Johnson and Gary Moon thus affirming that neurotheology is useful for spiritual life.

In his own neurotheology book, Moreland points out connections between spiritual formation and the brain by saying things like, "Daily engagement in contemplative prayer for at least twelve minutes can change brain structure." He gives many examples of how correcting brain "grooves" (as he calls them) can improve emotions and spiritual life. He recommends medications and a variety of secular training methods.

Moreland writes, "For example, according to Dallas, if one does not understand the deep connections between the brain and emotions, one will most likely address anxiety as a purely spiritual or psychological issue, leaving out entirely the importance of factoring in issues involving the brain. It is precisely these topics and more that I will address in this chapter."^{ix}

Moreland writes extensively in his neurotheology about the effects of a badly trained brain and proposes ways to retrain the nervous system. Meanwhile Wallace insists that the brain cannot learn. Moreland devotes a good deal of time extolling neuroplasticity (which means that the brain changes) and speaks of "*the formation of habits that restructure the brain*." He adds, "the mind cannot work without the brain and nervous system working properly." Moreland also states, "Helping the brain get well by using all tools available, including medications, is both biblical and commonsense."

How the neurotheologies of Moreland and Wilder differ

In his neurotheology book Moreland recommends the secular EMDR treatment whose function is difficult to explain without involving the brain. Wilder prefers Emmanuel prayer as taught by Dr. Karl Lehman whose function is difficult to explain without the presence of the Spirit.

Leaving Wallace out of the discussion for the moment (you can read more about him in the addendum to this paper) the differences in Moreland's neurotheology and that of Wilder are minimal. They involve two major questions: 1) Can the brain think faster than the soul? 2) Can the brain learn?

Moreland bases his logic about what the brain can do on his beliefs in a slow soul that only works at conscious speed. The brain thinks faster than conscious speed. The philosophy used by Moreland links the will to conscious thoughts only, especially intentional conscious states. Thus, if the brain is thinking faster than conscious thought, as Wilder teaches, the only explanation Moreland can give is that Wilder does not believe in the soul. Wilder thinks no such thing.

In older models of the brain, rapid responses were deemed "preconscious" rather than Fast Track thinking. The "preconscious" model is used by secular thinkers to "prove" we have no free will. If the will is conscious but the brain goes faster, then the physical brain must determine everything ahead of time according to slow-soul and secular reasoning. We only think we have a will, but everything was decided before we were conscious becomes the conclusion. The preconscious model presumes that we do not make decisions in the Fast Track and determinism wins.

Moreland is a defender of free will but has tied himself to the slow soul. He will experience increasing problems with academics who can demonstrate that the brain can think faster than a conscious speed slow soul.

Wilder doesn't accept the term "preconscious", so he does not use it. People think at various speeds and there is no reason to assume that Fast Track reasoning is all determinism where Slow Track reasoning is all free will. Is our spirit, sensed through our hearts, unable to think any faster than the 5Hz of the conscious track? Evidence points to many decisions being made continuously at a speed faster than consciousness can follow or observe directly. How the soul participates in these fast decisions cannot be determined through any known science (just as is true for conscious speed thinking) but they are just as likely to be decisions as at slower speeds.

When freed from the shackles of a slow soul, there is no inherent conflict over human agency and choices between Moreland and Wilder. Moreland is invested in defending substance dualism, but that is not the same thing as arguing that thought does not take place in the brain. You could have a dualism where the brain does any amount of the active work. The question about the soul's participation cannot be settled by any known science.

We must now consider the difference between Wallace/Moreland and Wilder over whether the brain can learn. It is evident from theology that the soul learns. It is rather clear that a brain with no soul is not learning at all – it is dead. Wallace/Moreland claim that the brain cannot learn and change itself because it is made of physical substance not soul substance. They contend that believing we can teach the brain is very dangerous for Christians. This claim and the logic they use must be addressed briefly.

In his Rutgers Lectures,^x Timothy Williamson explained how contemporary philosophy suffers from a widespread pathology known as overfitting to natural and social scientists, but little understood by most philosophers. Overfitting involves an insufficiently critical attitude towards data, which leads to over-complicated theories designed to fit what are in fact errors in their data. In philosophy, the data typically comprise verdicts on hypothetical or actual cases.

Moreland, in his neurotheology, would like to insist that it is the soul doing the heavy lifting when the brain changes. Why does this matter? Because Aristotle said the will was in the soul and if humans have free will then changes must come from the soul. This seems logical for explanations based on Aristotle but is the soul being overfitted to explain whatever we happen to notice?

Moreland/Wallace cannot account for how the soul learns but they extend complex explanations using the soul to account for everything that humans do. Wilder explains more of what happens using the constraints coming from the brain, its condition and its training. He sees real constraints on how the brain learns and concludes that the brain should be taught the way the brain learns. Let's return to the case of Mary who we considered previously. What happens if we apply the Moreland/Wallace explanations?

Mary and the simple soul

Wallace, with full understanding and approval by Moreland, says the soul is simple (no parts) and thus only the soul can experience unity of consciousness. How is it that Mary has many states of consciousness that are unknown to one another? Since for Wallace and Moreland our mental states are not physical (in the brain) how did Mary come to have so many and why do some block others?

Wallace believes that the mind is not blocked when it comes to seeing itself. Wallace says on p. 49, "One property that is true of the mind but not the brain is our first-person perspective. I have direct, private, first-person access to my mental events. I know what I am thinking, feeling, or choosing in a way that is not available to anyone else. But I do not have private access to my brain events."

To this, Wallace adds that one cannot be wrong about this personal perspective because the soul sees clearly and is not limited by interference from the brain. This makes Mary, and the thousands like her, a perplexing case of whimsical souls who can see clearly, know themselves, but intentionally torment themselves by acting like they don't. This cannot be a simple soul that knows itself and cannot be wrong about what it knows.

Wilder proposes that the brain learns and shapes itself by what it learns. Terrible training produces incoherent brain states that the unfortunate soul must try somehow to manage until help arrives. Then the brain must be retrained the way the brain learns so that it operates correctly.

Going beyond neurotheology

Most of the critique of Wilder's neurotheology by Wallace/Moreland lies outside the field of neurotheology. Moreland agrees in his neurotheology book. When discussing explanations for empathy he states, "No empirical, scientific datum can pick out which of these three [explanations for empathy] is correct. That issue is a philosophical and theological one, not a scientific matter."

The field of neurotheology is limited to studying the human lifespan during which the spirit of humans is tied to their human bodies. How the spirit of humans may operate when it leaves the body is not addressed by neurotheology because there is no nervous system at that point. Moreland is a philosopher, so he discusses theology extensively and goes far beyond neurotheology with assured knowledge about the nature and substance of the soul. Wilder stays much more closely in his field.

Wallace/Moreland fail to show how the soul learns. They do not prove conclusively that the brain cannot learn. More of the problems with Wallace/Moreland arguments are discussed in the addendum to this paper.

Conclusions

In the end there appear to be only two reasons why Wallace/Moreland believe that Moreland's neurotheology is helpful while Wilder is dangerous. First, they believe the slow soul cannot keep up with the Fast Track processes in the brain, so if Wilder believes the brain can think faster than conscious thought he cannot believe in a soul. Secondly, since Wilder believes the brain can learn he must believe that the soul cannot learn so there is no soul. These two conclusions are not based on anything Wilder has said but rather on assumptions by Wallace/Moreland and the illusions caused by their reasoning.

Wallace/Moreland have not faintly guessed Wilder's schema as it does not fit in the only four options that Wallace/Moreland expect. Instead, they guess and try to fit Life Model neurotheology into their box. They will need to read more than the half of a book they quote to find what Wilder teaches. Wilder generally stays within the limitations of neurotheology in his writings and does not try to explain topics that better fit theology and philosophy.

Wilder sees large gaps in the explanations provided by both science and philosophy. In one current gap, scientists are asking if Plank values harmonize the properties of matter and, if so, what are those values? Michael Polanyi (popularized by Thomas Kuhn) described this kind of gap-covering behavior in science. Meanwhile, philosophers cannot escape the over-focused heuristics of conscious thought any more than scientists can. Attributing any characteristics the philosopher wants to explain how the soul functions covers a gap for Wallace/Moreland.

Teaching a brain the way the brain learns presents no danger to Christians if the soul is fast enough to keep up. A fast soul and brain combination can learn our identities through loving attachments with God and others. People will see and hear the Spirit of Christ through their hearts. Their spirit participates in teaching the brain the way the brain learns.

But let's say that Wallace/Moreland are wrong. Does their teaching pose a danger? No, we have only established that they did not explain how the soul works and learns in relationship to the brain. For centuries Christians have not considered the way the brain learns and their eternal lives are not at risk. The final judgment will not be a quiz on how creation worked. We will be expected to know who loved us first and show signs that we have diligently pursued a loving attachment with God, God's people, neighbors and even our enemies.

What is left to consider is the track record of Wilder neurotheology in The Life Model. Does living an Immanuel lifestyle and learning a loving attachment to God the way the brain learns have the damaging track record that Wallace/Moreland predict?

The Life Model and theology

Neurotheology is only a part (subset) of the Life Model. The Life Model is only part (subset) of theology and Christian practice. The Life Model is a needed addition to any Christianity that is overly focused on beliefs. It provides correction for the common problems many Christians have living out their faith. The Life Model supplement for Christian living intentionally leaves eternal matters up to each Christian faith tradition it serves. We do not teach about how the soul gets saved because that is not the purpose of the Life Model and its neurotheology. Preparing the soul for eternity is what churches do. The Life Model teaches people to begin their post-resurrection life now while they are still in human bodies by teaching the brain in the way the brain learns.

Proof that this strategy is working well comes from the list of churches, groups and movements who have used the Life Model without finding a conflict with what they believe. This list does not imply their endorsements of the Life Model, only its usefulness across many theological divides. The Life Model has been implemented in the following traditions:

Eastern and Western Christianity: Coptic, Armenian Orthodox, Ukrainian Orthodox, Eastern Rite Catholics European protestants and US churches.

Catholic and Protestant: Roman Rite Catholic, Lutheran and Southern Baptist.
High church/Anabaptist: Anglican, Episcopal, Plain People, Mennonite and Brethren.
Calvinist and Arminian: Reformed, Dutch Reformed, Presbyterian, Methodist and Nazarene.
Pentecostal / Evangelical: Vineyard, Assemblies of God, Church of Christ, Community churches
Old traditions and new: St. John Vianney Seminary, Apostolic, Emergent, Luke 10 and Rock Tribe.
Messianic to Salvation Army: Tikkun America and Leger des Heils.
Parachurch: Christian Community Development Association (CCDA), Youth With A Mission (YWAM), CRU, InterVarsity, Man in the Mirror and Navigators

These partial lists of very diverse Christian groups agree that:

Character transformation is needed

Christian fellowship/community is essential

Passing on Christian traits is key and often not as effective as it should be

Christians need deeper love for God and others

As scripture says:

Until we're all moving rhythmically and easily with each other, efficient and graceful in response to God's Son, fully mature adults, fully developed within and without, fully alive like Christ. Ephesians 4:11-13 *The Message* Christians of all varieties could do better. The problem is not with finding salvation for their eternal souls but in having more Christlike relationships and character. For that the brain will need:

1) A multigenerational community for learning and practice.

2) The Immanuel presence of the transcendent Christ to reveal to us what no human mind can know on its own.

3) Development of missing and weak brain capacities needed to suffer well and love our enemies spontaneously. (Keeping in mind that this training begins with those who are closest to us.)

The neurotheology of the Life Model is focused on how God designed us to learn to love God and one another as we become the people of God. Judged within the limits of its design, the fruit looks good. Dallas Willard declared it to be the best model he had seen for rebuilding Christian community. The Life Model should not be overfitted to answer questions it was intentionally designed not to answer. For those eternal questions there is the Church.

Addendum

Overview of issues raised by Stan Wallace and his bookxi

People acquainted with the specific claims by Wallace/Moreland may want some specific responses. A few specific failures of logic, limited research, poor scholarship, one-sided citation of philosophy and historical inaccuracies will be mentioned but there are too many to address them all.

Level of scholarship

Unsolicited reviews of Wallace's work by people with doctoral degrees in a variety of subjects conclude that his work is full of errors, poor logic, incorrect histories, wrong assumptions, narrow selection of sources and a lack of fact checking. He then argues by implication, by silence and guilt by association. From this, Wallace creates what he believes are the implications that make neurotheology a hazard. His accusations, based largely on assumptions, are things that Wilder has never said or taught. Those who have heard Wilder teach agree that he is not a physicalist, nor an epiphenomenalist. His approach is also not scientism as claimed by Wallace.

Wallace attributes Wilder's supposed views (views never stated by Wilder) to studying under two Fuller professors Joel Green and Nancey Murphy. Wallace insists that his unchecked guesses are "even more reasonable considering whom Wilder studied under in seminary" (page 24). Wilder never heard of either professor prior to seeing them in Wallace's book. Green joined the Fuller Seminary faculty in 2007. Wilder graduated in 1982 a full 25 years earlier. Murphy joined the Fuller faculty in 1989, seven years after Wilder finished seminary. He has never heard or read anything by either professor, much less studying under them. This historical error (among others by Wallace) reveals a lack of research into claims made by Wallace in his writings, podcasts and articles on neurotheology and the Life Model. Wallace lists one book (half of which was written by Wilder) as his only source for what Wilder believes and writes. This book, *Renovated* (NavPress), receives half of its content from Dallas Willard's lectures at the Heart and Soul Conference in 2010.

The Heart and Soul Conference was created by Wilder with Willard as an invited speaker along with Curt Thompson and others. Wallace gives a different account not realizing that it was run by Wilder. The conference objective, between Willard and Wilder, was to establish human maturity as a subset of spiritual maturity where human maturity was entirely included in (not separate from) spiritual maturity. Wilder named the conference Heart and Soul so as to establish both heart and soul as central to maturity and training the physical brain. It is hard to make the case that Wilder called his conference Heart and Soul and does not believe in the soul. Wallace did not fact check.

Contrary to Wallace's claims that a medical doctor would dismiss the science in neurotheology, Wilder's sources are well respected with the primary one being Dr. Allan Schore who is never mentioned by Wallace. A considerable number of those teaching the Life Model report an enthusiastic reception by medical audiences for Wilder's teaching.

Wallace claims that a FACULTY of the soul produces the body. Because the brain is a physical system and physical systems cannot change themselves without the power of choice, the soul has to be what changes the brain. Wallace says, "To experience sensations, the sensory faculty has capacities to produce a body with sensory structures that 'connect' with the world and provide the neurological data for the soul to have these sensations." p. 90 He gives no explanation of how soul substance can do so. This might not get a good reception in a medical audience. Medicine moved beyond Aristotle and his radiator with Galen in the second century.

Wallace/Moreland see danger in believing the brain can learn and should be trained because only the soul can learn. How do they account for change and learning in animal brains? They claim that animals or anything that learns must have a soul. It is a stretch to see how giving souls to animals restores Christian orthodoxy. Wallace/Moreland leave many more unanswered questions without guiding people back to developing the character of Christ in their mortal lives.

What do souls do then? Soul substance generates the FACULTIES as well as directing the development of the body. Does this soul substance spontaneously give rise to FACULTIES for animals as it does in people? If not, why not? If the soul substance directs the development of bodies, why does it generate bodies "after their kind" physically?

By leaving the soul and FACULTIES in charge of being human, Wallace/Moreland are free to disregard interpersonal neurobiology. In his critique of Wilder, Wallace never mentions any of Allan Schore's science that forms the basis for most of the science used by Life Model neurotheology. He would be more persuasive if he understood the position he criticizes.

The most pervasive tendency by Wallace is to state contested views as though they were the clear and only facts in philosophy. Readers who lack a background in history, philosophy, theology or neuroscience will not notice that his claims for certainty are not that widely accepted.

In the present time, if someone claimed that law enforcement has clearly proven that: white men have conspired to promote literacy in order to enslave people of color, election results in the USA are

controlled by foreign powers, the CIA killed JFK or that identification chips are distributed in vaccines, most readers would know that these "facts" are not universally shared. Wallace's lack of alerting his readers to the controversies around his proven facts is poor scholarship and cause for concern. Does he simply not know or is he deliberately creating an illusion of clarity and certainty?

Wallace does not acknowledge or address opposing philosophies

"The one who states his case first seems right, until the other comes and examines him." Proverbs 18:17 ESV

The consistent pattern by Wallace is not mentioning or addressing the many philosophers who would disagree with the Wallace/Moreland conclusions in *Have We Lost Our Minds?* While the book is authored by Wallace, Moreland states that, "I have carefully read and wholeheartedly endorse Stan's work." Thus, we can use Moreland's assurance that the logic and substance in Wallace's work are also those of Moreland.

Wallace/Moreland repeatedly insist that philosophy has discovered some truth when they mean they are following Thomas Aquinas. There were plenty of critics of Aquinas in the Middle Ages, including those who rejected FACULTY psychology.^{xii} But the critics were often Franciscans, and the Franciscans were in a big dispute with the papacy. Aquinas was a Dominican. They backed the pope, and the popes backed the theology of Aquinas, and made him the official philosophy. So, by the Reformation, theological education was largely in the hands of people in the Thomist tradition. Both Protestant and Roman Catholic theology had that background. Thus the "discoveries of philosophy" are better seen as the dogmatic Dominican tradition of the church. It is the role of authority that puts Thomism in the place that it holds today.

Citing a Thomist position is not a problem but presenting one side of the argument as the conclusion of philosophy is inadequate and possibly misleading. It would also be incorrect to assume that pointing out how other philosophers disagree and see flaws in what Wallace presents means that the Life Model supports the flawed conclusions by those critics. Life Model neurotheology does not claim to belong in any of the four categories that constrain the arguments by Wallace/Moreland. Pointing out the weaknesses of their arguments and presumed facts does not disprove dualism or imply agreement from Life Model neurotheology with their opponents' conclusions.

Aristotle did not understand the brain and how it worked 2,300 years ago. In the Middle Ages, the dualist philosophers also did not understand how the brain worked although by then the medical field was following Galen who did include the brain and nerves in his explanations.^{xiii} But ultimately we come to Wallace/Moreland and their arguments based on extreme dualism as the only acceptable view combined with their certainty that the brain cannot learn. While not going as far as Aristotle did with his radiator, they show little knowledge about the brain and its functions.

Wallace labels Wilder's ideas as physicalism and attributes those to the Enlightenment without being able to cite any Enlightenment thinker who held the same ideas. The role of the brain actually traces back to Galen in the second century who entered Christian thought through Bishop Nemesius of Emesa in the fourth century. This is long before the Enlightenment. Wallace also does not reference the book

Wilder and Marcus Warner wrote against Enlightenment thinking called *The Solution of Choice: Four* good ideas that neutralized Western Christianity.

Have We Lost Our Minds? on substance

Wallace/Moreland are proponents of the slow soul with FACULTIES that don't need or use the brain to think or learn. Most orthodox Christian thinkers have been dualist though some were idealist. Wallace/Moreland only present the philosophy of mind by dualist thinkers.

While Wallace may be unaware of the explanation of mental experiences proposed by the non-dualists, or even Thomas Reid and his critique of the "way of ideas," Moreland certainly is not. Moreland speaks of "The Substance of the Soul" in his works. This comes from a Middle Ages view that God, the soul and creation are made of separate "substances" with Moreland arguing the soul has its own substance. This he combined with the philosophy of "FACULTIES" from the ancient Greeks who started the "will" and "intellect" distinction.

Debate about the number and nature of FACULTIES has long existed between adherents. Considerable rejection of FACULTIES by both scholastics and Thomists emerged at the fall of the Scholastic movement. Scholastic dominance in Protestant theology broke down around 1750. Jonathan Edwards, who lived at that time, totally rejected the will and faculties. Moreland's anthropology wants to explain the "will" as the operation of the mysterious substance of the soul at slow conscious thought speed. The speed of conscious thought is not noticed or considered by Moreland. Wallace/Moreland have no grasp of the brain thinking at different speeds. Every thinking process attributed to the brain is seen as "reductionism" by Wallace/Moreland without considering the possibility that we have different speeds of thinking outside of conscious thought.

Have We Lost Our Minds? on transparency

Wallace/Moreland base their logic on the transparency of the soul as though this was an established fact to philosophy and theology. The issue with transparency of the soul is that consciousness is greatly blocked in its access to what we know, often to what we feel, and so on. So, if consciousness is a function of the soul, what is blocking the soul? And, perhaps more importantly, what within the soul is blocking itself?

It is very important for any dualist theory to explain what happens inside the soul. Wallace/Moreland claim we have privileged access to our mental states (which they say proves that mental states are not physical) and that we cannot be wrong about them. The soul can see everything about itself clearly because it is made of soul stuff. Are we that clearly aware? Many philosophers think not.

If, according to Wallace/Moreland, information from experience resides in the soul and is transparent to consciousness, how can it be blocked from awareness? Does this whimsical, spooky soul have some sort of unconscious parts or psychological issues preventing it from understanding itself? If the soul does not have transparency about itself, what could account for it? How then can it have transparency about what happens to its body while it has one? This would be more simply addressed if it were the brain having problems.

Wallace does not address objections by philosophers such as Timothy Williamson who compare logically equivalent constructions involving conditional statements, one of which people find easy to understand and the other confusing. He attributes the difficulty understanding one format to brain heuristics that provide faster thinking rather than logic. If this process is taking place in the soul that lacks brain heuristics, as Wallace explains, wouldn't both constructions be equally lucid?

More seriously, Zeiba has argued that intentionalists (like Wallace/Moreland) cannot explain the unique epistemic significance for phenomenal consciousness without denying the transparency of experience and the possibility of unconscious perception.^{xiv} He concludes, "Consequently, whatever reason might there be to think that phenomenal consciousness has unique epistemic import, it is also a reason to reject intentionalism."

Have We Lost Our Minds? on emergence

Wallace/Moreland are reductionists while Wilder is not. Wallace's dependence on a slow soul seems to arise from his need to combat belief in the emergence of consciousness from physical matter. Daniel Dennett was one well known protagonist for this view. Wallace proposes that the brain functions like billiard balls bouncing. He says, repeatedly, and treats it as obvious, that anything that is not the soul is reducible to physical (as in physics) and chemical events. In practice, he explains physics with no mention of quantum physics.

There are those in neuropsychology who speculate about emergence as a result of quantum physics. The HeartMath group that Moreland cites with approval in his book *Finding Quiet*^{xv} is in that stream. Wilder does not subscribe to, write, teach or support emergence or any link between emergence and quantum phenomenon. All such ideas are speculative at best. His neurotheology proposes that the brain can learn and should be taught to live in harmony with the spiritual discernment of the heart Jesus gave us.

Have We Lost Our Minds? on logic

Wallace fails to apply the same logic to his arguments that he applies to his opponents. Since Wallace cannot explain anything about the substance and functions of the soul he says, "we don't need to know how something is the case to know that it is indeed the case." If his opponents were to offer the same argument about emergence saying, "we don't need to know how consciousness emerges from matter to know that it does," Wallace would not accept that equivalent reasoning.

Wallace insists that no explanation can be made as to how the brain makes choices. By the same logic no explanation can be made for how the soul makes choices. Wallace insists that if something like a choice were attributed to the brain it would be a "brute fact" because no explanation can connect it to anything the brain does. It does not occur to him that we don't know how the soul acts, so anything we attribute to the soul would also be just a "brute fact". Wallace can only think critically in one direction. This amounts to hubris.

Have We Lost Our Minds? on brute fact arguments

Wallace is probably drawing on a brute fact argument in *The Substance of Consciousness* by Moreland and Rickabough.^{xvi} There (pages 36-38) emergence of mental phenomenon is called "a case of magic without a Magician". It is "bringing into existence ex nihilo a completely new sort of entity."

In section, 2.4.5.4 Emergence as a Brute Fact we read that appearance ex nihilo cannot be governed by a law. "Thus, there is no naturalistic or scientific explanation whatsoever as why one entity comes into existence at t as opposed to any other entity." Adding, "As such, it leaves as a bizarre brute fact that whenever matter is at such and such a configuration, the same emergent property—e.g., being painful—always emerges."

Let's apply this logic to the soul. If the soul is a substance, it is something other than experiences. If soul substance gives rise to experiences, it is giving rise to something new and different, which Moreland says is ex nihilo magic. The same argument applies to what the soul does. If the soul was not a substance as they claim, but the sum of all experiences (which therefore do not have to come into existence but only come into focus) Wallace/Moreland could escape their own trap. But then, they lose the purpose for their argument.

Wallace/Moreland create blockages for learning and teaching

Given that Wallace/Moreland cannot 1) explain how the soul learns or provide any framework at all and they 2) deny that the brain can learn, what we have left is their framework for learning nothing at all. The attachment based interpersonal neurobiology behind the Life Model provides many well demonstrated conditions and experiences needed for learning our identities, relational patterns and developing character. These conditions are consistent with the relational guidelines in scripture for loving God and others.

Suppose that that (for some improbable reason) the substance of the soul acts exactly like physical matter in the brain and it is actually the soul learning instead of the brain and soul together. Are Wallace/Moreland to prevent using Life Model practices as their way to save Christianity? Any phenomenologist would say we should train the soul the way the soul learns.

Wilder and the Life Model have no dog in the race over the characteristics of the soul. Emergence and all other theories of conscious thought and agency lie beyond the current range of human knowledge and understanding, What the Life Model proposes is that we teach and train in the same way that we learn best. Those characteristics can be seen. Wallace/Moreland warning people away from Life Model neurotheology and a schema they do not understand is not a service to the church or the path to saving Christian thought from peril.

ⁱ Stanford Encyclopedia of Philosophy, "Aristotle's Psychology", section 4 "Psychic Faculties", https://plato.stanford.edu/entries/aristotle-psychology/#PsycFacu

ⁱⁱ https://www.researchgate.net/publication/247751848_Aristotle_on_the_Brain

- ⁱⁱⁱ "Spooky" is a term from quantum physics initiated by Einstein with his "spooky action at a distance" for quantum entanglement. Is the soul some parallel to quantum physics and spooky action?
- For the usual secular discussions about brain speeds and philosophy see: McGilChrist, Iain, The Master and his Emissary, (New Haven: Yale University Press, 2009.) pp 221-227. Also Damasio, Antonio, The Feeling of What Happens: Body and Emotion in the Making of Consciousness, (San Diego: Harvest book, 1999).
- Microtubule-Stabilizer Epothilone B Delays Anesthetic-Induced Unconsciousness in Rats Sana Khan,* Yixiang Huang,* Derin Timuçin,* Shantelle Bailey, Sophia Lee, Jessica Lopes, Emeline Gaunce, Jasmine Mosberger, Michelle Zhan, Bothina Abdelrahman, Xiran Zeng, and Michael C. Wiest, August 9, 2024. https://doi.org/10.1523/ENEURO.0291-24.2024
- ^{vi} Voluntarism is supremacy of the will. It can be said in terms of either God or of man. For those who believe in faculties, it would be supremacy of the faculty of the will. For examples see: Osborne, Thomas, Human Action in Thomas Aquinas, John Duns Scotus and William of Ockham, (Washington: The Catholic University of America Press, 2014). See also chapter four of van Vliet, Jan, The Rise of Reformed System: The Intellectual Heritage of William Ames, (Crownhill: Paternoster, 2013).
- ^{vii} Warner and Wilder, The Solution of Choice, (:Deeper Walk International, 2018).
- viii https://renovare.org/books/finding-quiet
- ix Moreland, Finding Quiet, (Grand Rapids: Zondervan, 2019).
- ^x Timothy Williamson, Overfitting and Heuristics in Philosophy, (New York: Oxford University Press, 2024).
- ^{xi} Wallace, Have We Lost Our Minds, Wipf & Stock, 2024
- xii Wilder, Timothy, Divided Knowledge, Rapid City: Via Moderna Books, 2023, p. 10.
- xiiihttps://pubmed.ncbi.nlm.nih.gov/11618827/
- xiv Paweł Jakub Zięba (2022): The epistemic import of phenomenal consciousness, Inquiry, DOI: 10.1080/0020174X.2022.214441
- ^{xv} Moreland, Finding Quiet, (Grand Rapids: Zondervan, 2019).
- xvi Rickabough and Moreland, The Substance of Consciousness: A Comprehensive Defense of Contemporary Substance Dualism, (Hoboken: John Wiley and Sons, 2024).