



Studying the Bible from a Neuroscience Perspective: Four Bible Studies

Esperanza College
Fe, Ciencia y Esperanza Initiative
Studying the Bible from a Neuroscience Perspective: Four Bible Studies
Prepared by the Rev. Dr. Carmelo Santos, Ph.D.¹
July 2021

Introduction

Dear reader,

This bible study is meant as a resource for groups to explore how neuroscience can provide us with a lens to read the holy Scriptures in ways that can yield new insights and rich interpretations. Each session is divided into four parts: neuroscientific context; theological implications; Scripture reading; and questions for reflection and conversation. The idea is to have conversations drawing from the wealth of experience and wisdom of all the participants. If there are among the participants students of psychology or neuroscience or of theology or the bible it would be helpful to invite them if there is anything they would like to add to the information offered here. It might also be helpful for those leading the bible study to do some reading or to watch videos ahead of time in order to become more familiarized with the topics covered here. A short list of resources is provided at the bottom. Finally, remember the importance of prayer and patience in listening to the word of God that addresses us from within the Scriptures; each session should begin and end with a word of prayer, paying particular attention to the burdens and joys of participants, and asking for the holy Spirit to open the minds and hearts of those present so that they might be surprised by the living word of God addressing them here and now. I pray that this resource may be of help to you in your personal faith journey and in your ministry setting.

Session 1 - Is there a God-spot in the Brain?

Neuroscientific Context

For the last three decades some neuroscientists have been exploring what happens in the brain when people have religious experiences. Some have proposed that there are specific regions in the brain that are involved in such experiences. When they measure brain activity while people are in the midst

¹ The author can be contacted via email at carmelosantos25@gmail.com

of religious experiences and then compare it to brain activity of the same people when they are at rest the findings are intriguing. The activity in some regions becomes more intense while other regions become less active. Science journalist Barbara Bradely Hagerty has written about these findings and others that we will study in the following sessions of this Bible Study in a very accessible book titled: Fingerprints of God: The Search for the Science of Spirituality.

Theological Implications

Is it the brain that is producing the religious experiences or is it the religious experience that is causing changes in the brain? Be that as it may, what seems clear is that such experiences pass through the brain and are shaped by the types of brains we have. Therefore, the way we experience God is shaped by the way the brain works.

The types of experiences we have depend on the types of brains we have. For instance, we see the world in color because the brain transforms light waves into the perceptual experience of color. Without the eyes and the brain there would be no color out there. Studying the brain helps us understand in what ways the experience of God or of God's Spirit is shaped by the brain and in what ways it is shaped by the Spirit of God. Moreover, it can help us develop criteria to discern what experiences and what aspects of experiences can be attributed to God and which ones are merely brain activity. (Of course, God works with, under, and in the brain, not against it because the brain too is a creature of God and can be a means of God's work).

Scripture reading²

“Beloved, do not believe every spirit, but test the spirits to see whether they are from God ...” (1 John 4:1 NRSV).

Questions for discussion

1. What role do religious experiences play in your faith tradition? How important do you think they are? Why?
2. What do you think is the relationship between religious experiences and the brain?
3. If religious experiences could be artificially triggered by stimulating certain regions of the brain, could those experiences be considered as genuine experiences of God (or of something holy and sacred) or does the fact that they are artificially caused disqualify them from being real?
4. What criteria would you use to “test the spirits” in order to decide whether a religious experience is truly from God or not?

² [Scripture quotations are from] New Revised Standard Version Bible, copyright © 1989 National Council of the Churches of Christ in the United States of America. Used by permission. All rights reserved worldwide.

5. Do you think that the study of the relationship between brain activity and religious experience could contribute to your faith? Why or why not?

Session 2 The placebo effect or the power of faith to heal?

Neuroscientific context

When pharmaceutical companies want to test a new medicine they recruit patients and divide them into two groups. One group receives the experimental drug that they are testing; the other group only receives a sugar pill or a treatment that resembles the real one but is not. This is called a “placebo.” Frequently, patients in the placebo group experience healing as if they had received the real medicine or treatment. The scientific community refers to this phenomenon as the “placebo effect.” That is a misnomer because it is not the placebo that is healing them; it is their faith in the treatment or medicine that they are receiving! The Neuroscientist Mario Beauregard has studied this phenomenon scientifically and pondered on its meaning from his evangelical Christian perspective. His findings and reflections can be found in his book: *Brain Wars* (New York: Harper One, 2013).

Theological implications

Faith is essential to the healing process. On many occasions Jesus made explicit that the reason a miracle had been possible was because of the faith of the person being healed or of those interceding for them. As it turns out faith is also at work outside religious settings! God created the world for wholeness and health, not for sickness and suffering, and the breath of God that is the Spirit of God continues to move within and throughout all creation bringing life and healing to all: “When you send forth your spirit, they are created; and you renew the face of the ground” (Psalm 104:30 NRSV).

Faith, not only as belief but most importantly as the trust of the heart, is the openness of the soul to the healing and lifegiving activity of the Spirit of God. This healing activity of the Spirit recruits many means such as placebos but also active medicines and therapies. They are all gifts from above (James 1:17). That does not mean that faith is insurance against all maladies; even the holiest of people in the Bible had to occasionally endure suffering and sickness despite their faith. However, faith allows us to say with the apostle Paul: “I know what it is to have little, and I know what it is to have plenty. In any and all circumstances I have learned the secret of being well-fed and of going hungry, of having plenty and of being in need. I can do all things through him who strengthens me” (Phillipians 4:12-13).

Scripture reading:

“[Jesus] said to her, “Daughter, your faith has made you well; go in peace, and be healed of your disease.” (Mark 5:34 NRSV).

Questions for reflection and discussion

1. What was the source of healing for the women in this bible story?
2. Have you ever experienced the healing power of faith in you or someone you know? Explain
3. What is faith? How does the bible story above help us understand what faith is? How does it help us understand what healing is?
4. What does your faith tradition teach about the relationship between faith and the use of medical treatments and medicines? Does using medicine or medical therapies necessarily imply lack of faith, or is it the other way around? Why?
5. What does it mean that even faith without explicit belief in God is capable of healing people via the “placebo effect”? Would God heal people who do not believe in God? Why yes or why not?

Session 3 - The Hard Problem of Neuroscience: What is the relationship between the mind and the body or between the body and the soul?

Neuroscientific Context

Phineas Gage had a metal rod pierce through the frontal lobe of his brain and he survived! However, the damage that his brain suffered caused significant changes to his personality. From being a responsible worker and decent man, after the accident he seems to have become irresponsible and foul. It was as if damage to his brain had caused damage to his soul. Witnessing the changes in personality of people suffering from brain injuries or diseases such as dementia or alzheimers is deeply painful and unsettling.

Is the soul somewhat connected to the brain? Is the soul just a function of the brain? Or is there something in us and our loved ones capable of transcending the ravages of physical disease and death and restored into eternity? Are these scientific questions or theological questions, or both? Philosophers refer to the question of the relationship between the mind and the body as the hard problem of neuroscience. How can the mind or the soul, which is typically assumed to be made of spiritual, immaterial stuff relate to the body which is physical and therefore made of material stuff? How can something spiritual move something physical without breaking the laws of physics?

Theological implications

What happens if science proves that the soul is not an entity that can survive the death of the body but rather just a function of the brain which dies when the brain dies? That is what is at stake for theology in this line of neuroscientific research. However, the Bible provides faith with more than one alternative regarding how to understand the relationship between the soul and the body and the promise of life after death.

Due to the strong influence of Greek philosophy in the ancient translators of the Bible certain concepts that were not originally biblical were introduced into the Holy Scriptures. One of those foreign concepts was the idea of the soul as an immaterial and immortal entity that lives inside a physical body until the body dies and then the soul is released and can go to heaven or somewhere else. That is very different from the idea of life after death prevalent throughout the Scriptures. Throughout most of the Bible the assumption is that body and soul belong together as two faces of a coin. It was not a soul that God blew into the first human's nostrils but rather the breath of life which is also what makes it possible for all living creatures to be alive and move and act. Ecclesiastes says it with disarming honesty: "For the fate of humans and the fate of animals is the same; as one dies, so dies the other. They all have the same breath, and humans have no advantage over the animals; for all is vanity" (Ecclesiastes 3:19 NRSV). When the body dies the soul dies as well. That is why the promise of eternal life is not based on the idea of the immortality of the soul but rather on the idea of God's power to bring life out of death and to restore life to that which has died.

In summary, the biblical promise is the promise of the resurrection of the entire person in the flesh, though a radically transformed flesh (see 1 Corinthians 15:35-55), not the eternity of a disembodied soul. Thus, as it turns out, the findings of neuroscience are not incompatible with a biblical understanding of the soul and eternal life.

Scriptures reading

“ Look at my hands and my feet; see that it is I myself. Touch me and see; for a ghost does not have flesh and bones as you see that I have”
(Luke 24:39).

Questions for reflection and conversation

1. What is a soul?
2. Why was it important for Luke and the other gospel writers to emphasize that after the resurrection Jesus was not a ghost (a disembodied soul) but rather that he had resurrected in the body?

3. What difference does it make whether it is our souls only or our bodies also that take part in the promise of eternal life?
4. If salvation and eternal life include our bodies how then should we care for the bodies God has given us? How should the work of our church address the bodily needs of those among whom the church is working (e.g., hunger, sickness, etc.)?
5. How do you imagine eternal life? How can we live now in anticipation of the eternal life that has been promised us?

Session 4 - Feeling is believing? The role of emotions in the life of faith

Neuroscientific context

One of the most significant discoveries in neuroscience is the role that emotions play in the way the mind works. In the old days it was common to think that emotions clouded thinking and that therefore good decisions had to be made based solely on cold, rock-solid logic. That is not the case any longer.

For the last four decades Neuroscientists have been rediscovering the important role that emotions play in making wise decisions and even in the way we perceive the world. Thinking and feeling complement each other. Without feeling our thinking is aimless and erratic; without thinking our emotions are shapeless and either paralyzing or explosive. Emotions are like a compass for our minds, helping us decide what is desirable and good versus what is wrong, dangerous or repulsive.

More recent work in the neuroscience of emotions has uncovered the role that language plays in shaping our emotions. According to this line of research, spearheaded by Lisa Feldman Barrett, when children sense feelings in their bodies and their caregivers tell them what it is they are feeling those emotions begin to assume the shape of the words spoken by the caregivers. In other words, emotions are not pre-made but they are shaped through language and experience. Furthermore, language also gives us a grip on our emotions so that the more nuanced our understanding of our feelings the better control we will have over them. This has tremendous implications for the life of faith.

Theological implications

Strong emotions have always been an important part of religious experiences. In the Bible, for example, when people have visions of angels or of God they often throw themselves on the ground in fear and trembling. And in the book of proverbs the emotion of fear (of the Lord) is named as the beginning of wisdom (Proverbs 1:7), while the apostle Paul identifies joy as a fruit of the Spirit (Galatians 5:22). The theologian Rudolph Otto identified the feeling

of fear combined with joy as a typical of encounters with the holy, he called it, in Latin: *mysterium tremendum et fascinans* (R. Otto., *The Idea of the Holy*). Pentecostal and charismatic churches have also recovered the importance of emotion and feeling in the life of the faith.

What is of theological significance is the role that emotions play in the way we read the Scriptures. According to the neuroscience of emotion the way we feel affects the way we read or, more precisely, the way we interpret what we read. Therefore, it is important to realize that what we may consider “the objective truth of revelation” or even “just the facts,” is highly influenced by our emotions, and our emotions themselves, remember, have been shaped by our caregivers and mentors.

Unfortunately, this link between emotions and thinking is often manipulated by politicians and (false) religious leaders. In order to deal with those possible distortions and manipulations some theologians have introduced the idea of the “hermeneutics of suspicion,” that is, reading the Bible and our tradition with the question, is this interpretation truly the inspiration of the Holy Spirit or does it benefit the economic, political, or social interests of a particular group (even mine)? Another strategy is to make sure that we study the scripture in community so that several interpretation arise and together the community has to prayerfully discern which one is more faithful to the intent of the revelation of God in the Scriptures as a whole rather than nitpicking the readings we like while dismissing or ignoring those other equally valid readings that don’t fit with what we think is supposed to be the pure, objective word of God. An accurate reading of the Scriptures requires the guidance of the Spirit via our emotions and reasoning but in constant conversation with the community of faith, especially those who don’t always see eye to eye with us.

Bible reading

“They said to each other, ‘Were not our hearts burning within us while he was talking to us on the road, while he was opening the scriptures to us’”
(Luke 24:32 NRSV)?

Questions for reflection and conversation

1. Have you ever had the experience of sensing that you were in the presence of God or angels or something holy? What did it feel like? How can you know if the experience was of something real or just the result of an overactive nervous system?
2. Are certain feelings required in order to know that an experience is really from God or is it possible to not feel anything special and yet still be in the presence of God? Why?

3. How big or small of a role do emotions and feelings play in your own life, especially in the way you make decisions? What about in the way you make decisions about what to believe or not to believe in church?
4. What role do emotions and feelings play in your church, especially in the way worship is conducted? Is it helpful? Why yes or why not?
5. If the words children hear from their caregivers are so important in shaping their emotions and minds, what does that mean for the way we raise our children and for the way that they are introduced to the faith?

Some resources for studying the theology and the Bible through the lenses of neuroscience:

Books

Barrett, Lisa Feldman, *How Emotions Are Made: The Secret Life of the Brain*. New York: Houghton Mifflin Harcourt, 2018.

Green, Joel B., editor, *What About the Soul? Neuroscience and Christian Anthropology*. Nashville: Abingdon Press, 2004.

Hagerty, Barbara Bradley. *Fingerprints of God: The Search for the Science of Spirituality*. New York: Riverbed books, 2009.

Murphy, Nancey. *Bodies and Souls or Spirited Bodies?* Cambridge University Press, 2006.

Newberg, Andrew and Mark Robert Waldman. *How God Changes Your Brain: Breakthrough Findings from a Leading Neuroscientist*. New York: Ballantine books, 2009.

Newberg, Andrew. *Neurotheology: How Science can Enlighten Us about spirituality*. New York: Columbia University Press, 2018.

Video

Carmelo Santos, *Introduction to God in the Brain, a lecture for the Faith and Science Forum* at Hope Lutheran Church and Campus Ministry, College Park, Maryland. 2013: <https://www.youtube.com/watch?v=I5AykH4IDck>

Spanish resources:

Tragan, Pius-Ramon. *Neurociencias y Espíritu: ¿Abiertos a una vida eterna?* Navarra, España: Verbo divino, 2012.

Carmelo Santos, [Conferencia Magistral - Entre la libertad del espíritu y la tiranía de la carne - YouTube](#) Seminario Evangelico de Puerto Rico, 2013.