

# What happens when you do a neuroimage scan of a person's brain as they speak in tongues?

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*Small Pentecostal church service in Liberia. Photo: Multimedia Photography/Flickr/Creative Commons*

In some ways it's odd how Speaking in Tongues has become the lightning rod of dissension in the church. According to the Bible, it is one of the supernatural gifts given a person when they are filled with the Holy Spirit.

On one side of the spectrum you have those who believe Speaking in Tongues and most of the other charismatic gifts ended with the writing of the New Testament, while those of a Pentecostal/Charismatic persuasion believe it is a gift still needed today with some believing it is a sign of the filling of the Holy Spirit — meaning all people filled with Holy Spirit will speak in tongues.

According to the Bible, speaking in tongues also called glossolalia occurs when the Holy Spirit moves on a person and initiates this language.

In his letter to the Corinthians, Paul described it this way:

<sup>15</sup>What is *the outcome* then? I will pray with the spirit and I will pray with the mind also; I will sing with the spirit and I will sing with the mind also. (1 Corinthians 14:15 NASV)

Here Paul refers to both praying with our mind and praying in the spirit. Charismatics believe the gift is a supernatural prayer language that can be angelic or human ([1 Corinthians 13:1](#)).

In 2006 a group of researchers from the University of Pennsylvania School of Medicine decided to take a closer look at glossolalia to find out what was happening in an individual's brain when they spoke in tongues. Particularly, they wanted to find out what part of the brain was being utilized when an individual used this spiritual gift.

In a report published in *Psychiatry Research: Neuroimaging*, the researchers created a bit of a stir when they released the results.

In their study, they measured the test subjects' brain activity using a Single Photon Emission Computed Tomography (SPECT) which measures blood flow. Increased blood flow in a particular area of the brain indicates use and lights up the area in the scan.

Five women were chosen for this study including Donna Morgan who was also one of the researchers. All five were healthy and active in their church.

While researchers scanned their brain, the test subjects were asked to sing gospel songs and then to speak in tongues. The results of these two scans were then compared.

What they found stunned the researchers.

When they were speaking in tongues there was decreased activity in frontal lobes which is the brain's control center and a decreased activity in the left basal ganglia which controls the emotions and our ability to focus. These areas light up when the individual is speaking and thinking.

According to Dr. Andrew Newberg — the lead researcher — this reduced activity in these key language areas, substantiates the participants' claims they are under the control of the Holy Spirit when they speak in tongues.

Newberg said, "These findings could be interpreted as the subject's sense of self being taken over by something else."

He added:

"The amazing thing was how the images supported people's interpretation of what was happening. The way they describe it and what they believe is that God is talking through them."

In their book, *The Holy Spirit and You*, Dennis and Rita Bennet reported a similar phenomena except from a less scientific perspective. They cite a conversation with Wendelle Mason of LaVerne California who worked with deaf people. She reported having prayed for 20 deaf people for the infilling of the Holy Spirit and they ended up speaking in tongues without having heard sounds which they could imitate. Mason also prayed for two deaf mutes who ended up speaking in tongues. Mutes are unable to speak because of damage to the speech control center of the brain, or breakdown in the pathways between the brain and the vocal cords.

However, since their speaking ability is still intact, the Holy Spirit is able to utilize their vocal cords to speak in tongues. For them, tongues was possible as long as it comes from an outside source.