

All bodies, the firmaments, the stars, the earth and its kingdoms, are not equal in value to the lowest mind; for mind knows all these and itself too; and these bodies know nothing. Blaise Pascal I'd like to start the year by sharing with you excerpts from Dr. Brand's book on the wonders of the human brain and how it relates to Christ as head of the body, an expression used seven times in the New Testament (Ephesians 1:22). Only once in twenty years of preaching have I read a sermon authored by someone else, but this was so inspirational and instructive I'd like to share it as it was written.

Even the most experienced surgeon has difficulty with orientation in the brain, for everything appears soft and white, like a blizzardy Arctic landscape. Brain surgery would still be in a primitive state were it not for one remarkable discovery of science. When a surgeon inserts a needle-like electrode into a portion of the brain and switches on the current, the brain responds, indicating what functions that area controls. The brain itself has no sensation of pain or touch, so the patient will say something like "I feel a tingling sensation in my left leg" if the surgeon lightly stimulates the surface of a particular lobe. Wilder Penfield, a brain surgeon in Montreal, has recorded bizarre results from such stimulation. While trying to locate the source of epileptic seizures, he found that in certain portions of the brain he could electrically stimulate specific memories in sharp detail. One young South African patient began laughing, reliving second by second an incident on a farm in his native land. A woman recalled every note in a symphony concert she had heard long before. The memories surged up in such vivid detail for one patient on the operating table that she remembered sitting at a train crossing years before and could verbally describe each train car as it went by. Another counted aloud the number of teeth of a comb used in childhood. Often these memories from early childhood precede the patient's first conscious memory. By drawing on such techniques and by studying stroke victims, anatomists have been able to develop a fairly reliable map of the brain.

Most brain research centers on the top layer of the brain, the cerebral cortex, which is far more advanced in humans than in any animal. The thickness of the sole of a shoe, the cortex contains neurons that sift, sort, collate, and process the information we perceive as sight, sound, touch, conscious behavior, and the higher activities of learning and memory. The bulk of nerve cell population lives in that layer of gray matter, the fertile topsoil on the brain. Eminent neurologist Sir Charles Sherrington neatly divided certain brain nerve cells into two groups: "the way in," or afferent cells which carry impulses from the organs of the body to the brain, and "the way out," efferent cells which carry instructions from the brain out to the extremities. In the entire brain, only one in one thousand cells reports in from the extremities: all visual images, all sounds, all touch and pain sensations, all smells, the monitors of blood pressure and chemical changes, the sensations of hunger, thirst and sex drives, muscular tension—all the "noise" from the entire body—occupy only one-tenth of one percent of the brain's cells. Each second those fibers bombard the brain with a hundred million messages. Of these, a few hundred at most are admitted above the brain stem.

Another two-tenths of one percent of cells control all motor activities: the motions involved in playing a piano concerto, speaking a language, dancing a ballet, typing a letter, or operating a video game. In between these two groups, The Way In and The Way Out, lie all the others: enormous numbers of cells cooperating in a vast network of intercommunication to allow the processes we know as thought and free will. Brain biologist J. Z. Young likens the network to ten billion bureaucrats constantly phoning each other about plans and instructions for keeping a country running. ... Unlike a telephone

switchboard that connects single subscribers indirectly through a central switching station, each nerve cell in the brain has up to ten thousand of its own private lines. All along its length dendrites reach out and form connections with other neurons, in effect linking each cell with wires from an entire city. It "listens in" for the patterns of impulses and their average rate of arrival and decides whether to continue the message by firing off chemicals along its thousands of other connections. Physiologically, the whole mental process comes down to these ten billion cells spitting irritating chemicals at each other across the synapses or gaps.

The web of nerve cells defies description or depiction. One cubic millimeter, the size of a pinpoint, contains one billion connections among cells; a mere gram of brain tissue may contain as many as four hundred billion synaptic junctions. As a result, each cell can communicate with every other cell at lightning speed—as if a population far larger than earth's were linked together so that all inhabitants could talk at once. The brain's total number of connections rivals the stars and galaxies of the universe. Even in sleep the nerve cell community never stops chattering. The brain is a turbulent cloud of electrical potentials. **During each second of life it performs about five trillion chemical operations.** When we are awake, only a few reach our level of consciousness, and those so quickly we are hardly aware of the process. I decide to write the next sentence; in a flash my brain computes first the thoughts and then the words I will use, then the elaborate coordination of muscles, tendons, and bones required to type the words. Before I finish typing, my brain begins composing the sentence to follow.

Steven Levy recorded this reaction when he came across a jar containing Albert Einstein's brain: "I had risen up to look into the jar, but now I was sunk in my chair, speechless. My eyes were fixed upon that jar as I tried to comprehend that these pieces of gunk bobbing up and down had caused a revolution in physics and quite possibly changed the course of civilization. There it was." I have a similar reaction to any human brain I have ever seen. **Solzhenitsyn once referred to a man's eyes as "sky-blue circles with black holes in the center and behind them the whole astounding world of an individual human being."**

I will never forget the sensation that washed over me the first time I chipped through bone and exposed the cadaver brain in my laboratory room in medical school. Even with all the blood vessels, membranous linings, fluid-filled cavities, and billions of specialized nerve cells, the organ weighed barely three pounds. Yet that fragile, grayish jelly once contained a whole life. In a biological sense a whole body had existed just to keep that brain nourished and protected for forty years. The brain had used up one-fourth of all the oxygen its owner had breathed in—its lack of oxygen for five minutes had caused his death.

One nerve had controlled all the subtle movements of his lips that made speech and eating and kissing possible. Another had brought in every nuance of color and light to form his visual construct of the world. The brain contains imagination, morality, sensuality, mathematics, memory, humor, judgment, religion, as well as an incredible catalog of facts and theories and the common sense to assign them all priority and significance. **In the human head, concludes Nobel laureate Roger Sperry, "there are forces within forces within forces, as in no other cubic half-foot of the universe that we know."** There is nothing on the earth so wonderful. And yet nothing on earth is so fragile. One bullet may destroy it, or one spill from a motorcycle. One dosage of a powerful drug can upset the delicate balance inside a brain forever. I have been inside a human brain on maybe a half-dozen occasions.

Each time I have felt humble and inadequate, a trespasser entering where no man was meant to. Who am I to invade the holy place where a person resides? Perhaps if I worked on brains daily I would grow more callous and unimpressed. But I think not—the brain surgeons I know still talk of their subject in hushed, almost worshipful tones. In the analogy of the Body of Christ used in the Bible, Christ himself is said to take on the role of the Head.

If you have been inside a human brain, as I have, and held the quivering substance in your hand, if you have gazed through a microscope at a tiny section of the unimaginable network of nerve cells, if you have watched brain wave machines record a minute sampling of the communications between cells, if you have pondered the interwoven mysteries of brain and mind and human personality, then I think you should be prepared, if not for the concept of the analogy, at least for its emotional force. A whole person lies inside the bony box, locked in, protected, sealed away for the indispensable duties of managing one hundred trillion cells in a human body. **The Head of the Body (of Christ) is the seat of mystery and wisdom and unity. He is the Source.**

I have been pointing toward the summary function of the amazing lump of cells we carry around in our skulls. I have extended this biological survey in order to lay the groundwork for the analogy of Christ as Head of the church, a title the New Testament applies to him seven times. We customarily think of power and authority when we envision someone in the role of Head. The biblical metaphor applied to Christ expresses some of that meaning, surely, but the actual physiological working of the brain sheds light on the style in which Headship is exercised. The analogy from the body hints at a fundamental choice God has made in interacting with this world. The parallel we will explore, in short, is this: God, a Spirit untrammelled by space and time, in an act of deep humility took on the confinement of matter and time. God became enfleshed. Later, Christ's body departed (or, more accurately, was transformed) and he withdrew into the position of the Head. Today, Christ's Body consists of millions of individual cells in his church. **As the Head, he establishes his presence in the world through people like us.** In a mysterious way he has chosen to make our prayers, our actions, our proclamation of truth and justice his chief means of communicating into the world of matter.

Why? Why would a God who is pure Spirit take on matter? And why, in fact, did Jesus choose to rely on ordinary human beings while he receded to the isolated "ivory box" role of Headship? God could, if desired, express himself again through the flash and smoke of Sinai. God's presence on earth could again ignite a bush or cause a terrifying glow of light, as it sometimes did in the Old Testament. Instead, God has chosen a self-limiting way. Questions are often raised about God's style of involvement with the created world. For the agnostic, those questions take on a shrill tone of accusation: "If there is a God, let him prove it somehow! Let him step in and straighten out the royal mess of this world!" For me as a Christian, the issue is not so much Is God really there? as Why has God chosen such an indirect, hidden style of activity? Why not reveal himself more clearly? The term "self-limiting" may help explain this world. If we can accept God limiting himself to the extent of relying mainly on human agents, then we understand dimly why God does not, and must not, brazenly interfere with what he has made. **"God has, so to speak, imprisoned Himself in his own resolve,"** said Kierkegaard.

In my work with various cultural groups, I have similarly had to accommodate my language. I explain an electron microscope to an eager student in the Tamil language by analogy, using approximations of concepts that he or she can understand. And if I someday learned that a nuclear device was about

to explode in remote Somalia, I would warn the nomads there to dig for cover not by expounding the mutability of matter and principles of nuclear fission, but by saying something like "Fire in the sky!" or "Poison dust!" I must use words that mean something to the person who hears them. Is this not the problem God faces in communicating with human beings? How can infinitude express itself to finite beings? The analogy of language is enlightening. A concept exists in the mind but has no reality until distilled into a thought, and has no communication potential unless it can be expressed in language. Only as the concept—mysterious, spirit-like—wraps itself in the clothing of language and enters the material world of vocal chords and puffs of air and pen scratchings, does it exist in a way anyone else can recognize. Jesus, appropriately, was called the Word of God. Infinite, ineffable, inexpressible God became a man. God spoke in as articulate a way as humans could possibly bear: God became one of us and "tabernacled among us." "It was much, that man was made like God before/ But, that God should be made like man, much more," said John Donne.

For thirty-three years Jesus gave us an image; we can now look back upon it to perceive the true image of God. Through Christ, God softened language to his hearer's ears. One example: If you had said to Isaiah, "God is going to touch you today," he would have fled in terror. For him, touch was not a quality of communication between God and man. With Jesus, all that changed. Yet the Incarnation, as great as it was, did not complete God's purposes on earth. Christ receded to the role of Head in order to create a new Body, this one composed not of living cells but of millions of men and women all cohering in him. "As you sent me into the world," Jesus said to his Father, "I have sent them into the world" (John 17:18). The profound change could hardly be expressed more succinctly. In one sense Christ's departure was an ascension—it is called that on every church calendar—but in another sense it was a further condescension. Now God "tabernacles" neither in a Most Holy Place, nor in one perfect body, but in millions of ornery, frail, bodies—some short, some tall, some smart, some dull, some steady, some volatile. Christ withdrew into the ivory box.

God does not, it is true, "need" anything to be done by finite agents. He need not work indirectly, in the role of Head. Omnipotence could find a way to nourish bodies without food, to fuel the brain without red blood cells, to convert people without missionaries. But for some reason God has chosen the terrene stuff of soil and vegetables and chemistry and words and human will to carry out his plan on earth. Today, we are God's medium, Christ's Body. When you look at me, you never see the whole Paul Brand; rather you see a thin layer of skin cells stretched across my frame. The real Paul Brand resides inside, especially centered in my brain, locked away from the outside world. The same is true with God. We cannot "see" God; we have no perceiving organs adequate for that. Rather, we see God in a comprehensible form in the shape of each other as members of his Body. God could not accommodate language to human ears and shape to human eyes more fully than by dwelling inside men and women.

Dorothy Sayers lists three great humiliations God has willfully undergone. In the first, the Incarnation, God stripped off the prerogatives of deity and stooped to become a man. In the second, the Crucifixion, God's Son became sin for us, suffering the ignominy of death. The third humiliation, she says, is the church. "God humiliated himself by choosing to live within a Body comprising people like us." From one standpoint, she is absolutely correct. The Head working through us involves a sort of shrinking, an abdication wherein God chooses to lay aside omnipotence and take on an invisible,

behind-the-scenes role in human history. In so doing, God again self-limits, investing the divine reputation and name in imperfect human beings.

God in Christ, in human form, is one thing; God in us is quite another. The church, Christ's Body, is indeed a humiliation. And yet, counterbalancing that humiliation, a kind of exaltation shines forth, a hint that perhaps from the very beginning God planned for his name to be carried by people exactly like us. For **the deliberate shrinking of Omnipotence into the role of Head allows us as members of Christ's Body to participate in the restoration of the universe.** "The whole creation," says Paul, "is on tiptoe to see the wonderful sight of the sons of God coming into their own... And the hope is that in the end the whole of created life will be rescued from the tyranny of change and decay, and have its share in that magnificent liberty which can only belong to the children of God!" (Romans 8:19, 21 ph). A reward will come, to be sure. C. S. Lewis suggests it: "As mere biological entities, each with its own separate will to live and to expand, we are apparently of no account; we are crossfodder. But as organs in the Body of Christ, as stones and pillars in the temple, we are assured of our external self-identity and shall live to remember the galaxies as an old tale." Because God has risked entrusting the kingdom to bumblers such as us, we gain by becoming the sons and daughters of God. The image of God is being restored. "Even angels long to look into these things" (1 Peter 1:12).

As a teacher, I have at times experienced the peculiar satisfaction of work done through others. If I were to review my years in India and try to calculate the number of hands that I personally operated on, I might come up with a number around 10,000... Millions of people in the world suffer from leprosy, a quarter of whom have hand damage. In a lifetime of surgery, putting in as many hours as I can muster, I have personally only been able to help a tiny fraction of the people with needs. But again and again I have visited a tiny rural clinic in a place like Borneo and watched a young doctor perform procedures that derive from those we developed at Vellore. In Japan, Singapore, Hawaii, Ethiopia, or virtually anywhere a leprosy work thrives, you can find students who were trained at Vellore or Carville. Nothing—absolutely nothing—fills me with more joy than to see the seeds of ideas and disciplines I taught now sprouting in peoples' lives. It seems almost a miracle when I see it in action. My work done in a classroom can multiply a hundred times what I could possibly achieve on my own. When I leave this world, the number of hand surgeries I have performed will not increase; no other patient will be helped by my own hands. But the students I have left behind will continue to multiply the original mission we adopted at Vellore. That realization gives me additional insight into God's way of working in the world. A teacher extends his or her work through students left behind.

A brain expresses itself through cells obedient to its command. And God expresses himself through a Body in which Christ serves as Head. "He who listens to you listens to me; he who rejects you rejects me," Jesus once told his followers (Luke 10:16). The identification of the Body with its Head is that complete. A little later, on the night before he died, Christ explained his imminent death for the confused and somber disciples. **"It is for your good that I am going away," he said (John 16:7). They did not know it at the time, but the era of Headship was about to begin.**

Church, I hope that you have been in awe of the description of the brain and seen in it more clearly why Jesus referred to Himself as the Head of the Body. Dr. Brand has told us how important it is for us to be led by the Holy Spirit in obedience to the head (the outworking of the Great Command) and how we need to disciple others, (the outworking of the Great Commission). This task is only possible if we will hear and obey. May 2017 be a year in which we listen and obey our head, Christ Jesus!