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The Tale of Big Head Bill

The Alien Drug

I once was like you, a mere human, common in every way. My thoughts were filled with events of the day, dinner plans, my wife in her new red dress, the faces of my children. I was a psychologist by trade. What a wonderful thing to happen to one who studies the mind. Even now it is hard for me to believe that the adventure only began a year ago, the day the alien probe reached earth, the first day of my unimaginable new life. My name is Bill, and I would like to tell you my story.

We still do not know what race of beings sent the probe, or why it only contained a single vial of pills. They must have meant it as a gift. I certainly accept it as such, the most incredible gift ever received by a human. My colleagues were eventually able to analyze the drug, at least in part. They found it to be similar to DNA, but far more complex, and probably created by engineering rather than evolution. Our own DNA contains the blueprint to create a human brain in the developing fetus. As we soon found, the alien drug was capable of creating a better brain. Many volunteered to take the drug, but I was accorded the honor and accepted it gladly.

The first changes were dramatic, but not necessarily outside the realm of common experience. I would describe it as a greatly heightened awareness, much like being under the influence of a strong stimulant. I was more awake than I have ever been in my life. It seemed I was conscious of everything I saw, heard, smelled, tasted, and touched. I understood and scrutinized every word that was spoken to me. I continually perceived details that others soon ignored, such as the drip of a

leaky faucet or the smell of a stuffy room. My thoughts were clear and open to introspection. I liked it; it seemed to be my normal human mind operating at its fullest capacity.

But soon I realized that more was going on than mere stimulation of my existing abilities; the boundaries of my awareness were expanding. I began to understand processes in my mind that were previously unknown to me; portions of my *unconscious* were gradually becoming *conscious*. It was as if a dense fog had always hidden the foundations of my mind. Day-by-day the mist dissipated, allowing me to perceive the vast and wondrous network that creates who I am.

Decisions, Thoughts, and Emotions

During the first few weeks I came to fully understand my thoughts and decision making. These are the most complex and abstract processes in my mental world, lying just outside of my original awareness. For instance, news reporters frequently ask me *why* I decided to take the alien drug. Before the changes I could only give them vague answers. I knew beyond doubt that it must be done, but how and why I came to this conclusion seemed unexplainable. My decisions came to me without basis or reason; they just appeared in my consciousness. But the alien drug provided total clarity. I now can see that my mind has been shaped by decades of human experience, from playing with the toys in my crib, to struggling with calculus in college. My thoughts originate and are shaped by the totality of this accumulated knowledge, and my expanded mind can perceive it all. I could now write a book on why I decided to take the drug, outlining my reasons in the finest detail, citing the influence of every experience in my life. It became so obvious, once the cloud obscuring the workings of my mind was finally lifted.

Perhaps most enlightening of all, I learned that my emotions are nothing more than decisions. Let me relate an example from my life. I was walking home late one night in a rather bad part of the city, when a robber approached me and demanded

money. My mind was overwhelmed with the threat, the robber's gun, his large physical size, the threatened violence in his voice. I knew in the next few moments I could be injured or killed. The terrible injustice of the act also permeated my thoughts. I thought of the robber running free only to attack my wife or children on another day, and how I could rid society of this filth by overwhelming my enemy. Then my mind became filled with childhood memories of being beaten by the playground bully, and the fear and shame that remains with me to this day. The flood of thoughts seemed uncontrollable, an internal struggle between two courses of action, attack or flee, attack or flee, attack or flee. I decided to attack. And with that decision my mind and body prepared for the combat; adrenaline poured, my heart raced, and I became angry, very very angry. My thoughts were singular, destroy the threat; nothing else mattered.

I lunged at the robber and was shot in the arm. Searing pain engulfed me, and my thoughts rushed in reevaluation. I was going to die if I didn't do something quickly. I realized that I could not win; my death would be meaningless. My wife and children would be devastated. I did not want to die. And with that realization my mental state changed to terror. All I could think of was getting away. Fear controlled me; it overwhelmed my thoughts. Run; get away; don't provoke; be submissive; escape at all costs.

Fortunately, the robber was even more afraid than I, and ran quickly from the scene. The whole episode took only a few seconds. Any normal person, such as myself before the change, would have shown the same anger and fear that I experienced. But a normal person would have experienced them *blindly*, not understanding the logic or reasoning behind the emotions. They would not understand that the threat demanded a decision for survival, and that the decision had only two answers, fight or flight. The decision to fight resulting in the body and mind being prepared for combat, the mind set to overcome the obstacle by force or violence, the essence of *anger*. The

decision for flight being manifest as *fear*, the overwhelming urge to escape or flee.

But I am no longer a normal person. My experience of emotion is not limited to the result of the decision; I can examine the decision process itself. Emotions such as fear, anger, sadness and love had always puzzled me before the change. They seemed mysterious and unexplainable, as familiar as anything can be, yet seemingly defiant of scientific description. But the alien drug has allowed me to see that this mystery is one of concealment. The boundaries of my awareness have now expanded beyond the obscuring veil, and I perceive emotions no differently than conscious decisions.

Bulging Eyes and Big Head

The physical changes began a few months after I took the drug. My rapidly expanding consciousness was made possible by tremendous growth of my brain and other nervous system tissues. The simplest description is that all of my neural pathways *doubled*, forming two separate networks with each being able to monitor the other. As I was soon to experience, this allowed my mind to become aware of each and every operation being carried out by within my brain. Eventually this duplication extended to all parts of my nervous system, from my brain, through my spinal cord, to the very sensory cells in my skin. My eyes bulged from the duplication of the nerve cells in my retinas; my skin and tongue swelled to twice their normal size. Most disfiguring of all was the increased size of my head, needed to accommodate the doubling of my brain. Soon the press had given me a new name, fitting of my appearance and mental abilities. I became Big Head Bill.

The Cup of Tea

Day-by-day my awareness grew, expanding downward through the hierarchy of my mental functions. First came an understanding of the highest operations, as I have already described, such things as decision making, thoughts and

emotions. But then I became aware of something even more incredible, the vast and complex network upon which these higher functions are built. As I gaze out over my mind I become breathless with astonishment, perceiving billions upon billions of neurons interconnected by trillions upon trillions of data paths. Over the weeks and months I gradually came to know that this was my mind, from the raw information passing through my spinal cord, to the subtlest thought in my cerebral cortex.

Of course, you cannot know these things as I do; your mind is still within the fog. But let me try to explain what I have learned, what I now know from direct experience. As an example, this morning at breakfast I observed a tea cup resting on a table. Before I tell you how I perceived this situation, consider how you or any normal human would have reacted. Your immediate conscious impression would be one of recognizing the object and its environment. Within a second you would say to yourself, "*Ah ha, this is a tea cup resting on a table.*" This knowledge enters your thoughts without explanation; it seems to just appear.

But that is your experience, not mine. My consciousness operates on a time scale of milliseconds, the interval required for individual nerve cells to fire. I am fully aware of the millions of operations taking place to develop the final conclusion, all compressed into the first second of observation. I perceive my eyes detecting light from the scene, and the image data passing along my optic nerves to my brain. I witness the extraction of features by my neural processing, the legs on the table, the handle of the cup, the smell of the tea. I then see it all come together, the neural activity combining and intertwining to provide me with the final conclusion, *this is a tea cup resting on a table*. There is nothing magical or sudden about the final recognition I perceive; I am conscious of each step, decision, and criterion upon which it is based.

Intelligence and Memory

Surprisingly, these magnificent changes to my brain and consciousness have not made me smarter, not even in the slightest. I play chess with my teenage son, and usually lose, just as a few years ago. Don't bother asking me about politics, mathematics, or God; I don't know anything more than you. What I do know in fine detail is the inner operation of my mind, from the firing of individual neurons in my toes, to my appreciation of the beauty of an ocean sunset.

You may question how I can be aware of everything within my mind but not be any smarter than a normal person. For instance, how can I be conscious of every action needed to recognize the face of my child, but not be an expert in the science of facial identification? The answer lies in the neural network of my brain, the structure creating my mind. I perceive the raw neural signals passing from my senses to my brain, where they enter a network of billions of nerve cells. I watch the patterns unfold and congeal as the signals pass from layer to layer. I can focus my attention on each operation, from the firing of individual nerve cells, to the massive coordinated activity of my cerebral cortex. I can see it all, unfolding step by step, neuron by neuron, layer by layer.

But this is far from a complete description of the process; a key ingredient is missing, the *synaptic weights*. As you probably know, this refers to the strength of the connections between neurons, the fundamental way that the brain remembers its experiences. I am fully aware of these weighting factors and can observe their effect on my mental operations. I can also perceive how each new experience slightly changes the synaptic weights, incorporating the new data into my accumulated knowledge. However, I have no idea whatsoever of why the weights that exist in my brain are as they are. They appear almost random to my inspection. Thus you see, I am aware of everything that occurs in my brain as it exists today. But since I don't know how my synaptic weights came to be as they are, I can tell you little about the science of information processing.

My Senses

When I was a normal human my awareness was bounded, limited to the short distance I could see through the fog that filled my mind. And as you know from your own experience, this boundary is not sharp, but a gradual transition from what one is aware of, to what one is not aware of. The boundary is an obscuring haze, not a rigid wall. You might say that normal consciousness has fuzzy edges. This was the nature of my mind a year ago, and your mind today.

I tell you this so that you might better appreciate what I have become. Day by day the alien drug expanded the boundaries of my awareness, gradually encompassing more and more of the underpinnings of my mind. This process eventually became complete, and I gained an awareness of each and every event occurring within my brain and other nervous tissues. Today my awareness is also bounded, but the enclosed arena is immensely larger than anything your limited mind can imagine. The boundaries of my awareness now corresponding to each and every nerve cell in my body, no more and no less.

Let me try to tell you what this is like. Imagine that you and I are on a tropical island, surrounded by palm trees and sandy beaches. We both sense exactly the same things, the sound of the surf, the warmth of the sun, the smell of bananas and the ocean. Your eyes and ears and other senses receive the same information as mine; we are equal in our ability to gather knowledge about our environment. Further, we process this data in exactly the same way, and come to the same conclusion, *we are on a tropical island surrounded by palm trees and sandy beaches*. This is what we know, based on the information gathered by our five senses.

But here is where you and I differ; you know nothing but this conclusion; you have no awareness of how it was developed. The image of the palm tree and the sound of the surf simply appear in your mind without any apparent steps, procedures, or effort. You are astonished that objects from the external physical world can somehow exist within your mental

reality. Of course, I have no such limitation; I can trace the content of my mind back to its very origin, the firing of individual nerve cells in my sensory organs.

You see the sun as yellow, a single color that is inseparable and irreducible. I see the sun as simultaneously red and green, starting at the individual cones in the retinas of my eyes. You perceive the nearby trees as objects from the outside world, with beautiful green leaves and the distinctive smell of ripe oranges. I have these same perceptions, down to the last detail. But I can also see these things for what they truly are, constructs created by my mind, formed from the coordinated activity of billions of neurons. The greenness of the leaves and the smell of the oranges originate from within myself, not the outside world. I can trace their emergence through the sea of my neural activity, back to their birth at my senses.

Full-Awareness

Make no mistake, I have not lost anything in the transformation; I have only gained. I can still appreciate the beauty of a sunset, just as you. My anger flares in the face of injustice, and I love my wife even more than before. I still know what it is like to have ordinary consciousness, the way I once was; all I have to do is close my mind to the knowledge given me. But why would I want to? I am a blind man that has been given sight. Today I am aware of *everything* in my brain, down to the firing of each individual nerve cell. I can direct my attention to the raw signals coming from my eyes and ears, or examine the root of my emotions. I watch with awe as neural patterns emerge to recognize the face of my grandmother, the smell of popcorn, or the gentle pressure of my child's touch. Each decision I make can be analyzed in the fullest detail, be it the primitive act of emotion, or the kind of food to eat for dinner. I understand it all, and can explain it to you in whatever detail you like; it is no mystery whatsoever. I am Big Head Bill, a *fully-aware being*.