

Monday, May 7, 2012

My next adventure



One of the staff at the ALS association, Betts the communication specialist, left to take a new position at OHSU (Oregon Health Sciences University). Her position is on a team developing a brain computer interface program to enable people to communicate when unable to move. Betts asked if I would be interested in participating in the study. It was a resounding yes. Since I have been around too long to participate in any clinical trials, I am excited to maybe help make the future better this way.

Betts first visit started with explaining the study and signing forms. We then proceeded to some preliminary tests to see if I had the ability to do the study. (I know Bill, as a good brother it is your job to say they were looking to see if I had a brain.) One of the sections was a large picture frame where I was to indicate where a certain object was by looking at it. Another involved a series of letters going across the computer screen followed by a single letter. I was to indicate by a yes or no if that letter had been in the group. Yes, I did qualify for the study.

My first session was Friday and a welcome diversion from all the medical stuff going on with Dave. Betts and her entourage showed up about 9 am. Setting up all the equipment took some time. Finding something to raise the computer high enough to be comfortable for my viewing took some thinking but Cindy found a basket that worked great.

Then Betts measured my head with a cloth tape measure, this time marking the mid-point each direction. With a red X on my scalp marking the spot, she then put the cap on. The cap has 18 electrodes that need to be in the correct section of the brain. After the cap is in place, a conducting gel is squeezed into each electrode to insure good contact.

Then the fun began. Each electrode shows as a line on the computer screen. They are looking for a regular pattern on all the lines. It is really fun to see what happens when I blink or look at a different person talking. We did all the trials and everything worked

perfectly. Then on to the actual test, and my brain waves flat lined. (Yes Bill, I know what you would say.) This was the reason the computer person was here. She went to work checking all the connections and tried a different control box. Finally found the problem and more gel was put in one connector on the cap and excess gel was wiped off 2 others. Then we could begin.

After a demonstration I began. A letter would show on the screen with the instruction to react with thought when the letter appeared again. There were 75 series of letters that were shown in about 9 minutes. Part of the instruction was to try not to blink when the letters were flashing but blink between sets. Rather interesting to try to control an unconscious movement. I found the second set of 75 did not tire my eyes as much so I must have blinked more. The last set I chose to do only 50. My eyes were tired. This was the first time the physical therapist had observed the process so he had a few questions.

It took a lot less time to pack everything than it took to set it all up. I didn't do that much but I was tired when they left about noon. Still ahead was my shower and good hair wash to get the gel out of my hair. I guess I could have left it and claimed it was styling gel.