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November, 11 2014  
Living a “Neuroplastic” Life  
Honors College  

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Neuroplasticity is a mechanism that allows the brain to create new neural pathways and delete old ones. These neural pathways, which consist of billions of neurons (cells), are responsible for relaying a message in order to produce a response. The response can be triggered by learning/growth, damage, or dysfunction. Neuroplasticity works to conduct appropriate responses. This is done in one of two ways. Neuroplasticity can either: (1) create new connections as more appropriate responses are learned, or (2) delete damaged connections that become disruptive to behavior. These damaged connections are then rewired to produce more favorable outcomes. Thus, this is a highly adaptive process. Ultimately, the brain’s capacity to do such a task promotes improved functioning as time goes on (Sincero, 2011).

Can this same principle not also be applied – in simpler terms - to overall growth and maturation during one’s life? We’re all constantly up against an influx of people, situations, interactions, experiences, and lessons. These things often work to influence our thoughts and behaviors thereafter. I feel this very concept of “neuroplasticity” is extremely evident in the biggest undertaking of my own life right now – college.

Every day, I am faced with a host of new challenges. With each one, I must evaluate my own thoughts and actions; and then ultimately decide whether change is necessary in order to improve my performance. This cognitive exercise is of great value to me. After all, it may take just one small, incorrect connection to threaten the entire system. Yet, the roots of this interest
are still rather unclear to me. Discovering the origins of this exercise is the central question I would like to focus on for the ensuing project. I want to answer why I have become so attuned to this process of “neuroplasticity” while in school. How has it become a defining piece in my life?

I mentioned how neuroplasticity can occur following learning (experience), growth, damage, or dysfunction. My plan is to classify the events of my college career (artifacts) into one of these four dimensions, in order to create an overall framework for the project. By organizing my artifacts in this way, I may come to find how each dimension has impacted my life. This would be very useful information. Perhaps then I could reconfigure each dimension to make it more advantageous to my life. This is another outcome I hope to walk away from this project answering. Subsequent paragraphs detail the artifacts I will revisit to facilitate this discovery process.

My largest ambition for the future is to become a professional in the field of clinical neuropsychology. This surfaced after watching my childhood role model, my older brother, struggle with schizoaffective disorder. This disorder took the person I once looked up to, and turned him into a person I can’t even connect with anymore. This certainly has been very damaging for my brother. Not only has it damaged him, but it has been disruptive for my family’s entire structure too. I think this damage influenced one of the biggest needs for neuroplasticity in me. This event fueled a personal commitment to help my brother with his disorder. Yet, how has neuropsychology become the most effective way for me to help him? What made me choose this as the best option to become a source of support in his and many others lives? To represent this artifact, I will construct a visual timeline capturing
events/realizations that have led me to this ultimate dream (Z. Greth, personal communication, August 2013).

The second artifact details my experiences in *Honors Citizenship* (Spring 2013) course. Before walking into this class, I was quite the passive community service contributor. I simply went through the motions of helping others without making any effort to interact with them. I quickly saw this passiveness as a dysfunction in my identity. As pointed out by Bruce Herzberg in "Community Service & Critical Teaching:" students should understand why they are doing it in the first place (Herzberg, 1994). Seems simple enough, but it speaks to the passive members like my former self. I wasn’t overly concerned with why I was helping. It took a semester’s worth of work to process this idea. Surrounded by others at the *Hospitality House of Charlotte*, I saw just how far community service can go. To represent this artifact, I will upload a section of the final reflective essay I wrote for this course. It explains how I overcame this original dysfunction to my identity.

*Positive Psychology* (Spring 2012) contributed to my third artifact. During one particular lecture, I watched a TED talk piece on Dr. Seligman and the field of positive psychology. Interestingly, the motivation behind this subfield was a limitation Seligman noticed in psychology. When given only three words to describe the state of psychology, Seligman replied with, “not good enough.” He felt psychologists spent too much time researching what is wrong with people; and too little time finding the things that make them good (Seligman, 2011). I think this is an excellent argument to make - I immediately connected this idea to my own life. I once was very critical of the failures I committed. I then let them get the better of me, and its weight created a lot of tension. Like Seligman, I started seeing my life as, “not good enough.” This was
another dysfunctional behavior I was committing. In order to grow from this, I tried adopting a
sense of positivity Seligman was aiming for. I started asking how I could react to things more
positively. I’ve come to find that even in the face of defeat, there is often a valuable lesson to
take away from the situation. I start to wonder how I can reconfigure my attitude to shoot for
fortune the next time. To represent this artifact, I will post a clip of the TED Talk video.

In Sociological Social Psychology (Fall 2014), I learned how people develop a sense of
self through a process of role-making and socialization. Regarding the self, there are two types:
an actual self and an ideal self. The actual self is how you see yourself currently. Emerging
adults take steps to approach their ideal self – the self they want to be. Like the others, I have
considered how this learning process is represented in my own life. I wonder what this
transformation looks like for me. To represent this artifact, I will scan my notes from this course
lecture. These notes include space where I compared and contrasted my two selves. I think this
compare and contrast chart is a great tool for me. The discrepancies pinpoint where
neuroplasticity needs to take place, and the connections show where it already has (Z. Greth,
personal communication, October 2014).

Running is another major interest and passion in my life. The sport has given me
countless opportunities to compete in races around the country. The 2012 Atlantic 10 Cross
Country Championships was one of them. This was the target race of my sophomore year.
Training for this race began six months in advance. I put in hundreds of miles of training, and
made sacrifices (diet, sleep, not going out, etc.) to give myself the best opportunity for a good
race. Well, not even two minutes into the race, a runner from behind clipped my shoe and it
eventually came off. Given the rocky surfaces we had to run over, I was forced to drop out. It
was one of only two races in my life where I didn’t finish. To me, there’s no worse feeling than not being able to finish something you started. However, even though not being able to finish something you started is a terrible feeling, not picking yourself back up after is worse. This experience challenged my core. I had to decide how I was going to come back from this event stronger. I also had to make sure to triple-tie my shoes from then on! To represent this artifact (race), I will use a picture from that pivotal day (Olesen, 2012).

One concept I recently learned in Motivation (Fall 2014) is the zone of optimal functioning. This idea states how each individual has their own level of arousal where they can perform at their best. If arousal creeps to high above or below this point, then they are more likely to start making errors. It makes for the question, “What is my optimal level of functioning?” This has become somewhat of an ongoing investigation for me. I think this artifact helps to support how I have become so attuned to “neuroplasticity” in my life. I’m actively seeking out ways to overcome maladaptive elements in order to perform better. If I can establish an optimal level, I can fine tune and adjust my “neural connections” appropriately. To represent this idea, I will construct a graph. This graph will mark the threshold for which my level of arousal has me performing at my peak (Z. Greth, personal communications, October 2014).

Abnormal Psychology (Spring 2014) has been my absolute favorite course in college thus far. I truly enjoyed everything I learned about in this class. I was completely engaged when learning about the schizophrenia spectrum disorders. I learned how some patients with schizophrenia have enlarged ventricles to make up for the empty space caused by atrophy in the brain. Though this is a very tragic occurrence, it just fascinates me that this can even happen.
There seems to be a clear absence of neuroplasticity taking place. What causes brain abnormalities (biological, psychological, and social factors), and how do they impair normal levels of functioning? This is what I am most interested in learning about. Particularly, how do these deficits manifest themselves in patients who suffer from schizoaffective disorder? To represent this interest, I will include a description of schizoaffective disorder as it appears in the Diagnostic and Statistics Manual (American Psychiatric Association, 2013). As tied in with my first artifact, this learning experience (Abnormal Psychology) reconfigured my interests in a life-changing way.

Answering these biopsychosocial questions is my individual purpose for continuing education. My final artifact details my decision to pursue graduate school. This is an idea I had to open up to. This artifact outlines a growth in my developing “neuroplasticity.” Before, I had no idea what I wanted to do. Now I have taken up responsibilities and expectations to perform at a higher level. I find myself asking how I can reconfigure my functions to prepare effectively. To represent this theme, I will include an example of my daily schedule. This representation will display the efforts I make on a daily basis to fulfill a higher role (Z. Greth, personal communication, 2013). Looking at it, I often think what my neuroplasticity will look like if I do get into a program.

These are the artifacts I have selected for the ensuing portfolio. The next step is to reflect on them. I look forward to revisiting each one of these artifacts with greater detail. After all, we often gain additional insights after taking a second look. I hope to have my central question answered for the final product. Again, I want to know how I have become so attuned to this process of “neuroplasticity” in my life. How did it develop? I think classifying each artifact as
learning, growth, damage, or deficit will help me to approach this question. I can think about how each has impacted my life. Perhaps one has happened more frequently than the others. This will also help me to discover how I have adapted to these stimuli in an attempt to perform better in college.

This project is a heavy commitment, and requires I seek out additional help. I will use two psychology professors to facilitate the work on my portfolio and guide me in the right direction. They will help me to develop my neuroplasticity theme better than anyone. My thesis advisor is Dr. Bennett. Over the past few months, I have worked as Dr. Bennett's teaching assistant. I have established a closer connection to her; and so I greatly value her guidance for such a demanding task. My reader is Dr. Blanchard. Dr. Blanchard is my professor for Motivation this semester. Listening to her lecture, I always get the sense that she is extremely interested and invested in the field of psychology. This enthusiasm is great, and will give me the huge contributions to the project. Psychology is a very important piece to both these professors' lives. I am very grateful that they have agreed to work with me, and I look forward to learning from them as time goes on.

To complete this portfolio, I have created a working schedule that starts nearly three weeks before the final day of the spring semester. This is when I will be presenting my portfolio. In the week preceding this event, I will make final additions and revisions to my portfolio and/or paper. I will also spend this entire week practicing my portfolio presentation. I will need to communicate with my audience effectively. Practicing will enable me to figure out exactly how to do this.
Prior to this, I will schedule separate meetings with Drs. Bennett and Blanchard every two-three weeks. I would like these individual meetings to be at least three days apart. That way I can process my first discussion and formulate ideas going into my meeting with the second person. I will also schedule three days during the week to work on the project. The first day will be dedicated to working just on my paper. Due to its length, setting aside a weekly date to work on it will relieve unnecessary stress later in the semester. The second day will be dedicated to my portfolio. *Weebly* is the website I will use to construct my website. I have used this website before, so I am familiar with its applications and tools. This will help me to put together a final product that effectively captures my entire project. This can include uploading artifacts, creating my representation for them, and putting it all into a sensible order. I will pick one artifact to focus on for the given week. The third day will ideally fall towards the end of the week. By that time, I will have already met with my thesis advisor and reader; had additional class time; and a day to work on my paper or portfolio. The third day can serve to organize this information and make whatever revisions and/or additions I need to.

This design should promote the continued development of my project over the semester. If I follow the weekly commitment, I should narrow in on the main questions I have targeted to discover this year. Collaborations with my classmates, professors, thesis advisor, and reader will be a great asset. When it finally comes time to present my portfolio, I hope to have a “neuroplastic” life unfolding before the audience.
Bibliography


DSM-5 schizoaffective disorder