

Neuroplasticity, Setting Goals and Creating Hope

After Brain Injury and Stroke

Second Chance to Live

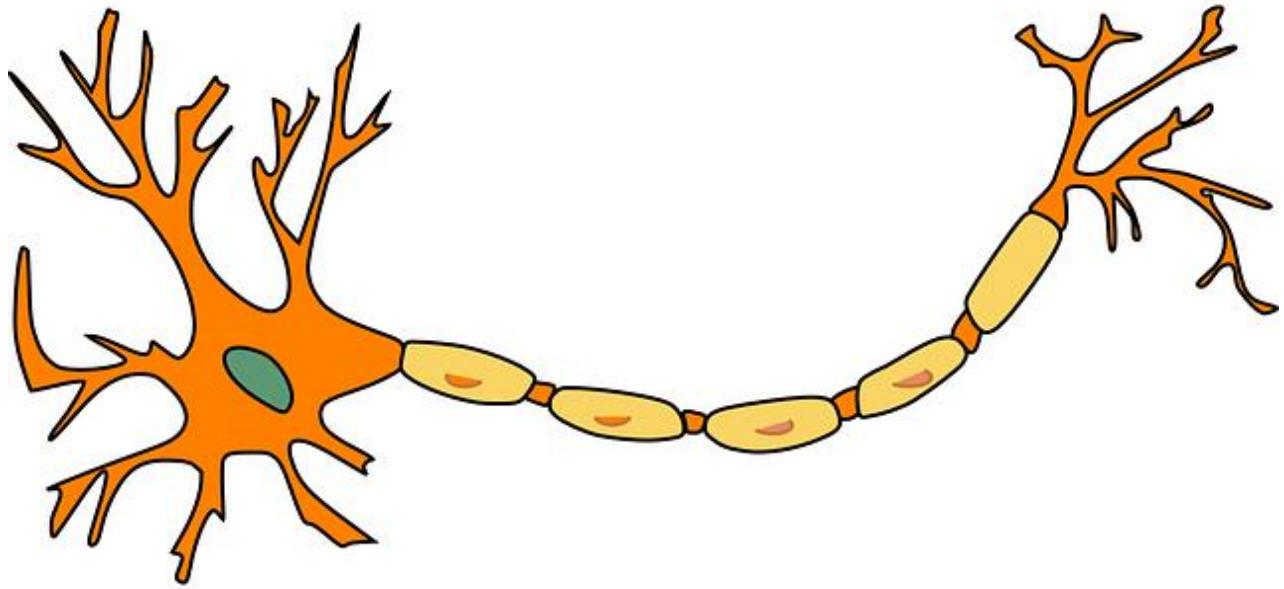
Craig J. Phillips MRC, BA

As you listen to and watch this presentation think about a “way” or “ways” that you could go about accomplishing a goal or goals.

When a brain injury or stroke occurs, nerve cells at the site of the injury either die or are damaged. Damaged to varying degrees. Although these nerve cells are damaged, there are healthy cells around these damaged cells.

As I understand neuroplasticity, with repetitive mirrored movements, healthy cells reach out to these nearby damaged nerve cells. In the process, new neural pathways are established and brain reorganization occurs.

In the process the brain works to compensate for the brain injury and stroke.



The Nerve

Made Up of Dendrites, Axons Myelin Sheaths, Axon Terminals
and Neurotransmitters

Corpus Callosum

Connecting the Right and Left Hemispheres of the Brain

Definition

Neuroplasticity -- MedicineNet.com

“Neuroplasticity allows the neurons (nerve cells) in the brain to compensate for injury and disease and to adjust their activities in response to new situations or to changes in their environment. Brain reorganization takes place by mechanisms such as “axonal sprouting” in which undamaged axons grow new nerve endings to reconnect neurons whose links were

injured or severed. Undamaged axons can also sprout nerve endings and connect with other undamaged nerve cells, forming new neural pathways to accomplish a needed function.”

Following a Brain Injury and Stroke

Following a stroke and brain injury, we may find that skills that once came naturally to us, now are difficult to achieve. In the process, we may find ourselves both frustrated and discouraged. But there is good news.

We can improve our lives through the benefits of neuroplasticity. One skill and one skill set at a time. In the process, we can create new neural pathways and brain reorganization. In the process we can improve the quality of our lives.

Right and Left Sides of Our Brain

My brain was damage on the right side, which affected the left side of my body. Therefore, I needed to work on my left or the affected side of my body. Your brain may have been damaged on the left side which affects the right side of your body. Therefore, you may need to work on the right side of your body.

Work on one skill at a time

I remember my Sensei (martial arts instructor) encouraging his students to work on one skill during each class. His encouragement helped me to realize that I could learn how to accomplish skills and skill sets a little at a time.

Accepting my Limitations but Not Being Stopped by Them

Because I have a difficulty learning sequences of information, I need to do things a “bazillion” times. A “bazillion” repetitions. What this has meant is that I have needed to learn one skill at a time, by doing that skill a “bazillion” times. Once I learn that skill, I need to work on another skill a “bazillion” times.

Once I learn both of those skills, I combine them into a skill set that I practice a “bazillion” times. I continue to drill that skill set until I have mastered the skill. I then begin to learn other skills (a “bazillion” times) and another skill (a “bazillion” times). I then combine those learned skills into another skill set. Once learned (through another “bazillion” times) I combine both skill sets and drill them together another bazillion times.

Benefits of Not Giving Up

Increasing muscle memory, range of motion, as well as my gross and fine motor skills, has not only improved my abilities in martial arts, but also in other areas of my life. Areas such as my hand-eye coordination, dexterity, agility, balance, speed,

reaction time, precision. and focus on both my right and my left (dominant and non-dominant) sides of my body.

How a Young Man uses Repetitive Mirrored Movements through Dance

Below is a video presentation that Baminette Oppegaard Schreckendgust shared on my Facebook page. With her permission, I am sharing the presentation with you. The video presentation is of Tyler, her son, who is now 12 years old. Tyler experienced a traumatic brain Injury at 25 months old after falling out of a window 3 stories up while at a babysitter's. Tyler is using dance to create new neural pathways and brain reorganization through repetitive mirrored movements. Tyler is an example and an inspiration.

I am proud of you, Tyler. Thank you Baminette, for sharing this video presentation.

<https://www.facebook.com/baminette.schreckendgust/videos/10218321111076251/?t=8>

My Encouragement to You

Set a goal of something you would like to accomplish. Then look at how you can achieve that goal, a little at a time. Ask, what skills and skill sets do I need to learn to accomplish the goal. And give yourself time to learn each skill and skill set as you move toward accomplishing your goal.

My encouragement to you my friend would be to start slow, but start. Learn a new skill and then a skill set. In the process, you will gain a series of small successes. By doing so you will improve the quality of your life. By doing so you can move beyond a diagnosis or prognosis.

Doing so you will move beyond the confines of the “box” that some people may be telling you can’t be accomplished.

Through persistence and tenacity, you will be able to accomplish what you never dreamed possible. Skills and abilities that may have been lost due to a stroke/brain injury.

Find a way that works for you. Find a way that you enjoy and build a program to increase your capabilities despite your stroke or brain injury.

I have used martial art disciplines to create new neural pathways and brain reorganization. You may like to use another form to create new neural pathways and brain reorganization.

Have Fun with the Process. What you Enjoy doing You will Stick with through times of Discouragement. Although Progress may Seem Slow at time, Don't Give Up. You are Making More Progress than you Realize.

“The journey of a thousand miles begins with the first step.”
Lao Tzu

“Once we start walking, before long we will be able to look back and see how far we have come, because we did not give up.” Craig J. Phillips MRC, BA

Exercise to Learn and Re-Learn Skills

Whatever you are able to do with your dominant (unaffected) side of your body, start doing – mirroring – the same ability with your non-dominant (affected) side of your body. Start out slowly, but be persistent in your commitment.

Work on one part (drill) of the skill at a time. As you become comfortable with that particular part of the skill, move onto the next part of the skill. By combining the skills into a skill set (small successes) you will find that you have move closer to accomplishing your desired goal.

The Process Just takes Time so Don't Give Up

As I have found, by doing so you will be able to learn or relearn skills and skill sets. In the process, you will create new neural pathways and brain reorganization. In the process, you will improve the quality of your life through the small successes that you achieve.

Achieving Your Goal – Don't be Discouraged Riddle

“How do you eat an elephant?”, one man said to the other. The man asked, “Tell me the answer”. He responded, “One bite at a time”.

My Encouragement

My encouragement to you my friend — as I need to remember too — start chewing and don't give up. Consume your “elephant” one skill and one skill set at a time.

By eating your “elephant” one skill and one skill set at a time, your elephant will be consumed. Your “elephant” or goal will be consumed or achieved through small successes.

Principles

My Process and Journey using the Principle of Neuroplasticity

In 1997, unknowingly, I began the process of creating new neural pathways and brain reorganization through repetitive mirrored movements. Mirrored movements through learning, drilling and developing in different martial art skills.

Repetitive mirrored movements using both my (dominant and non-dominant or non-affected and affected) arms, hands, elbows, legs, knees, and feet, (as well as engaging my core stomach and lower back muscles).

In the process, of using these repetitive mirrored movements I developed muscle memory. I developed an increased range of motion, gross and fine motor skills, as well as balance, agility, hand-eye coordination and coordination.

My Journey in Repetitive Mirrored Movements

I started training in Muay Thai kickboxing in 1997. Muay Thai (Thailand's national sport) is called the art of 8 limbs. Using Hands, Elbows, Knees and Feet on both sides of one's body.

Since beginning training in muay Thai kickboxing I have trained (drilled) in different martial art disciplines.

Western Boxing, Stick Fighting, Kali, Wing Chun, Grappling and Weapons

I have used these different martial art disciplines to create new neural pathways and brain reorganization through repetitive mirrored movements. Repetitive mirrored movements on my dominant and non-dominants sides of my body to engage both my brain and body. Both sides of my brain and body to develop skills on both sides of my body and brain to increase my quality of living.

Video Demonstrations

In October 2013 I did a Keynote Presentation at the **Southwest Conference on Disability** in Albuquerque, New Mexico. During that keynote presentation I shared a video presentation. In preparation a friend video-taped these skills.

The Art of 8 Limbs to train Large Muscle Groups

Using Gross Motor Skill – Crossing the Centerline

Neuroplasticity through Martial Arts 2013

Neuroplasticity through Martial Arts 2014

Using Fine Motor Skills – Crossing the Centerline

Brain Injury, Neuroplasticity and Personal Gains 2015

Neuroplasticity through Martial Arts 2018

Strategies for Achieving the Goals

Through Using the Principles of Neuroplasticity through Repetitive Mirrored Movements.



Below I will explore principles that I believe can empower anyone. Principles that have helped me to develop and brain reorganization. Empower anyone to develop new neural pathways and brain reorganization.

In the process of using these principles we can accomplish things that thought were out of our reach.

Defining the Basics of a Successful Training Camp to Achieve Goals

(As with Football and UFC training Camps that Prepare the Athlete)

In yesterday's article [**Training Camps and Winning in Life**](#), I spoke about the basics that make a successful training camp.

In the article, I shared that by applying the basics — **hard work, commitment, determination, drive, discipline, fortitude, persistence, tenacity, and courage** — we can make huge gains in our process over time.

Greater Insight

In today's presentation, I would like to explore the meaning of several of the words or concepts that go into making a training camp successful.

To gain a greater understanding of the words and concepts, I did some research; and will share what I discovered – a definition.

I will then share my perspective, a quote or quotes and provide a link to an article that I have written, that speaks to the word or the concept.

Hard work or Work-ethic

Hard work for me means being diligent, to accomplish a task or a goal that is set before me; with focus. Hard work involves sticking with a project or a goal to achieve the desired outcome.

For me, hard work does not mean running a sprint but involves running a marathon; which requires consistent and ongoing effort.

“Without hard work, nothing grows but weeds.” Gordon B.
Hinckley
article link

A Word of Encouragement – Keep Swinging at the Fences

Commitment

“a willingness to give your time and energy to something that you believe in, or a promise or firm decision to do something”.

Cambridge Dictionaries online

For me commitment involves loyalty, first to myself; to stick with a goal, regardless...

Commitment communicates to me to remain undeterred from what I set out to accomplish.

Although the way that I set out to accomplish something may change, my commitment teaches me that I can find a way that will work for me to be able to accomplish my goal.

Article link:

[When Circumstances Change Our Plans](#)

Determination

“is a positive emotion that involves persevering towards a difficult goal in spite of obstacles.[\[1\]](#)[\[2\]](#) Determination occurs prior to goal attainment and serves to motivate behavior that will help achieve one’s goal.” [Wikipedia](#)

Determination helps me to focus on what I want to accomplish, in spite of obstacles and setbacks.

Obstacles become a sign on the road that helps me to realize that adjustments need to be made to accomplish my desired goal (s).

Determination teaches me to not give up in spite of apparent obstacles and setbacks because I know that more will be revealed in time.

“I will prepare and someday my chance will come.” Abraham Lincoln

Article link:

[Experiencing Adversity, Failures, Setbacks and Not Giving Up!](#)

Drive

“There are three major components to motivation: activation, persistence, and intensity. Activation involves the decision to initiate a behavior... Persistence is the continued effort toward a goal even though obstacles may exist... Finally, intensity can be seen in the concentration and vigor that goes into pursuing a goal.”

[About Education — What is Motivation](#)

Motivation can either be external or internal. Being externally driven will only last until the threat is removed. Being internally motivated or driven, on the other hand; is sustainable because of the individual’s internal desire to achieve the skill, skill set or goal. Drive encourages me to stick with the process and keep learning from my circumstances, my experiences and my opportunities.

Article link: [Don’t Give Up — Your Life Matters!](#)

Discipline

“training to act in accordance with rules; drill, activity, exercise, or a regimen that develops or improves a skill, the rigor or training effect of experience, adversity” [Dictionary.com](#)

“Discipline is the bridge between goals and accomplishment.”
Jim Rohn

For me, discipline means that I keep working on my craft, tweaking and taking away; adding and making the decision to follow through to condition myself to achieving an end.

article link

Neuroplasticity, Small Successes, and Learning / Relearning Skill Sets

Fortitude

“**Fortitude** meaning courage or bravery is the ability and willingness to confront fear, pain, danger, uncertainty, or intimidation.” [Wikipedia](#)

“Fortitude is the marshal of thought, the armor of the will, and the fort of reason.” Francis Bacon

For me fortitude means that I commit to pursuing my dreams and my destiny, my vision and mission in of being minimized, marginalized, dismissed and discounted.

Fortitude means that I remain true to myself, regardless of whether anyone else “gets it” or understand me. Fortitude means that I stay committed to my goals, whatever they may be at the time.

To thine own self be true.

article link

Having the Courage to be Me

Persistence

“the quality that allows someone to continue doing something or trying to do something even though it is difficult or opposed by other people” [**Merriam-Webster**](#)

“Persistence and resilience only come from having been given the chance to work through difficult problems.” Gever Tulley

For me, persistence is the decision to get up more times than I fall down. Persistence for me means that I don’t give up regardless...Giving up simply is not an option.

Persistence means believing in myself.

article link

[**Answering the Call that Never Came**](#)

Tenacity

“an unwillingness to yield or give up, being dogged, stubbornly, persevering and steadfast” [**Wiktionary**](#)

“It’s not that I’m so smart, it’s just that I stay with problems longer.” Albert Einstein

Tenacity keeps me moving toward what I want to accomplish in my life. Tenacity means that I keep looking for ways to win in life. Tenacity means that I do give myself no for an answer.

Tenacity means that I trust the process, a loving God and myself. Tenacity means that I keep moving forward.

Courage

“The state or quality of mind or spirit that enables one to face danger, fear, or vicissitudes with self-possession, confidence, and resolution; bravery.” [The Free Dictionary](#)

“Your time is limited, so don’t waste it living someone else’s life. Don’t be trapped by dogma – which is living with the results of other people’s thinking. Don’t let the noise of others’ opinions drown out your own inner voice. And most important, have the courage to follow your heart and intuition.” Steve Jobs

Courage to me means I stay committed to the process, the footwork and the journey. Courage helps me to remember that I do not have to do things perfectly. Courage reminds me that I can pursue excellence, instead of perfection.

Courage reminds me that with all learning, there is a learning curve. Courage reminds me to stay committed to my mission and vision.

Courage gives me hope.

“Our deepest fear is not that we are inadequate. Our deepest fear is that we are powerful beyond measure, it is our light, not our darkness that most frightens us. Your playing small does not serve the world. There is nothing enlightened about shrinking so that other people will not feel insecure around you. We were all meant to shine as children do. It is not just in

some of us, it is in everyone. And as we let our own light to shine, we unconsciously give other people permission to do the same, as we are liberated from our own fear. Our presence automatically liberates others. Sir, I just want to say thank you. You saved my life." From the movie, Coach Carter, a quote attributed to Marianne Williamson

Slide Show and Video Presentation

I have also created a slideshow presentation of this article. To watch the slideshow presentation, click on this link:

[**Neuroplasticity, Small Successes, and Learning/Relearning Skills and Skill Sets Slideshow Presentation**](#)

I have also created a video presentation of this article. To listen to and watch the presentation, please click on this link:

[**Neuroplasticity, Small Successes and Learning / Relearning Skills and Skill Sets Video Presentation**](#)

In August 2013 a friend of mine made a video presentation of the progress that I made using the principle of neuroplasticity. Other friends helped me to make video presentations of my progress in each year since 2013.

Video Demonstrations of My Journey

Below are links to You Tube presentations of the progress that I have made using repetitive mirrored movements.

To watch the progress made using the principle of neuroplasticity over the past 5 years, click on the below links.

Neuroplasticity through Martial Arts Disciplines August 2013

Neuroplasticity Demonstration August 2014

Brain Injury, Neuroplasticity and Personal Gains August 2015

Balance and Coordination through Repetitive Mirrored Movement 2016

Brain Injury Recovery and Repetitive Mirrored Movements 2017

Improving Our Brain and Body's Ability to Excel after Brain Injury 2018