Neuroplasticity

I wanted to continue the conversation from last month’s newsletter on Self-Compassion. I stated that there is evidence to suggest that self-talk (be it critical or compassionate) is part of a cycle that stimulates the basal ganglia (in the brain) to release dopamine. Dopamine leads to habit formation and addiction. This is a great thing if your self-talk is kind and nurturing, but it can be a real problem if it is always critical and judgmental. What I am talking about here is Neuroplasticity. This means the brain has the ability to change its physical structure and function based on information one receives from repetitive thoughts, behaviors, emotions and experiences. I just read You Are Not Your Brain, by Dr. Jeffrey Schwartz, a leading neuroplasticity researcher and I found his work to be fascinating. He also has several videos on neuroscience that can be found on the Happy & Well YouTube channel. I can’t wait to start two other books on my reading list by Norman Doidge called The Brain That Changes Itself (an introduction to neuroplasticity) and The Brain’s Way of Healing (shows how the amazing process of neuroplastic healing really works). You can also watch an interview of Norman Doidge on the YouTube channel Inside Quest.

As you can tell, I am enthusiastic and very curious about this subject. This is the reason I wanted to write about Neuroplasticity in this month’s newsletter. As I was gathering more information, I came across a blogger who has experienced neuroplasticity first hand. I read many of her blog posts and thought this is exactly what I wanted to share with my readers this month. I cannot present this information any better than she has, so this month, I am going to reference Debbie Hampton’s blog page called The Best Brain Possible (reproduced with permission).

The Neuroscience of Changing Your Behavior & The Good, The Bad, and The Ugly – Debbie Hampton

Your life literally shapes your brain. The good news is your brain makes physical changes based on the repetitive things you do and experiences you have. The bad news is your brain makes physical changes based on the repetitive things you do and experiences you have. This morphing capability of your brain, known as neuroplasticity, works both for you and against you.

Neuroplasticity is the ability of the brain to change its physical structure and function based on input from your experiences, behaviors, emotions, and even thoughts. It used to be believed that except for a few specific growth periods in childhood, the brain was pretty much fixed. Now, we know that’s not
true. Your brain is capable of change until the day you die. Neuroplasticity gained scientific validation in the latter half of the twentieth century and has far-reaching implications for almost every aspect of human life and culture from education and medicine to relationships and happiness. This morphing capability renders your brain extremely resilient, but also makes it very vulnerable to outside and internal, usually unconscious, influences.

**Habits Become Wired Into Your Brain**

Your brain forms neuronal connections based on what you do repeatedly in your life – both good and bad. Worrying about every little thing. Fixing a cocktail to unwind after work. Picking at your fingernails. Hitting the gym. Meditating. Your repeated mental states, responses, and behaviors become neural traits.

Making or breaking a habit involves neuroplastic change in your brain. A person desires something because their plastic brain has become sensitized to the substance or experience and craves it. When an urge is satisfied, dopamine, a feel-good neurotransmitter, is released. The same shot of dopamine that gives pleasure is also an essential component of neuroplastic change. Dopamine assists in building neuronal connections that reinforce the habit.

The first time you do something, the dopamine reward comes after the event. Each time thereafter, dopamine gets released earlier and earlier until just thinking about something causes an anticipatory dopamine surge. The dopamine preceding the action motivates you to perform the behavior in the future.

Every time you act in the same way, a specific neuronal pattern is stimulated and becomes strengthened in your brain. We know that neurons that fire together wire together. Your brain, being the efficient entity that it is, takes the path of least resistance each time and a habit is born.

**Changing Your Behavior Means Changing Your Brain**

To break bad habits, you really have to change your brain. When it comes to changing your behavior – and in life, in general, you’ll have more success if you make friends with your mind and brain and put them to work for you. You can change your behavior – even those hard-to-break habits – by building alternate pathways in your brain.

The same neuroplasticity which allows not-so-good-for-you habits to be carved into your brain also gives you the ability to change your brain and life for the better. What are you etching into your brain? By making conscious choices and leveraging neuroplasticity, you really can change yourself and your life for the better. You have a use or lose it brain. Use it for you.

You can find more information about neuroplasticity and about the author, Debbie Hampton, on her blog page [The Best Brain Possible](#).
Recipe

I stumbled across this recipe one day shuffling through pages of an Art magazine. Every time I make this meal, I thank my lucky stars for picking up that particular magazine. I LOVE THIS DISH! It pairs well with a bold red wine….just in time for Valentine’s day

Roasted Chicken w/Olives, Rosemary & Capers

Ingredients:
2 ½ lbs  Skin on chicken thighs & drumsticks (w/salt & pepper to taste)
1 finely diced white onion
4 finely chopped garlic cloves
4 tbsp capers
½ cup balsamic vinegar
1 can crushed tomatoes, medium sized
1 tbsp brown sugar (optional)
1 cup pitted black olives
1 tsp crushed chili flakes
Several sprigs of rosemary

Pre-heat oven to 425 degrees. In an oven proof pan, brown off chicken pieces on medium/high heat. Remove pieces then set aside. Remove excess fat from pan, reduce to medium heat and add onion and garlic. Sauté until almost brown then add capers and balsamic. Let balsamic reduce by half (about 2 minutes). Add crushed tomatoes, sugar, olives, chili flakes, chicken pieces, a few sprigs of rosemary and salt and pepper to taste.

Place in the oven without a lid for 25 minutes. Remove from oven and serve with couscous, quinoa or roasted sweet potatoes (my fav!).

Recipe by Chef Mike Ward

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