WORKSHEET for Episode 1 of Your Ups and Downs Are Natural ...and also learned Loretta G. Breuning PhD Inner Mammal Institute

Quick Quiz (The summary on the next page will help.)

- 1. Happy chemicals are meant to do a job rather than flow all the time. What is the job of each one?
- 2. What is the value of bad feelings?
- 3. How do brain chemicals promote survival in the state of nature?
- 4. How does your brain make sense of the world as it flows in from your senses?
- 5. If our operating system evolved for survival, why do we end up with some circuits that hurt survival?

Your Next Step

- 1. Figure out what turns on your dopamine. What gives you the excited feeling that a reward is coming? Food examples are easy, but consider complex social rewards too. The biggest reward from your mammal brain's perspective is finding a way to stop pain, so look for examples of that. Compare your dopamine experiences today with those of youth and puberty, and notice any similarities.
- 2. What turns on your oxytocin? When do you feel safe and protected? When do you wisely withhold trust? Compare today's oxytocin experiences with those of your past and notice any similarities.
- 3. What turns on your serotonin? When do you feel confident about your place in the world? Compare your serotonin experiences today with those of youth and puberty, and notice the similarities.
- 4. What turns on your cortisol? Notice when your threatened feeling turns on. Decide what might be useful information, and what might be a false alarm triggered by the pathways of your cortisol past.
- 5. When you feel alarmed, what circuits do you rely on to feel good?
- 6. If you could turn on your happy chemicals in a way that serves you in the long run, what would it be?
- 7. Watch Episode 2 and complete the next worksheet

If this information is helpful, please:

share it with your favorite groups and professionals; get the free <u>5-day Happy Chemical Jumpstart;</u> <u>buy a book</u>...and <u>another book</u>; comment on Youtube, Amazon, Goodreads so it can help others; participate in the <u>Inner Mammal Institute discussion group on Facebook</u> and <u>Twitter;</u> read my blogs, <u>Your Neurochemical Self</u> and <u>thePositivePsychologyPeople</u>; <u>try my Coaching</u>

Summary of Episode 1

Emotions are caused by brain chemicals. We've inherited these chemicals from our mammalian ancestors, but we control them with neural pathways we build from life experience.

Our brain chemicals are not meant to flow all the time. They turn on and off in response to the opportunities and threats we see around us. You define opportunities and threats with the neural pathways you have. An opportunity triggers a happy chemical that motivates you to go toward it. A threat triggers an unhappy chemical that motivates you to avoid it. Each spurt is soon metabolized, and you have to do more to get more. Opportunities and threats for your genes get your mammal brain's attention whether you consciously think that way or not.

The good feelings of your past paved neural pathways that wire you to expect more good feelings by going toward similar things. The bad feelings of your past wired you to expect bad feelings unless you avoid similar things. We all end up with some quirky circuits because our past experience is never a perfect representation of the world.

Each of the happy chemicals has a specific job to do. Each motivates a special type of survival behavior.

DOPAMINE spurts when you approach a reward. It releases your reserve tank of energy so you can do what it takes to meets your needs. New rewards are powerful because your brain adjusts to old rewards.

ENDORPHIN produces a euphoria that masks pain. Physical pain is what triggers it. We are designed to avoid pain, not to create it. Endorphin evolved for emergencies, not for a constant flow.

OXYTOCIN creates the good feeling of trust. You feel safe with those around you when it flows. Safety in numbers helps a mammal survive, but it's not safe to trust every critter, so oxytocin goes on and off.

SEROTONIN creates confidence in your ability to assert yourself. A social animal has to assert itself to get the food and reproductive opportunity necessary to pass on its genes. Serotonin makes it feel good.

CORTISOL creates the bad feeling that your survival is threatened. It motivates you to do what it takes to make it stop. Bad feelings are information. They help us avoid paths that don't meet our needs.

You were born with billions of neurons but very few connections between them. The connections you built channel the electricity that flows into your brain as the world bombards your senses with information. Electricity flows down your old paths unless you build new ones.

This brain we've inherited has successfully promoted survival for millions of years. Survival rates are low in the state of nature, but your ancestors did what it took to keep their genes alive. ***** Your brain is inherited from survivors. *****

You can wire yourself to feel good when you do things that are good for you.

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WORKSHEET for Episode 2 of Your Ups and Downs Are Natural ...and also learned Loretta G. Breuning, PhD Inner Mammal Institute

Quick Quiz (The summary below will help.)

- 1. In the state of nature, things that feel good are actually good for the survival of your genes. How does this work for dopamine, endorphin, oxytocin, and serotonin?
- 2. In the state of nature, the bad cortisol feeling alerts you to real survival threats. Give some examples.
- 3. Your ups and downs feel like urgent survival messages, so why aren't they reliable?

Your Next Step

- 1. Think of some doable action steps you can take to build new dopamine circuits.
- 2. Think of some ways to get belly laughs to stimulate your endorphin.
- 3. Think of small trust-building steps you can take often to build your oxytocin circuits.
- 4. Notice yourself making social comparisons and feeling one-down. Practice enjoying people without needing all they have, the way you can enjoy a cooking show without needing to eating all you see.
- 5. Watch Episode 3 and complete the next worksheet.

Summary of Episode 2

Happy chemicals make sense when you know how they promote survival in the state of nature.

DOPAMINE helps an animal forage for food. Animals survive by making careful decisions about where to invest their energy. Dopamine says "Go for it!" when a reward is worth the investment. The brain releases dopamine when it sees a new and accessible way to meet a need. Accessible means a reward that seems within reach. New means better or different because the same-old rewards don't trigger dopamine.

ENDORPHIN creates oblivion that masks pain, which helps an injured animal escape a predator. The good feeling soon passes because pain is information that a mammal needs to avoid harm.

OXYTOCIN rewards a mammal with a good feeling when it sticks with the group because there's safety in numbers. Reptiles live alone from birth, but mammals form attachments because of oxytocin. Early oxytocin spurts build circuits that tell them when to trust. Cortisol spikes wire them to withhold trust.

SEROTONIN motivates a mammal to reach for food or mating opportunity despite the risk of conflict. The mammal brain makes social comparisons before it asserts itself. If it compares favorably, the good feeling of serotonin is released. It's not aggression but a calm sense that you can safely meet your needs.

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Steps that stimulate one happy chemical risk losing another or triggering cortisol. When a gazelle steps toward a new patch of green grass, it risks getting eaten by a lion. But when it sticks with the group, it tends to get dry brown grass and jabs from herd mates' horns. It is constantly weighing choices.

Old neural pathways shape responses because they were built from real experience with rewards and pain. The brain's electricity flows down the paths of least resistance, like water in a storm. If your paths were built from dry grass and jabbing horns, you tend to flow there. We humans can redirect the flow, but there's no risk-free path to rewards. Our mammal brain is always choosing.

Here are some new ways to trigger your happy chemicals.

DOPAMINE flows when you set a goal and reach it. Focus on doable action steps you can take now instead of on distant dreams. Each step feels great and it wires you to EXPECT to reach your goals!

ENDORPHIN is only stimulated by exercise if you do it to the point of pain. That's not safe because your body adjusts, so it takes more and more pain. We are better off saving endorphin for real emergencies. Fortunately, a bit of endorphin is stimulated by laughing and crying. You do NOT want a crying habit because it floods you with cortisol. Laughing is great, but it takes a real belly laugh to stimulate endorphin. So instead of wasting time on cynical chuckles, find something that cracks you up and make room for it in your schedule.

OXYTOCIN flows when you're with people you trust. This is hard because disappointed trust triggers cortisol, which wires you to expect pain. You may be tempted you to leave town on the next bus instead of sticking with the herd, but the next town may not have the trust you seek. Trust circuits take time to build. People often settle for the fast, easy bonds defined by a common enemy. Belonging to a group stimulates a nice oxytocin feeling even if it's just an in-group defined by its out-group. You can have more if you take small trust-building steps every day, because your oxytocin circuits will build.

SEROTONIN drives us to seek social importance in addition to just acceptance. To your mammal brain, social threats feel like survival threats. Your inner mammal thinks you'd be happy all the time if you were top monkey. It's easy to see this in others though we hate to see it in ourselves. If you hate the mammalian urge for status, you will end up hating everyone including you. Many people stimulate their serotonin by feeling morally superior. It feels good for a moment, but the serotonin is soon metabolized and your brain starts comparing you to others again. If you let your inner monkey believe others are putting you down, cortisol will ruin your life. Instead, you can teach your inner mammal that social disappointment doesn't actually kill you - like passing up a pizza doesn't kill you - though it feels that way in the moment.

Your mammal brain will always create feelings of urgency. You can accept these feelings without acting on them. ***** When you accept your inner mammal, you stop cursing the world for failing to make you happy, and start taking steps that stimulate happy chemicals in new ways. ****

If this information is helpful, please:

WORKSHEET for Episode 3 of Your Ups and Downs Are Natural ...and also learned Loretta G. Breuning, PhD Inner Mammal Institute

Quick Quiz (The summary below will help.)

- 1. Why are old pathways so tempting?
- 2. Why is it hard to build new pathways?
- 3. Why is repetition necessary?
- 4. How are today's frustrations similar to those of monkey 50 million years ago?

Your Next Step

- 1. Choose a new way to stimulate your happy chemicals.
- 2. What behavior will you repeat for 45 days without fail?
- 3. When will you start?
- 4. How will you make sure to have energy available?
- 5. Do you promise to keep going until you've done 45 days straight, starting over with Day One if you miss a day?

Summary of Episode 3

Old circuits are powerful despite our best intentions because they got paved by:

- repetition, which makes synapses efficient at sending electricity to the next neuron
- myelin, which coats neurons in youth, making them super efficient conductors of electricity the way an insulated wire is more efficient than a bare wire
- happy and unhappy chemicals, which link a circuit to your survival needs.

But you have the power to activate new trails through your jungle of neurons. Slashing a new trail is hard work, and after all that effort, the jungle grows back quickly so it's just as hard the next time. If you were traveling through the Amazon, you'd be tempted to take the paved highways even though they lead where you don't want to go. People often yield to their old neural pathways because the effortless flow of electricity feels safe and normal, even though it leads to the wrong places.

Fortunately, if you slash a new trail in your brain every day for 45 days, it gets established. It won't be a superhighway if you're past your myelin years, but it will be big enough to feel safe and normal.

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To build a new happy circuit, repeat your preferred thought or behavior every day for 45 days. If you miss a day, start over with Day One until you have 45 days straight. Then the new thought or behavior will feel natural because electricity will flow.

So why isn't everyone rewiring themselves? Because we don't like to invest our energy in something that feels bad. We don't believe it will feel good later if it doesn't feel good now. Once you know how your brain works, trail-blazing feels doable.

Carrots will never taste like ice cream, no matter how long you eat them. But you can wire yourself to reach for a carrot stick instead of an ice cream and feel just as good (or better). You can blaze new trails in your brain if you:

- understand why old trails feels right even when they're wrong
- leave yourself enough energy for the trail-blazing project instead of spending it elsewhere
- graft your new circuit onto an existing happy circuit. Your neural tree doesn't build new branches easily, so it helps to graft onto an existing branch. Reproductive opportunity builds huge happy chemical circuits in a brain built by natural selection, so all things related (like appearance, status, children) are huge motivators of carrot-eating. Try grafting your new branch onto an old one.

The goal is not to obsess over food choices but to embrace your power over your brain. Once you've completed a trail-blazing project or two, try building a new thought habit instead of just a behavior habit. For example, you can wire yourself to see the good all around you. It's easy to see the bad because cortisol built huge highways in your brain. The good all around you gets ignored unless you give it a place to flow. Spend three minutes a day focusing on the good - it's best to do one minute three times a day but use whatever structure feels right to you. Keep it up for 45 even if feels false or foolish. You will love the results. You will want to start another trail-blazing project, and another.

Life is frustrating because happy chemical spurts are short and quickly metabolized, and you have to do more to get more. Life is frustrating because cortisol gets your attention when your happy chemicals dip, so your brain scans for threats. It always finds some because you're mortal. When life is frustrating, it's good to know that monkeys had the same frustrations fifty million years ago. They had to scan constantly for opportunity, they struggled to avoid harm, and their social allies were focused on their own needs. You have something monkeys don't have, however: a huge stock of extra neurons ready to make new connections. I was thrilled when I learned to make peace with my inner mammal and I think you will be too.

The Inner Mammal Institute can help, with books, blogs, discussion groups, and plenty of free resources. www.innermammalinstitute.org

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