

THE FOUR GIFTS

THE NEUROCHEMISTRY OF LONG TERM RELATIONSHIPS



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Introduction to the series of books

Emergent Phenomena

Fish do not intend to form a school, nor do birds intend to form a flock. A few simple rules are all that is needed. For the fish, it might be something like:

- 1- Do not bump into another fish
- 2- Do not get too far from other fish
- 3- Move away from predators
- 4- Move towards food

The beautiful and complex patterns that form as a result of simple rules are known as 'emergent phenomena'. Sometimes the rules are easy to understand. One child watches a disturbing movie before bedtime, another calm and friendly one. That night, the first child has nightmares, the second child, sweet dreams. The dreams are the emergent phenomena. It is easy to see the cause and effect.

The next morning, one child wakes to a breakfast of sugary cereal, the other, toast, eggs and a glass of milk. Hours later at school the first child is hyperactive, the second calm. The emergent phenomena of their respective behaviors is difficult for the teacher to understand without knowing what they had for breakfast.

Sometimes, the causes of emergent phenomena are obvious, sometimes, hidden. When you see people failing to making positive changes in their lives, it is often because they are focusing on the emergent phenomena, and not the underlying causes.

This series of books will discuss three complex emergent phenomena; romantic relationships, healthy masculinity and the mind; the rules that form their manifestations, and how to change them for the better. We begin with relationships...

Relationships

In any relationship, there are going to be some incompatibilities between partners. In the beginning during the infatuation phase, we don't notice incompatibilities. As relationships progress however, incompatibilities become more obvious and problematic. Take a look at the numbers...

66-75% of people in relationships would cheat if they thought they could get away with it.

20% of marriages are classified as sexless and

50% of marriages end in separation or divorce

After a failed marriage, many people think that with the experience they now have, they can do better, but the numbers tell a different story.

41% of first marriages

60% of second marriages and

73% of third marriages

...end with divorce or separation.

Contrary to what we might think, the more marriages a person has, the less likely they are to be successful in getting to happily ever after. We get worse at it with experience. I believe this is due to attempts to change the emergent phenomena without understanding the underlying causes and rules.

Staying in love with and attracted to the same person for years isn't a given. In fact, we are genetically programmed to fall in love for a predetermined period of time, then fall out of love, then fall in love with someone else. Why this happens and what can be done about it are the questions this book will answer.

DNA wants diversity

We say we want happy long-term relationships, yet seem unable to make them happen. We get on average, about six months of infatuation. Then, if we still like the person once the infatuation wears off, we get about two years of warm affection. After this, relationships start to fall apart. Why?

It is our genetics. Our DNA wants us to make babies, raise them for a few years, then make more babies... with someone else. We are not programmed by our DNA for happily ever after. We are programmed by our DNA for genetic diversity.

Consider two families in a small European village in the 14th century. In one family, the female had four children with four different fathers. In another family, there are also four children but they are all from the same mother and father.

One year a plague hits with a 25% survival rate, that is, it kills 75% of the population. Like all infections, there is a genetic component. Some people are more resistant than others. In the 'happily ever after' family with four children all with the same genetics, there is only a 25% chance that a single child will survive to reproduce since all four children share the same genetics. In the family with four children, each with different genetics, there is a 68% chance that there will be at least one child who will survive to reproduce. Thus, men and women with many partners pass on their genes more effectively than those that don't. Genetics doesn't care for morality or happily ever after.

We are the inheritors of these genetic programs and this is what we are up against.

The three stages

In order for DNA to achieve its goal of genetic diversity, it has to cycle our relationships through three stages over and over again. In the first stage, our DNA gives us a neurochemical cocktail that maximizes our chances for fertilization. We call it, infatuation.

In the second stage, the DNA shifts us into childrearing mode. Infatuation winds down allowing a couple to focus on children rather than each other. This stage is designed to create a family bond to raise children until they are old enough to survive without an intact family unit.

In the third stage, our DNA shifts our neurochemistry yet again so that we become unsatisfied with our current partner. This sets us up to feel infatuation... but with someone else, and the cycle repeats.

To cycle us through these stages our DNA manipulates us with four powerful neurochemicals. PEA, oxytocin, cortisol and prolactin. These neurochemicals affect our moods and how we feel about our partners. They are what give us the feelings of infatuation, affection and dissatisfaction that move us through the relationship cycle.

Fortunately, there is a way to outwit our DNA and escape the program. We can learn to control these neurochemicals and how we feel about our partners. To do this we need to learn four counter-intuitive skills. I call these the Four Gifts, one for each neurochemicals we need to master.

We'll get to each of them in this book, but first we need to take a closer look at these three stages.

Stage one: Infatuation

DNA's program for genetic diversity plays out as polygyny for men and hypergamy for women. Polygyny is a man's drive to fertilize as many women as possible. Hypergamy is a woman's drive to find the best man possible.

Put another way, men want quantity (variety) while women prefer quality. Men want a large portfolio while women prefer a solid investment. That's not to say that women aren't interested in variety and men aren't also interested in quality, rather, it is a general rule.

This makes sense since the investment for a man is one teaspoon of sperm while the investment for a woman can be nine months of pregnancy, childbirth (which due to our large head to hip ratio is sometimes fatal without medical intervention), followed by two years of breastfeeding and watching a toddler.

We don't always desire polygyny and hypergamy though. If we did, families would disintegrate before infants could get to the point where they could survive on their own without constant attention. Men wouldn't stay around to help provide for and protect the family and women would constantly be seeking to upgrade to a better man.

To temporarily suppress polygyny and hypergamy, our DNA first gives us infatuation. We literally become addicted to our partners for a period of time, usually about 3-6 months.

Infatuation, while great for making babies, isn't great for raising them, so once a woman is with child, our DNA switches gears. It turns off the neurochemical responsible for infatuation

and turns on the neurochemical that creates affection. This takes us to stage two.

Stage two: Affection and family bonding

Like the first stage, the second stage also suppresses the polygyny and hypergamy programs but in a different way. The second stage bonds the couple together to create a protective family unit. It does this long enough for a woman to go through pregnancy, childbirth and breastfeeding. Now babies are able to walk around and be a little independent. This stage lasts about two years.

Stage three: Cheating, breaking up or quiet desperation

After about two years, the affection and bonding program starts winding down. In this third stage our DNA restarts our hypergamy and polygyny programs and triggers us to find new genetic partners. After all, having children with the same partner over and over doesn't increase genetic diversity and for the DNA, genetic diversity is what it's all about.

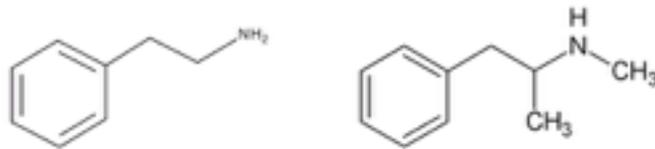
To do this, our DNA shifts our neurochemistry yet again so that we become disillusioned with our partners. Then, depending on our personality types we either shift predominantly towards a neurochemistry of frustration or depression. We are now susceptible to becoming infatuated with someone new and this was the program all along.

If we want to get to happily ever after, we must outwit our DNA and its plans for our relationships and to do this, we must regain control of our neurochemistry. We must learn how to hack these programs.

Phase One - Infatuation with PEA

DNA gets the genetic diversity it wants by stimulating the release of specific neurochemicals in our brains in a highly choreographed and predictable manner.

The first neurochemical the DNA gives us is called phenylethylamine, or PEA for short. It's responsible for feelings of infatuation. When someone is addicted to a drug, it's called dependence. When someone is addicted to a person, it's called co-dependence. PEA makes us addicted to our partners.



PEA molecule

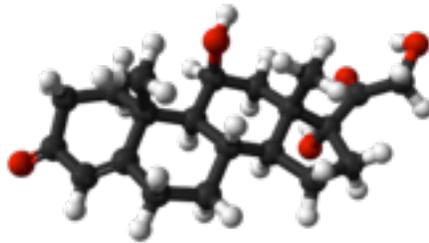
Methamphetamine molecule

Addicted is the right word as PEA (on the left) is only two methyl groups (CH₃) and one hydrogen atom (H) away from methamphetamine (on the right). Like methamphetamines, PEA also stimulates risky behavior, like unprotected sex and cheating. PEA is part of what is responsible for the weak in the knees, butterflies in the stomach and heart pounding feelings of infatuation.

PEA blinds us to any incompatibilities we may have with our partners...but being hopped up on PEA is unsustainable. It is an amphetamine after all and addicts don't make the best parents. So after about six months, PEA production drops off and if things are still working out, our DNA gives us a new neurochemical called oxytocin.

Phase Three - Breaking up with cortisol and prolactin

In order for DNA to achieve its goal of genetic diversity, it must break up the family unit or get one or both partners to cheat. To do this, DNA lowers our oxytocin production and instead begins increasing the production of two different neurochemicals. One is cortisol and the other is prolactin. We'll discuss cortisol first.



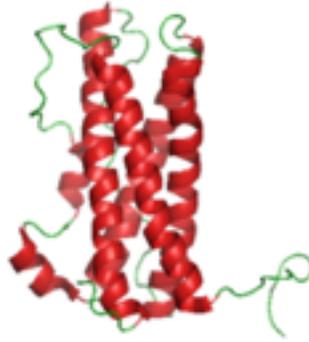
-The Cortisol Molecule-

Cortisol is what makes us feel angry when we are hungry, overly tired, PMSing or experiencing any other stressor. If oxytocin is the angel on one shoulder, cortisol is the devil on the other.

Cortisol makes people more:

Stupid
Violent
Selfish
Dishonest
and without compassion

Cortisol is the opposite of oxytocin. While oxytocin makes us the best versions of ourselves, cortisol makes us the worst. Additionally, long term cortisol exposure causes immune suppression and makes our brains shrink.



-The Prolactin Molecule-

The other neurochemical that people can experience in Phase Three of relationships is prolactin.

Prolactin makes people:

Uncommunicative
Depressed
and lowers sex drive

It also lowers sex drive because at this point the DNA doesn't want you to make any new babies with the person you are with. It wants genetic diversity.

Why we bicker

Have you ever been bickering, then forgot what you were bickering about, then asked your partner to remind you why you were bickering so you could start bickering again? Who in their right mind does that? If you've stopped fighting, why start it up again?

Many people would rather feel angry (cortisol) than feel hopeless (prolactin), and cortisol suppresses prolactin. This also explains the phenomena of make-up sex. Fighting (cortisol)

lowers prolactin levels for the couple and with the prolactin temporarily suppressed, their sex drive returns.

Back to Phase one... with someone else

So, we start off with PEA (infatuation). After about six months this wears off and it is replaced with oxytocin (bonding). This lasts about two years at which point cortisol and prolactin production comes online. Cortisol makes us want to fight about incompatibilities and unmet needs while prolactin causes us to shut down and withdraw.

Angry or depressed, the DNA has us right where it wants us. We are now primed for PEA (infatuation) with someone else. When this happens, we feel sexy and excited again. Flushed with PEA, we now believe that this new person must be our true soulmate. They must be our ticket to happily ever after.

Of course if we go on with a new relationship without understanding these four neurochemicals and what to do about them we will be right back where we started a few years later, so let's talk about outsmarting our DNA.

The Four gifts - Outsmarting our DNA

Now you know about the three phases relationships goes through... What are our options?

1- We could choose serial monogamy, making our peace with the fact that most relationships have a shelf life of a few years before the PEA and oxytocin winds down.

2- We could have an open discussion with our partners about becoming polyamorous... but polyamorous couples break up just as often as monogamous ones.

3- We could learn how to hack our neurochemistry so that we could stay in Phase 2 (affection and family bonding) with some Phase 1 (infatuation) thrown in for good measure. Hmmm, I like this one. Are you with me? Good.

Gift One - Suppressing prolactin

Prolactin has a 50 minute half-life. This means that once it gets into the system, it lasts for over 3 hours. Clearly, the best way to deal with prolactin is not to create it in the first place. So, what makes prolactin? Unresolved long term stress, excessive sleep and... (here comes the counterintuitive part) orgasms.

Sex is great for relationships, it feels good, lowers stress and raises oxytocin... but orgasms cause multiple prolactin spikes over the next two days.

Orgasms also decrease testosterone and increase estrogen receptors in males. Thus, orgasms also have feminizing effect on men. Finally, orgasms lower dopamine, the feel-good neurochemical.

So, what do we do? It's called Karezza, lovemaking without orgasm. When you master it, you can make love multiple times a day without any prolactin spikes.

This doesn't mean to avoid orgasms, it means to have less orgasms. How many? It depends on your make up. You'll have to observe yourself. Not everyone has the same prolactin spike response. Find the ratio that works for you. Orgasm every other time, every third? Every 10th time? Just observe how you feel about your partner after an orgasm and find what works for you.

Okay, what were those other two things? Sleep and unresolved long term stress. Prolactin also rises the longer you

sleep in. So, if you really want to get it down, try to get no more than 8.5 hours of sleep, and wake up as early as possible. As for chronic stress, figure out what you feel hopeless about and do what you can to improve your situation.

One final trick. To suppress prolactin, take cold showers...or at least end showers with cold water. Cold exposure not only lowers prolactin, it also decreases inflammation and has a whole host of physical and psychological benefits. Coffee also works to lower prolactin in both men and women, but coffee also raises cortisol which takes us to...

Gift Two - Suppressing cortisol

Unlike prolactin, which is a response to chronic stress, cortisol is a response to acute stress.

Common cortisol triggers:

Hunger
Fatigue

Cortisol is a glucocorticoid. This means it raises blood sugar. So one of the main causes of cortisol is... low blood sugar. Now you know why people get irritable when they get hungry. If you or your partner gets cortisol spikes from being hungry, then either make sure you don't miss meals. Alternately, you can train your body to burn fat instead of sugar (ketosis). Then you can go longer between meals before getting a cortisol spike.

The next common trigger is being tired. If we are tired, yet are not in a position to fall asleep, our body will give us some cortisol to keep us awake. In fact it is cortisol that wakes us up in the morning. Why does cortisol wake us up in the morning? Because we haven't eaten since the day before and our blood sugar is getting low. Thus the longer a person sleeps in, the

lower their blood sugar goes and the more cortisol they get. It's a neurochemical alarm clock. If you get cranky in the morning, better to wake earlier and eat so that cortisol alarm never goes off.

The last cause of cortisol is stress. Cortisol mobilizes us for survival and our brains aren't very good at distinguishing modern stresses (traffic jams) from ancient life threatening stresses (sabertooth tigers). So, learn what stresses you and your partner have, minimize what you can and make your peace with what you can't.

Like prolactin, cortisol also has a long half-life. It takes up to eight hours for cortisol to leave the body once it gets triggered, so it's much better to keep it from getting triggered in the first place than to try to deal with it once it's already in the bloodstream. However, once it is in the system, you can try taking a supplement called phosphatidyl serine to help break it down.

Now for the counter-intuitive part. Don't communicate during a cortisol spike. If you do, it is likely to turn into a fight. Cortisol makes us stupid, stubborn and aggressive; not the best state for processing and communicating. During a cortisol spike, the devil on your shoulder is running the show. I know you want to be heard and have your grievances addressed, but be patient.

It takes a lot of impeccability to be in cortisol storm and quietly wait it out. Cortisol is not a patient neurochemical. It is a 'this is an emergency, fix it right now!' neurochemical, but this is not the best space to be in if you want to have a calm discussion. When cortisol is in play, here is what I do:

1- Try to figure out what triggered it in you or your partner. Hungry? Tired? Perhaps you need snack or to take a nap.

2- Separate for a while, at least an hour. Remember, cortisol

lasts a while. If your partner is having a cortisol spike, you can say something like:

“I know you’re upset but now isn't a good time for us to talk, we’ll just end up fighting. I’m going out for a bit. We’ll talk about this when I get back.”

If I’m having a cortisol spike and I’m present enough I might say something like:

“I’m probably just hungry. Let’s not talk right now.”

A final note on cortisol. Marijuana lowers cortisol, but it also raises estrogen and lowers testosterone. For this reason, while marijuana is an excellent plant for women during the cortisol spikes of PMS, men may wish to avoid chronic use.

Psychological games

1980 there was a famous tournament organized by Professor Robert Axelrod. It was a simple two player game where in each round, a players had to choose to be nice (oxytocin) or selfish (cortisol). They would make their decision before the round started, then the decision of both players would be revealed. There were three possible outcomes.

1: Cooperation: If both players were nice, they both gained a small number of points.

2: Predator/Prey: If one player was nice but the other was selfish, then the selfish player gained a lot of points but the nice player received none.

3: Tit for tat: If both players were selfish, neither got any points.

The players played for several rounds, each having a chance to play every other opponent, then the points were tallied and a winner was announced. What made this interesting was that this was a computer tournament. It was computer programs playing against computer programs.

Some programmers programmed their computers always to be nice, others, always to be selfish but more advanced programs varied their behavior depending on the behavior of their opponent.

If a computer program was always nice, and it played a computer that was also always nice it did well but when it played against selfish programs it always lost. Always being nice was not the winning program.

If a computer program was always selfish, it would only win when it played with programs that were always nice. When it played programs that were also selfish, neither program gained any points. Always being selfish was not the winning program.

So, which program won the tournament? It wasn't even close. One program beat all the others. What was the winning strategy? The program's strategy could be simplified to five rules:

- 1- Start with being nice.
- 2- If the other player is nice back, continue being nice.
- 3- If the other player is selfish, be selfish back in the next round.
- 4- If an selfish player becomes nice, be nice again the next round.
- 5- If both players are selfish for 3 rounds in a row, be nice the next round.

This can be further simplified to three rules:

Start nice
Be provokable
Be forgiving

The four kinds of games in relationships

The following four types of games are emergent phenomena. They emerge from our neurochemistry.

Game 1: Cooperation

This is the game we want to play. We are nice to one another. We cooperate, compromise and take care of one another. This is the game where both people are full of oxytocin and the path to Happily Ever After.

Game 2: Predator/Prey

In the game of Predation, one person is full of cortisol and the other person is full of prolactin. The cortisol person will make ultimatums and threaten the more passive prolactin person who will usually collapse and give in to the demands of the other.

Game 3: Tit for Tat

Tit for tat is when both people are full of cortisol. Both are angry and they take turns hurting each other. Both players are caught in a destructive downward spiral.

Game 4: The Big Chill

In the Big Chill game we have two prolactin personalities. Both settle into a relationship of quiet desperation and communication stops.

Provokability

Being properly provokable is one of the fundamental relationships skills we must master. It is the feedback we give our partners know that they are causing us stress.

People that are too nice tend towards a prolactin stress response. They are people pleasers that don't want confrontation. They are not provokable and thus fall into Games 2 and 4, namely predator/prey and the Big Chill.

People that are selfish tend towards a cortisol response. They don't notice or care who they hurt. They are overly provokable and thus fall into Games 2 and 3, namely predator/prey and Tit for Tat.

The goal is to be provokable...in balance. It means having healthy boundaries and communicating them. For some it means speaking out more often, for others, it means keeping their cool. Between prolactin and cortisol, there is a sweet spot, a sustainable balance. This is where we communicate our needs, stay in oxytocin and play Game 1, the cooperation game.

Of course, if both people are full of oxytocin and acting lovingly, then there will be no need for being provokable. So, how do we raise oxytocin?

Gift Three - Raising oxytocin

The following actions raise oxytocin:

Stroking, squeezing and scratching
Kind words
Eating and serving good food
Eye gazing
Kissing

Karezza (sex without orgasm)

When primates want to bond with each other either to apologize, form alliances, curry favor or as an invitation to sex, they groom each other's fur. They patiently and attentively remove bugs and dirt from each other especially in places they can't get to themselves like their backs.

To give you an idea of how important grooming and raising oxytocin is in the primate world, consider that for hygiene purposes alone. Only 2% of the day needs to be dedicated to grooming but primates spend 20% of their day doing it.

When one primate is grooming another, it is not:

- (1) eating food
- (2) having sex
- (3) on the lookout for predators
- (4) sleeping

Grooming says to the other primate: "You are more important to me right now than eating, sex, self-preservation or a good nap combined."

The most powerful kind of grooming takes place during lovemaking. Taken from the Italian word for 'caress', Karezza is sex where orgasm is not the goal.

Because of the high number of oxytocin receptors in and on the sexual organs, Karezza can raise oxytocin to levels that can only be described as spiritual union. Additionally, by avoiding the prolactin triggers of orgasm, this high oxytocin status can stay with a couple for hours.

Oxytocin only has a 3 minute half-life. This means that unlike the hours it takes for cortisol and prolactin to leave the system, it

only takes 16 minutes before oxytocin is out of the system. What do you do? Be mindful not to trigger the bad ones and keep grooming to keep the oxytocin high. Try not to go more than an hour without a minimal amount of touching (grooming) when you are near each other.

We have our oxytocin systems 'initialized' during childbirth. The mother experiences an enormous rush of oxytocin that the baby also experiences. This not only helps with the stimulation of delivery but also makes the child and mother bond. Unfortunately, many childbirths are Caesarian or the mother is taking pain killers. This can block the oxytocin release. As a result, not only do the mother and child not have the kind of bonding they could have, the child's oxytocin system is never turned on.

Many of us through difficult births or trauma later in life (stored in the amygdala) have damaged oxytocin systems. If you suspect this is true, nasal oxytocin may be beneficial to re-initialize your oxytocin system. If you are interested, we offer this an oxytocin product called Satori at our sister site www.remedylink.com.

Gift four - Re-infatuation

In the beginning of this book we talked about how infatuation is caused by the neurochemical PEA. PEA works by triggering the release of the neurochemicals dopamine (novelty) and noradrenaline (excitement) and testosterone (sex drive), while at the same time it decreases serotonin (satisfaction). This cocktail is what we call infatuation. While low serotonin isn't much fun, novelty, excitement and sex drive are. So, let's see what we can do to raise these up.

Emotional Transference

Psychologists did a study where they asked strangers to rate their attraction to each other before and after they went on a roller coaster ride together. What they found was that after the roller coaster ride, each had more attraction for the other person than before. This is due to a phenomena known as emotional transference. It states that if you experience an emotion with someone, you subconsciously associate that person with that emotion. While PEA is the main infatuation neurochemical, there are others associated with the 'cocktail' of this experience. Two others are noradrenaline (excitement) and dopamine (novelty), and these can both be stimulated by your environment.

Since roller coasters aren't readily available, try this. The next time you and your partner are walking to a restaurant, take your partner's hand and have them close their eyes. They will have to trust you not to walk them into anything or anybody. This is a novel (dopamine) experience. Remember, the DNA is looking for genetic diversity (novelty) which is created by dopamine. If you do something novel which raises dopamine with your partner, you will seem 'novel' to each other well.

As for increasing sex drive in addition to lowering cortisol and prolactin, regardless of what is politically correct, men are genetically wired to be attracted to femininity and women to masculinity.

Men who follow, men who lead

In the same way that relationships are genetically programmed for diversity (as opposed to happy monogamy), most men are not programmed to be leaders. DNA only codes for about one out of every twenty men to be leaders. This 1:20 ratio optimizes a social hierarchy so that there is the right proportion of leaders to followers. We see this in wolf and ape packs and the same is true in humans.

Women on the other hand are programmed to be attracted to this one leader and since most men are not, most women are not being as completely satisfied with their men as they could be.

Understanding social dynamics, how to lead and how to push back against aggression is part of what it takes to be a healthy man. When a man is psychologically healthy, he will have the attraction of his partner and the respect of his peers. On the other hand, if a man who fails to act impeccably may end up activating his partners hypergamy program.

Conclusion

Bad psychological games, cheating, breaking up and lives of quiet desperation are the emergent phenomena of cortisol and prolactin in relationships. Happily ever after is the emergent phenomena oxytocin in relationships. Master your neurochemistry and life long love is yours.

In the next book, *An Invitation to Kingship*, we will discuss the emergent phenomena of a healthy masculine, the King. A note for our female audience, *An Invitation to Kingship* can help you cultivate your own 'masculine' energy as well as understand the men and boys in your life and the lessons they must learn.