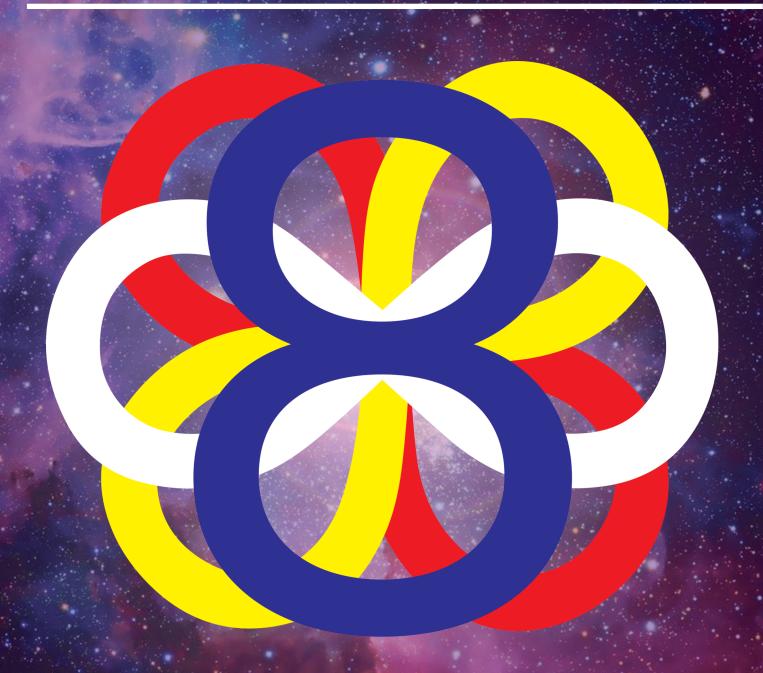
FREUD, JUNG, AND A PLATYPUS GET AN MRI



revisiting the Eight-Circuit Model of Consciousness quick hits from neuroscience and psychology by Mike Gathers, platypus emeritus

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Introduction

We live in destabilized times. As I write this, Black Lives Matter protests sparked by the murder of George Floyd continue to press for police reform and other solutions to systemic racism in America. The first wave of coronavirus pandemic has plateaued as the world tentatively reasserts itself. And after three years of the Trump presidency, nationalism and populism have become a new normal across the globe as US election season begins to ramp up again.

Zooming out, we can see that human society has evolved from hunter-gatherers to agrarians to industrialists, and that we have been on the cusp of a new sociological age that emerged with the invention of the computer and then internet. Simultaneous to this, human impact on the global environment goes beyond climate change as we head toward the 6th planetary mass extinction while some geologists suggest that we have entered a new geologic age. They write:

"the Anthropocene represents a new phase in the history of both humankind and of the Earth, when natural forces and human forces became intertwined, so that the fate of one determines the fate of the other. Geologically, this is a remarkable episode in the history of this planet."

The internet-based information age, with drastically reduced hierarchy and gatekeeping, offered a platform to anyone with access to share their perspective. Our man Robert Anton Wilson predicted that internet would expose the flaws of dogma and lead to more critical thinking. While that may one day be true, we currently see a preferential selection for deepening into one's own reality tunnel with a shared group of like-minded individuals, rather than an expansion of one's reality tunnel into global diversification and inclusion. The divide between perspectives comes across as more polarized than ever and neither side seems interested in truly understanding the other.

The world could use some maps and tools to make sense of all of this.

Meanwhile, psychedelic "journeys" and psychedelic assisted therapies inch their way into the mainstream thanks to the tireless efforts of folks like Rick Doblin and his MAPS organization while "normals" like author Michael Pollan investigate the hype by leaning into the experience and candidly sharing their findings. And still, a half decade after the psychedelic sixties, we seem to lack many elegant maps that make sense of these experiences. Setting psychedelic experiences aside, we find the field of psychology incohesive and highly divided on the nature of consciousness, human experience, and behavior.

Timothy Leary's Eight-Circuit Model of Consciousness, developed with Robert Anton Wilson and expanded upon by Antero Alli, has provided psychonauts with a tool for making sense of their inner explorations for over 40 years. As the exterior world around us continues to well up with chaos, it seems appropriate to examine this underground tool from the psychedelic era and see how it holds up to modern scrutiny, update it with our current scientific understanding, and see what it might have to say in the context of our present situation.

A little about me

I have been studying and working with the Eight Circuit Model for over twenty years now. As an engineer and psychonaut, *Cosmic Trigger* and *Prometheus Rising* blew my mind back in my late 20s. As I switched careers from engineering to psychotherapy and began studying developmental psychology during my training, I felt stunned by the close correspondence between the lower four circuits and the developmental psychology models we were learning and using in our work. I continued to use the Eight Circuit Brain model as a meta-framework for understanding personality and human experience. And the more I studied and gained clinical experience, the more support I found for the validity of the structure of this model. As I mastered my craft and moved into life coaching, the Eight Circuit Model continued to serve me as a skeleton on which to hang the many fragmented and diverse perspectives of psychology, wellness, and personal and professional development.

Objectives

Now that it's written, I can look back and see this as a bit of a brain dump that I've tried to organize as cohesively as possible with a little meta-narrative to weave it all together. I present a lot of different ideas here and I present them with very brief explanation. Where it seems relevant and worthwhile, I have included links to YouTube videos that seem as clear and concise a summary of the concept as I could dig up. My intentions with this micro-book are to:

- Explore correlations between the lower four circuits of the Eight Circuit Model and some
 psychological developmental stage theories. Given strong correlations, I believe we can
 then use these theories to inform our definitions of the lower four circuits. Strong
 correlations would also lend some validity to the framework of the model.
- Go a level deeper into psycho-neuro-biological development and the specifics of brain and nervous system growth, development and maturation and use that to inform our definition and understanding of the circuits.

- Discuss imprinting and conditioning from what we know today including development, trauma, and re-imprinting.
- Provide a brief overview of how it all fits together developmentally, at least in my mind.
- Discuss how we can apply this developmental knowledge to our adult lives with an expanded view on chapel perilous through the lens of the hero's journey.

Assumptions

Given the context of this presentation – Maybe Day – I assume my audience has some working familiarity with the Eight Circuit Model as put forth by Timothy Leary, Robert Anton Wilson, and Antero Alli in their books *Exo-/Info-Psychology*, *Prometheus Rising*, and *Angel Tech* among other publications and periodical essays. I see this micro-book as a starting point if one were to update *Prometheus Rising* after the accumulation of over thirty years of neuroscientific study of the brain and nervous system.

Multiculturalism, or the complete lack, thereof

Before going forward, I want to acknowledge that I am a white American male of western European descent writing about a model developed and expanded upon by white American men of western European descent. Psychological pioneer Carl Jung himself stated that he had studied myth and consciousness from a western European perspective and that he was content with that, but that there were other cultural perspectives, and that study would be a job for someone else. Likewise, some, if not many of the ideas, particularly when we deepen into the Jungian lens, are oriented, admittedly so, from the masculine perspective. The very phrase of "the hero's journey" conjures a masculine bias, and therein lies a valid objection that we should be cognizant of. It is beyond my scope (and ability) to present this material from any other perspective, but I must be clear that it's only my perspective. I let the invested reader decide how this model might translate and apply to other cultures and genders. Please take what works for you and discard the rest.

Developmental Stage Theory

In *Prometheus Rising (PR)*, Wilson thoroughly links Freuds Oral and Anal stages of development with the first and second circuit. After that things go fuzzy. I recall spots in *PR* where Wilson compared a spectrum of models and occasionally wrote "ignored" or "missing" in various spots with various models that he did not believe to show the complete picture (*PR* 2nd ed, p. 126, 137, for example). However, as I studied developmental psychology in grad school, I felt

astonished at how closely development stage theories map to the lower four circuits. The more I studied, the more connection I saw, and perhaps the Prover worked overtime for the Thinker, but now after over ten years of more rigorous study and practice, I'm more convinced than ever that the lower four circuits map directly to developmental stages which might be boiled down to birth and the infant, walking and the toddler, talking and the preschooler, and puberty and the adolescent. There are some catches, and we will get to that. But for now, witness:

ages	milestone/identity	Freud	Erikson	Jung	8CB Intelligence
pre-2	birth/infant	Oral	trust vs. mistrust anarch		C1 Physical-Survial
1-3	walking/toddler	Anal	autonomy vs. shame	monoarchic	C2 Emotional-Territorial
2-6	talking/preschooler	Phallic	initiative vs. guilt	dualistic	C3 Symbolic-Conceptual
6-13	[assimliation]/child	Latency	industry vs. inferiority	-	-
12-25	puberty/adolescent	Sexual	identity vs. role confusion	youth	C4 Social-Moral-Sexual

The age ranges presented show some overlap, in part to show that different folks hit different stages at different points of life, and also to indicate that the stages themselves are not discrete and concrete transitions. Now in the comparison above, it should be noted that Erikson studied under Freud's daughter, Anna, and that early in his career Jung collaborated with Freud, and thus, though I present three different developmental psychology frameworks here, Erikson's clearly derived from Freud, and one can speculate on the influence Freud had on Jung in this instance.

Starting off with Freud and his psycho-sexual model, we see our old friends the Oral and Anal stages in their traditional and familiar place, but what Wilson somehow missed (*PR*, 2nd ed, p 126) is that the Phallic stage maps right to the third circuit in terms of development and timing, but also in terms of the spirit of the stage. For under the Freudian psycho-sexual lens, one of the major symbolic themes was that of the Phallus, and so I think we are right on track by correlating the Phallic stage to our third circuit Symbolic-Conceptual intelligence.

The stage that wasn't

But wait, we have five stages here, not four. What to make of this Latency business? Well Freud himself worked as a neuroscientist prior to developing psychoanalysis and apparently he was hip to what was going on, because it turns out that not much is going on neuro-developmentally during this phase from roughly 6 or 7 years of age until puberty hits. I see this latency phase as a period of assimilation where the child strives for mastery of itself up to that phase before moving through adolescence into adulthood. After a huge explosion of growth and development, things settle down as the organism assimilates all that has happened up until

now. Think about middle school... not a lot happening developmentally – just little know-it-alls waiting for puberty to dump them on their asses \bigcirc .

And as we will see with Erikson, we can go on and define several stages after adolescence until death takes us, but for our purposes, we want to focus in on the stages that correspond on the physical growth, development, and maturation of the human brain and nervous system, and that goes from conception until roughly five to seven years of age, and then again from puberty until roughly twenty-five years of age.

Erikson's psychosocial lens

Erik Erikson viewed developmental stages from a psychosocial lens and focused on development of self over Freud's psychosexual lens emphasizing parent-child relationships. Erikson identified two conflicting forces at each stage as shown in the chart below. Here we can see similarities to what we know from the Eight Circuit Brain, but we see a deviation from the third circuit with a focus on "initiative vs. guilt."

A closer look at Erikson's intentions with this, under his psychosocial framework, reveals to me, an expression of what we might describe as second circuit dominance-submission interpersonal dynamics mixed with the newfound potentials that come with an expanded toolbox of symbolic conceptual intelligence and how we use language to interact with others and the world around us. And here might be a legitimate place to say (or at least question) that Erikson "ignored" symbolic-conceptual intelligence, but ignored seems rather harsh because I believe it was more of a matter of it showing up more subtly under Erikson's social lens, whereas if we back up to Freud and dig further into his Phallic stage, we find an emphasis on awareness of gender differences, which entails the development of conceptual thinking.

ages	milestone/identity	Freud	Erikson	8CB Intelligence
pre-2	birth/infant	Oral	trust vs. mistrust	C1 Physical-Survial
1-3	walking/toddler	Anal	autonomy vs. shame	C2 Emotional-Territorial
2-6	talking/preschooler	Phallic	initiative vs. guilt	C3 Symbolic-Conceptual
6-13	[assimliation]/child	Latency	industry vs. inferiority	-
12-25	puberty/adolescent	Sexual	identity vs. role confusion	C4 Social-Moral-Sexual

<u>Erikson also defined</u> three more stages after adolescence. While I believe these later stages to be noteworthy and show continuous life-long change and development, our main focus is on stages that correspond to growth, development, and maturation of the human brain and nervous system at a biological level (see Latency above). It's not that the latency and post-adolescent life stages don't have meaning and value in terms of framing human development

over time, but rather that in terms of defining different dimensions of "mind" or "psyche" of an adult consciousness, they simply don't carry the weight of the four stages that occur during the neuro-development.

Gestalt and the Freeman model

As I began my therapist training as a student of Transpersonal Counseling Psychology (TCP) at Naropa University, I found myself immersed in a program highly influenced by Gestalt therapy. The head of the Gestalt Institute of the Rockies, Duey Freeman, helped establish the TCP program at Naropa, and he had developed his own lens with which to view development. Gestalt Therapy focuses on here-and-now experience in relationship (vs "talking about"), and Duey witnessed his psychotherapy clients "deepening" into younger developmental versions of themselves within the therapeutic container. He learned to identify which development state his clients were in at any time by the questions they were asking (reading between the lines), and Duey defined developmental stages by these fundamental questions. I find these simple, yet profound questions extraordinarily helpful in defining these stages.

ages	milestone/identity	Freud	Erikson	Freeman	8CB Intelligence
pre-2	birth/infant	Oral	trust vs. mistrust	Is the world OK?	C1 Physical-Survial
1-3	walking/toddler	Anal	autonomy vs. shame	Am I OK?	C2 Emotional-Territorial
2-6	talking/preschooler	Phallic	initiative vs. guilt	How much can I do?	C3 Symbolic-Conceptual
6-13	[assimliation]/child	Latency	industry vs. inferiority	How well can I do it?	-
12-25	puberty/adolescent	Sexual	identity vs. role confusion	Who am I?	C4 Social-Moral-Sexual

As you can see, Freeman's questions map right on top of Erikson's model which is ultimately derivative of Freud's original framework. What's noteworthy to me, beyond the elegant simplicity of Duey's questions, is that he demonstrates how each of these aspects of mind can arise in the here-and-now of the therapeutic context and that there is a certain depth and layering to them, and that these developmental stages represent aspects of an adult mind that are all running under the hood, whether we are aware of them or not.

Forever Jung

As I studied the Erikson and Freeman models in grad school, there was little doubt in my mind of the correspondence between these developmental stages/phases and the lower circuits of the Eight Circuit Model. And as I moved into my career as a psychotherapist, I held the Eight Circuit Model framework in the back of my mind as a meta-framework of psychological dynamics and it sort of developed into a second nature that faded into the background. Then a couple years ago, in an effort to understand the hype around Jordan Peterson (let's not go

there), I came across a talk on Carl Jung where Peterson recommended the book *The Origins* and *History of Consciousness* by Erich Neumann as the go-to book if you wanted to understand Jung.

Jung himself writes the introduction to this book and states in essence that the pioneer cannot summarize his work because he's too busy exploring the edges, and does not have the proper perspective. As such, someone else must summarize the pioneers work, and that this book represents an excellent summary of his work. In the first half of the book, Neuman shows how, through the study of development and evolution of human mythology, we see the development and evolution of human consciousness, and that this development can be divided into *four* distinct phases through human history. In the second half of the book, we see where those four developmental stages of consciousness mirror four stages of human development. Those four stages... guess what... they map right onto our model, minus that pesky Latency phase, of course.

ages	milestone/identity	Freud	Erikson	Freeman	Jung		lower 4 circuits
pre-2	birth/infant	Oral	trust vs. mistrust	Is the world OK?	anarchic	C1	Physical-Somatic
1-3	walking/toddler	Anal	autonomy vs. shame	Am I OK?	monoarchic	C2	Emotional-Territorial
2-6	talking/preschooler	Phallic	initiative vs. guilt	How much can I do?	dualistic	С3	Symbolic-Conceptual
6-13	[assimliation]/child	Latency	industry vs. inferiority	How well can I do it?	-	-	-
12-25	puberty/adolescent	Sexual	identity vs. role confusion	Who am I?	youth	C4	Social-Moral-Sexual

Separation

Jung defines these stages through a journey of separation. In the anarchic stage, the infant has separated from the mother through the process of birth, but only has awareness of the other. The infant has no sense of self. Current neuroscience supports this.

Then the infant begins to separate further from mother/parents/caregiver by crawling and then walking and setting boundaries ("No"), and thus begins to develop a sense of self through the exploration of boundaries in the monarchic phase. Current neuroscience supports this.

Jung defines the dualistic phase as the "splitting of the world parents," and with this we see a different kind of separation. Where before the newborn-infant-toddler separated further and further from the mother-caregiver, the internal separating from the external, here we see the external splitting into two. As the symbolic begins with duality and complexifies further and further into the conceptual, we see this splitting of the world parents as the initiation of the external duality upon which symbolic-conceptual intelligence is based.

The child and the youth

In human development, Jung lumps the first three phases into an overall "child" phase which extends up until puberty, and then beginning with puberty he defines a "youth" phase extending through to mid-life. Note how our first three circuits all fall into the child phase and the fourth circuit has a phase all its own. This distinction will show up again as we lean into the neuroscience.

Back to the youth phase – here we see where things get more complicated. In Jungian vernacular, the youth phase consists of three major tasks - slaying the dragon, freeing the captive, and raising the treasure. Now of course we have some deep symbolic Jungian stuff going on there that I hope to cover later on, but more superficially we can say that this relates to separating from the dependence on parents, engaging in romantic relationships, and discovering one's role within society.

Summary of key points

Well, what to make of all that? When I started this project, I wanted, as one of my goals, to show the correlation between various developmental psych models and the lower four circuits of the Eight Circuit Model. And then from there use those developmental psych models to inform our definitions of the lower four circuits. And ultimately, would the strong correlation with dev psych give some support and credibility to the Eight Circuit Model framework?

And as I wrap up this project, I can't help but wonder how much of all this Leary derived from Freud, as did Erikson and presumably Jung. And are we dealing with, in essence, a Freudian model? And is that ok?

Freud took a hell of a beating in the second half of the 20th century for sure, but some of his original ideas, such as the unconscious, are making a comeback as we break free of the constraints of the cognitive-behavioral paradigm that came to dominate psychology in Freud's wake and learn to see through Freud's post-Victorian cultural kinks. So, although largely denounced as unscientific, we are starting to see the science support some of his original ideas. And Erikson's psychosocial model is still taught as a meta-framework for developmental psychology, but given the difficulty in objectively measuring these stages, we find little solid scientific support.

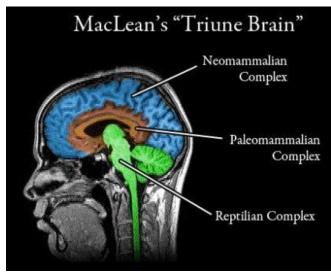
However, I believe most anyone who's raised children will agree that they go through phases and stages of development. And as we look into the neuroscience and see that development occurs in the early years and then again in puberty, it becomes logical, and dare I say intuitive,

to use some significant milestones such as birth, walking, talking, and puberty to help define where we draw the lines separating the stages of development which become categories in our metaphorical map of adult human consciousness.

Diving into Neuroscience

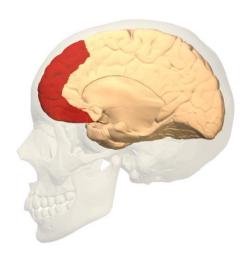
The Triune Brain

In *PR*, Wilson mentions the Sagan model referencing a reptile, mammalian, and human brain. Credit for this model belongs to Paul MacLean who referred to it as the Triune Brain. And as Wilson indicates, it elegantly represents the first three lower circuits with the reptile brain (brainstem and cerebellum) representing our first circuit physical-survival intelligence, the paleomammalian brain (the limbic system) as our second circuit emotional-territorial



intelligence, and the neo-mammalian brain (the cortex) representing our third circuit symbolic-conceptual intelligence. But then what to make of the fourth circuit? How does that come into play with this brain model?

Well, it turns out that the frontal lobes of the cortex, known as the prefrontal cortex (PFC), go through a massive growth spurt in adolescence, and as the most recently evolved part of the



brain, the prefrontal cortex actually represents our fourth circuit social-moral-sexual intelligence quite nicely when expanding on the Triune Brain model. So now we have a rather elegant evolutionary model of how the brain maps neatly to our lower four circuit model of consciousness. And for the most part it works, but when we look deeper into the details and individual structures and their development and functionality, we find that things aren't so simple.

Imprinting

Before we go a level deeper into the architecture of the brain, I want to touch on brain development. While *PR* left me with the impression that imprinting happened at very specific, very acute moments in time (birth and first orgasm, for example) based on the work of Konrad Lorenz, when we examine the current science we see that neurological imprinting, as a concept, holds water, but it's a lot more complex and varied than I wanted to believe after reading Leary and Wilson and learning about <u>Lorhenz and his geese</u>.

The developmental imprinting ideas promoted by Wilson and Leary does show up in what neuroscientists now refers to as "critical periods of activation" – the period of time, or window, when a given structure of the brain (the amygdala, for example) reaches a critical mass and takes on what we might call a core operating program through the environmental stimulus available at that time within given genetic predispositions. So first we have a growth phase where the structure develops until it's ready to "turn on" and take its imprint. Then it activates and we have a window of time where it "absorbs" its programming from its environment. This programming is limited by genetic predispositions, which we will address in more detail when we get to epigenetics, and then...

Then that structure, after some time, goes through another phase of development – apoptosis, pruning, and myelination. When the brain grows, it overproduces both cells and cellular connections. The newly developing brain is loaded with possibility. After some time, the patterns of neural networks establish themselves, and the brain "prunes" the branches of the neurons that aren't seeing much action and then insulates (myelinates) the remaining branches of each neuron leading to much more rapid transmission of signal. Likewise, unused, or lesser used cells in busy areas, die off. And, as you can imagine, all this *locks in* certain operating systems, patterns, and potentials, but of course as we already know, change is possible. In the meantime, the brain reaches 90 to 95% of its mature weight by the age of 6.

But what about puberty?

All this growth and activation and some pruning and myelination happens in the developing brain from shortly after conception (the first structure of the nervous system to form, the neural plate, emerges at 16 days) to roughly six years of age at which point the brain has grown to over 90% of its mature weight. Then during puberty, we find the brain goes through *remodeling* where a flood of sex hormones causes another round of growth and development. This second round of brain development during puberty starts with a second growth spurt of new neurons in the prefrontal cortex and corpus callosum, and a massive

increase in the number of neural connections (synapses) throughout the cortex. Then the brain slowly starts pruning and myelination of those connections beginning in the back of the brain and then working its way to the prefrontal cortex which finishes myelination around the age of 25. As the last structure of the human nervous system to develop and mature, the prefrontal cortex is the most *experience dependent* of those structures. To dip further into the meaning of "experience dependent", we must move into the subject of epigenetics, which might be the most fascinating and important psycho-biological discovery of recent times.

Epigenetics

It turns out the nature or nurture (genes or environment) argument is a non-argument that got obliterated with the discovery of epigenetics. From an evolutionary developmental psychology lens, we see that genetic expression is controlled by gene-environment interactions. The basic point here is that genes and environment are completely *interdependent* on each other – it's not either/or, it's both/and.

"It is no more appropriate to say things like characteristic A is more influenced by nature than nurture than . . . to say that the area of a rectangle is more influenced by its length than its width." - neurobiologist Donald Hebb

In the context of the prefrontal cortex, as the last region of the brain to mature, it's had the most experience - the most exposure to the environment - so regarding gene-environment interdependence, we can say that environment played a much larger role over time (experience dependence) in the later maturing prefrontal cortex, than it did in, say, the amygdala which began it's critical period of activation during the third trimester in the womb and completes myelination in the first few months of life. In Eight Circuit Model language, we might say that the imprint window of each circuit gets longer and longer with the fourth circuit stretching across more than a decade.

"Adolescence shows us that the most interesting part of the brain evolved to be shaped minimally by genes and maximally by experience; that's how we learn – context, context, context." - Robert Sapolsky, Behave

I should note that <u>epigenetics</u> is bleeding edge new in the scientific world and barely understood, and we have a much stricter definition of epigenetics that relates to specifically to heritability. We inherit not just genetics, but some of the epigenetic programming that controls which genes are expressed and which aren't. As we learn more and more about all this, I suspect that this too will play a role in our story, but for now we focus mainly on the gene-

environment interactions that determine gene expression, particularly during the times of brain and nervous system growth, development, and maturation.

So how does that all add up?

The human nervous system grows, develops, and matures from the third week after conception until roughly the age of six, and then again from the onset of puberty until the age of twenty-five. During this time, a complex array of structures takes on imprints or core programming based on environmental inputs, while under genetic constraints and predispositions. Given that what we would call a second circuit emotional-territorial process, emotional regulation, involves the cingulate, the insula, and the early maturing pre-frontal cortex, we see that we are faced not with one clean and tidy imprint window for the limbic system, but (at least) three structures each with both a development phase and a maturation phase. So we have multiple structures per circuit, and those structures often cross those neat and tidy reptile-limbic-cortical-prefrontal boundaries. And thus, we start to see that imprinting is far more complicated than Lorenz and his goslings taking that mamma imprint at birth. And if the McLean model is just a general metaphor for these complex developing structures, then what's the deeper story?

A for amygdala

Well, a good deal of the reptilian brain, as defined by the Triune brain, is involved with rather mundane autonomic (automatic) stuff – the body doing its thing on autopilot to keep the systems running. And while we will dig deeper into the nervous system itself in just a minute, we find that the amygdala, one of primary structures of the limbic system, goes through its critical period of activation before birth when we are still in mother's womb. The amygdala has been called the brain's smoke detector – it activates upon perception of threat and sounds the alarm– a clear first circuit survival function at the physical level, but it also responds to emotional, second circuit challenge. And so, we see that a structure that falls into the paleomammalian brain under the Triune Brain map, has "reptilian" physical survival functions as well as "mammalian" threat-to-status functions for our purposes.

The amygdala has a few known *triggers* when scanning for threat and challenge including threat detection, both physical and emotional, for one. The amygdala also keeps an eye out for the unknown when it exceeds our threshold for uncertainty. Thirdly, when we take on too many *shoulds* from our environment (You should do this, you should do that...), the amygdala perceives that as a significant challenge or threat. And fourthly, when the signals from our environment don't add up, when they aren't congruent, that can activate the amygdala. In

other words, if you and I were talking and I perceived that your words were saying one thing and your body language another, my amygdala could register that as a threat. The amygdala also has a role in aggression in the first circuit context of the availability/withdrawal of food and nurturance – think of a dog that growls when you approach it's food bowl while it's eating – that's amygdala aggression.

Polyvagal theory

Now one of the bigger discoveries in recent years, but not quite as big as epigenetics, is the development of the polyvagal theory by Stephen Porges. Most of us grew up learning about the binary pathways of sympathetic fight-or-flight and parasympathetic rest-and-digest nervous system responses. Well, as neuroscientists looked deeper into things, they found some conflicting response patterns in the parasympathetic systems, which are governed by the vagus cranial nerve. What they found were two distinctly different parasympathetic systems – two vagal nerve pathways – an older evolved, slower system that governs a physical shut down response when faced with life threat, and a faster, more recently evolved system that regulates bodily processes based on social connection and a sense of safety. Without going into a lot of detail about this, I will summarize with two major takeaways.

- The poly vagal theory strongly suggests that we focus more on creating a sense of safety and security, rather than the elimination of threat (or the perception of threat).
- To quote Gabor Mate': "Safety is not the absence of threat,... it is the presence of connection."

In other words, a) focus on creating safety rather than eliminating threat, and b) create safety by creating and maintaining connection with others. If I could impress one key point on anyone who's made it this far, it would be that we are relational creatures. Relationship is not a simply a consequence necessary for second circuit emotional intimacy and fourth circuit social connection. From top to bottom, from conception through adolescence, epigenetics shows that our development is experience dependent – our experience of our environment. And our environmental landscape is largely relational. In particular, we find that our imprints on the first and second circuit, of safety, emotional regulation, and sense of self, come through moments of deep, emotionally intense connection (and disruption of connection) with our primary caregivers.

We develop through our relationships with others. The infant derives its first circuit sense of safety from its connection to mother (and other primary caregivers). The mother signals to the infant that the world is OK, safe, and secure through her non-verbal interactions with her baby.

And it doesn't have to be perfect. Working with an infant is a non-stop dance of meeting needs, and the studies indicate that if we can be there for the baby just 30% of the time, that it will develop a secure connection – a secure attachment. In terms of gene-environment interactions during our developmental years, our close relationships are the environment.

There's a popular saying I hear a lot, "You've got to learn to love yourself before you can love someone else." That's never sat right with me. It seems like a recipe for "Forever Alone." What the emerging interpersonal neurobiology suggests to me is that the best way to learn how to love yourself is to allow yourself to receive love from someone else. Please read that again before moving on. When you allow someone to love you, or a part of you that you do not love yourself... if you can take that love in... really, truly allow it in... then you will internalize that energy and be able to love yourself that much more.

Back to the <u>polyvagal theory</u>, which I've largely skipped over, jumping from intro to conclusion, I would simply say that when you feel safety in the presence of another, really truly safe, loved, and accepted, often through a mutually earned process, you can internalize that sense of safety as your own. In similar ways, we learn second circuit emotional self-regulation through an emotionally connected co-regulation with another.

What the science shows without a doubt for the first, second, and fourth, and I'm sure it's coming for the third, is that our imprints and conditioning are all largely based on our relational interactions with others. There's a saying in certain circles of psychotherapy that if you are hurt in relationship, you can heal through relationship. It's been my experience that deep, intimate, emotionally connected relationships can be transformative... psychedelic... alchemical... and challenging as hell.

And in terms of psychedelic journeys, this really brings home the point about having a sitter that you trust – a sitter skilled in holding space with presence and compassion, and being in relationship with health boundaries. And, first and foremost as we seeing here in the first circuit – skilled in creating a sense of safety.

Attachment styles and relationships.

The type of imprint we take on for first circuit survival can be defined through attachment theory. This video gives a brief rundown on attachment theory and the four different styles of attachment – secure, ambivalent, avoidant, and disorganized – which, just to confuse people, carry different names when applied to adult behavior vs. children. Without going too far into it,

I bring it up because a lot of us, men in particular, seem to develop avoidant attachment styles where we withdraw and turn inside to self soothe, rather than to seek comfort through connection with another. The research indicates that these folks often describe themselves happy, despite what might be characterized as an "unhealthy" style of coping. So, my point is that a lot of us, myself included for a long, long time, may not see the benefit of engaging in deeply connected relationships, and to be frank, those relationships may actually scare the shit of out of us at that core, first-circuit place of threat, if we could only come to admit that to ourselves (Thinker/Prover and all that). But at the end of the day, leaning into that fear, discomfort, and uncertainty, and engaging more authentically in meaningful relationships might reveal a source of security, safety, and ultimately peace-of-mind not thought possible, or not known possible... When you lived your whole life from a place of threat and hypervigilance, hypervigilance seems like the norm, so much so that you don't recognize it as an issue until you escape it.

Emotional regulation

Moving on to second circuit, emotional-territorial intelligence, we find that the developing toddler separating from its caregivers begins to develop a sense of self through an exploration of interpersonal interactions. Emotions emerge out of our needs and our interaction with others, and emotional regulation emerges as a vital function during this period – and we learn emotional regulation through interaction with our caregivers.

When emotions exceed the capacity for us as infants to regulate, we become overwhelmed, cry out, and hope for the comfort of our caregivers. Reconnection with our caregiver creates a pathway of emotional regulation — when we are emotionally activated and in connection with someone emotionally regulated, their presence and grounding can calm and soothe us through the connection in a process of co-regulation. And we internalize this emotional regulation, thus learning and developing our own sense of self-regulation. By allowing ourselves to be comforted emotionally through meaningful connection (co-regulated), we further develop the ability to regulate ourselves. Read that last sentence again.

Brain lateralization

As we dig deeper into these brain structures and the emerging neuroscience around what we might distinguish as second vs. third circuit processes, we find the division isn't so much between more primitive limbic system and the more sophisticated cortex, but rather between the left and right hemispheres of the brain with both cortical and sub-cortical structures playing

a role on both circuits. This re-emerging area of <u>brain lateralization</u> will, I suspect, have a huge impact on our understanding of the brain as we move forward. Even our first circuit friend the amygdala has two separate left and right structures and as research progresses, I suspect we will be able to further distinguish the differences between the functions of each side.

Shadow of the third

Our third circuit, rather than being the sophisticated cortex in its entirety as we might assume applying the Triune Brain model to our endeavors, seems to be more directly tied to the left hemisphere of the brain. As the body of research on the hemispherical differences develops, we may find subcortical (limbic) regions of the left hemisphere that tie to third circuit symbolic-conceptual-semantic intelligence, but for now, let's just say that things are complicated. Most of my study of neuroscience has been directed towards research on first and second circuit processes with Stephen Porges' poly vagal theory and Allan Schore's affect (emotional) regulation which concludes that affect regulation processes through the right hemisphere. Schore also explains that the right hemisphere matures before the left (as the second circuit imprints before the third).

When we view second/third circuit dynamics through the right/left brain lateralization we see a curious Thinker/Prover dynamic take place. In essence, we find that the third circuit left hemisphere likes to think it's in charge and often takes the lead, but without the context and grounding of right, the incoming environmental data is fitted to a left hemisphere third circuit map which may not fit the territory being perceived by the right hemisphere. We might say the left often operates as Thinker and Prover, while behind the scenes, the right maintains a more direct experience.

Prefrontal cortex connectivity

Neurodevelopmentally, we find that the brain does not grow new neurons during adolescence, but there is a massive explosion in connectivity early in puberty followed by a long slow process of pruning and myelination that does not wrap up until one reaches their mid 20's. The last part of the brain to mature, the prefrontal cortex constitutes the most experience dependent part of the brain in our nature-nurture, gene-environment inter-dependence. The prefrontal cortex takes on the most environmental input during its developmental trajectory. And here again, we find the prefrontal cortex is lateralized with both a right side more attuned to empathy and compassion and a left side more attuned to morals and decision making. Both of these come into play during fourth circuit adolescent development.

Neuroscience wrap up

In concluding our neuroscientific discussion, I would emphasis that the brain is a wonderfully complex organ and does not fall neatly into a four domain model of consciousness, which should serve as a constant gentle reminder that we are talking about a map of the mind, an elegant metaphor, that provides a meta-structure for studying one's personality or psyche, and that when it works, it works, and when the map isn't useful or doesn't fit the situation, then that's ok, too.

More importantly, our tour of the specific structures of the nervous system leaves me in awe of the biological fact that we develop through relationships, and based on this and my own experience in transformation, I'm left in awe and wonder at the power of relationship to transform. If I could leave one takeaway, this is it. Explore the power of relationship.

Further, I think we will see, as the science continues to evolve, a distinct second/third circuit dynamic that maps far more closely to left/right hemispherical differences than it does to limbic-cortical primitive-complex differences. The second circuit involves more than territorial grunting. Far more.

Furthermore, we again see a pattern where fourth circuit development has a different feel than the first three circuits. Neurodevelopmentally, it's not a growth of neurons, but a change in connectivity, hugely influenced by the flood of sex hormones unleased in puberty. The first three circuits can be represented as developmental stages leading to a maturing child. During the development of the fourth circuit, the matured child transitions to an adult.

And while I appreciate some folks desire to create non-linear, non-hierarchal views of the circuits, when we look through a neurodevelopmental lens to inform our model, we see increasing complex, sometimes hierarchal, but at times non-linear, relationships with multidirectional feedback. Going back to a Triune Brain perspective, we find that subcortical (limbic) regions can and often do override cortical functions when faced with danger and more extreme life threating situations, and at other times, the prefrontal cortex inhibits other regions of the brain. We also find that a structure, the corpus collosum, that sits between the right and left cortex and spends a great deal of its energy inhibiting one side or the other.

And in his book on brain laterization, *The Master and His Emissary*, Iain McGilchrist shows how the more conscious left hemisphere thinks that it's in charge of the show, but it's really fooling itself and largely under the unconscious influence of the right hemisphere. I think this is a really important point to explore. The third circuit ego likes to think it's in charge, but it's really just following orders based on fears and a need for security and the complex emotional landscape

operating underneath the surface, and then convincing itself that it's operating under its own free will.

Additionally, we see that fourth circuit development encompasses a complex array of themes as we move from childhood to adulthood, but at a neurobiological level we see growth in terms of an increase of neural connections rather than an increase of neurons.

Synthesizing Science and Circuits

So, running through each stage with a view synthesized from developmental psychology, neuroscience, and a bit of Carl Gustav Jung, the lower four might look something like this:

Physical-security intelligence

Prenatal and infancy stages of development. The infant is concerned with feelings of safety, security, and nourishment. The negative state is that of FEAR or TERROR — "The world is not ok." In addition to basic physical survival needs of food, clothing, and shelter, we include the perceptions of safety and threat and the need for connection. We take note that the amygdala takes it's imprint during the third trimester of prenatal development, and that as the infant continues to develop, it's attention shifts/expands from physical nourishment (the boob) to relational nourishment (eye gazing at caregivers). Perhaps most importantly, we note that rather than eliminating threat or the perception of threat, we focus instead on cues of safety, particularly through *connection* with others. We see that our attachment style describes how we respond and cope in the face of uncertainty and threat. A secure connection with another seems to lie at the core of a well-developed first circuit sense of safety.

Emotional-territorial intelligence

The toddler. The toddler begins separating from his/her caregivers through crawling and then walking. The toddler develops a sense of boundaries between self and other, status in relation to others, and what is "mine" and "not-mine." A sense of self emerges as it separates from its caregiver and explores the boundaries and dynamics of relationships. Games of dominance and submission come into play as one discovers a need for status and selfhood. Emotional intelligence and regulation develop in relational interactions and connections made at the self/other boundary. As opposed to the first circuit negative state of FEAR/TERROR, here we find underinflated self-worth of SHAME and overinflated EGO. "Am I OK?" Emotional regulation and mutual, reciprocal relationships seem to lie at the core of a well-developed second circuit sense of self.

Symbolic-conceptual-semantic intelligence

The preschooler learns to manipulate inner and outer worlds through the early development of language and fine motor skills. In the first and second circuit, the child separates from the parents. In the third circuit, the parents separate from each other (in a Jungian metaphorical way). In other words, we have our first external separation as the world splits, and splits and splits and splits, as duality gives birth to symbolism and complexifies into concepts and belief systems.

Bringing things back down to earth, we find that the left hemisphere uses models to make predictions. The left hemisphere appreciates structure and predictability. Uncertainty is ok within predictable tolerances. We predict what others will do and even what they are thinking. During the time of third circuit, left hemisphere development, Theory of Mind emerges as we discover that others have mental states that differ from ours. As we predict how others will behave, we mix our own self concepts with our predictive models.

Psychologically speaking, we begin to *project* our own mental states and shadows onto others. We often project with the most vigor, the things about ourselves that we deny – things that lie in our shadow. These projections show up most often in the form of judgments and emotional charges with others. Notice the New Age children of light who think Bill Gates is operating under the influence of pure evil. They have no awareness and acceptance of the evil within themselves and thus project it on the boogieman who they judge as evil and fear the consequences of his actions. Or the anti-masker who claims masks are for cowards. "I'm not afraid of anything." Ok, chief...

A modern psych discussion of third circuit programming can easily turn to cognitive and logical fallacies, frames and schema, and cognitive behavioral therapy. And as fans of Robert Anton Wilson, we could get into belief systems, reality tunnels, general semantics and Maybe Logic. But I submit that one of the most powerful psychological aspects of the third circuit is the idea of psychologically projecting unconsciously disowned self-concepts onto others. This third circuit psychological projection also contains a fourth circuit judgement and a second circuit emotional charge. It's complicated. I'll leave it at that for now. Mental flexibility and a holistically grounded self-concept seem to be key components of a mature third circuit.

Social-moral-sexual intelligence

Neuroscientist Robert Sapolsky has elegantly described the function of the prefrontal cortex as "doing the hard thing when it's the right thing to do" and while I think a more detailed investigation with brain lateralization may find that Sapolsky's comment applies more so to the

left prefrontal cortex morals than the right's empathy, this is a huge part of this fourth circuit equation. Morals. What's the right thing to do, particularly when our first and second circuit programming says to act otherwise due to fear, shame, or insecurity?

Furthermore, from a intersubjective neurobiology perspective, we see that our attachment relationships move from a parent-child dependent relationship to romantic partner-partner *interdependent* relationships. We separate from our parents, and shift into "romantic" relationships as our sexuality kicks into overdrive.

Looking at it from another angle, we find in multi-species studies that the size of the prefrontal cortex in a given species is highly correlated the size of the social circle that species tends to maintain. Thus, when <u>Antero Alli recommends</u> expanding your social circle in order to increase fourth circuit intelligence, his recommendation aligns spot on the science in this area.

In a broader social context, we begin to form an identity in relation to peers and to the "tribe" at large. Social identity. What is your role in the village? As we move from childhood to adulthood through the process of puberty, questions of passion, mission, and purpose begin to arise.

Science of Change

De-programming and re-programming?

Can we undo these imprints? Is change really possible? I believe that for this audience, those are rhetorical question, but what does the science of 2020 have to say about it? Looking there, we do see some mechanisms for change. There is a growing body of scientific evidence for the ideas around healing through relationship that I previously mentioned – the ideas that we can develop and internalize a sense of safety, a sense of self, and a deeper capacity for emotional regulation through navigating the ins and outs of authentic interpersonal connections with others. There are a few other major areas of interest around all this worth noting.

Neuroplasticity

The last thirty years have seen an explosion of research in neuroscience, but we are still rather early in this journey of understanding. With that in mind, we now understand that the imprints and operating programs, the habits and patterns we are talking about that affect human consciousness are based on *neural networks* – not just individual neurons firing, but vast, complex networks of neurons firing together. And while for a long while now we had a

scientific dogma that brains don't change after development completes, we now know about, and have scientific evidence of, *neurogenesis*, the growth of new neurons after our developmental years, and more importantly, *neuroplasticity*, the ability to change our neural connections and thus our neural networks. Learning, and brain change, has a lot to do with reshaping our neural networks through the processes of <u>neuroplasticity</u>.

"Neurons that fire together, wire together." – Donald Hebb

And research on psychedelic experience shows that psychedelics temporarily suspend our *default mode network*, which might be best understood as the primary network online during resting wakefulness. This allows for the brain to temporarily rewire, which can lead to lasting effects.

On trauma

Neuroscientific studies of emotional regulation and trauma reveal that we *disassociate* from our present experience when the emotional charge is greater than our ability to regulate those emotions. This applies to both "Big-T" Traumatic events such as rape or experiencing the horrors of war, but also in what are sometimes referred to as "little t" developmental traumas of abuse and neglect that don't necessarily happen once or twice on a grand scale, but repeatedly over time, particularly during those crucial developmental periods. And the science indicates that we store that disassociated, unexperienced, unexpressed emotional energy within our body. Thus, during psychedelic, psychotherapeutic, and other deeply moving experiences, we sometimes feel old emotions, memories, and experiences as they well up from within our bodies. The trick is to stay present and allow for the bodily-based experience — to keep your adult prefrontal cortex online, aware, and self-compassionate as our body experiences old, tender, previously frightening, shameful, and overwhelming feelings that were locked up deep inside the psyche. Feelings want to be felt.

Brainwaves

Another more esoteric take on brain change comes from biologist turned mystic Bruce Lipton who is fond of quoting the Jesuit phrase, "Give me the child for the first seven years and I will give you the man," meaning, of course, that the first seven years (circuits 1-3 imprinting periods) are hugely influential on overall development. Bruce attributes this developmental period during the first seven years to the overall state of the brain as measured by electrical activity emanating in the form of brainwaves.

Scientists divided these electrical states into four categories – Beta (engaged), Alpha (relaxed, dis-engaged), Theta (daydreamy), and Delta (dreaming). Lipton points out that Delta dominates during infancy and toddlerhood – and anyone who has been around very young children knows they absorb *everything* in their environment – they are soaking up all the information coming at them in a dreamlike way. Then as they develop, Theta begins to emerge and dominate around the timing of the third circuit imprint window, leading to Alpha emerging during the latency period and Beta coming into play as the dominate brainwave state during adolescence and beyond.

ages	milestone/identity	Freeman	brainwave		lower 4 circuits
pre-2	birth/infant	Is the world OK?	delta	C1	Physical-Survial
1-3	walking/toddler	Am I OK?	delta	C2	Emotional-Territorial
2-6	talking/preschooler	How much can I do?	theta	С3	Symbolic-Conceptual
6-13	[assimliation]/child	How well can I do it?	alpha	-	-
12-25	puberty/adolescent	Who am I?	beta	C4	Social-Moral-Sexual

Bruce believes that you can create change around those early experiences by deepening into that level of brain activity most prevalent at those times — theta and delta. In certain circles, I see this referred to as *deep work* and when the Gestalt therapist sees their client present more childlike energetically, asking questions with a nature of "Am I ok?" and "Is the world ok?", when a somatically trained trauma therapist guides their client into a deeply moving emotional-somatic experience that evokes old, powerful memories, or when a psychonaut moves into non-ordinary states of consciousness and stays present with the somatic experience, I think we can say they are moving into deep work on self. (and yes, there is so much more to psychonautics, but for now....)

A Jungian Meta-Perspective

Waking up

Going back to Erich Neumann and Carl Jung: the way I interpret Jung, or Neumann's interpretation of Jung – my interpretation of Neuman's interpretation of Jung – is that each one of these developmental stages represents a hero's journey – a journey that lies unconscious and incomplete, waiting to be brought into awareness and integrated into our psyche as a whole.

And we see a bigger overall journey, the Hero's Journey of the Great Individual who undergoes a shift, where s/he collides with a call from the universe to wake up. And not just to wake up,

but to take full and total no-excuses responsibility for one's self and one's situation, and integrate the four hero's journeys of development.

Awareness is not enough

In "The Psychology of Man's Possible Evolution," Peter Ouspensky discusses *awareness and being* and that recently struck me. For a long while, I felt I was on the path to waking up, but for me that was mostly for me a path of awareness. And I was on the path to awareness for many years, perhaps decades. Then at my time at Naropa University and the Gestalt Institute of the Rockies, I discovered and deepened into embodiment and relationships. And still something was missing — a bigger calling that I was denying and avoiding. Eventually I discovered men's circles and "men's work" focusing on integrity, commitment, responsibility, and mission and purpose.

We can integrate our four developmental heroes' journeys, but it takes more than awareness. We have to step into something. I believe that starts by adopting an attitude of taking 100% responsibility for our lives in order to create the life we want as in the process of "Turning Pro" discussed by War of Art author Stephen Pressfield. I find this path full of shadow like all the others – full of third circuit, you got that taken care of trickery. So, I'm learning to always look out of for that self-deceptive part of me that thinks you got this taken care of and keep an eye out for where I'm still playing victim of the fates.

To me this is the bigger calling of the hero's journey. I see this as a call to step into my fullness as a human being. Taking responsibility for my situation and making the changes necessary to produce some different results. Leaning into some areas of discomfort that I had been avoiding. A great part of that is sharing my wisdom and my heart rather than keeping it to myself. A great part of that is what you see taking place right here. Right now.

Which is more of a journey than a destination, so a call to set out on that journey – the Journey of the Great Individual, who sheds the norms, shoulds, and cultural conditioning of family and society and creatively blazes their own path. And yet, The Journey of the Great Individual does not take place without the context of the community within which s/he lives.

Integrating the next polarity

Jung also sees a shift in perspective around mid-life, often a result of what we might call a mid-life crisis, where we move from a largely unconscious development of the individual *ego* to a more wholistic development of the *self*. To me this shift represents the primary struggle, the primary polarity in our global consciousness, that needs to be integrated as part of our next

step in evolution as a species, and possibly as an interdependent planetary ecosystem. In Jungian terms we see that the *individual* consciousness has emerged and separated from the *collective* unconscious in the four stages discussed so far. And now our global consciousness seems profoundly divided between the concerns of the individual and the concerns of the collective.

We stand on a major cusp, or maybe a couple. Sociologically, we stand on the cusp of transition from industrialists to technologists. And our impact on the planet has reached a point of interdependence between humankind and the rest of the natural world. Transformation is happening on multiple levels and the current situation can feel rather disorienting.

And in the sense that Jung studied the evolution of myth in order to understand the evolution of consciousness, we seem to be lacking the myth for our times, or it simply hasn't been written yet as we are in the thick of it. But somehow, he intuited a shift in consciousness from individually focused to holistically focused and I believe this to be the myth that needs to be written.

The journey of separation has run its course and it's time for our hero to wake up and understand his role within the collective. The hero claims his individual sovereignty and lives beyond the moral codes and constrictions of society through developing his own code of ethics. And the hero understands that he is but a part of a greater whole. Both/and. Individual sovereignty and a small part of an interconnected system, but a part with something to contribute to the greater benefit of the whole.

If we trace out the origins and history of consciousness through the development of myth, and through that study we see four stages of development play out in the evolution of consciousness to get to where we are today, then for me, the story that's currently being written... As we move from industrialism to technologism, as we move from one sociologic era to the next, as we move from one geologic age to the next, as all the old structures that no longer serve out time and place in history break down and disintegrate... As all of this is happening before our eyes, I believe the story that's being written... the next phase in our development of consciousness, is the integration of the polarity between the individual and the collective.

And this individual/collective polarity that we see playing out today isn't about one winning over the other. We'll never get through that way. As we sit on the dawn of a new sociologic era, a new geologic age, we must integrate this polarity into a greater whole. Thesis. Antithesis.

Synthesis. This happens by learning and understanding the underlying needs and wants on both sides of the divide.

And so, we wake up to the calling of the Great Individual, who shed the shoulds and norms of cultural, societal, and family conditioning and takes 100% responsibility in search of their own essence, and acts with the greater good in mind as well as one's own individual needs. They explore and discover their sense of:

- safety through connection
- self through relationship and emotional regulation
- sanity through critical thinking, mental flexibility, and shadow integration
- identity through interdependence, social connection, and purpose
- self-ownership through personal responsibility
- individuality sovereignty and their role of greater good within the community

It starts with you. Find you sense of safety. Find your sense of emotional and mental and social self. Commit to engaging in relationship, if you dare [wink, wink]. Commit to learning about and understanding the other side. Commit to stepping into your power – into all that you are – commit to stepping into being. Being in body and self. Being in relationship. Being in community.

You are safe. You are loved. You are powerful.

Epilogue

The Eight Circuit Model, to me, stands at the intersection of developmental and transpersonal psychology, and elegantly represents various dimensions of our human mind or psyche however we may come to define those terms. Looking back on this project, I've noticed my own resistance and then an acceptance of the notion that the model appears to have Freudian roots. And that's ok, if not appropriate given the beatings both have taken by mainstream orthodox. And even if Freud influenced Jung, Jung's work on mythology and consciousness demonstrates a strong link between the evolutionary and the developmental origins of consciousness. Freud, Jung, and Erikson show the usefulness of dividing development up along these stages and in Gestalt therapy we see how the developmental stages of consciousness operate underneath the surface of a full grown adult and can be brought to the forefront and worked with through relationship.

In coming at this from my own work the last dozen years working with folks looking to change their lives, my bias seems obvious. My main message would be to explore the power of relationships. I'm not saying it's "The Only Way, the one true, true path," but I am saying that it can be an incredibly powerful path. And I will say that our society has an independence bias, and that men, in general, are more biased towards independence (over interdependence, often misunderstood as, but quite different from, codependence), and that zooming out with a larger Jungian lens, we might say that consciousness itself has been on a journey of separation and independence, and so my bias towards relationships may run against the grain, but that's okay. I propose that developing relational interdependence (not codependence) is the next step in our evolutionary journey that will lead us through the integration of individual-collective polarity. And relational interdependence is a potent path toward first circuit security, second circuit emotional regulation, third circuit self-concept, and fourth circuit identity.

Meanwhile, I think we will see concepts like epigenetics, brain lateralization, and the polyvagal theory begin to reshape how we think about development and behavior as the body of research expands and gains further acceptance and integration into mainstream psychological thinking.

As I look back on this project and zoom out and try to put it all into perspective, one thing that stands out is how sombunall of the folks in this community come to develop their own unique take on the model and how it serves them. With that in mind, I hope this microbook has refreshed and even inspired your view of the model. Neuroscience has exploded over the last 30 years, but as the most complex structure on the planet, we are only beginning to unravel the mysteries of the brain. I have provided several quick hits on topics of interest in an emerging science, but I am not presenting this as rigorous scientific research so much as my perspective on these scientific concepts and how I see them fitting into my bias toward relationship and my passion for the Eight Circuit Brain.

And as important as it may be to understand the known, it's also important to appreciate the mystery of the unknown. While I have not spent any time on the upper circuits and their relationship to the model, that in no way diminishes their importance. I discuss the upper/lower circuit relationships briefly in the appendix, and while I see it reasonable for science to more fully develop our understanding of the lower circuits and maybe even tap into what's happening in the flow states of the upper circuit experiences, there's also something magical about surrendering to the mystery of it all. "The more we learn, the more we realize how little we know," wrote Aristotle, Socrates, Bucky Fuller, and/or Einstein, depending on your Google search.

Appendices

Upper/lower connections

As the astute reader has surely noticed, I did not spend any time at all on the upper four circuits. And in most regards, I simply consider it out of the scope of this work. Furthermore, I don't have a lot to say about the upper four that has not already been said.

I do however feel rather strongly about the upper/lower circuit shock-anchor correspondences (1/5, 2/6...) proposed by Antero Alli. In fact, I don't really see it as a relationship, but rather I see upper circuit "spiritual," transpersonal states as emergent processes of the lower circuit "soulful," developmental stages. To me, somatic intelligence arises out of physical-survival intelligence in a way that goes beyond a simple correspondence or relationship.

Either way, this shock/anchor theory of Alli's opens the door to a whole world of practicality in my mind when it comes to taking the model from theory into practice. Under this framework, we can see how upper circuit shocks expose lower circuit limitations, thus showing us where our work lies in order to grow and develop as spiritual beings having human experiences. Likewise, we can use this map to see what lower circuit developmental work would open one up to deeper upper circuit experiences.

In his books, Alli draws clear and functional connection between corresponding upper and lower circuits in 1/5, 2/6... fashion. I don't have a good take on the acceptance of this paradigm, but many of my "old school" Leary-Wilson peers do not seem as intrigued by this as I am, while many other folks I've encountered online seem to readily accept the concept. I note that in *Neuropolitique*, (p. 94), Leary himself seems in agreement with Alli when he states:

Think of it like this: The higher right-lobe circuits (V-VIII) raise to higher consciousness and other time dimensions on the corresponding, more primitive left-lobe circuits (I-IV). Thus, Circuit V centers on the same body centered sensory-somatic loops as Circuit I...

In a sense, I see the lower four as part of our birthright and early development in this world – our soul that anchors to existence, and the upper four as more fleeting experiences, processes, and potentialities in the flight of the spirit, reminding us of the mystery beyond the known. And thus, I see the somatic bliss of the fifth circuit as an emergent process of a safe and secure first circuit. I see the brain bliss, intuition and deeper sensing and feeling of the sixth circuit as an emergent process of the second, that has well developed, supple boundaries and sense of self with well-regulated emotions. Likewise, the feeling of connection and *unity* of the seventh contrasts with the complexity of symbols and concepts born out of *duality*, as a well-developed

self-concept allows for one to let go of self-concept and feel one-with-all. Likewise, a fourth circuit socially connected interdependent individual can more thoroughly lose oneself to the void of the eighth circuit. And there's something to be said about flow states, but that's a job for another day.

Books of influence

The Origins and History of Consciousness by Erich Neumann

The Development of the Unconscious Mind by Allan Schore

The Divided Brain and the Search for Meaning by Iain McGilchrist

The Master and His Emissary by Iain McGilchrist

The Body Keeps the Score by Bessel van der Kolk

Behave by Robert Sapolsky

The Polyvagal Theory by Stephen Porges

The Developing Mind and Brainstorm by Daniel Siegel

Feedback wanted

It's been over a decade since I've written anything substantial on the Eight Circuit Model and the last two months putting this together have been quite the experience of taking something out of my head that seemed so well formed, and finding out how difficult putting it to paper can be. Moving forward I intend to develop a more accessible description of the entire model that includes a great deal on putting the theory into practice. In the meantime, I would appreciate any and all feedback on this project while I continue to write and revive my online presence.

Warmly,

Mike Gathers aka QuackenBush

email1 for direct feedback and commination

email2 include "subscribe" in the subject for updates

Social: Facebook

RAWilsonFans.org my fan project from the late 90s and 00s.

<u>mikegathers.com</u> my general coaching site (in progress)

engineerjourney.com and LinkedIn - coaching for STEM professionals and entrepreneurs