

Embryogenesis and Transformational Healing

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Embryology
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Humans then are the seeds of “spirit” which when acted upon by the soul will take up messages that dynamically create the form in which their potential and retardation of potential is expressed. A feedback loop of sorts, perhaps not completely open but open enough to generate multiple expressions from the same potential with just a nudge here and there. (Grossinger, 2000).

I am struck by the truth of these words. They resonate deep within me and I understand exactly what he means.

We humans live life on a trajectory of development, de-velopment, really. We construct ourselves as a vehicle for our own evolvment creating a most suitable self from which we can learn who we really are: from which we can disclose, unfold and set free our most perfect selves. We arrive here out of relative formlessness into a body, subtle form cascading into denser form mediated by the notochord. We have no choice.

From the Big Bang forward, Life is generated. Whether you believe it is the hand of God who began on a Monday and rested on Sunday after six days of hard work, creating a universe within a ground of many universes, or you prefer the story of natural selection where ontogeny repeats some ontogeny and discards the rest in order to thrive, Life is generated. The evidence is everywhere around us. You and I exist. We start as microscopic cells that court, merge, divide and divide and divide, eventually forming field upon field of cells that become tissues, organs and entire organisms.

Molecular biology has it that the organism, a human, is derived from a program of well coordinated messages sent out by DNA and acted upon by little RNA strands: the fleet-footed Mercurys for the complex biological dance of selfish genes. This very physical translation of life in motion is a part of the story. But what is at the basis of this dance? What is it that rents out the dancehall and hires the band?

Science looks at DNA as the mastermind behind life and of the dynamic forces that bring life into form as an embryo and subsequently as the mature human. But DNA in and of itself is incapable of evolution. (Wolpert, 1991, Grossinger, 2000). As Grossinger puts it:

To study embryology is to meditate on the objectified language and microphotographic evidence for our formation in three dimensions. It is a factual commitment, though its facts teeter in absence of a context. From within “being”, we presume to chart the tangibilities and material vectors of our becoming....However, “being” also stands in antithesis to “being something else.” If life forms have a primal essentiality, if consciousness precedes chemistry, then embryogenesis is not the inventor of existence, only the loom for one version of it. ...an embryo must weave a fabric rich enough and sympathetic enough to lure plumb existence into a molecular habitat.

There must be an ordering principle that tells DNA what to do, how to be, what to make happen, what to make happen differently. And so the mystery remains.

Or does it?



I sit in front of the open Moore and Persaud embryology text for the 20th time this week, ruffling its pages, trying to tackle the cardiovascular chapter. Desperate to finish the 50 pages of content so I can complete the assignment and get to writing my embryology paper, I look at the drawings of the growing heart, the veins, the arteries, and I have a vague notion that something is wrong—very wrong—with me. I read the text; it makes no sense. I cannot follow the words as they describe what happens day 28, week five, week six. My upper back tightens; my heart beats wildly in my chest. My sense vision fogs as my internal vision clears and I remember.

I remember a self creating itself from formlessness, a microscopic being struggling toward consciousness, gesturing forward into life. But the forming is held back. This self is not going to get past week five. It has no plan to develop into a fetus; a fully formed adult human. It has no plan to live life past this point; it has chosen death. I make myself focus and look at the pictures in the embryology text: the heart tube, the pericardial cavity, the developing forebrain and I am overcome with an unexplainable sadness.



The Spring of 1955 blooms boldly but innocently, unaware of the raging war. The rice seedlings reach skyward, nearly half grown. They rise with determination out of the water-filled paddies as the sun lifts the misty shroud off their seeded heads. I feel cold even though I am running. Am I running away or to? I am not sure, but I know I am running for my life.

The soldiers chasing me are certain that if I die today they will have done their duty. I know there are only a few moments left of this life, this living, breathing body, but I cannot face my death so I keep my back to it and run.

One shot rings out, then a second. The second bites through my skin, shatters the bone beneath. It takes my breath away as it collapses my lung, throws me forward into the water at my feet. I cannot break my fall: the bullet has made my right arm useless. The pain shoots through me as my breast then my stomach, my knees, and face hit the ground. I land hard; the water soaks me to my skin. The water's morning iciness penetrates me to the bone.

I try to breathe and only choke. I get a lungful of water but I cannot lift myself out of it. I manage to get my nose free, cough. Blood mingles with the murk, turning it a rusty color. Suddenly, the first soldier is on me. He grabs my hair, pulls my head and shoulders out of the brackish pool. Pain sears my body, through bone and flesh, but I am beyond it. He sees I am still breathing, still alive and still a threat. I see his face contort into a smile. He drops me, pins my shoulders to the ground, forcing my head under the water, then raises his gun. The blow from the butt cracks my skull. The sound of it rings through my head and I am gone.



I am in a vast space. I have little knowledge of where, what or who I am. But that I am, in some form, is clear. I watch and feel. I can sense edges, fuzzy boundaries. I am a pre-complete-me: no gender, not much of a body, but I have a vague notion of a self.

Later I will come to know that this is 1956 and I am a forming embryo at about 28 days. My body forms but something is wrong. My heart loses its will to pump life into me, nourishing the seeds that are my future in this body, even as it twists and turns its way into an ultimate form. This body fears another betrayal, another broken dream, another disintegrating empire, another occupation, another loss of soul. It prefers to stop midsentence...



In order to fashion a human being,
 Nature—as Dr. Brainstorm claimed—
 Had simply to chase the monkey
 Right away from the jungle tree;
 Because once driven out onto the plains
 No other option for monkey remained.
 It dawned on monkey from that hour forth,
 No more bananas were at his mouth;
 He must, if he wanted his life to extend,
 Erect his body on two hind legs,
 Thereby leaving both hands free
 To pick at fruits, do other feats.
 The hands outstretching, pears to obtain
 Causes to grow within his brain,
 (To safely keep his new-found skills)
 From year to year, new grooves and folds,
 Until the skull swells to its limit,
 One thousand grams contained within it.

-Joachim Illies (in Blechschmidt, 2004)

The simple ideology presented in this verse, that man descended from monkeys, is arguable and argued. The truth is humans are not apes; humans are not like any other animal on the globe. Humans are different. Unlike other species, humans do not specialize to any specific niche or function in nature. Humans possess minds to create and hands to mold their creations. We think, therefore we are, postulates Descartes. But does this answer satisfy?

This ability to perform at many levels and for many purposes requires an intricate brain and an upright gait. We despecialize as the restraining embryonic growth movements (Blechschmidt, 2004, Verhulst, 2003, van Der Waal, 1999) lengthen our torsos, move our hearts and livers down, permit our craniums to elongate and expand. Even though we have hands that are free, minds that think, emotions that connect us, our emotions wound us and create such psychological messes that we sit for hours pondering our plight and our fates. We wonder at and about ourselves and yet what we are truly here for remains a mystery.

If we reject “The notion that life made itself out of nothing and is but a random undulation within a sterile, godless universe...”, (a purely Darwinian explanation for the ascent of man and “...the Rosetta Stone of contemporary logic”), we pave the way for generating a deeper and broader understanding of being human. (Grossinger, 2000).

Ken Wilber, in his groundbreaking book *Integral Psychology* (2000), puts it this way: “One is reminded, yet again, that the roots of psychology lie deep within the human soul and spirit.” He goes on to tell the tale of Dr. Gustav Fechner, the pioneer of “scientific” psychology who actually had much more to say about the metaphysics of human existence than any of his biographers let on:

Man lives on earth not once but three times: the first stage of his life is continual sleep; the second, sleeping and waking by turns; the third, waking forever....In the first stage his *body* develops itself from its germ, working out organs for the second; in the second stage his *mind* develops itself from its germ, working out organs for the third; in the third the *divine* germ develops itself, which lies hidden in every human mind. (Fechner in Wilber, 2000).

“From body to mind to spirit,” Wilber continues, “the three stages of the growth of consciousness; and it is only as men and women die to the separate self that they awaken to the expansiveness of universal spirit.” (Wilber, 2000).

A germ of a greater self resides in every human. The embryological self embodies the primordium of the conscious, ever-evolving human being. It lays down the struts of the spirit within mind and body that is so necessary for the human stages of growth and development.



I sit and stare at the picture window in front of me—not really seeing the lush vegetation of the foothills that embrace and cradle this building. My tailbone feels stiff, unyielding, and I alternate between feeling hot and cold. I feel a shiver make its way up my spine and pull my shawl around me a little closer. The instructor stands before me and my classmates, stocking-footed, hips slightly thrust forward as he mimics an embryo performing. He shows the gesture of arms growing forward, rotating as they do until they enclose and embrace the heart, the first center of consciousness in a brand new human.

A fog creeps over me and I am pulled inward. My internal gaze alights on my spine, just between my shoulder blades and I am taken back into my own history of brand new human; my embryonic self floating in a brew of creation and meaning. I have no arms—only buds just now—paddle-like, barely an eye, a heart that fills my insides and makes me feel.

My present-time me senses emptiness in my back, a no-arm-at-all felt sense, and wonders why. My embryonic-primordial self shifts inside me turning to the right, presenting her back as if to say “Come, look, see me and see what is not me.” I look. I see the primordial somites that are to breathe life into her/my limbs and I see a clotting

of energy. I feel confused and uncertain about the clot. My embryonic self moves again, flowing into her growing gestures: a cinema. Scenes, one after the other, of embryonic movement and formation, the making of meaning into life, present themselves.

First are the paddles, easing forward, the forearm emerging, the upper arm, the fingers made distinct. And now the arms rotate and complete the circle, the circle that gives purpose and structure for the heart that beats meaning into the form; the lubb dupp of this, my, life's song. But no, no purpose takes root in these arms. The energy of their meaning has been left behind, a clot in the somites. The physical arms appear there but the intention of arms to circle and embrace, to form and create, stays behind.

This young, sweet heart experiences no embrace, no protection for its tenderness. It must face the world with the support of only itself—and it knows immediately what it needs to do. I watch as it weaves a web of iron threads, around and around, steeling itself, until it feels secure in its stronghold.

I shift in my seat and the embryonic movie freezes-frame. My inner eye scans for the beginning scene, hoping to discover the reason for such a breach of the sequence. I see the clot of energy once again and approach it with an imagined finger outstretched; I intend to touch it and probe it, to discover its reluctance.

It opens itself to me like a red rose in bloom and I move into it as if entering a Great Hall. I look around and notice the struts of its arched iron structure. I catch my breath and stand still, dwarfed by the spaciousness surrounding me.

“What is this?” I ask the energy.

“I have stayed here, in the somite, to create this Great Hall,” it answers. “Your soul creates a resting place for you so that you do not have to be fully in this material world. Your arms live here, where you can use them when you come. You will use them to embrace an inner reality, one of great truth and beauty. Here you will find peace. Only here.”

I return to the room with the picture window. I feel a burn in my back. My chest feels tight. It is hard to breathe. Fog shrouds my head; it swirls a little longer then clears. My shoulders sag with the weight of my discovery. I refocus on the instructor: he still dances the growing gestures of the embryo and I feel the tides of my being pulled to him by the meanings of his movements.



What propels human development? It can't, doesn't just happen by itself. There must be forces interacting to generate the dynamic tensions that induce form from chaos; ever-evolving new forms as the old ones die out of usefulness. Van der Waal describes the body as the evolutionary instrument of the soul. The body provides the resistance (density of matter) to enable the soul to perform as human. The act of *being* human, from embryogenesis to senescence, is behavior, the behavior of dying: Dying out of what was before; taking “out of root” to develop into the next phase. “The baby doesn't become a child by being more of a baby.” (van der Waal, 2004).

Hartmann (1999) states it thus:

Prigogine [the Nobel prize winner for the theory of dissipative structures] posits that...the tendency towards disorder [of the human as open system] actually provides the system the ability to undergo an adaptation. Such adaptation would indicate that energetic systems, be they atoms, be they galaxies, be they you or I, are not marching doggedly forward to an inevitable conclusion....adaptation of structure can and does occur in response to a constantly changing environment.

Hartmann further explains that the human organism as system is acted upon by external stressors. If the stressors persist, a point is reached at which stillness occurs, a point of “infinite possibility, infinite potential”. When reorganization occurs out of this stillness, “it reorganizes in a non-linear fashion—it makes a quantum leap,” escaping to a higher order.

The great River of Life flows but not without it’s eddies, rapids, and sudden, precipitous drops. The tensions of Life in Motion create just enough energy to propel us forward, onward, inward, sculpting us into higher forms of organization. A human is the perfect form, with the perfect “imperfect” function: A *steigerung* of immense proportions.



I pause between clients to check in with myself. I feel stuck. The pain in my neck and upper back refuses to resolve. I know there is emotion in there but I can’t get at it, can’t coax it to the surface to make peace with it.

I go to see Julie, the psychic, for help. She levels her eyes at me.

“Your mother is never going to change, you know.”

I feel like I’ve been slapped. Why bring up my mother?

“Take a few days and cry yourself silly,” she advises. “Catharsis will set you free.”

I remain unconvinced. I hate to cry.

“Your mother cannot be who you want her to be, she is too damaged, and it is too late in her life for her to do the work of it, to clear away that which has struck her numb.”



In my mind’s eye, my mother appears rounded and aging. I imagine her eyes and look into them; what I see pulls me back into an almost forgotten time.

I struggle against the forces that will send me into the cold; the world outside this warm, watery home. I cannot resist strongly enough and I am thrust out of my comfort zone, hung upside down and smacked. I feel myself grasp for a footing, some kind of grounding. My arms fly above my head in a startle; I catch my breath, unable to cry from the shock of it; my feet tangle in the long-fingered grasp of the man in white. Someone

wraps me quickly, finally some warmth, and I see her for the first time. I feel hopeful now that I will be able to return to the warmth that I knew when I was inside of her. I look into her dark brown eyes and see nothing. She appears blank, empty; a shell of a human. I feel cheated; angry. I retreat, go back to that place inside me, the now familiar Great Hall, where I feel the succor of my internal embrace.



Yesterday, my daughter graduated from college. Today, we prepare for the party to celebrate this important passage. My mother fights our every deviation from her plan, despite the threat of gusting wind and rain. My daughter cries from frustration; afraid the tension will ruin the party. I snap. I have had enough and so I back my mother up against the wall and scream. We engage, swords drawn. Feint and parry, accuse and blame: a tarantella of a word-duel. It ends in a draw; as it always does.

I leave her with a letter detailing my upsets and their justifications. She moves off her position not an inch. Many weeks later I realize that my mother really will never change. I search inside myself for the part of me who feels aggrieved, cheated, hurt. I find a self hiding in my lungs; a self who simply feels disgusted and exhausted from the attempts to help my mother heal from her wounds. The other hurt selves, younger and more tender, were long ago taken to the Great Hall where they could be nurtured and loved as they desired and deserved. I understand, then, that there is no more work to be done. Declaring an end to my journey as daughter, I feel myself burst forth from my chrysalis and find I have wings to fly.



“A field within a field within a field”, the saying goes: Spirit as consciousness; consciousness as experience; experience generated by the interaction of spirit with matter; dynamic tension; dissipating structures; and reorganization at a higher order: The human as open system beginning with the embryo.

The embryo encodes and embodies life before life, acting out prior experience as an induction of new experience. Patterns develop becoming personality; personality becomes biography and biography induces tension, entropy and reorganization. The trajectory of a given life is traversed with the propulsion of dynamic tensions generated by boundaries of form, like a fetus making its way down the birth canal, directed and guided by bone, muscle, and tendon, until it emerges into a greater sense of self.

Our human trajectory is a developmental one, culminating in an evolutionary experience one can categorize as enlightened, transformational or transcendent. Life therefore takes the form of breakdowns and reorganizations, the ultimate birth canal for the evolving human.

The biography of a given life embraces the personal and transpersonal; contains the past and present; projects along a trajectory within a trajectory. With each new level of achievement, we journey further into ourselves until we touch down and fall into our truest and most real self, the self of pure spirit. Touching down manifests as a great unfolding, leading us back to our sustainable selves. In this way, spirit employs embryogenesis as phylogeny: a developmental dolphin carving water in an elaborate, ever-changing sculpture of perpetual creation.

In this deepest of places resides stillness; the stillness of nothingness from which everything is born and to which everything returns.



The phone rings. It is Kate. “I’ve been trying for two days to figure out this pain in my right arm and shoulder. I’m not sure where to go with this, Alison. I feel like I’m sitting in a big soup of my own creation. There’s something for me here about relationships; something about love and connection, you know, a deep, intimate connection, not just sex or romance or marriage.”

Her words strike me. I notice my left hand going numb; some tingling in my brachial plexus. My back hurts at the somite level. I say, “I get the feeling that there is a task here. Maybe we all need to find that place within us that realizes itself as part of a greater existence.” We agree to talk more later.

My neck pops. I get a little relief from the numbness.



My thoughts shift from Kate to my dad. Relationship. Connection. What is it about my relationship with my father that chafes me? I feel a twinge in my upper back. I go to that sensation and examine it. Feelings of resentment and of needing to get away show themselves. I ask myself, “Get away from what?” Then I grasp the deeper meaning. I envision an empire, then a dynasty controlling that empire and realize that my father lives to build an empire and create a dynasty. I immediately feel suffocated. I don’t want to be in his dynasty; I don’t want to help him build and run his empire. I dream my own dreams. The tension in my back releases with this insight. My shoulders relax and my breathing eases.

But what of empire building? I feel intrigued by the notion, not able to let it go completely. The idea of leaving a legacy pops into my head then. I compare leaving a legacy with building an empire and realize they are not the same. After my comparison, I ask myself, “What do you want: To build an empire or leave a legacy?” The answer comes swiftly: “I want both, but I don’t want to force or conquer in the process. I want to create them dynamically and powerfully from within.”



“Kathy, your hanging flower baskets look beautiful. The bacopa adds a nice touch.”

“Thank you,” she responds. “Which one is bacopa?”

I step closer to the nearest basket, gesture toward it and begin to say, “This one, here” but the words are stunned out of my mind. The wood deck scrapes my knee as the impact of falling-body-onto-unforgiving-surface forces my arm into my ribcage. The clot in the somite groans. I find myself lying on the ground, having missed the step, Gerald Ford style. I scan my body for broken bones.

John leans over to help me up, asks, “Are you OK?” Words fail me. My thoughts bump frantically against each other inside my head. I search for sense and realize how thoroughly embarrassed I am: the self-acknowledgement allows the vector of force to complete its journey out the opposite side of my ribcage and I relax. I know I will be stiff tomorrow, maybe a little bruised, but the fall broke nothing but my pride, so I pick myself up and brush myself off.

Kathy looks mortified. I reassure her that I am OK. I tell her a few ribs needed adjusting anyway and laugh. She smiles, still a little uncertain. The moment passes.

I wake up the next day, stiff. I scan for stuck energy, find several spots and get to work on them. I ask my body questions about what these areas need to heal. My thoughts turn to empire building. This turn amuses me so I entertain it. I explore myself as an empire builder, and my lack of success at it. I chuckle at my attempts to build a dynasty: Five children and one grandchild hardly pass for one. I realize I am not as disappointed at my failure as I thought I might be.

A voice in my head speaks, booming and authoritative:

“The empire you seek exists within, in the domain of the spirit. You create that empire by living your lives, no matter the form they take. That legacy—built over lifetime after lifetime and coded by the spirit in the body—animates anew each embryological form that becomes the most recent you.”

I adjust my position for comfort, the voice continues: “The Great You lives through that newest biography and expands the empire. In this way, the many “yous” become a dynasty.”

My chest softens and opens as my heart weeps tears of joy and relief, free from the need to contain itself in its iron Great Hall. The clot dissolves; my energetic arms grow. They make a gesture of out and around to form a loving embrace.



Born from spirit into matter; birthed from the womb into the world; delivered via death from life and back into spirit, Life is Motion. We begin as formlessness, move into form, molded by fields within fields within fields, become a mind within a body, both contained within the great ground of being. We gesture toward our completeness, creating an autobiography as rich and complex as the universes above and the universes within. And we evolve.

We stand upright and think and in our thinking, ponder the great mysteries we behold: the mystery of who we are and how we came to be. And as we think, and feel, our bodies tell us the stories of who we have been and who we are to become. We struggle and then we flow: we are born and then we die. We repeat this cycle as many times as we care to dance the dance.

“Stone by stone,” sings the Sufi minstrel, “a structure takes shape beneath a sky full of mystery.”

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