"ONCE BOTH IN AND OUT OF TIME": LANGUAGE, STORYTELLING, AND TRANSFORMATION

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Everything is what it is because it got that way.¹

Our thinking and language has a deeply metaphorical structure that gradually takes its shape from the way our physical bodies interact with the environment from the earliest moments of our existence.²

Once both in and out of time, early man breathed and had a heartbeat, but words were not spoken. Without a "real" language, hominids could not interact except to participate alongside one another to accomplish the most basic activities of daily living—non-verbally. Make no mistake, a powerful brain was involved. The focus on "early man" is often on this increased brain size, an opposable thumb, erect status, and long infant dependency as the distinguishing factors allowing *Homo sapiens* its unique status. Of greater significance, however, is the emergence of a complex form of communication called language.

Language is one of our most defining human characteristics, which involves a series of evolutionary advantages: a wider cervical vertebra (allowing for a stronger larynx) and a new middle and outer ear for improved hearing. Neanderthal Man is often stereotyped as a "caveman who grunts." This stereotype was challenged by anthropologists in 1983, when an Israeli anthropological dig of Neanderthal skeletons uncovered a hyoid bone. The

¹ D'Arcy Wentworth Thompson, On Growth and Form (Cambridge: Cambridge University Press, 1942).

² Brian Broom, Meaning-Full Disease: How Personal Experience and Meanings Cause and Maintain Physical Illness (London: Carnac, 2007), 42.

hyoid bone is a c-shaped structure that acts like a roof truss, tying together the tongue and the larynx and enabling them to brace off each other to produce a wider spectrum of sounds (we can only imagine back in time to those first sounds of speech and music, but there will be no record of it to help us know exactly when language began or how it sounded).

As Pattern Analysts, we recognize the presence of a wider cervical vertebra, a new middle and outer ear, and a hyoid bone as perturbations in the physical structure, allowing for a system to evolve from simple replication toward greater complexity.3 This may be referred to as a perturbation that nonetheless forever changed the trajectory of possible sound production and reception, replicating toward the extraordinary complexity we recognize today as language, and a consciousness informed by language. In this unique and singular expression of a stronger larynx, hyoid bone, and additional ear forms, Pattern Analysts recognize that form is the expression of the field from which it emerged; indeed, it is this generative field that allowed for the transfer of information between people: And the flesh became word. Moreover, attention to the ever-increasing developments in Anthropology, including the evolution of the brain and the evolution of memory (and of storytelling itself), gives deeper insight into how language transformed what it is to be human. Early modern people had the vehicle to meet a million year challenge: "how do we use our powerful brain to transfer complex information to others?"4

In a history that places *Homo sapiens* first appearing 200,000 years ago, it is approximated that 150,000 years later, "about the time ancient modern man left Africa, the intellectual traits that had distinguished him from his predecessors had reached their full development." *Homo sapiens sapiens* had a language which had been the vehicle for sharing experience with others, and one that supported an intrapersonal experience as well as extrapersonal experience (an experiential extension of space and time into abstract and cosmic realms), allowing for a temporal world view and an awareness of a natural world populated with "living" creatures. What *Homo sapien sapiens* could not explain was provided for by "creative fictions," e.g., "explanations," in the form of oral traditions and storytelling. Storytelling allowed organization, structure, and the meaning-making of internal memories shared by a collective experience of living. This collective wisdom enhanced and enabled survival and formed the foundation of community.

³ Michael Conforti, Field, Form, and Fate: Patterns in Mind, Nature, and Psyche (New Orleans: Spring Journal Books, 1999), 122.

⁴ Michael S. Malone, *The Guardian of All Things: The Epic Story of Human Memory* (New York: St. Martin's, 2012), 9.

⁵ Ibid., 19.

Community emerged, and as it flourished came commerce and trade. It is suggested by Malone that the simultaneous variety of several early forms of writing went through complex changes to become a new kind of communication, valued for its utility and ability to organize commerce. In the "span of just 5,000 years, from the crude markings of the early protowritten languages to the exquisite Roman capitals carved onto Trajan's column (still considered some of the most...exquisite writing ever created by a human hand), this development occurred in less than ten percent of the time it took for human beings to learn to link (oral) words into sentences."

As *Homo sapiens sapiens*, we are a "talking entity" with a powerful brain and a singular destiny; language is a defining characteristic of that destiny, though it is not the singular of traits specifying that destiny. This singular trait is human consciousness. The focus of my inquiry is to look into certain evolutionary aspects of human consciousness in connection with the art of Storytelling. While launching into this task, it is not without recognition that a very complex, unknown series of phenomena allowed for "consciousness (arising) at the same time and (residing) in the same realm as language."⁷

The Psychological Effect of Language and Storytelling on Humans

Three physicians are currently looking at studies of the brain and nervous system with scientific rigor. In A General Theory of Love, Lewis, Amini, and Lannon discuss synaptic leaps in the space "between" people and purport the plausibility of neuroplasticity through the medium of relationship. The brain (and memory) is plastic, and individuals from their earliest development are neuronally "linked" with those around them, manifest in the physical body. The authors posit that "the brain's habit of concentrating experience into Attractors... [suggests] the mind is a pliable Einsteinian fabric strewn with incurvations...wherein] the bottom of each force field well is an Attractor."8 The "Attractor" is the complex and therefore a quanta of energy patterned around a specific theme, for example, a "mother complex." Thus, the complex, like the Attractor, functions as a magnetic epicenter creating the convergence of archetypal potentiality into a singularity. During communication, human minds attune through limbic resonance. As such, the brain is part of a network that shares information, including Attractors. Mammals are the only brains to have this legacy of neural and emotional bonding (limbic brain) and the ability of

⁶ Ibid., 36.

⁷ Ibid., 15.

⁸ Thomas Lewis, Fari Amini, and Richard Lannon, A General Theory of Love (New York: Random House, 2000), 139.

⁹ Conforti, Field, Form, and Fate, 24.

our Attractors to reshape limbic pathways is called limbic revision. ¹⁰ Although it is understood that the neocortical brain collects information quickly, the limbic brain does not. Neither alcohol, opium, cocaine, cannabis, placebos, or medications are considered effective agents regarding perturbations of early emotional experiences, which "knit long-lasting patterns into...the brain's neural networks." Developing a limbic connection is the initial work of psychotherapy and "knowing someone is the first goal of therapy." ¹¹ That is, through knowing "another person's Attractors reacting through the doorway of a limbic connection..., [psychotherapy] changes people, because one mammal can restructure the limbic brain of another." ¹² This restructuring is the goal of the therapeutic relationship and may be accomplished when a perturbation, or "new" Attractor, is introduced within the therapeutic relationship.

To many, the use of "field theory" language in a discussion of the phenomenon of the therapeutic relationship, through dialogue (between client and therapist), may seem overly subjective. Yet these authors agree that "each emotional mind is formed within the force field of parental and familial Attractors." The authors view the primary goal and purpose of the therapeutic relationship as change, change in behavior and at the organic level of neural (brain) pathways, with the tools of neural proximity and narrative: "Progress in therapy is iterative. Each successive push moves the patient's virtuality a tiny bit further from native Attractors, and closer to those of his therapist." As such, the therapist, as Pattern Analyst, hopes to identify the trajectory of the client's life story by identifying the personal "attractor site" (archetype) and through narrative, to help reshape and reconfigure the archetypal gestalt. Thus, the Storytelling narrative is the perturbation that moves the patient "away" from equilibrium (further from "native" Attractors) and into a new field, closer to that of the therapist's Attractor (hopefully, one more archetypally generative).

These authors have a firm grasp of the therapist's role; that is, through relatedness, one may come to "know" someone from the inside out. Knowing the other who is there is an interactive form of engaged listening, which involves verbal and non-verbal collaborative exploring. This requires an understanding of the client's subjective and archetypal world, through attuned mutual, reciprocal, interpersonal processes (also acknowledging and exploring the childhood emotional patterns and attachment experiences which tend to repeat, psychodynamically and archetypally, throughout the course of a life). This is a moment-to-moment, interactive, regulatory micro-repair through

¹⁰ Ibid., 144.

¹¹ Ibid., 176.

¹² Ibid., 177.

¹³ Ibid., 178.

¹⁴ Ibid., 178-9.

"now" moments—a knitting together of current and "long-lasting patterns into the very fabric of the brain's neural networks." Clearly, change calls for the therapist's neurally engaged, collaborative, interactive listening (e.g., tracking, exploring, regulating), an attuned re-shaping of the "microanatomy of another person's brain." To engage within this "field," the therapist must suspend her "orientation" and very much work "experience-near," aimed at an empathic and archetypal knowing and living the otherness of the client's story. This is what the authors call therapy as "the ultimate inside job."

Transpersonal Relations at the Neural Level: Mirror Neurons

The claims regarding the efficacy of limbic resonance to change "the very fabric of the brain" might appear to be a highly subjective theoretical account of therapy through "story." However, Daniel J. Siegel's definition of mind seems to be quite relevant. Siegel, who has contributed much to the study of the brain, also takes time to define the mind as "supported by scientists from various disciplines" to be "a process that regulates the flow of energy and information." He emphasizes that the "human mind is both embodied—it involves a flow of energy... with the body, including the brain—and is relational, the dimension of the mind that involves the flow of energy and information occurring between people..."

The neuroanatomical flow of energy and information brings us to the realm of "mirror neurons," which evidence (even prior to language) a system of social emotional coordination which evolved among members of our species. Discovery of mirror neurons in the early 1990s revealed that certain cells in our brain fire when we witness how others "act or express emotion as if we were making the same actions." The study that initially formed our insight into the properties involved a monkey and a peanut. The monkey, eating a peanut, had an implanted electrode which registered activity in a single neuron. The next development was not anticipated. That is, the same motor neuron fired when the monkey watched someone else eat a peanut.²²

¹⁵ Ibid., 176.

¹⁶ Ibid., 176.

¹⁷ Ibid., 178.

¹⁸ Ibid., 139.

¹⁹ Daniel J Siegel, *The Mindful Brain:* Reflection and Attunement in the Cultivation of Well-Being (New York: W. W. Norton, 2007), 5.

²⁰ Ibid., 5.

²¹ Ibid., 20.

²² V. Gallese, L. Fadiga, L. Fogassi, and G. Rizzolatti, "Action recognition in the premotor

The firing of mirror neurons in humans, with the help of electrodes to record them, was first accomplished in a study done by UCLA researchers in 2010. The research included 21 patients, being treated at Ronald Reagan UCLA Medical Center for intractable epilepsy. Prior to that, only monkeys had been involved in mirror neuron research. For the first time, we had a concrete demonstration of how brain/mind does indeed transmit across the physical gap between humans. In research conducted from 1999-2004, the human brain was shown to "create representations of others' minds." Similar to the monkey, but to a more complex level of cognition (at a neural level), "we embed in our brains not just what we physically see, but the mental intention of what we imagine is going on (maps of intention) in someone else's mind. This is big news: mirror neurons demonstrate the profoundly social nature of our brains." ²⁴

Through our primary five senses, we can perceive another's "intentional states," and by way of our information highway (and our mirror neurons), we *attune* to others' emotional-intentional state through emotional resonance. This research confirms for therapists what was foremost in their guiding intuition, "that relationships are fundamental in a person's life and well-being." The embodiment of that resonance within us, individually, points to the importance of being aware of our own internal state(s) in order to attune to others; clearly, reflecting on our internal states is a requirement of empathy and creating change.

Looking back on 40,000 years of the *Homo sapiens sapiens* species, we need to acknowledge our evolution. Siegel emphasizes that "mind can actually use the brain to create itself." Our *mindful* awareness of ourselves, our resonance with another, and our compassionate responses are not limited to verbal exchange. As previously noted, "reality" is the amazing coincidence of human consciousness arising within language. The brain evolved and is anatomically integrated to hear and produce language; we live "storied lives," and we resonate and *attune* to one another. Seemingly, we *sought* limbic resonance through (and even before) language. "This reality of how we have changed as a species involves not the genetically driven evolution of our brains, but the mental evolution of how we collectively pass energy and information among each other across generations. This is the evolution of the mind, not the brain."²⁶

cortex," Brain 119/2 (April, 1996): 593-609.

²³ http://newsroom.ucla.edu/releases/ucla-researchers-make-first-direct-156503

²⁴ Siegel, The Mindful Brain, 166.

²⁵ Ibid., 166.

²⁶ Ibid., 49.

The Language of Storytelling Transforms

Underlying this regard for and recognition of our shared and bonded evolution is the thread of storytelling, which is how culture was "recorded" and transmitted prior to written language. I never anticipated finding a credible role for "fiction" in the relational realm of therapy. However, Brian Boyd offers evidence for our consideration. Boyd, in On the Origin of Stories, begins with the discovery of drawings in France's Chauvet Cave. Boyd recognizes the universal human desire to "represent" is shared within a tradition of art, involving a skilled artisan, who publically "records" aspects of the culture. In his view, "art has been designed by evolution"²⁷ and art is a behavior. Because he is primarily investigating fiction, he takes us from the role of art to that of play. At the outset of that conversation, Boyd speaks to Pattern Analysts. He uses the Oxford English Dictionary and defines pattern "as arrangement..., order or form discernible in things, actions, ideas, situations, etc." Unlike computers, which still have not mastered pattern recognition, Boyd recognizes that living organisms "have evolved to be pattern extractors." Consider frogs, who automatically flick a tongue toward small flying objects. They cannot respond to new kinds of patterns.

Jay Gould, speaking on our affinity for pattern, remarked "No other habit of thought lies so deeply within the soul of a small creature trying to make sense of a complex world not constructed for it." We seek patterns because they inform us and we seek out patterns in an open-ended way. However, unlike the frog, we search for *meaning* through patterns. For example, this activity "once led our ancestors to see constellations in the skies." This is "fiction," but it provided a means of adaptation, meaning, and pleasurable (aesthetic) reward. Art is adaptive and storytelling is an art.

Art as a form of adaptation brings advantages for survival and storytelling as an art unites people in the same elevated manner we infer when we observe the ochre painted hands "breathed" on the cave walls at Chauvet. Much like the cave paintings at Chauvet, one might suggest that a "skill set" exists for our contemporary storyteller. For example, one may note 1) a heightened form of sociality; 2) the possible space to act creatively; 3) the ability to safely refine and extend cognitive skills and social information; 4) a scaffold that helps us to view, reflect upon and understand another's thoughts, feelings, intentions, and motives, and to see our world from multiple perspectives;

²⁷ Brian Boyd, On the Origin of Stories: Evolution, Cognition, and Fiction (Cambridge: Harvard University Press, 2009), 85.

²⁸ Ibid., 87.

²⁹ Stephen Jay Gould, *The Flamingo's Smile: Reflections in Natural History* (New York: Norton, 1985), 199.

³⁰ Boyd, Origin of Stories, 413.

5) the opportunity to explore (even predict) *possibilities*, not just actualities; and 6) the ability to encourage moral and social emotions.³¹ The ancient and contemporary Storyteller provides a rich example of how a *pattern* (in the form of nature, art, song, story, etc.) provides potential meaning and "shared intent," through the collapsing of multiple trajectories into a singularity, and may act as a catalyst toward healing. Boyd elevates art because it offers humanity "social benefits by encouraging us to share attention in coordinated ways that improve our attunement with one another."³²

For example, storytelling in the form of "narrative medicine" has been extensively used to relieve the grief, misery, and suffering of various people. Lewis Mehl-Madrona, M.D., has written from the perspective of Native American culture. A graduate of Stanford University School of Medicine, his training includes family medicine, psychiatry, and clinical psychology. His focus is to draw on wisdom both ancient and new, acknowledging the lasting transformation and change of narrative psychiatry. In his practice, he also focused primarily upon Cherokee and Lakota traditions, having also explored other Plains cultures and those of Northeastern North America.

Introducing one of his client's histories, Mehl-Madrona states, "We live storied lives.... We are born into ongoing Stories—those of our families, nations, religions, and cultures. People who cannot organize experience into stories are called psychotic." In his work with one client, Mehl-Madrona recognized the woman experienced herself carrying multiple generations of wounds. He reflected that "We doctors spin our wheels, order lots of lab tests, and try therapies that don't work." Instead he shared Coyote stories in his meetings with her. He continued, "armed with the knowledge that our brains, nervous system and connective tissue are formed by the stories and the lives that we lead," an intervention allowing for expression of a shared intent involves "narratives that help [client and counselor] to look together in the same direction." Mehl-Madrona is aware of the need to develop new stories that articulate the energy, intrapersonal effectiveness, and *mindful* practices that support the reality that there is a narrative "solution" towards generative, meaningful, evolutionary adaptation that may not require medication.

³¹ Boyd, Origin of Stories, 188-208; see also Richard B. Schwartz review at http://www.hup.harvard.edu/catalog.php?isbn=9780674057111&content=reviews

³² Boyd, Origin of Stories, 101.

³³ Lewis Mehl-Madrona, *Healing the Mind through the Power of Story: The Promise of Narrative Psychiatry* (Rochester, Vermont: Bear & Co., 2010), 180.

³⁴ Coyote is featured in the cultural heritage of more than a dozen North American indigenous tribes. This mythological character is usually male and frequently anthropomorphic. The myths are meant to entrain and instruct. Coyote's role is as hero, messenger, or trickster, or even a combination of all three at once.

³⁵ Mehl-Madrona, Healing the Mind through the Power of Story, 192.

The Healing Power of Storytelling with Children

The "skill set" of a contemporary storyteller outlined through Boyd's work is relevant for both adults and children. Boyd considers these skill sets as the cornerstone of what each storytelling accomplishes. For example, in our unique development as humans with language, Boyd emphasizes the early and cross-cultural presence of art in the youngest of children. Children innately produce art without being taught and art is one of the most immediate forms of expression. Already by ages two through five years, children display the capacity for storytelling, which draws on our unique capacity for meta-representation: not only to make and understand representation, but also to understand them as representations, such that fiction emerges and extends the variation of "true information we can have at our disposal."³⁶

The adult counselor recognizes a variety of rich skills and options for meaningful and reparative processes through storytelling. For example, Donald P. Spence describes "unpacking" the listening and interpretation practices of the therapeutic narrative, with a focus on adult reporting, associations, and disclosures from memories. However, he points out that when working with children, practitioners must be aware of specific guidelines and limitations. The language of children is raw and accessible, almost "transparent..., allowing us to see the world much as the patient saw it."37 Children disclose how they are experiencing life and its events, as well as expressing outwardly their accompanying "self-talk," revealing how they are forming their understanding of specific events. Because of the developmental and chronological differences between a child and the counselor, vigilance is therefore necessary. A "mistaken interpretation (premature or inexact) can do something serious—forever altering the child's memory or putting it 'out of reach,' as language changes memory which came from an image prior to verbalization."38 Therefore, vigilant and empathic listening, developed over time, builds a "shared language" of recognition, meaning, and attunement between adult and child. As such, the adult must practice slow and patient responses by becoming "accustomed to [the child's] manner of speaking" and "come a little closer to seeing his world" increasingly, so that we "use his dictionary rather than ours." Similarly, when working with children, Siegel emphasizes that we recognize that reflective thinking may require very little dissolution of constraints. Rather, "Reflective thinking may be more

³⁶ Boyd, On the Origin of Stories, 129-131.

³⁷ Donald P. Spence, Narrative Truth and Historical Truth: Meaning and Interpretation in Psychoanalysis (New York: W. W. Norton, 1982), 59.

³⁸ Ibid., 64.

³⁹ Ibid., 113.

dominant and accessible in children."⁴⁰ They will speak of images, reporting in a language that invites the adult listener to see "with 'fresh eyes' the novelty in the world."⁴¹

Siegel has done extensive study on how childhood identity is shaped through limbic resonance, by memory and narratives that are formed through our attachment with primary caretakers. He identifies four general patterns of narrative—avoidant, dismissive, ambivalent/anxious, and disorganized (dissociation as a possible fifth). For example, Siegel emphasizes that "parents with unresolved trauma and grief" have less resilience and do not have enough neural coherence (deriving from neural integration), to "respond quickly and engage...to reconnect with the child," e.g., to be able to repair communicative ruptures, "when life presents the adult with stressors." A counselor, on the other hand, may seek to engage the child and help support, provide, teach, and "guide" that child towards narrative integration and help "weave together" their life story, and in this way co-create an autobiographical narrative through (more) coherent and exploratory meaning-making. This requires a "witnessing self," and one "able to observe and comment," 43 on personal and collective memories. Through interactive and co-created dialogue, these awarenesses are recovered, re-discovered, re-made with a new sense of meaning, and reinforced. Siegel considers this nothing less than the opportunity to teach with the brain-in-mind as "Circuitry which becomes established and reinforced is more likely to be available in the future. Neurons that fire together, wire together, and survive together."44

Clearly, with *attuned* listening and timing, the counselor 'waits, watches, and listens' for the right moment to help co-create a child-based narrative. This *new* narrative may be a *form* of "fiction" and art in the best sense of Boyd's aesthetic. Seemingly, this is an effort to re-wire coherence, novelty, and resilience, and ultimately transform restrictive states and traits. Clearly, this is a "truth" other than Freud's archeological "truth." Thus, Spence posits we make room for "interpretations (as) essentially creative," and that the "artistic truth of a narrative may also maintain its structure over time and enable the patient to better retain what he learned during analysis." This "artistic truth" of a narrative, combined with the emphasis upon a limbic resonance (enduring over time), brings to mind the Native American Proverb: "Tell me a fact and I'll learn. Tell me a truth and I'll believe. But tell me a story and it will live in my heart forever."

⁴⁰ Siegel, The Mindful Brain, 271.

⁴¹ Ibid., 271.

⁴² Ibid., 201-204.

⁴³ Ibid., 309-311.

⁴⁴ Ibid., 271.

⁴⁵ Spence, Narrative Truth, 268-275.

Language has made us the one species not restricted to the here and now, even if that is where we feel, behave, and even imagine. Likewise, the child sees the story as a "veil" and understands it reveals an active option and therefore as teleologically useful and meaningful for her future. Like homeopathy, the story is a potential "remedy" in terms of actuality as well as possibility. By participating and modeling in thoughtful dialogue "possibility," it therefore provides a robust and life-long advantage. James Hillman believed that "each individual has a purpose or calling in life that reveals itself in childhood and reappears, often, as a set of so-called symptoms, until it is heeded." This is a reminder of the message attributed to Jesus in the Gnostic Gospel of Thomas: "If you bring forth what is within you, what you bring forth will save you. If you do not bring forth what is within you, what you do not bring forth will destroy you."

In conclusion, this paper has explored the emergence of "mind" from brain by way of language as well as the concept of the "Attractor" and its importance in therapy. It has also attempted to shed some light on the relation between the limbic brain and relational consciousness formed by stories and the transformative power of storytelling, especially in children. Finally, as noted in the beginning of this paper, Boyd, in recognition of a biocultural study of all species, recognizes genes and culture in evolution. Humans develop more rapid changes because language (storytelling and narrative) helps in the transmission of culture. "Genetic change normally takes many generations to pervade a population; culture can enable advantageous options to spread rapidly in a single generation."48 The objective work of observing, articulating, and creatively revealing *meaningful* coherence through storytelling, therefore, honors the Pattern Analyst in each of us and can tether *new* lasting patterns into the neural brain and linguistic mind. Clearly, this work can transmit increased options for mindful-coherence, meaning-making, resilience, reflective empathy, and the awareness of our individual purpose in life—the *patterned thread* revealed in childhood. I am not speaking of "imaginary" worlds but the simple and deeply (aesthetically) felt experience of storytelling—real and fictitious, and its charged ability to bring wholeness and coherence out of conversation and into the robust "possibility space" of choice and change.⁴⁹

⁴⁶ Sy Safransky, Scott London, and Genie Zeiger, "Conversations with a Remarkable Man: Honoring the Late James Hillman," *The Sun* 439 (2012): 4-13.

⁴⁷ www.pbs.org/wgbh/pages/frontline/shows/religion/story/thomas.html

⁴⁸ Boyd, On the Origin of Stories, 25.

⁴⁹ Ibid., 413.