Kinderconscious:

Enhancing Child Development Through a Cohesive Theory of Consciousness

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After several centuries of philosophical pondering, a century of psychotherapy, half a century of drug experimentation, and decades of applied neuroscience, we still haven't uncovered a fundamental theory or generated a popular sense of urgency toward understanding the most remarkable aspect of human existence. For neuroscientist Christof Koch the suspense and frustration in studying consciousness are palpable, "I want to know before I die; so I can't afford to wait forever." The prominent and divisive stumbling block that has stymied progress centers on the idea of the soul, the contested existence of an influence that defies scientific study. Koch is skeptical that a soul figures into our consciousness: "How does the soul remember anything? Does it have its own memory? If so, where? What logic does it follow? Does it float around in some sort of hyperspace, like a ghost? And where was this soul before the body was born? These questions do not have answers that are compatible with what we know about the physical world." The scientist demands proof. But Wittgenstein saw the futility of this stubbornness: "We feel that even if all possible scientific questions be answered, the problems of life have still not been touched at all." James Hillman identifies the missing ingredient: "Suppose what we seek is not only something else, but somewhere else, in fact, having no 'where' at all despite the call that beckons us to search. There is, therefore, nowhere to look beyond the fact of the call. It seems wiser to attend to the call than to avoid it by searching for its source." Koch could look at his own call for answers, his fascination with and faith in the scientific method. Recalling his childhood, he confesses that his obsession was prominent from his earliest years. His whole life has been driven by a subtle, personal energy that has remained constant through all circumstances. This is the influence of his soul.

In this paper I'd like to identify the basics, the least common denominators of consciousness, beginning with a reflection on the raw energy of early childhood, through a discussion of how consciousness studies can be included in American schooling, and finally to a suggestion for an elementary theory that could resolve perennial confusions and be accessible to even the youngest philosophers and scientists.

George Washington Academy

Just outside the city limits of Casablanca, Morocco, the George Washington Academy sprawls across a hill overlooking the Atlantic Ocean. In 2015 I accepted a contract substitute teaching position at this American school. Every school day I reported to work and was assigned to cover

a class ranging from the preschool Discovery Room to high school algebra. In this institution of over one thousand students most were Moroccan, enrolled by wealthy parents who wanted their children to learn English and American customs. Given our recent presidential campaigns, charged international climate, and the perception of Islam as a threat, it was a revelation to see evidence that many Muslims are eager to embrace American customs and values. When I arrived in November I found myself assisting children with the construction of pilgrim and Indian headdresses and saw other classes reenacting the Thanksgiving feast!

As part of my contract with GWA, I signed a statement promising restraint with regard to my religious expression both on and off campus. But I found it remarkable that the school could even exist given that our thoroughly secular American curriculum must itself be inherently offensive to Islamic tenets. On our campus island of America, children learned that women are equal and are not obligated to wear head coverings, the daily calls to prayer blaring forth from the minarets can be ignored, material wealth is a noble pursuit, and even homosexual expression is tolerable.

I was mightily impressed by the world-class three-year kindergarten program offered at GWA. First contact begins with three-year-olds in the Discovery Room then progresses through two more preparatory years. By the time they enter first grade students speak three languages: Arabic, French, and English and have a good start on literacy in those languages. My overall impression was that these kids were voracious learners, smart in a savvy, practical way. I had only been teaching for a few days when a self-assured little tyke explained, "Mr. Choquette, you are having trouble saying my name because you don't have those sounds in your language." Well! Thank you for that precocious linguistic insight, young man!

A Kinderconscious Curriculum

The energy of these kids and the familiar ring of American education overwhelmed my awareness that I was working in a Muslim nation. Regardless of their cultural background, children bring their raw energy to school, separating from their families to associate with a cohort of similarly aged children. Watching their sophisticated interactions it occurred to me that much of what we know about consciousness might be accessible to kindergarteners, might even be tacitly operative in their living in the moment, assertive demands, and awareness of consequences.

It might add depth to our conference to contrast the raw energies of childhood. We tend to assume that children are not capable of detecting and appreciating subtle energies. Also, this is historically the realm of family prerogative, an area where schools must not interfere. So after sending them through the gauntlet of standardization and conformity, we pack children off to adult life with a constrained sensitivity to subtleties. A minority of adults sense a void and seek the kind of mindful experiences we value here at this conference. There seems to be no way short of home schooling for parents to raise their children in a way that circumvents the crowded classroom and rigid curriculum. But given the opportunity, I have no doubt that kindergarten students would eagerly embrace the study of consciousness.

So imagine with me a curriculum that, from start to finish, openly acknowledges and presents instruction in the fundamentals, where our professional understanding of consciousness informs lesson planning. Just as we start with one two three's, ABC's, and do re mi's, the four elemental influences that blend together to make us who we are would be explicitly prominent: Nature, Nurture, Mind, and Soul.

Nature, naturally

Actually, we wouldn't have to start from scratch. Our standard subject of science is dedicated to the study of nature, which clearly has a powerful influence on our conscious experience. Awareness of the five senses through which we access natural phenomena would be accentuated. The absolute conformity of matter and energy to known rules would be demonstrated: Ice always melts in the warmth of the classroom.

In a kinderconscious curriculum the Human Genome Project would have a place commensurate with the enormous ramifications of its revelations. DNA studies could begin early. It's actually a simple molecule, albeit a very long one!

One wonderful feature of the GWA kindergarten program is a dedicated physical education teacher. When I substituted in this small gym, the classes would rotate in for half-hour movement exploration activities using equipment like foam rubber noodles, hoola hoops, a parachute, plus a time for free dance to boogey music that I enjoyed playing live instead of using the boom box. In my imagined curriculum, this would be the perfect setting for the students to learn about the powerful influence of each individual's unique DNA makeup.

DNA Base Pair Activity

Prepare a set of 24 identification badges:

- 12 Bones (B)
- 3 Adenines (A)
- 3 Thymines (T)
- 3 Guanines (G)
- 3 Cytosines (C)

The identification badges are distributed randomly to children who place them around their necks. First, the bones find each other and hold hands to make a long chain that the teacher then divides into two chains of six that face each other. Then the A's and T's pair up, hold hands, and walk inside and link the bone chains by placing their free hands on the shoulder of a bone. G's and C's do the same. Once assembled, the teacher explains that structures like this determine our physical characteristic like eye, hair, and skin color, gender, height, etc. The teacher asks what the structure looks like, fishing for answers like a ladder or train track.

This might be the limit of the activity for kindergarten students, but advanced students could continue on to a more complicated RNA translation activity where

after the class has formed into the structure of six base pairs, the teacher "unzips" the structure separating the Adenines from the Thymines (who then flip their badges over to Uracil) and the Guanines from the Cytosines to make two RNA chains. The teacher then separates the RNA chains into two codons. The resulting groups of six students read their sequence of three letters and proceed to the "ribosome box" where they use a chart to translate their sequence into an amino acid. For example, GUA translates to Valine which might be represented by four brown, one green, and one orange M & M, which the students then get to eat.

In the classroom, children could wrap pipe cleaners around cylinders to create a double helix. They could each be given two chromosome tickets then circulate around the room trading tickets until each boy has an X and a Y and each girl has two X's. DNA helices could be elaborately colored.

The point of all this being that DNA would become a high profile topic of classroom instruction providing a solid basis for their future understanding of racial differences, hereditary observations, DNA fingerprinting, genetic abnormalities and cancers, etc.

Nurture, culturally

Social Studies is the traditional curriculum's nod to nurture. But at the kindergarten level the classroom culture itself is an immediately relevant nurturing process. Language, rules, routines, sharing, and responsibilities like cleaning up all pose a huge challenge for those little ones having their first exposures to cooperative living. The right and wrong, good and bad, safe and dangerous judgements they are learning at home now become vastly more complicated as they are applied to classroom equipment, classmates, and teachers. The driving force of nurture takes the form of authority.

I would gaze spellbound when I witnessed a solemn procession of children from the Discovery Room on their way to or back from PE, recess, or some other activity. Their unbridled enthusiasms were on hold in the interest of order and conformity. As relentlessly instructed, their little hands were necessarily clasped behind their backs to inhibit temptations to reach out and touch anything. Their pursed mouths were formed into "bubbles" where the lips were closed and cheeks inflated by internal pressure, this to check the production of vocal sounds of any kind. As the procession passed me and I was recognized as their erstwhile guest teacher, some would be tempted to break rank and greet me with enthusiasm. Understanding the importance of their duty, however, I would puff out my own cheeks in a gesture of solemn solidarity.

The little ones have no doubt that the American teachers and their Moroccan assistants have the authority to enforce this comportment. *In loco parentis*. In fact, teachers have prerogative concerning a wide range of moral parameters as they nurture their charges.

"Mr. Choquette, put me on Blue!" students craving an accolade would implore. An explicit moral meter was present in these kindergarten classrooms. A tiered chart indicated the daily quality of individual student behavior. All students start the day in the green zone, marked by clothespins or magnets labeled with their first names. If a poor behavior incident occurs, the teacher moves the marker of the offending student from green down to the yellow area. Further infractions sink a student into the dreaded red, which provokes a parent-teacher conference. Exemplary behavior, on the other hand, moves students up, potentially into the noble blue area at the top of the chart.

Once they have a foundation in the two influences of nature and nurture, kindergarteners would eagerly engage in elementary differentiation. Nature encompasses the properties of inanimate objects including the constituent components of biological anatomy. Nurture is the influence of human beings upon one another. Here language and all the attendant symbolic media bathe the kids in a metaphysical universe of meaning. Consider an activity where the teacher presents brief scenarios and challenges students to differentiate between the dominant operatives of nature or nurture:

- Ahmed laughed at the joke.
- Aya said that it's cold in the classroom.
- Malak wouldn't sit down at her desk.
- Aidan took Ismael's pencil.
- Mustapha skinned his knee on the playground.
- Ms. Lord told the students to line up.
- Josef spilled his milk.

Discussion follows. When the two influences overlap, their separate roles can be discerned. For example, if the teacher asks the students to consider the rules of the classroom, a student might point to the poster listing the rules and suggest that they exist in nature because the paper and inked letters are part of the material world. Since GWA students are extraordinarily adept at learning languages it will be simple matter for the teacher to point out that the poster is only meaningful because the letters are arranged in a recognizable language. Nature accounts for the material, nurture accounts for the meaning and the authority behind their enforcement.

Mind, thoughtfully

It's not too early to draw attention to the difference between our brains and our minds. Each classroom would have sophisticated models of the human brain and students would soon learn to indicate the approximate locations of their own brain stem, cerebellum, frontal cortex, visual cortex, motor cortex, etc. The brain is a biological organ of nature created under the direction of our DNA. Our minds, however, have an intangible, independent functioning.

"What's on your mind?" we often ask each other. Not, "What's in your brain?" To illustrate this a teacher could say, "OK, students. Close your eyes and think about a bunny rabbit." After a

brief pause ask, "What kind of a bunny did you see?" Get a few answers. "Now, does anybody think a real live bunny somehow jumped inside your head?"

Other lessons would focus on emotional feelings, our minds' impulsive reactions to various life situations: Glad, sad, mad. (Also a good phonics review.)

Soul, spiritually

The most problematic addendum to our kinderconscious curriculum would be including lessons about the soul. Historically, this was seen as the purview of religious education, but the investigations of psychology and neuroscience have contributed insights that are secular. The admissibility of metaphysics shouldn't be an impediment. The students have already been exposed to the intangibles of DNA, nurture, and the mind that don't operate with the precision of chemical reactions. To allay fears of indoctrination, this curriculum does not need to include speculation about the existence of God. Without dealing with origins, we acknowledge propensities that aren't explained by genetics, authority, and our emotional moods.

Individual inclinations are an aspect of our consciousness that is accommodated to some extent in the kindergarten classrooms. Time was set aside for unstructured imaginative play at various activity centers such as kitchens, blocks, puppets, puzzles, and collections of dinosaurs, farm animals, etc. The spontaneity of the children is encouraged, the teacher having given no specific instructions other than safety considerations (e.g. Don't throw blocks!).

Of course, freedoms must be circumscribed in a classroom of ten four-year-olds. How could they all get what they want at the same time? Limelight has a sharp exclusionary focus that must be delicately managed. Yet variations of show-and-tell have a perennial place in the daily routine, and birthdays are rigorously celebrated. Students often create their own windows of expression through which a distinctly personal act emerges.

Gisela and Shemsy were two Discovery Room students who were very good friends and spent as much time together as the daily regimen tolerated, often holding hands. They were fascinated with me as an anomaly in Discovery life, undoubtedly triggered by my gender and height. Often during free play either in the classroom or on the playground, the two would approach me from behind and stand close to me. When I would turn and notice them, they would shriek and run away, not in terror but in a state of excited agitation that did not provoke concern from other teachers or students. It was a game that they invented to act out some inner intuition they agreed upon. During the course of a 30 minute recess they would repeat this several times. How did this activity originate? Certainly the teachers did not instigate their shenanigans but instead found them amusing. Somehow, Gisela and Shemsy agreed that there was a subtle energy about me that seemed eccentric. They devised their game to accentuate this. Their agreement was powerful, intimate, and outside of curricular or behavioral expectations.

In *The Soul's Code*, Hillman introduces his acorn theory of individual impetus: "...once the acorn is imagined archetypally, imagined as an archetypal idea, it is not confined by either the

laws of nature or the processes of time." He traces his theory to Aristotle's discussion of the famous dictum *Ethos anthropoi daimon*, often translated "character is fate." Fate, genius, calling, acorn, soul perhaps the most generic, all can convey the idea of an individual predisposition but all have other connotations that can easily confuse discussion. Because a soul does not conform to the rules of language our references to it must be taken with grain of metaphoric salt.

This soul influence is evident early in a child's life and is prominent before the school's demand for conformity restricts it. Many regard Yehudi Menuhin as the premier violinist of the twentieth century and Hillman uses his story to illustrate the presence of a passion whose source is neither nature nor nurture.

Yehudi's calling was blatantly operative when he was the same age as the Discovery Room kids. "Before Yehudi was four he frequently heard the concertmaster (first violinist) Louis Persinger break into a solo passage as little Yehudi sat with his parents up in the gallery of the Curran Theatre." Menuhin recalls in his autobiography that "During one such performance I asked my parent if I might have a violin for my fourth birthday and Louis Persinger to teach me to play it." His wish was not taken seriously and when he was given a toy violin made of metal with metal strings he remembers "I burst into sobs, threw it on the ground and would have nothing more to do with it." Hillman explains that "Because the genius is not bound by age, by size, or by education or training, each child is too big for his britches and has eyes bigger than his stomach. It will be narcissistic, demanding excessive attention, and it will be accused of childish omnipotence fantasies, such as asking for instruments it cannot handle."

There is no shortage of evidence regarding the influence of nature and nurture. Johnathan Haidt's research confirms that genetics has an influence on our personalities. "We're not just talking about IQ, mental illness, and basic personality traits like shyness. We're talking about the degree to which you like jazz, spicy foods, and abstract art; your likelihood of getting a divorce or dying in a car crash; your degree of religiosity, and your political orientation as an adult." This research accentuates the need for the early introduction of genetics mentioned above.

In Francis Mckay's essay *Eudamonia and Culture: The Anthropology of Virtue* he identifies a cultural foundation for a person's "telos" which is the word Aristotle used to describe an individual's object of fulfillment. But when Aristotle mentions "some divine element within" Mckay feels he must distance himself, asking "...how does one think about virtue, practical wisdom, and flourishing in the absence of his metaphysical biology?" In the work of these two scientists, we see a common bias that disavows the influence of a soul upon an individual. But as they strain to explain the reality of personalities without that "divine element," persistent gaps leave us dissatisfied.

My experiment with life included the raising of my daughter. The application of my thoughts on consciousness quickened my perception of and respect for her consciousness. We kept her at home during the Discovery Room years so I can summarize our parenting during this time with the four influences model: Nature – I saw the form of her physique mature and gain dexterity in

response to our provision of the necessities of biological life. Nurture – Imitating and obeying, she began to learn language and understand the significance of her relationship to us and then to wider society. Mind – I marveled at how she negotiated all of the influences of her life. Soul – I noticed her unique approach, her preferences and inclinations that did not derive from our parenting or any kind of instruction. For her wedding in 2015 I composed this song for her that celebrated the influence of her soul:

How You Choose

How you choose, choose the life that is right for you

It's a wonder to behold, it's a story to unfold

Through and through, you have a sense of knowing who

Has kindness in their heart, you seem to sense it from the start

This is something that I always saw since the time when she was small, it was completely natural

She has a certain tendency, finding kindness and some sympathy, always found it independently

Little One, brings me a burger on a little bun
There's a cake out on the rise, it's her birthday cake surprise
Little friends, Danielle, Vanessa, and the Hamiltons
Somehow you knew that they were right for you

I marvel that her sense is strong, never seems to get it wrong, it's like she knew it all along Now everything that we see seems to fit her perfectly, couldn't fit a bit more charmingly Now you choose, choose the one who you will go life through Somehow you knew that he is right for you

Returning to my representative neuroscientist, Koch's "romantic confessions" betray the influence of his soul even as negates it. "I am fortunate in that I knew from an early age what I wanted to be when I grew up. As a child I dreamt of being a naturalist and zoo director, studying animal behavior on the Serengeti." And further, "...I've never lost my abiding faith that everything is as it should be! I feel deep in my bones that the universe has meaning that we can realize." Bones that feel is not something Koch wants us to read literally, but the imagery and the reference to faith point to something soulish.

Objections, subjectively

By now readers have probably felt some resistance to the audacity of a kinderconscious curriculum. Teach the daimon in public schools? No way! Conformity, not eccentricity, is the overwhelming paradigm of schooling. The relaxation of restrictions invites chaos, risks injuries. Teachers who do not enforce quiet classrooms and orderly lines are chastened by colleagues and administrators. Public schools, because of the demands of large quantities of students packed into a restricted space with a single teacher supervising, do not process controversy well, they primarily implement orthodoxy.

Some might have concerns that children aren't ready for this level of knowledge. In ancient Greece, Socrates was silenced because he corrupted the youth with his teachings! But imposing arbitrary limits on learning for moral reasons is quickly becoming an impossibility due to internet access. Objections from Muslim religious conservatives in Morocco might stifle

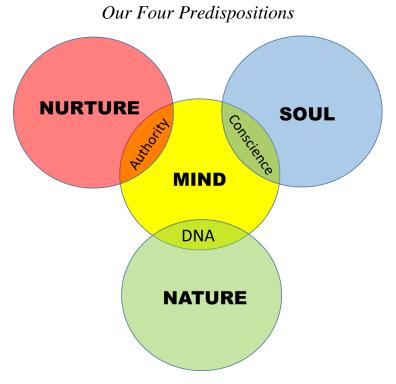
consciousness studies at GWA but why would they bother since the attending students and their families are already thoroughly secularized.

Consider that, in objecting to teaching consciousness, we may only be projecting our own biases, insecurities, and ignorance. We all endured the strictures of K-12 schooling, why shouldn't they? Perhaps we have surrounded ourselves with colleagues who would look down their noses at metaphysical explanations. If an adult has spent life suppressing the urging of his or her soul, confronting this tragedy could be deeply disturbing.

An Elementary Theory

The second implication of being kinderconscious in this paper is that our own immature grasp of consciousness inhibits personal fulfillment. Aristotle made an early attempt to make sense of the mystery of our subjective experience. Interest ramped up during the Enlightenment, most notably with Descartes. In the late nineteenth century the field of psychology was specifically dedicated to the subject and empirical legitimacy in the form of neuroscience caught on in the late twentieth. We have yet to agree upon a basic theory. Why is this? Are we intent on making some kind of earthshaking discovery while simple explanations are readily available?

The consciousness of each individual can be seen as the melding of three spheres of influence, nature, nurture, and the soul, into an independent mind, through distinctive interfaces. This simple theory can be represented by the following diagram.



A Glossary of Terms

The following definitions, clarifying the above diagram, set up a highly differentiated model of four predispositions and the interfaces that unite them.

- Nature Beginning with the Big Bang, includes all that is encompassed by the $E = mc^2$ equation and is regulated by immutable physical laws.
- DNA A plan for biological life. In coding this plan into a base-four numerical sequence, DNA utilizes a metaphysical database.
- Brain An organ formed according to a DNA architecture that coordinates a sophisticated nervous system that collects information about its surrounding environment through various senses, then activates a response through a musculature.
- Mind A metaphysical deliberative field, operating independently, that is receptive to sensory, cultural, and spiritual influence and considers options for response.
- Nurture The extent to which organisms influence each other using authority communicated with symbolic systems.
- Soul A unique influence of unspecified origin, intimately associated with only one human being.
- Conscience The interface that connects our souls to our minds, experienced as a usually vague notion regarding the extent to which life events are satisfying our yearnings.
- Consciousness A condition marked by a sensation of subjective experience that arises when all of the above are operative in a single organism.

Epilogue

At the other end of the GWA spectrum, the senior graduating class is coddled, granted deference and special privileges, and paraded across the stage as the glorious result of a fine exported American education. Their acculturation is breathtaking. The young ladies wear no birkas nor even head coverings. Their pages in the yearbook look like they were taken from an exotic American fashion catalog. Through their wealth they exude saucy attitudes of entitlement. Is their optimism substantive? Are they well positioned to achieve fulfillment in life?

One day early in my tenure at GWA, I was assigned to cover for an upper school English teacher. I was unaware that a class of unmotivated senior boys was on my schedule. As I attempted to engage these boys in the lesson delineated in the sub plans, they weren't paying attention, instead were chatting animatedly amongst themselves in Arabic and French. Finally Sidi explained, "Mr. Choquette, you are taking yourself too seriously. None of these lessons are necessary for us. As you can see, we speak English fluently. We will all go to work in the family business after we graduate in May. You see? Salmane's father owns a chain of grocery stores in the south of Morocco. Ali will work in his father's petroleum importation company."

How could I argue with that? I recognized that "Rebellious intolerance...is a primary characteristic of acorn behavior" (Hillman). I was smitten, grateful that they condescended to explain in English to the poor monolingual American who clearly did not understand the significance of their being seniors.

Paying homage to a classic American instructional style, I will end this paper with a test. (Well, maybe it's more like a pop quiz.) Imagine that you've been teaching the provocative new senior

class in Eudaimonics at GWA. The instructional objective is to develop the students' introspective skill in assessing one's personal sense of fulfillment in life. In terms of my theoretical model, you are looking for a harmonious blend of their four predispositions. The students' assignment is to select or compose a quote that will be published in the GWA yearbook. Use your first impression to assess the subtle energies suggested by their choices. In scoring each quote, use the standard grades of A, B, C, D, or F with an optional plus or minus. (If you believe your scoring would be more accurate if you could examine the full-page photo spread that accompanies each quote, please track me down during the conference.)

Senior Quotes	
	Words are not enough to thank every single person who helped me forge my identity.
	The difference between a successful person and others is not a lack of strength, not a lack of knowledge, but rather a lack of will. – Vince Lombardi
	If you can imagine it, you can achieve it.
	Once we leave Morocco, nothing will be the same. Most of us will engage in new lifestyles and become accustomed to new cultures.
	I'm a senior and I always stay fresh, man.
	If nature is illegal freedom doesn't exist.
	Create the highest, grandest vision possible for your life, because you become what you believe. – Oprah Winfrey
	I get butterflies when I think of myself.
	Sometimes the King is a woman.
	To my kids: I told you I was gorgeous back in high school;)
	The truth is you don't know what is going to happen tomorrow. Life is a crazy ride, and nothing is guaranteed. – Eminem
	The future belongs to those who believe in the beauty of their dreams. – Eleanor Roosevelt
	All I have ever wanted to be is who I am becoming. – Anonymous

How did they do? Perhaps their diplomas and bright prospects suggest that a kinderconscious curriculum is mere romantic sentimentality on my part. Economic success is a seductive lure that imposes compelling cultural stigma. Will they substitute this for the calling of their souls? Or will it facilitate the material means to pursue that calling? I believe that we, as educators and parents, can do better in helping children sort out what will be the path to fulfillment in their lives. We interfere too much. Our confidence in the fundamentals of consciousness will guide us in nurturing them in a way that does not squelch their precious propensities.

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