EDUCATING ALL FROM THE INSIDE OUT

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EDUCATING FROM THE INSIDE OUT

Introduction

My focus for years has been on a different perspective about individuals on the ADD-autism spectrum. I assert they are here as they are supposed to be, not with a deficit or disorder, but giftedly different, hard-wired to the right/heart brain, which is an open and connective orientation to life. We have not understood this, for, not able to adapt to the ways of the world, these individuals stand out as the square pegs in our world of round holes.

These connective individuals stand out because the world we have created runs predominantly on separation, not connection. This has come as a result of us relying nearly totally on left brain processing which is designed to delineate differences and then, using words and numbers, defines those differences as ideas, facts, and conceptual information. This all happens in our economic, natural resource, health, social, political and educational realms.

These differentiating left brain processes and definitions are natural and good, unless they are used only on their own, with no interplay with the connective experience and knowledge of the right/heart brain. Without connection, we see others as primarily different from us, when in truth, first and foremost, humans share universal and fundamental deep needs and values. We also see health or illness mainly as outward managed conditions, and traditional education as the required route that we and others, before and after, must travel.

Further, without connection to the planet we rob her of resources. We use those resources for headlong economic and material progress, driven by unleashed binary-based technology, the results playing out in the political and social domains of only part of the world's population, yet affecting the entire world. So, where is the connection needed to balance and guide all of our endeavors?

Since we all started out going to school, and that being a perspective and life forming fundamental experience which continues, it seems an important and necessary place to start. I will talk more about connection and spectrum differences as part of this paper, but I would like to move first into a broad discussion of our educational approach.

What prompts this overall education focus on my part? It was a question asked after my presentation at a college about my different perspective regarding the right/heart brain connection abilities and left brain 'disabilities' of spectrum individuals. The over-riding question about what I proposed was: "How do we address their connective, less linear differences within the present system of linear teaching standards and benchmarks, testing tools, and the expected results?" In other words, the students and teachers were asking, how do we get there from here? "How do we teach these individuals differently given the largely linear left-brain system we are in?"

In regard to connection, this question deals not just with spectrum individuals but with our 'come from' in every classroom, and in our whole educational system. And **many answers are**

coming in a building wave which invites a change. I entertain several fundamental perspectives in this paper.

What is 'Education' as Opposed to 'Teaching?'

Yes, let us first ask, what is the difference between education and teaching? After all, we do call it our educational system and our Department of Education, not our teaching system or department. What's the difference, when did we start 'teaching,' and can we possibly pull off another way that works better?

Several years ago, I came across a distinction in an online definition of 'educate' as opposed to 'teach.' Not noting the site at the time, I have failed to find this very valid defined distinction since. However, I am in complete agreement that "to educate means to draw from within," whereas to teach essentially means to impart facts and information from without, the latter also focusing on the ways and practices to find and utilize information in standard approved practices. Overall, for a couple hundred years at least, some saying more, we have been 'teaching' kids in our public education system. So, when did teaching start?

Flashback to Britain, birthplace of the Industrial Revolution in the late 1700's. People were producing most of their own food, clothing, furniture, etc., but quantities were short. Many, many people were poor, malnourished and diseased. But, Britain also had great deposits of coal and iron ore, essential for industrialization, was a politically stable society, and was the leading colonial power in the world. Necessity led to invention, that of the Spinning Jenny which made spools of thread, and the Power Loom, both becoming the crank start of the industrializing British engine. Now, how to manage all this new power in the British colonial world?

Britain's determination to remain the leading colonial power required a synchronized facilitation of information. Existing in the empire before this time but soon intensified, a vast system of human information and activities-tracking was created. Schools and offices throughout the domain were structured to impart and keep close track of information fundamental to the running of the entire colonial realm. And the best way to teach information skills in order to maintain the system and create new workers? In rows of desks, a supply of books, and teachers in front of the classroom.

Fast forward: today world-wide, we are still primarily teaching in this way. Our continued objective is to teach information and facts. But this is the process and content of our past, teachers teaching about what has already happened, facts already decided upon and chronicled to be taught anew at a time when things change every day, and faster than ever. The bulk of information learned in this fashion will be forgotten after the required testing for what's been retained. Certain processes of discerning and integrating are acquired in this approach, which are valuable, but the mass of 'forgetable' information is now available on computers and phones.

So, we've heard it before: "How do we educate as preparation for our present and future world?"

Learning in a Different Way, Inside Out

As a young student, I remember the weight of the assignment to memorize the large amount of information regarding the terrain, natural resources, people, products, cultural traits, etc., of a certain country or area. So much disconnected information to ingest and give back. And, as a young teacher, I recall starting out trying to teach in this way also, until someone told me, or I realized that the easier and most rewarding way to approach this was to *ask the students*, "What would be needed to start a home in a new unsettled area?" Such a simple question, with the load off my back and no weight at all transferred to students.

Instead, the students responded to this open and inviting question quickly and then more and more excitedly as they shouted answers they knew inherently: a place that has...water, animals and plants for food, materials for shelter and tools, sunshine for crops, rules for living together and avoiding quarrels, governing, ways to share in community, socializing, and entertainment, etc.

Then, next they were excited to look up what turned out to be the best crops to grow, as well as those resources and activities that made this area livable for so many, especially for their own home town. Finally, they wanted to find out what all had evolved in the use of resources and practices that led to their lives in that place now.

Preparing for a test on facts only, or the opportunity to recount the needs for settling, hands down drawing this forth from students was far more effective at engaging their curiosity, questioning, inner knowing, joy of learning, and retention of information that came from within them which could be resurrected at any time from that day forward in their lives. This is because the answers came from a place where they already knew it inside, it being a part of who they were, this newly discovered information now a part of them also, never to be forgotten and retrievable.

This is drawing the 'inside' of students out, whereas 'teaching' attempts to put something in, not drawing from and building on what's inside first. In contrast to this, overall Montessori and Waldorf schools function in an 'educating mode.' Isn't it time we do this for all students in our public schools, spiraling up and building this foundation for higher 'education?'

Besides the easy regeneration of knowledge and information of this educational mode, there are other reasons why resourcing from the individual *as first a knower and then a learner* is a superior approach to schooling. By educating knower/learners, we will find new answers coming forth for our current world from this inner resource, akin to an additional inherent intelligence we rarely call upon. This would be in place of our factual answers based on past information, which is part of how marginally and mistakenly we use our intelligence that deals with information.

Jumping in with both feet, I'll start with the experience and research that told me we need to turn our education of children inside out.

Children Inside Out as Knowers/Learners Finding 15% in My Class on the ADD-Autism Spectrum – Peggy Magilen

Turning to educating and not teaching, we can draw children from the inside out, finding *the knowing* within each, even in children who are very different. It is from this *connective inner knowing* that students can first draw the answers about *the needs* when settling the land, and next they can use their *shaping information intelligence* to detail the particulars *of what would be needed* to meet those needs.

One source of this first connective knowing is our direct experience: a dog is experienced and learned to be a dog, rain rain, the stove hot, etc. These things are then labeled and known by our second naming/shaping intelligence abilities.

So, direct experience is a connective knowledge, but the knowings more related to education reside within what I call our right/heart brain connective intelligence. And these are then shaped by this second intelligence, that of our left brain, adding valuable information we have or can acquire to bring forth our known/discovered solution, as in <u>how</u> to carry the water we know is needed, from the stream to the cabin.

I had quite an opportunity to discover students as knower/learners when I returned to teaching in the late 90's after raising family. In that decade, we were confronted by a fairly large, and since, steadily increasing number of kids in our schools "unable to pay attention," their minds somehow refusing to fit the usual program. And, as can happen with differences we do not understand, we have taken quite drastic means to minimize their differences, determined to orient them to our world as it works, often using strong medications to help make this happen, thinking that's best for them also.

However, surprisingly, I quickly found out these students, roughly 15% of my third grade regular education classroom for ten years, were not to be changed, in fact they are hard-wired to be different, here for us to recognize the literal 'inside out' way in which they are knowers/learners.

This is the subject of several short and long papers I have written. I will give a much shorter summary of these learners here, for there are other important corollary themes that are a part of a **potential bourgeoning 'inside out' directional change in education**, it all being part of a hopefully larger world-changing shift. (See my papers on my website: HeartCenteredMinds.com., which deal particularly with those on the ADD-autism spectrum.)

To begin...

The knowers/learners who showed up more frequently in the 90's, and increasingly so since, are those with Attention Deficit Disorder (ADD), Attention Deficit Hyperactive Disorder (ADHD), dyslexia, Asperger's Syndrome, and autism, these all on what I call the ADD-autism spectrum.

Along with these individuals there are a few other related 'difference' categories, such as non-verbal learning disorder, with some characteristics even shared with bipolar disorder. **These knowers are here, living and learning literally inside out,** and are here to encourage a shift in

us to <u>our</u> inner knower, through our understanding and caring for them, and by their example to us.

Spectrum individuals are here with this "gifted for the greater good" different learning and operational orientation, that being to the right brain and the heart, they wanting to help others or the world in some way. Accompanying this open, inspired orientation, they also have very sensitive nervous systems, and lack a left-brain filter.

As mentioned, our world functions predominantly using the left brain, which organizes incoming information and stimuli in a filtered, linear, sequential fashion, dealing with letters, numbers, thoughts, facts, and concepts; this happening with an ever-increasing focus and magnitude. In great contrast to this, spectrum individuals' right brain alignment works like an *open* satellite dish receiving wide and subtle degrees of information all at once from a huge realm, much like a real satellite dish open to the expansive sky.

This subtle and expansive information actually comes to all our right brains in non-traditional ways of 'thinking,' arriving as Ah-ha's, epiphanies, intuitions, gut-hunches, gut-empathy, inspirations, something-told-me-so's, insights, and passions; all these also leading to out-of-the-box thinking. The majority of us, however, give little time or credence to the subtle dynamics of this domain of intelligence that we all have.

The heart is also involved in this other natural form of human intelligence, and researchers and participants in many different disciplines and approaches seek support from heart centeredness. One prominent institution in the scientific realm, The Institute of HeartMath in Boulder Creek, CA, has found the heart to be paramount in crucial ways with "neural transmitters that communicate with the brain, thereby influencing information processing, perceptions, emotions and health...affecting most of the body's major organs, and ultimately determining the quality of life" 1

My proposal about spectrum knowers/learners requires a shift to allow them to function as they are naturally inclined. **ADD** is defined by the educational and the mental health world as **Attention Deficit Disorder**. I have renamed it **Attention Differently Directed** to open right/heart brain receptivity, and all the spectrum different categories should be renamed in a similar manner.

Lacking a left-brain filter subjects the right/heart brain and sensitive nervous system to overwhelm and overstimulation from too much linear information and/or excessive sensory and/or chemical stimulation coming in.

So, **living viscerally 'inside out,' with these attributes:** their open right/heart brain orientation, no left-brain filter, and sensitive nervous systems, we find all these individuals calling our attention to the non-linearity of their connection, an impetus for us to look at the over-linearity and lack of connection in our world.

To enlarge upon a paragraph from one of my extensive documents about these individuals²:

These gifted learning differences are consistent with other functions attributed to the right/heart brain: gut-empathic, intuitive, inspiration motivated, big picture oriented, out-of-the box thinking, drawn to welcoming physical or sensory (hands on) activities, and seeking meaningful, harmonious, and helpful solutions for those near them and the world through philosophy, science, social leadership, and more; this orientation **indicated as well by:** trouble with our very linear world of the written word and the linear/repetitive aspects of math, with organization, schedules, etc.

And another of my descriptions³:

A right/heart brain orientation is indicated by any or all: keen intelligence, a draw to nature, music, science, art, movement; intuitive and gut-empathic understandings of people and 'moral' and fair action; also by just how difficult it is for a student to use left brain skills such as: to adjust to a changing schedule, to listen and keep their attention on, finish and turn in routine assignments. Very often poor small and large motor skills also accompany a right/heart brain orientation (since these are left-brain governed skills), often evidenced in difficulty with handwriting and physical coordination.

And very notably, due to lacking a left-brain filter to detect and interpret the nuances of verbal and body language in social communication, these individuals often seem more socially inept, generally choosing the company of another like them, or a computer, which is easier to understand than humans. With this social disinclination, they are often seen as 'reclusive.' However, looking at that a bit differently, this disinclination, and their other inherent intelligences and sensitive body attributes, keep them away from the norms of operating like the rest of the world.

It is impossible for these children to function like most of the world, with openness to predominantly linear instruction, for they are "hard-wired" to turn away from it, they also being the "canaries in the coal mine," with their hypersensitivity to information, sensory overload and chemical/toxic intrusions, mostly all human-made.

These right/brain open individuals will **turn away** from our unfiltered noisy, and to them, invasive linear world of words and rote numbers, often found in schools, which predominantly then becomes the Attention Differently Directed aspect of these individuals. Very intelligent, boredom also turns them away.

Spectrum individuals need a challenge in learning in order to be attuned. If they have completed a homework assignment due to pure grit, or keen interest, they often may not turn it in because that act is anti-climactic, naturally disinteresting their brain. Their brain can go on screen saver in a non-stimulating classroom, often seeming lost in a day dream, or they might create some form of commotion, an outburst, undisciplined behavior, shout, or "prank," just to get something happening in their environment.

Like the challenge, these kids live for passions that draw them to and can explode from their right/heart brain connection, e.g., intense love and connection to animals, poetic words and insight springing forth with seeming adult maturity and understanding. (Connection can

sometimes reach a point that it cannot help but be vocalized, and Asperger's individuals often have a deep ability with the written word, linear but arising from the inspiration of their connection.)

Particularly, autistics can very early on intentionally leave our world via very focused passions, often seen and labeled as fixations in autism, which can further provoke a gradual or more sudden withdrawal from interaction with the world. They can also create this inner immersion using stimming actions, which refers to repetitive physical actions, such as spinning around. Both withdrawal and stimming takes autistics to the inner quietude of the right/heart brain where peace, deep insights and understandings can come.

The brains of <u>all</u> spectrum learners can also then engage the shaping skills of left-brain language and linear skills, <u>if</u> they are allowed and encouraged to follow their inner inspirations and passions, which come to them from right/heart brain *connection*. (Left brain skills are too invasive if their use is singularly, and too frequently required of spectrum individuals.)

Passions for spectrum individuals, and for all of us, are what inform us of our intuitions and inspirations and the special talents and abilities we have. Our passions are what our heart longs to bring forth. So, spectrum individuals, despite being more reclusive and left-brain challenged at times, will want to participate in their own special passion conversation with others. Thus, they will be compelled to find ways to informationally shape and share their gifted insights.

I speak about all of this in depth in my papers, "Heart Centered Minds, Learning Differences, not Disorders," and "The Inside Out of Autism," at my website: HeartCenteredMinds.com.)

Specifically, in "Heart Centered Minds," I tell how Temple Grandin, now 71 in 2018, and one of the first widely known autistic individuals who had been diagnosed as a child, was wonderfully challenged by her biology teacher to build a model of the famous Distorted Room. In this room two people of the same height can look larger or smaller depending on which corner they stand in. Of this challenge Temple wrote in *Emergence*, the autobiography of her early life: "Obsessed by solving the Distorted Room puzzle, I began to study some of the (linear) boring subjects just in case I might learn some things that would really interest me."

Temple then went on to graduate high school and college, with a master's degree and Ph.D. in animal science, much of this success built upon the more left-brain required subjects that supported her deep passion for animals, she going on to invent humane livestock handling equipment widely used now in the United States and some abroad.

Nature is thus exhibiting the natural way that shaping intelligence skills will come forth on their own in balance with connection to passions and inner inspiration.

It is my view that our left-brain faculty is to use our left brain linear and measured information knowledge to shape that which comes to us first from our own connected and inspired passionate realm of this right/heart intelligence, which can greatly guide us to find answers for our world. This is putting the horse back before the cart, for acting with connection to others at some deeper level first, and then using information and left brain skills for contouring,

we can come forth with the solutions the world and planet need. These solutions will spring naturally from inner inspiration to create a world outside matching the connective knowing arising from within us.

Adopting the attitudes and ways that **honor and support spectrum individuals as who they are** will open <u>us</u> into our own hearts and intuition once again, and bring an understanding that we left our connection to our own inspired, deep and passionate inner intelligences long ago.

I would like to address the important topic of how these knowers/learners can function in our world. Many 'high functioning' spectrum learners, accommodating for their more difficult differences through school (or bailing out of school) and moving out and forward in society, can follow an interest or an ability and find a good job in some aspect of our culture. This can be either mainstream, like many successful entrepreneurs and others, or in some off-the-beaten-path *unique fit* to their insights, interests and abilities found elsewhere.

A specific example of a very unique fit: autistics are more and more being employed in jobs needing scrutiny for anomalies or small differentiations. Often thinking in pictures, autistics can see the finer details, spot a pattern in a distracting environment, detect visual structures, and can mentally manipulate complex three-dimensional shapes, as supported in an article by Laurent Morttron.⁵ The Israeli army⁶, US army⁷ and many businesses in various fields, particularly in Silicon Valley, are employing autistics to heighten accuracy or help lead to broader applicability and opportunity, the companies aided by autistics' heightened perceptive skills.

And to note, these autistics do not feel overburdened with this work as a 'neurotypical' individual would, for their brain is designed to see these things easily, and these autistics do not mind, but rather thrive on repetitious work. This is a little different than what has been said about other autistics such as Temple Grandin needing challenges, but there are differences among differences, and most autistics and all spectrum individuals are highly motivated, and thus 'challenged' by *any work* that they feel helps others or is for some bigger goal.

Many other individuals with differences, and 'high functioning' enough within that general definition in our traditional schools, will make it through our current school system with the help of tutors or special support classes. Many get a General Equivalency Diploma (GED) in order to graduate high school, perhaps going to a junior/community college, maybe then motivated and focused enough to pursue even higher education. At whatever point, they can eventually find their place within a broad ability range of jobs such as computer work, chef, builder, musician or artist, bakery or pet store worker/owner, or wherever their connective intelligence may take them with their ability and interests/passion, large or small.

And then, many of these individuals are here to strongly underscore that which all these learners know at some deep level: that we are to return to connection and kinder, gentler times. A friend of mine mentioned that many individuals with more marked learning differences that he knew were primarily interested in animals, children or older people. This is because the simplicity and depth of connective heart interaction in these others, matches who they and all spectrum learners are, inside.

Often helping these last mentioned individuals heighten and build upon these interest-based experiences and interactions can bring greater interactive and performance skills, which feeds further confidence and ability and—continuing development. The brain's abilities are fueled by interests, passions, nurturing, belonging and success. (See "The Inside Out of Autism" at my website HeartCenteredMinds.com.)

Some of these last knowers/learners may need more support to make their way from home and school to the world outside. And this 'world-fit' challenge is about spectrum learners but also others such as those with down syndrome or cerebral palsy. It is very often true with some autistics, when not reacting strongly to our 'noisy' sensory and/or toxic world around them, and of those with down syndrome, cerebral palsy, and others, that we see their deep nature: simple, gentle, calm, quiet, kind, and some, deeply knowing. Lamenting the lack of understanding by others of her autistic son's differences, mother/author, Laura Shumaker, writing in her book, *A Regular Guy*, protests: "...they can't accept Matthew as he is. Can't they appreciate his honesty, his humor, and the pureness of his soul?" ⁸

And Lexi's mom, from a documentary called *Autism, the Musical*, at first stressed, confused and depressed by the huge challenges of Lexi's autism, became a highly accepting and supportive parent, joyous and grateful for Lexi's wonderful nature. She entreats:

Autism is considered a disease...and nothing will happen that is positive, until these humans are valued by others for the beautiful people they are and the gifts they have. I cannot make others respect Lexi and love her, but living with Lexi has had a strong effect on who I have become.⁹

It is up to us to make that place for those who need a big transition to our world or to live apart from it. This can be in communities like Camphill Communities¹⁰ where many join together in a living environment with counselors/teachers as part of the community, supporting the shared life skills of all the residents, many of which include interests such as cooking, landscaping, gardening, farm machinery operations, etc. Here there is acceptance, respect and value seen in differences which creates a place for comfort, meaningful contribution, belonging and joy.

Those with more skills can live in group homes where contact with counselors is by call or text, and residents with 'differences' work together using independent living skills, with schedule check-in's with counselors, and school and/or jobs as part of growing into an adult life.

One very developed and supportive site for those able and wanting to find their way forward more confidently in mainstream society is Aspen Network in northern California. Part of the website description:

Aspen Network offers four integrated, year-round programs for teens and young adults with social concerns, anxiety disorders and social differences, including spectrum behaviors...the programs, both residential and nonresidential, allow young people to learn and grow in a welcoming environment with peers of their own and a sensitively trained staff that includes neurotypical young adults...

Developing a housing community with people of blended diagnoses means that residents can use their strengths to assist others in their areas of growth.¹¹

All these types of inspired and comprehensive support for spectrum individuals is so very needed for so very many. The programs I have found at this time are paid for by parents or other support people. In the best situation, this would be paid for in a way similar to Medicare perhaps, for initial and/or ongoing cost for families is very high. Who will pay when parents are no longer here?

The fact that our awareness of all of these different learners has been alerted and heightened now for some twenty years **makes this high time for a paradigm shift**. This will be the change point, acknowledging who they are, allowing them *to be* who they are, support then coming forth big time in all ways, this also opening us to our own heart, inspiring our return to a balanced use of our right and left brain intelligences to find optimal solutions.

I say a return, for the indigenous peoples of the earth lived with a balance of deep connection to nature and her gifts, along with a respectful use of her resources, that being right/heart brain connection, and creative, inventive, yet non-wasteful left brain shaping/use of her materials. That is a whole wonderful study in itself, to be written about at another sitting.

Four Other Important 'Inside Out' Guidances for Education

Looking now at four other contemporary sources of information about this shift in learning so needed, I will continue the discussion by referring to other educators' wisdom regarding:

<u>How</u> children learn – Sraddhalu Ranade <u>What</u> our new focus needs to be – Neil D. Walsh <u>How computers might play a key role</u> – Sugata Mitra <u>And Project Based Learning (PBL)</u> – Thom Markham

"You Will Know It Because You Are It" - Sraddhalu Ranade

These first ideas are from a lecture I heard seven or eight years ago, the speaker an East Indian gentleman named **Sraddhalu Ranade**. The title of his hour-long talk: "**Honoring a Child's Nature as We Educate.**" (Also, please see his two, excellent approximately hour-long videos on this subject: the first a presentation, and the second a full 50 minutes of in-depth questions and answers, both listed in the Notes at the end of this paper.)¹²

Mr. Ranade began his wonderful talk by laying out the understandings of three main principles for learning:

- 1) Nothing can be taught.
- 2) Consult each mind for each has its own temperament.
- 3) Knowledge grows from near to far.

I will speak about each of these briefly as they relate to the main ideas most pertinent to this paper.

1) Nothing Can Be Taught

Starting with this first principle, Ranade asserts one cannot teach, but can only assist and mentor a child's true learning.

He explained that knowledge can only be evoked, that Ah-ha's *emerge* from within us, they being already there somewhere. We know it because We Are It. When we recognize it, it 'comes to light,' is obvious and is real knowledge. Real knowledge never leaves us, because it is a part of us and *will be* for the rest of our lives.

I refer to this realm of which Ranade is speaking as our right/heart brain knowledge. It is the right/heart brain that connects us gut- and/or whole heartedly, empathically, spatially and inspirationally to our individual worlds and beyond, and in these ways is both an intelligence and heart connection. It is here that we experience what we have in common with other humans and with the fundamentals of life itself.

Ranade extends this very personal learning connection by saying that math and other disciplines should be learned/discovered from a connective experience to the principles of mathematics that live within us and in all of nature. Regarding drill and memorization, he explained that a child can learn (left brain) information, but not necessarily what are the fundamental relationships in math, or as in the case of teaching about "courage," Mr. Ranade explained this is best learned from stories or examples in history. He also added that forced learning, unrelated to the self, is indigestion and not our own knowledge.

2) Consult Each Mind for Each Has Its Own Temperament

Next in his presentation Ranade discussed how minds are drawn to learning in different ways: drawn to understanding, to doing, to working with people, to working with objects, and as is widely known in education: to visual, auditory, and kinesthetic or physical (hands-on) ways of learning.

In line with what he said already about a direct and natural personal experience for individuals, Mr. Ranade explained it takes force to move a child in a direction contrary to what is his or her nature, and therefore we need to teach through the gateway to what is natural to them.

(In the case of ADD-autism spectrum learners this is very important, for their nature is a hard-wiring toward their connection and inner knowing. The indigestion they experience when programs or drugs attempt to make them learn as others creates expanded and additional problems as they remain naturally unequipped to respond to more exclusive linear education.)

Spectrum individuals on medication say it can sway them toward a linear focusing direction, and since many consider that they **must be different than they are to fit our school system**, they put up with the common "being run" or other feelings that the medications can cause. However,

many finally opt to be off medical drugs in order to follow the guidance of their connective learning orientation, and many others 'drop out of the system' at some level early or later, learning and creating in their own way. For example, how many garages have been the learning ground for successful startup businesses, or how many individuals have become gardeners, bakers, artists, musicians, etc.?)

Following the natural learning style of children, Ranade adds, can even lead to learning a subject that they think they don't like, (as with Temple Grandin). The motivation of sharing from their inner knowings can encourage students to learn and appreciate skills out of their normal mode.

3) Knowledge Grows From Near to Far

A wonderful natural extension, Ranade explains the mind naturally connects to what is close, rather than far or abstract. However, he adds that if education starts with personal and close experience, this can lead to abstraction and then one knows the abstract in relation to oneself.

I will now add two more topic headings highlighting Ranade's understandings from his talk that directly apply to the inner intelligences from which we need to draw:

"An Emergent Form of Learning"

Emergent can be defined as "coming from within," Mr. Ranade including intuition as an important part of this, as it is to all using the righ/heart brain. To most, intuition can seem to fail at times, but this is due to the interference of our intellect. He explains that we need to develop intuition which lies beyond the reach of the intellect, the intellect referring to the manager of thoughts, concepts, and rationality. A famous quote by Blaise Pascal: "The Heart has its reasons which reason knows nothing of... We know the truth not only by the reason, but by the heart. 13

In other words, that which comes from heart knowing or intuition is something that is an indication, intimation, a subtle hint of a deeper knowledge, which if handled by reason or the intellect becomes an attempt to make it tangible and of the familiar world of thought. Try to describe the essence of love or courage using logic. Love and courage are connective experiences coming from a deep relational knowing that is part of who we are as humans.

Ranade states that intuition can correct the errors of purely intellectual understanding, and that the future of humanity depends on the development of our intuition, which is about our deeper connection to all of life around us, rather than thought and concepts alone which can lead to separation, fear, hierarchy, domination, a sense of scarcity, greed, etc.

"What Can Parents and Teachers Do?"

"Children are born with insatiable curiosity which can grow into complex curiosity, and if we assist children, they can find their way." These being Ranade's words as he continued to describe what can be called true education.

He advises us to encourage children to access deeply below the level of surface emotions, asking students, "What do you feel/find there?" The inner answers he states are: beauty, love, harmony, freedom. "Have children look at their world, asking what do you find there? Ask them to consider hard rock music and describe what it feels like in their body."

And with his hour talk closing, Mr. Ranade's words:

"Awaken their discrimination regarding their inner knowing. Children will always choose the harmonious, because that is who they are. Through this process we honor the nature of the child within, while he/she continues, with our guidance, to learn how to relate to and integrate the rest of the world to this basis of inner knowing and harmony. Thus we can create outside, the world we know within."

Making Inherent Values the Foundation of our Curriculum - Neal D. Walsh

Moving to a third important realm of discussion, we can talk further here about <u>What</u> we can use to educate. In the following paragraphs, I will be sharing and citing ideas from a text I read, also several years ago, whose words now resonate with my own work honoring how individuals on the ADD-autism spectrum learn from their inside out connection to deeper knowing.

And, just as *all of us* have a right/heart brain and left brain, not just spectrum learners, and because <u>all children can be taught to access the 'inside out' of their natural learning and knowing</u>, as also spoken about by Sraddhalu Ranade, I would like to share how this text discussion states that <u>our curriculum</u>, <u>additionally</u>, <u>can be from the inside out</u>.

The book I will be drawing from is *Conversations*, *Book 2* by Neal Donald Walsh¹⁴ which, among many other topics, speaks of the value of educating by drawing from within. Here, the subject centers on the themes of curriculum that will focus students, younger to older, on **inherent values that are within us all, around which all school subjects can be built**, values from which knowledge comes, aligned with our common natural inspirations and aspirations to get along and also to meet the needs of others.

Without direct citations, the ideas in this portion of the paper will be coming from Walsh's 'conversation,' with most of the information aligning with the 'inner knowing' discussion presented already. All new references come from Walsh, and any Ranade referrals or to my work, of course, will be added by me.

Walsh's discussion also begins with the observation that in the history of schooling, we have long selectively decided to primarily teach facts and concepts; these past facts often told without a full discussion of all the facts for the sake of brevity or for an overall picture. We teach children what to think, feeling we know what they should know and what is considered true. Whereas, with a deeper look, to truly give children a road to wisdom is to teach them how to get to their own truth.

Walsh's discourse strongly proposes that children should be enabled with the tools and access to the full details of history or current topics, and then be given the freedom and contract to draw their own conclusions. Also stated is that young children will know the deeper values involved before them. Memorizing what happened and what choices were made in the past leaves little room for alternate inner discovery, thoughtful shaping, and new solutions. **Teaching with a full view of the past and present**, open for discussion, will result in mistakes of the past openly acknowledged and not repeated, because those mistakes would **clearly** be seen as detrimental or destructive to each person, the country, and/or the world.

A statement is made that it is not **what we are** teaching in our schools that is still creating less than positive solutions for our world, but **what we are not** teaching. And so the discussion asks: "How would a school system teaching life skills, rather than mere facts, work?"

Youth *do inherently know and want* to discover beauty, love, and harmony, and long to create outside who we are on the inside, as we heard from Ranade. Walsh's conversation includes that younger children sense injustice, and that older children decry our actions that destroy the rain forests, deplete the ozone layer, exploit the poor here and around the globe to create products and food for the more wealthy to buy, leaving so very many without the means to improve their lives, and many, many others dying of starvation on a planet with more than enough food for all.

However, when our youth cry out and their inspired, inherently natural values and pleas are ignored, education's emphasis remains only on grades, test scores, and admission to college. Youthful vision has little choice but to give way to what has greater power for the necessities of life going forward. Youth then become what they have pleaded against.

Then the perpetual question arises yet again, how should we be educating our young to dramatically change our world for the better?

Walsh's discussion proposal: devise a new curriculum and build it around three possible inherent values: Awareness (of our choices), Honesty and Responsibility. Let everything we teach come deep from within these concepts, from the earliest materials to our most sophisticated texts: all tales, stories, subject matter and evaluations revolving around these core values.

For example, as Ranade cited, and spoken of here in *Conversations*, even computation skills should be taught within this framework. Math is not an abstraction, but is the most basic life skills tool for living. The teaching of all computation skills would be contextualized within the larger principles of math and in life experience in a way which draws attention to and places focus upon inherent relationships and values, and their derivatives. Relational values are not just mathematical but integrate into the social and the greater ecosystem of the planet.

Derivatives? Fairness, respect, kindness, getting along, tolerance, nonviolence, equality, dignity, creativity, diversity, generosity, reciprocity, recycling of what received and shared, gratitude, ...on and on.

It has been said for many years that deep values education belongs in the home. A bit about character traits and values, etc., has been taught in schools for many years. However, this is not

as the basis of the whole curriculum. And when children are taught to read or memorize addition and subtraction, or even multiplication facts, before they know how to respect other children on the playground or to value themselves, the truth of harmonious living that is core to the make-up of the human being, is still sitting on the back burner.

We teach facts without promoting a natural, intuitive, inclination to consider actions and opinions carefully. This new education is not fact-based critical thinking but instead is based on intuition and inherent values that children will discover they know within them when guided in this way. Given the freedom to explore from within and additionally to use relevant facts, they will reach their own, and needed, timely conclusions.

"But," some will ask, "how can we do all this, take responsibility for it all?" The answer given: "Until you are willing to take responsibility for all of it, you cannot change any of it." 15

Yet most attempts for major change are met with rebuff. To base our educational system on inherent values, when parents are accustomed to primarily wanting the facts (by habit thinking this creates a safe future for their children), will take some willingness to be responsible for a change that must come soon if education is to do its job.

It's a given that children will be greatly influenced by the system of values of their parents. Yet, the school's purpose is, and always needed to have been, to encourage children from the earliest age until the end of formal education, to explore these deep values, and to learn how to use them, apply them, and to question choices in order not to repeat prior mistakes.

With open and honest exposure and appraisal, students will choose the continuity of what indeed has worked, for that would have been what honored the needs and connective values of ourselves, others, and the planet, all successful actions an expression of who we truly are. The students will know this when they land on these answers, as Ranade pointed out. And I have shared that spectrum lives are geared to discover these answers from within, also explaining that they will make us more aware of our own 'inside out' intelligences that we left behind long ago.

"Children's Minds Allowed to Freely Wander in Chaotic Fashion Will Land on Big Ideas" – Sugata Mitra

And now an exciting opportunity is arising to discover and celebrate much of what we have just talked about regarding *the knowing* that lives within us, **by making use of computers in a new and very powerful way.**

When learning more about how children learn as part of my research about spectrum individuals, I came across the work of Sugata Mitra. I saw a TedTalk from 2010¹⁶ in which Mr. Mitra said he embedded a computer in the wall of his large tech facility in India, with the face of the computer exposed to the outside. Living outside that "Hole in Wall" experiment, as the media termed Mitra's work, were the residents of a repressed living area for less materially fortunate Indian people. (See also Mitra¹⁷ in Notes for a 2015 talk by Mitra.)

A group of the local children soon surrounded the exposed computer, and as Mitra explains it, within two days these non-English speaking children learned how to use the computer enough, even with its English only programs, to download and install games to play, this before phones were readily available for their familiarity with tech. However, critiques came after Mitra disclosed his findings, they saying that in New Delhi, surely any tech engineer walking nearby could have helped them out.

So, Mirtra's next experiment took a computer 300 miles out to a rural area, where <u>No</u> tech was happening. The result was of the same amazing abilities to explore and learn by the children there, they telling him upon his return two months later in a rather disappointed and disapproving tone, "We need a faster processor and a better mouse!" Mitra then asked how they learned. And, not exactly an answer but an indication of their ability, their response was that he had given them a machine that only works in English so first they had to learn English.

These successful trials with the computers spread by request to England and many other places such as South Africa, Cambodia, and elsewhere, in areas particularly lacking teachers.

Then Mitra **really wanted to see** how much children can learn by themselves without a teacher. He took a computer to another remote area in India and informed a group of 26 Tamil speaking 12 year old's that there was a difficult (biotech) problem on the computer, in English only, that they would not be able to understand and solve, and telling them that he himself did not know the answer. Mitra adding, "And then, I left," a phrase Mitra uses often in his talks, giving rise to laughter in the audience for his casual yet relished abandonment, leaving students to the freedom of their own discoveries.

Two months later he went back to check on the young Indian group, and when he asked if they solved the problem, they said, "No, we could not do it." He inquired, "How long did you practice on the computer?" "Every day," was the answer. Then one girl, who had taught herself to be the teacher of the others, explained, "Apart from the fact that improper replication of the DNA molecule causes genetic disease, we've understood nothing else." Pretty astounding!

Giving a number of these talks and with the amazing results of his work, Mitra was given a TedTalk prize of a million dollars in 2013 to move forward. It is now in 2018 that I've returned to Mitra's talks, not having reviewed any of his work since 2010. Catching up with his advancing success in those in-between years, I learned he has now built seven school sites, five in India, for again, his intent was to get teaching to those rural areas where teachers did not want to go, and also two in England.

His process now is to build or repurpose a classroom with four computer stations, each to be used by four or five students at a time. He then gives the kids a Big Question to solve, like: "Do trees think?" or "Why did the dinosaurs die out?" He gave this second question to a group of 10 year old Italian students, they speaking only Italian and he English. When they turned to him for guidance, he indicated he did not know the answer, "and left." They used Google to translate the English to Italian and in 15 minutes found multiple proposed answers as to why the dinosaurs disappeared.

With one very inspired addition to his program, Mitra found that the students work even better when they can Skype with the "Granny Cloud," i.e., speaking with a retired teacher, of whom Mitra has hundreds of volunteers now who devote one hour of their week Skyping with groups of students. All they are supposed to do is tell the kids in some way how much she or he admires what they are doing/have done. The results are as stupendous, and even more so than his earlier findings, for the questions and Grannies are helping to optimize those results.

In the case of the biotech Indian youth researchers, when tested, they reached 30% success on the local biotech institute testing scale. Next Mitra asked a local accountant to admire the work they were doing, and their scores went to 50%, which was passing on the local biotech institute scale.

Mitra also shares the results of a classroom tested on information with this 'no teacher' instruction, the students instead allowed to use the internet. Their overall score was 76%. But of course, he was questioned as to whether the kids were really learning. After a few months, the students were tested on paper with no computer resources, and the result....76%.

This group approach that adds to the enthusiasm and unleashed discovery energy of the kids gives the students "a kind of retained photographic memory of the work in some fascinating way," Mitra's shares. He feels this is somehow due to this interactive operating and open sharing (what used to be called stealing) of ideas, skills and discoveries.

Seeing Mitra's presentation again in 2018, I remembered it was he who had asked when 'teaching' began when I saw his first video in 2010. In 2015, Mitra pointed to a photo on the screen of factory-like work from the 1800's. It showed many rows of small tables at which workers were sitting all doing the same or similar tasks. He then brought up a picture of modern Indian high school education which showed students in rows of desks with pencils and paper taking an exam. Mitra says he continues to ask schools to allow computer use during testing. But as of the 2015 TedTalk, none were yet complying with his request. (There was mention of a large program-enlargement and trial period of three years from 2015-2018, which were to be followed by an assessment. Perhaps that is why I did not see a later video released in 2018, or I may have missed it.)

With his revolutionary approach, Mitra proposes that this shared computer learning environment takes away the need for a teacher. I know he realizes that he has played the master mind and teacher part creating this program, giving the students questions, and continuing to modify for the students' optimal freedom and inclination to discover and learn, such as with the Granny Cloud.

However, what he is essentially pointing out is that, given the undirected freedom and the opportunity to use technology to access information, students' inner directives will push them forward, amassing what is pertinent as they search for an answer that their brains' abilities can discover. The important underlying boosts: this empowering freedom, exciting challenges, and nurturing by both supporters and a sense of belonging.

My own research shows that nurturing, belonging, and following the flow of passion optimizes the working of the brain. (See the papers at my website: HeartCenteredMinds.com, and particularly, The Inside Out of Autism, Part III.) Even just to try out such a program in a small way in a regular classroom would ignite incredible latent abilities in students.

Mitra is delightful to watch as he talks of his advances. Along with the big successes for rural and city kids, Mitra shares some of his small delights. He asked a group of children why they love Skyping with the Grannies. Their response, "We can turn them off!"

Viewing all this, one sees the natural curiosity in all the students that Ranade spoke of, and that we all know about, here seen as growing closer to complex curiosity and approach in both the young and older students. Mitra: "Education is a self-organizing system, where learning is an emergent phenomenon." Remember Ranade's "An Emergent Form of Learning" and the inspired insights from right/heart brain inner knowing in spectrum individuals.

With the 'Big Questions' Mitra gives, students find themselves naturally exploring **more deeply those very concepts and values** (Walsh) that will shape a better world for all. This is because the students have been given the chance to be who they are, totally, freely, and in cooperative effort, looking to match the world around them to their own innocent and harmonious nature.

It's time to turn our inside nature <u>out</u>, there to draw from our gifted full connective intelligences, further built upon by our brain's ability to shape information thus helping to create a better life for all and the planet. It's time we educate from the inside out.

I had just ended this paper right here, and then as 'life intersections' would have it, I spoke two days later with a young 6th grader who is in his third year attending public opt-in school in Walnut Creek, California, started in 2015, it now in 2018, a Kindergarten-8th grade school. He told me it is a PBL school and proceeded to answer my questions as to what that meant. This is exciting news for it is a large approach, based more on inside out learning, and brings together much of what has been talked about in this paper.

Project Based Learning (PBL)

To acquaint you with Project Based Learning, you can read the words of the creator of the program quoted here, and then follow up at: "PBL Global, Serving Inquiry-Based Educators Worldwide," https://pblglobal.com. From Thom Markham, founder of PBL Global:

"Hello, and welcome to PBL Global! I identify myself as a psychologist, thought manifestor, strategic investigator, author, keynote speaker, and–based on twenty-five years in the field–as a PBL Grandmaster. Now on a life mission: To help educators mobilize youth globally to become social entrepreneurs, design thinkers and empathetic collaborators focused on the common good. I use a unique, strengths-based approach to PBL developed over 15 years that takes 'high quality' to the next level by incorporating caring relationships, best practices for inquiry, core knowledge, 21st century skills, design thinking, social-emotional strengths, and authentic investigation driven by student agency.

Credentials do matter when it comes to PBL expertise, so let me share a bit of my background. I've authored two best-selling books on project-based learning, the *Buck Institute for Education's Handbook on Project Based Learning* and the *Project Based Learning Design and Coaching Guide: Expert Tools for Innovation and Inquiry for K – 12 Educators.* I'm also very proud of a third book, *Redefining Smart: Awakening Students' Power to Reimagine Their World*, which examines the attitudes and beliefs that need to change for inquiry-based education to succeed. In addition, I've worked directly with 350+ schools and over 6000 educators worldwide on PBL.

Through the PBL Global Library of personalized online social learning courses, virtual coaching, workshops, and speaking, I'm extremely pleased to share this knowledge and expertise with educators in every country. I urge you to step into the future, help scale inquiry-based teaching in your school, district, and around the world, and work with students to shape a positive future!"

Tice Creek School K-8

Next, here is the "About Us" for Tice Creek School in Walnut Creek, California, a public opt-in school. Rather than charter, Markham says this public option can be a more challenging format in which to launch PBL, but his praise is high for the staff and the PBL program that is administered by principal Connie McCarley.

"Tice Creek School opened August 2015 as an alternative public K-8 program within the Walnut Creek School District. Enrollment is open to families who reside within the attendance boundaries of the Walnut Creek School District. By approaching the instruction of Common Core Standards through Project Based Learning, students are challenged to work on real world problems with real world outcomes. This process requires students to utilize the four C's of 21st Century learning: Collaboration, Critical Thinking, Creativity, and Communication. As students research a driving question, classes often enlist the support of an industry expert to guide learning and offer feedback on attempted projects. Each PBL unit ends with a product or outcome which often is presented to an authentic audience. Throughout this process, students are encouraged to engage in the cycle of inquiry; asking questions, seeking answers, and developing new questions along the way."

Education Talk Radio, hosted by Larry Jacobs (education-talkradio.org) aired a wonderful interview with Thom Markham and Connie McCarley recorded in May of 2017 that I think would impress you about the implementation and life of PBL in a public school. http://www.blogtalkradio.com/edutalk/2017/05/24/project-based-learning (about 45 minutes)

And now I will close, hoping to have inspired you to join the wave to encourage right/heart brain inside-out receptivity, among other approaches using student-driven inquiry, investigation, followed by left brain shaping skills and all focused toward the common good of humanity and the planet.

—THE END—

Notes

¹Older 2006 reference incorporated here: An Overview of Research Conducted by the HeartMath Institute, Science of the Heart: Vol. 1 (1993-2001), "Exploring the Role of the Heart in Human Performance," https://www.heartmath.org/resources/downloads/science-of-the-heart/.

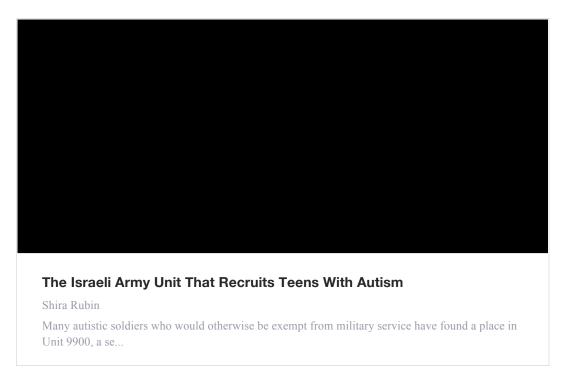
²Peggy Magilen, "Heart Centered Minds, Learning Differences, Not Disorders," Copyright February 2009, (Updated 2011, 2013, and 2/2018), 7

³Peggy Magilen, "The Inside Out of Autism, and Other Spectrum Learning Styles; Learning Through Passions, and Belonging," Copyright July 2016 (Updated 3/2018), 7-8.

⁴Temple Grandin, PhD, and Margaret M. Scariano, *Emergence: Labeled Autistic* (New York: Warner Books, 1986), 88.

⁵Laurent Mottron, "The Power of Autism," *Nature* 479, 3 November 2011, doi:10.1038/479033a, 33-34, accessed 20 September 2018.

⁶Shira Rubin, "The Israeli Army Unit That Recruits Teens With Autism," *The Atlantic*, 6 January 2016, accessed 20 September 2018. (Could not download other than below). The Israeli Army Unit That Recruits Teens With Autism



⁷By The Autism Site, "The Military is Seeking Out People with Autism —Here's Why," TheAutismSite.com Blog, accessed 21 September 2018.

⁸Laura Shumaker, *A Regular Guy*, *Growing Up with Autism*, (Lafayette, California: Landscape Press, 2008), 235.

⁹"Autism, the Musical," HBO Documentary Films, 21 March 2008, accessed 19 October 2008, https://www.youtube.com/watch?v=U35Uc8eg7fo.

¹⁰Camphill Communities, www.camphill.org

¹¹Dr. Meg Fields, Aspen Network, https://aspennetwork.net

¹²Sraddhula Ranade, "An Evening with Sraddhalu Ranade: Educating the Whole Person in the 21st Century," 2011, Kalliopeia Foundation, Part I: https://vimeo.com/40098730 (Presentation), 1:20, Part II: https://vimeo.com/39846990 (Questions and Answers), 0:49.

¹³ https://www.goodreads.com/quotes/559339-the-heart-has-its-reasons, accessed 2 September 2018.

¹⁴ Neil Donald Walsh, *Conversations with God, An Uncommon Dialogue, Book 2,* (Hampton Roads Publishing Company, Inc., Charlottesville, 199) pgs. 116-129.

¹⁵Ibid., 125.

¹⁶ Sugata Mitra, "Hole in the Wall," 7 September 2010, TEDTalks, https://www.youtube.com/watch?v=dk60sYrU2RU, 17:25.

¹⁷ Mitra, "The Future of Learning, 22 July 2015, TEDxNewcastle, https://www.youtube.com/watch?v=OSp306cj3Cc.,17:52.