The Power of Neurodiversity | Thomas Armstrong, Ph.D.

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Neurodiversity: A Concept Whose Time Has Come

Over the past sixty years, we've witnessed a phenomenal growth in the number of new psychiatric illnesses. The American Psychiatric Association's Diagnostic and Statistical Manual, first published in 1952, originally listed about 100 categories of illness. By the year 2000, that number had tripled. We've become accustomed to hearing in the news about "learning disabilities," "ADHD," "Asperger's syndrome," and other conditions that were virtually unheard of fifty years ago. A report from the National Institute of Mental Health indicates that about one-fourth of the American population suffers from a psychiatric disorder in any given year, and an article in the Archives of General Psychology suggested that over the course of a lifetime, approximately half of all people may suffer from a mental illness sometime during their lives. Add to this the observation by Harvard Medical School professor John Ratey that many people have milder versions of psychiatric conditions (he calls them "shadow syndromes"), and we come to the conclusion that when all is said and done, nearly every individual in the country may have a psychiatric illness to one degree or another.

This epidemic in the growth of mental illness suggests that there is a crisis in the making. How much longer can we continue to add new psychiatric illnesses to the list, before it becomes apparent that we have moved too far in pathologizing a sizeable chunk of the American populace? There is, however, an answer to this crisis. The concept of neurodiversity provides a paradigm shift in how we think about mental functioning. Instead of regarding large portions of the American public as suffering from deficit, disease, or dysfunction in their mental processing, neurodiversity suggests that we instead speak about differences in cognitive functioning. Just as we talk about differences in bio-diversity and cultural diversity, we need to start using the same kind of thinking in talking about brain differences. We don't pathologize a calla lily for not having petals (e.g. petal deficit disorder), nor do we diagnose an individual with brown skin as suffering from a "pigmentation dysfunction." Similarly, we ought not to pathologize individuals who have different ways of thinking, relating, attending, and learning

The word neurodiversity was coined in the late 1990's by two individuals: journalist Harvey Blume, and autism advocate Judy Singer. Blume wrote in the September 1, 1998 issue of The Atlantic: "Neurodiversity may be every bit as crucial for the human race as biodiversity is for life in general. Who can say what form of wiring will prove best at any given moment? Cybernetics and computer culture, for example, may favor a somewhat autistic cast of mind." Singer in a 1999 book chapter titled: "Why

Can't You Be Normal For Once in Your Life?" observed: "For me, the key significance of the 'Autistic Spectrum' lies in its call for and anticipation of a politics of Neurological Diversity, or what I want to call 'Neurodiversity.' The 'Neurologically Different' represent a new addition to the familiar political categories of class/gender/race and will augment the insights of the social model of disability."The Wikepedia defines neurodiversity as: "…an idea which asserts that atypical (neurodivergent) neurological development is a normal human difference that is to be recognized and respected as any other human variation." The online Double-Tongued Dictionary characterizes neurodiversity as: "the whole of human mental or psychological neurological structures or behaviors, seen as not necessarily problematic, but as alternate, acceptable forms of human biology."

By using the concept of neurodiversity to account for individual neurological differences, we create a discourse whereby labeled people may be seen in terms of their strengths as well as their weaknesses. Dyslexics, for example, can be seen in terms of their visual thinking ability and entrepreneurial strengths. People with ADHD can be regarded as possessing a penchant for novel learning situations.. Individuals along the autistic spectrum can be looked at in terms of their facility with systems such computer programming or mathematical computation. Those with bipolar disorder can be appreciated for their creative pursuits in the arts. While proponents of the concept of neurodiversity do not shirk from the realization that people with dyslexia, ADHD, autism, bipolar disorder, and other psychiatric conditions, often suffer great hardships, and that those hardships require a lot of hard work to overcome, they realize that until an individual's strengths have been recognized, celebrated, and worked with, nothing substantial can be accomplished with regard to their difficulties.

Eight Principles of Neurodiversity:

1. **The Human Brain Works More Like an Ecosystem than a Machine**. Up until now, the most often used metaphor to refer to the brain has been a computer (or some other type of machine). However, the human brain isn't hardware or software, it's wetware. The characterization of the brain as an unbelievably intricate network of ecosystems is much closer to the truth than that of a complex machine. We should devise a discourse that better reflects this new conception of the brain.

2. **Human Brains Exist Along Continuums of Competence**. Rather than regarding disability categories as discrete entities, it's more appropriate to speak of spectrums or continuums of competence. Recent research, for example, indicates that dyslexia is part of a spectrum that includes normal reading ability. Similarly, we use terms such as autistic spectrum disorders, to suggest that there are different gradations of social ability that merge ultimately with normal behavior. This suggests that we are all somewhere along continuums related to literacy, sociability, attention, learning, and other cognitive abilities, and thus all of us are connected to each other, rather than being separated into "normal" and "those having disabilities.
3. **Human Competence is Defined by the Values of the Culture to Which You Belong**. Categories of disability often deeply reflect the values of a culture. Dyslexia, for example, is based upon the social value that everyone be able to read. One hundred and fifty years ago, this wasn't the case, and dyslexia was unknown. Similarly, autism may reflect the cultural value that suggests that it's better to be in relationship than to be alone. We should recognize that diagnostic categories are not purely scientifically-based but reflect these deeper social biases.
4. **Whether You are Regarded As Disabled or Gifted Depends Largely on When and Where You Were Born**. In other times and other places, there have been different disability/ability diagnoses depending upon cultural values. In pre-Civil War America, for example, there was a disorder called "drapetomania" said to afflict blacks. Its meaning was "an obsession with the urge to flee one's slave masters" and reflected its racist roots. In India, today, there are people who would be labeled in the West as schizophrenic, but who are regarded as holy beings by the local population. We should not regard diagnostic labels as absolute and set in stone, but think, instead, of their existence relative to a particular social setting.
5. **Success in Life is Based on Adapting One's Brain to the Needs of the Surrounding Environment**. Despite Principles 3 and 4, however, it's true that we don't live in other places or times, consequently the immediate need is to adapt to our current contemporary culture. This means that a dyslexic person needs to learn how to read, an autistic individual needs to learn how to relate to others socially, a schizophrenic individual needs to think more rationally and so forth. Tools such as psychoactive medication or intensive remediation programs can help achieve these aims.
6. **Success in Life Also Depends on Modifying Your Surrounding Environment to Fit the Needs of Your Unique Brain (Niche Construction)**. We shouldn't focus all of our attention on making a neurodiverse person adapt to the environment in which they find themselves, which is a little like making a round peg fit in a square hole. We should also devise ways of helping an individual change their surrounding environment to fit the needs of their unique brain.

7. **Niche Construction Includes Career and Lifestyle Choices, Assistive Technologies, Human Resources, and Other Life-Enhancing Strategies Tailored to the Specific Needs of a Neurodiverse Individual.** There are many tools, resources, and strategies for altering the environment so that it it meshes with the needs of a neurodiverse brain. For example, a person with ADHD, can find a career that involves novelty and movement, use an iPhone to help with organizing his day, and hire a coach to assist him with developing better social skills.
8. **Positive Niche Construction Directly Modifies the Brain, Which in Turn Enhances its Ability to Adapt to the Environment**. In experiments with mice, neuroscientists have shown that a more enriching environment results in a more complex network of neuronal connections in the brain. This more complex brain, in turn, has an easier time adapting to the needs of the surrounding environment.

In conclusion, the potential is great for the neurodiversity movement to create significant social transformation. Already, for example, there are software firms that have recognized the special programming gifts of certain people with Asperger's syndrome and others on the autistic spectrum, and have hired significant numbers of them to improve their productivity. Similarly, more people are understanding that ADHD brings with it special abilities as well as difficulties, and that appropriate career selection can be an important part of determining whether one will be successful or unsuccessful in a particular job. It is hoped that the concept of neurodiversity will help combat "ableism" or the belief that people who are "abnormal" should be discriminated against, condescended to, and ultimately kept out of the basic affairs of society. Neurodiversity brings with it a sense of hope, that all individuals, regardless of how they read, think, feel, socialize, or attend, will be recognized for their gifts, and accorded the same rights and privileges as any other human being.

To learn more about neurodiversity, see my books:

The Power of Neurodiversity: Unleashing the Advantages of Your Differently Wired Brain (published in hardcover as Neurodiversity) Cambridge, MA: DaCapo Lifelong/Perseus Books, 2011.

and:

Neurodiversity in the Classroom: Strength-Based Strategies to Help Students with Special Needs Succeed in School and Life . Alexandria, VA: ASCD 2012.

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