



# Neurodiversity and Unique Thinkers

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# What does the term “Neurodiversity” mean?

- Typical diversity categories include: race, gender, gender identity and expression, socio-economic status, sexual orientation, and age.
- When we broaden the concept of diversity to include neurological differences, we speak of “neurodiversity.”
- “An idea which asserts that atypical (neurodivergent) neurological development is a normal human difference to be recognized and respected as any other human variation.”



# Who started this Neurodiversity idea?

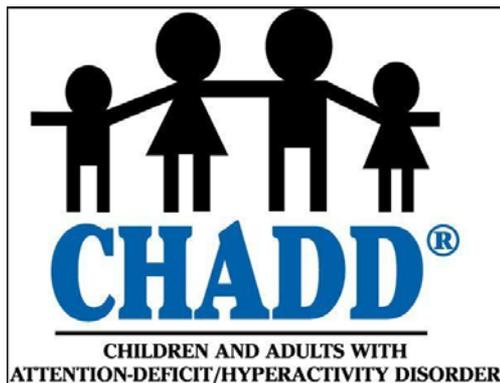
- Australian autism advocate **Judy Singer** argued Asperger's was a “socially constructed” category of neurodiversity, not a medical condition.
- Journalist **Harvey Blume** suggested that people who are neurologically different - brainy geeks with Asperger's and other differences - may be better at the kind of thinking required to launch an innovative tech company than the rest of us.



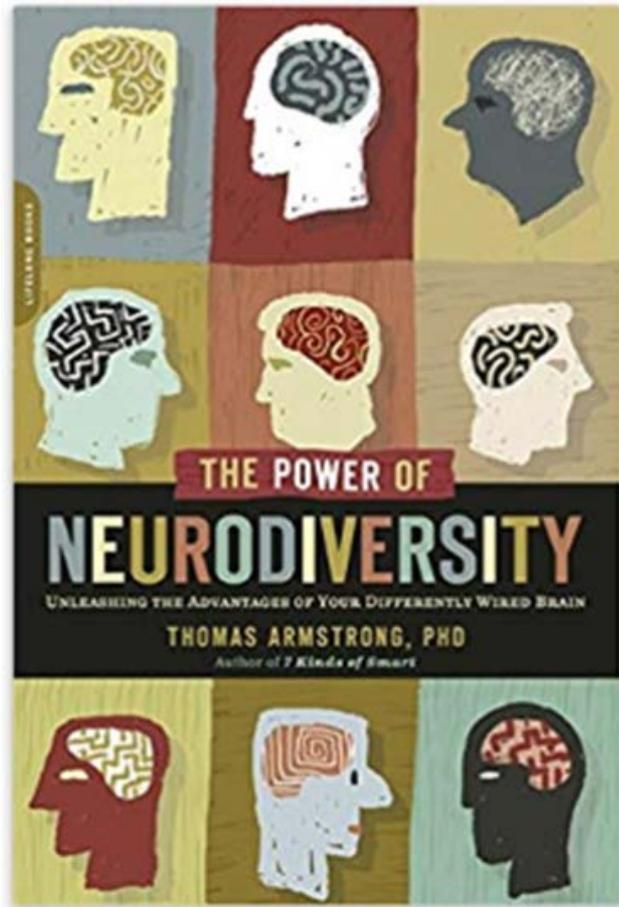
# Advocacy groups promoted the concept

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- The idea of neurodiversity caught hold, and spread quickly through on-line advocacy groups.
- This occurred initially within the autism community.
- But soon the idea was adopted by other disability groups.



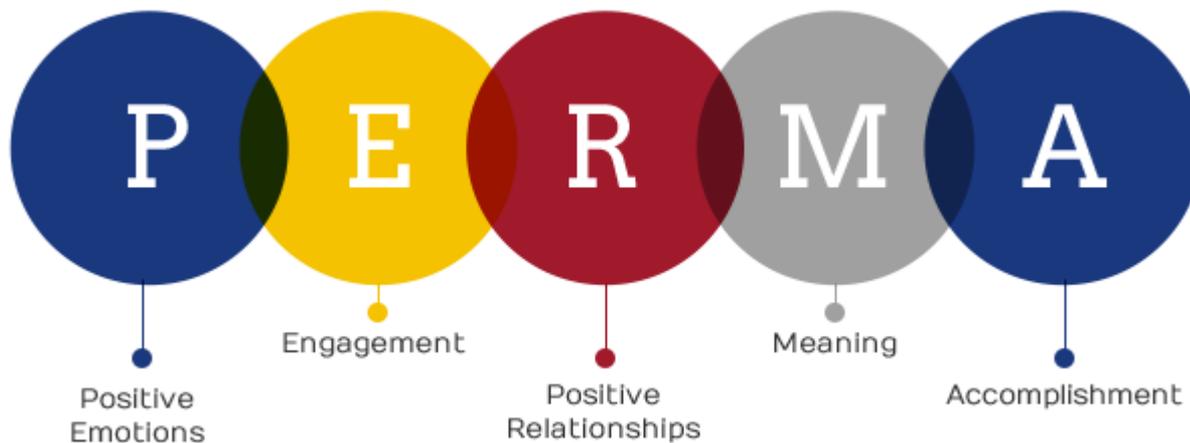
# “The Power of Neurodiversity”



Dr. Thomas Armstrong

# Positive Psychology

- Neurodiversity draws vitality from Positive Psychology.
- Positive psychology was a reaction against psycho-analysis and behaviorism.
- Emphasis is on: positive emotions, engagement, positive relationships, meaning, and accomplishment.
- Builds on the humanistic movement: all people are inherently good and the drive towards self-actualization.



# Nathaniel: Asperger's and Anxiety

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- Did well at school until demands increased in middle school.
- Severe anxiety prompted evaluation.
- Two years of intensive support and therapeutic interventions.
- Self-advocate for return to mainstream school to advance ambitious goals.
- School willing to adapt to his unique needs.



# What's missing in the “medical model”?

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- Most psychologists and doctors have been trained in the “medical model” of mental health.
- ADHD, autism, dyslexia, and other learning disabilities are seen primarily as “disorders” and “disabilities.”
- This is, in effect, a “deficit model.”
- We diagnose someone as having a disorder based on a constellation of negative symptoms and behaviors.
- Then we focus attention on treatment of the associated impairments and limitations.
- What's missing in this model is a focus on the positives.
- What the individual CAN do and wants to do with their life.



LABELS MAY BLIND US TO POSSIBILITIES

# Language is important

- “dys-” is a word-changing prefix from Greek that means “bad,” “ill,” “abnormal,” “faulty,.”
- When “dys” is placed in front of “order” it becomes “disorder” and implies abnormal or faulty order.
- When “dys” is placed in front of “ability” it becomes “disability” and implies bad or faulty abilities.
- Labelling individuals using these pejorative words focuses attention solely on what they do poorly.
- Positive language can empower: twice exceptional, bright and quirky, neurodiverse, differently wired.

differently  
wired.

NEURO  
DIVERSE

THE BRIGHT & QUIRKY CHILD

MINI-CALCULATIVE-FUNCTION  
TWICE EXCEPTIONAL  
GOOD-CREATIVE-PROBLEM-SOLVING-ATTENTION



# Who defines what makes something a Disorder or Disability?

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- Mental disorder is defined by the values of the culture in which the individual being diagnosed belongs.
- It was not that long ago that homosexuality was regarded as a mental disorder.
- U.N. definition: “Disability results from the interaction between persons with impairments and attitudinal and environmental barriers that hinder their full and effective participation in society on an equal basis with others.”
- The key shift is that it is the *interaction* of the *person* and the *attitudinal* and *environmental* barriers that society puts up that creates the problem.
- So – you can approach this in two ways. Change the person to fit the environment or change the environment to fit the person.



# Changing the environment

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- Niche construction: The process by which an organism alters its environment to increase the chance of survival.
- This concept can be applied to humans. Why must we always adapt to fit the environment we find ourselves in? Why not change it?
- Humans are uniquely suited to constructing or finding environments that suit our particular needs.
- Picture your typical 8-year old boy with ADHD.
- One can try to change his behavior by administering medication and implementing behavior modification strategies.
- Or, one can try to change the classroom environment to better adapt to his needs.

# Build support systems within schools

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- Niche construction can involve the use of assistive technology, which provides equal access for the “disabled” child.
- Accommodations also adapt the demands of the environment to the child. A human-level support strategy would be an executive function coach or 1:1 aide.
- What these all have in common is that they change the environment or enable the child equal access to learning as opposed to trying to change the child to fit into a preordained and immutable environment



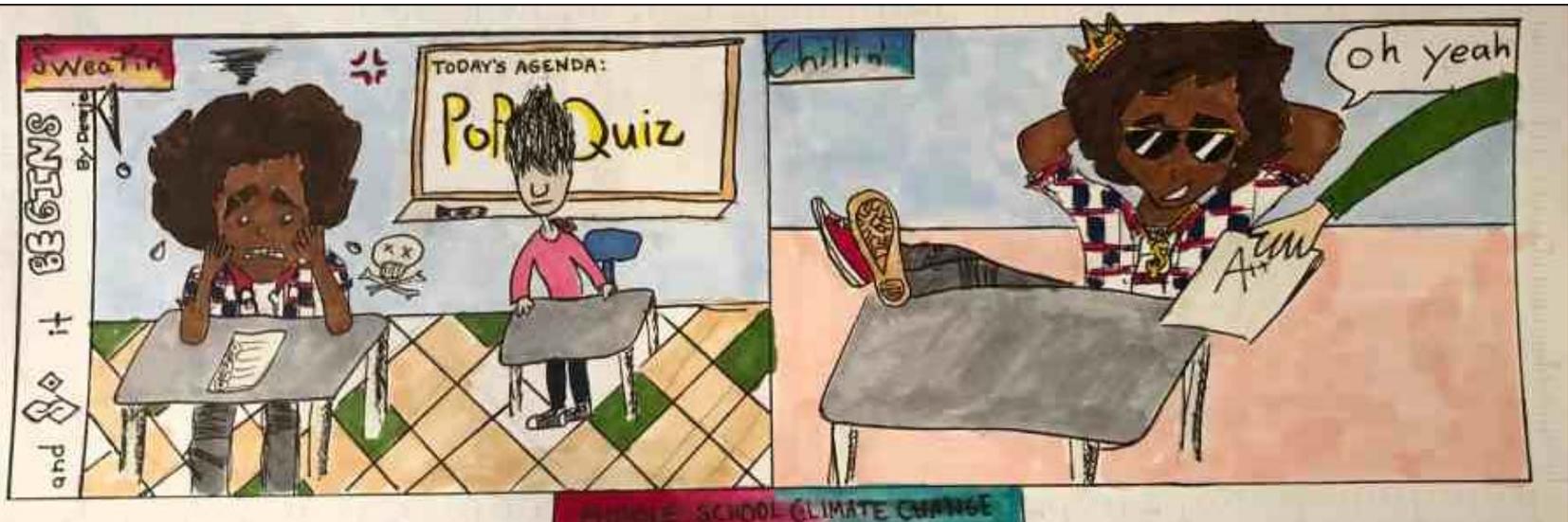


# But what about life after school?

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- Some worry that too many accommodations in school will leave the child unprepared for “the real world.”
- This tends not to be the case because the demands in the work force are very different from those in school.
- People can self-select into careers that fit their different brain wiring.
- In the workforce we can create teams diversified by individual strengths and weaknesses.
- There are successful adults with “disabilities” in every walk of life.
- In fact, different brain wiring may well become an asset in a future career.

# Jason: ADHD



# Strengths/weakness of differently wired brains

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- Next, I'm going to discuss the strengths and weakness profiles associated with different kinds of brain wiring and describe how what may be a weakness in one environment can be a strength in another.
- School tends to be among the most challenging of environments for children with differently wired brains.



# Strengths/weaknesses associated with Autism

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- Hyperfocus, focused interests
- Pattern recognition
- Memory skills
- Rationality and literality
- Hypersensitivity to sensory stimuli
- Understanding of and empathy for animals
- Weaker social skills, conversational reciprocity





# Careers that fit: Autism

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- Data entry, sorting, assembly, inventory control, appliance repair, lawn and garden work, animal care and training.
- STEM: Computer programming, engineering, mechanics, animation, statistics. Radiology and surgery.
- Within academics, autistics cluster in mathematics and the physical sciences.
- This is not to say that all autistic individuals will be drawn to STEM.
- Careers in areas that require a lot of interpreting social cues – like sales and marketing – tend to not be as good a fit.



# Strengths/weaknesses associated with ADHD

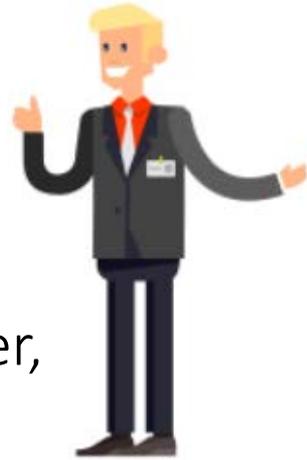
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- High energy
- Rapidly shifting or “roaming” attention
- Hyperfocus or “homing” attention
- Impulsivity
- Intuition
- Non-linear thinking
- Multitasking
- Need for stimulation, change and novelty
- Willingness to take risks
- Creativity
- Resilience



# Careers that fit: ADHD

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SELLER

- Careers offering rapid change and variety: police, firefighter, detective, emergency room/EMT worker, entrepreneur, sales.
- Physically active: itinerant journalist, videographer, park ranger, athletic coach, dancer, stunt performer, fitness trainer.
- Drawing on impulsivity and creativity: comedian, actor, artist, advertising, sales, entrepreneur.
- Involving risk-taking: extreme sports, entrepreneur.
- Careers that involve repetitive, tedious work, deadlines, and strong organizational and planning skills tend not to be as good a fit.



VIDEOGRAPHER

# Phil: Dyslexia



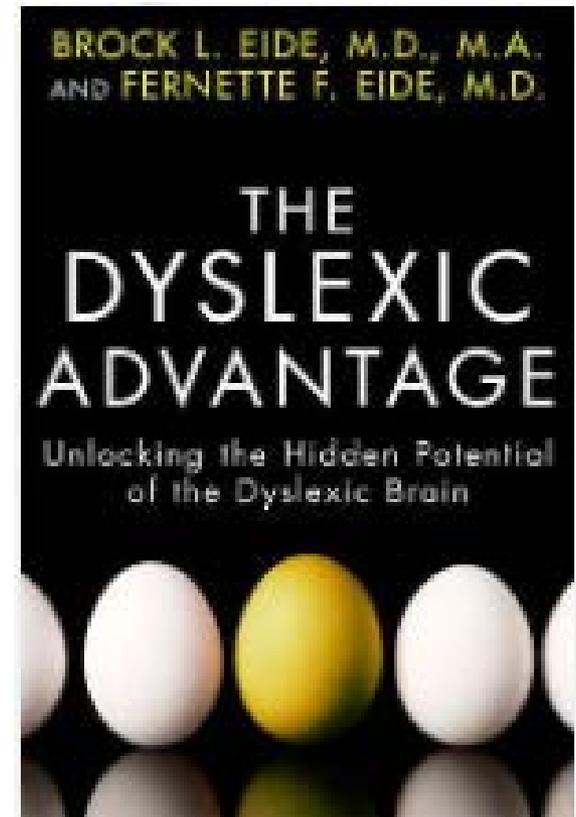
- Dyslexia remediation done outside of school
- Enrichment focused on interests and strengths
- Embarrassed to tell peers until a teacher paved the way



# Strengths/weaknesses associated with Dyslexia

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- Visual-spatial thinking, material reasoning.
- Narrative reasoning, story memory and telling.
- Big picture thinking, seeing connections. Simultaneous as opposed to sequential thinking.
- Weaknesses in reading, spelling, speed of processing, noticing details.





# Careers that fit: Dyslexia

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- Visual-spatial ability: architect, designer, engineer, artist, builder, filmmaker, surgeon, pilot, physics researcher, car mechanic.
- Narrative strength: writer, actor, story-teller, coach, counselor, CEO, lawyer, marketer, minister, politician, musician, psychologist, teacher.
- Big picture thinking : actor, chef, doctor, historian, inventor, museum director, scientist, software designer.
- Avoid detail-oriented work and high reading demands.

# The world needs out-of-the-box thinkers

Here's to the crazy ones.

The misfits.

The rebels.

The troublemakers.

The round pegs in the square holes.

The ones who see things differently.

They're not fond of rules. And they have no respect for the status quo. You can praise them, disagree with them, quote them, disbelieve them, glorify or vilify them. About the only thing that you can't do is ignore them. Because they change things.

They invent. They imagine. They heal.  
They explore. They create. They inspire.

They push the human race forward. Maybe they have to be crazy. How else can you stare at an empty canvas and see a work of art? Or sit in silence and hear a song that's never been written? Or gaze at a red planet and see a laboratory on wheels? And while some may see them as the crazy ones, we see genius. Because the ones who are crazy enough to think that they can change the world, are the ones who do.

- Apple Computer Advertisement



# “Coming out”

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- This conference focuses on “the need for boys to show themselves emotionally for their own mental wellness.”
- Help boys understand, appreciate, and accept their unique and special brains.
- Changing school culture to portray neurodiversity in a positive light is critical to encouraging this kind of acceptance.

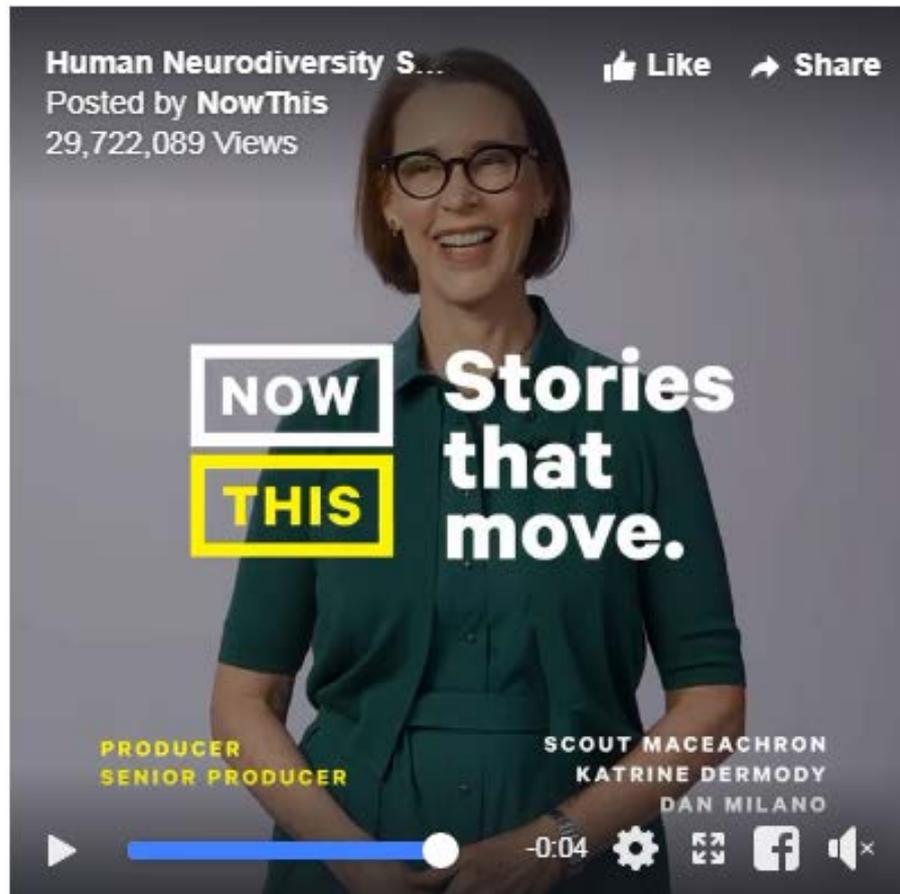




# Create a Welcoming and Supportive Community

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- Educate school staff about neurodiversity.
- School psychologists and counselors might take the lead. Heads of school can set the tone. Parents can share information. Students can self-advocate.
- Curriculum addressing neurodiversity and encouraging students to accept differences among their peers.
- Information and discussion can go a long way toward eliminating negative, stigmatizing images and concepts.



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