

THE NEXT FRONTIER: NEURODIVERSITY IN THE WORKPLACE

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What is Neurodiversity?

How does Neurodiversity apply to ASD?

How can the Neurodiverse aspects of ASD contribute to the work environment?

What have existing workplace environments done to incorporate Neurodiversity?

What are the next steps for facilitating Neurodiversity in the workplace?

OUTLINE



WHAT IS NEURODIVERSITY?

Judy Singer:

Differences in neurology should be recognized and respected as a social category, similar to ethnicity, socioeconomic class, sexual orientation, gender, or disability

Singer J, (1998) *Odd People In: The Birth of Community Amongst People on the Autism Spectrum: A personal exploration of a New Social Movement based on Neurological Diversity*. An Honours Thesis presented to the Faculty of Humanities and Social Science, the University of Technology, Sydney, 1998.

Singer, J. (1999). *Why can't you be normal for once in your life?: from a "Problem with No Name" to a new category of disability*. In Corker, M and French, S (Eds.) *Disability Discourse* Open University Press UK

“For me, the key significance of the Autism Spectrum lies in its call for and anticipation of a politics of neurological diversity, or ‘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...” - Judy Singer

NEURODIVERSITY

NEURODIVERSITY AND ASD

US writer Harvey Blume, with whom Singer corresponded with about their mutual interest in Autism, further popularized the word in a 1998 issue of *The Atlantic*, stating:

“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”



WHAT IS NEURODIVERSITY?

“...is a concept where neurological differences are to be recognized and respected as any other human variation. These differences can include those labeled with Dyspraxia, Dyslexia, Attention Deficit Hyperactivity Disorder, Dyscalcula, Autism Spectrum, Tourette Syndrome and others.”

**National Symposium of Neurodiversity, 2011,
Syracuse University**

“...neurodiversity is the commonality that makes us human...a path for our society toward a world in which people with learning differences have access to the resources they need to live happier, healthier, more secure and meaningful lives.”

**Steve Silberman,
Neuro-Tribes**

8 PRINCIPLES OF NEURODIVERSITY

1. The Human Brain Works More Like an Ecosystem than a Machine

2. Human Brains Exist Along Continuums of Competence

3. Human Competence is Defined by the Values of the Culture to Which You Belong

4. Whether You are Regarded As Disabled or Gifted Depends Largely on When and Where You Were Born.

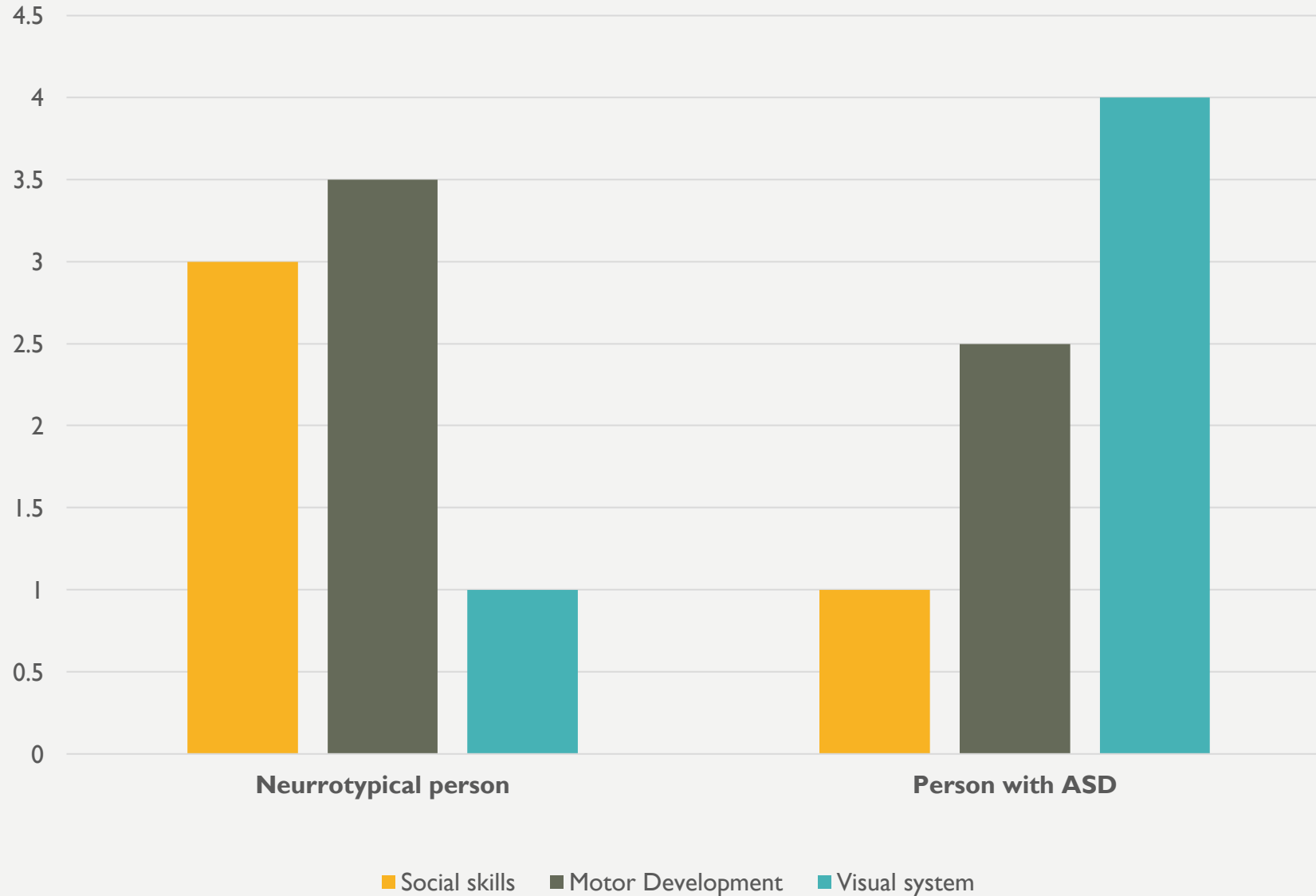
5. Success in Life is Based on Adapting One's Brain to the Needs of the Surrounding Environment

6. Success in Life Also Depends on Modifying Your Surrounding Environment to Fit the Needs of Your 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.

8. Positive Niche Construction Directly Modifies the Brain, Which in Turn Enhances its Ability to Adapt to the Environment

Neurodiversity: Resources are invested differently





- Different people with ASD have different “toppings” in different amounts....
- But that doesn't make one “bowl” inherently better or worse



ASD SYMPTOMS AND CHARACTERISTICS

DIAGNOSIS- DSM-5

A. Social
Communication
and Interaction

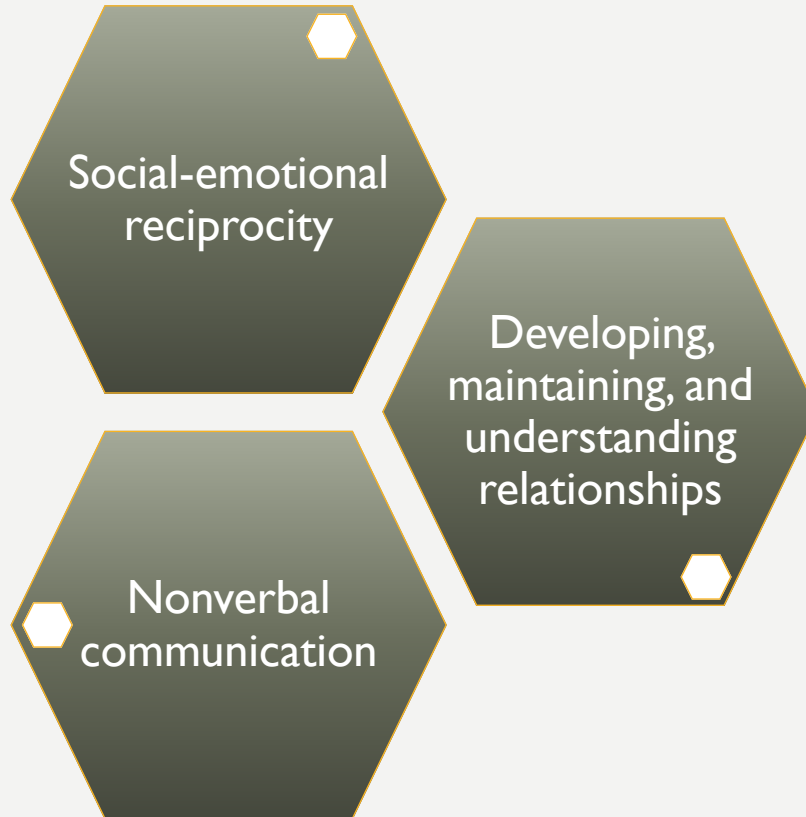
B. Restricted,
Repetitive Patterns of
Behavior/Interests/
Activities

C. Symptoms
in early
development

D. Symptoms
cause
impairment

E. Not
intellectual
disability

DSM 5: WHAT IS SOCIAL-COMMUNICATION?



DSM 5: WHAT IS RESTRICTED, REPETITIVE PATTERNS OF BEHAVIOR/INTERESTS/ACTIVITIES?

Stereotyped or repetitive motor movements, use of objects, or speech

Sensory sensitivity

Insistence on sameness, inflexible adherence to routines, or ritualized patterns or verbal nonverbal behavior

Highly restricted, fixated interests that are abnormal in intensity or focus



COMMON ASSOCIATED FEATURES



IQ > Adaptive functioning

Even with average/high IQ, difficulty developing independence and applying skills to the demands of life



Executive functioning

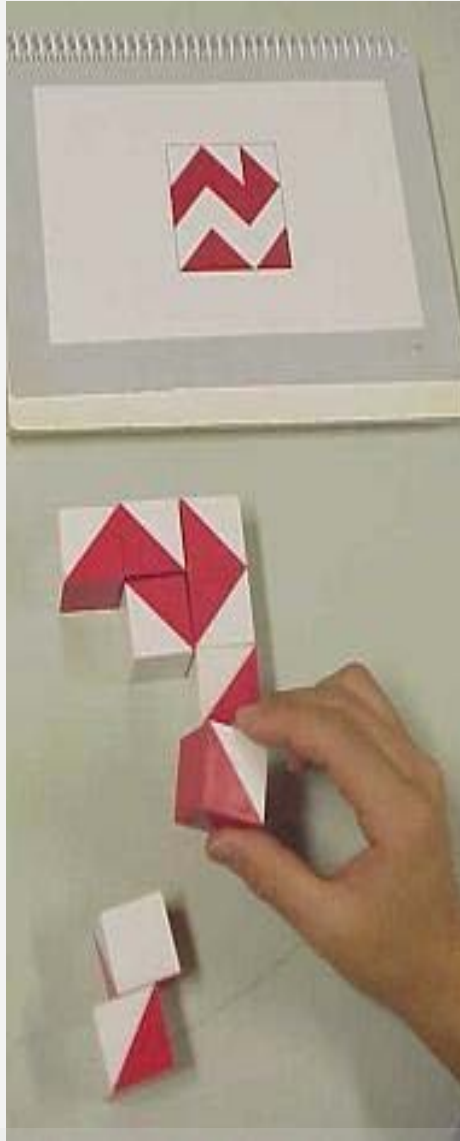
Challenges planning, organizing, sequencing, prioritizing, initiating, and self-monitoring



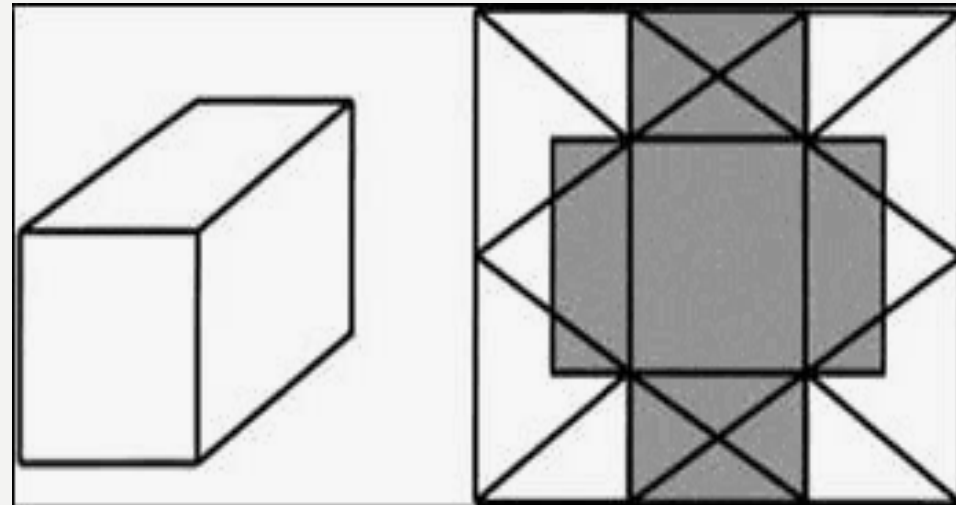
Uneven cognitive profile ('splinter skills')

Great strengths in one area (e.g., pattern recognition) and relative weakness in another area (e.g., processing speed)

WEAK CENTRAL COHERENCE



Locating Embedded Figures



Block Design



THEORY of MIND

One's ability to perceive how others think and feel, and how that relates to oneself

What are you doing, Denzel?



DISENGAGEMENT OF ATTENTION



HOW DO SOME ASD 'SYMPTOMS' SERVE AS A BENEFIT?

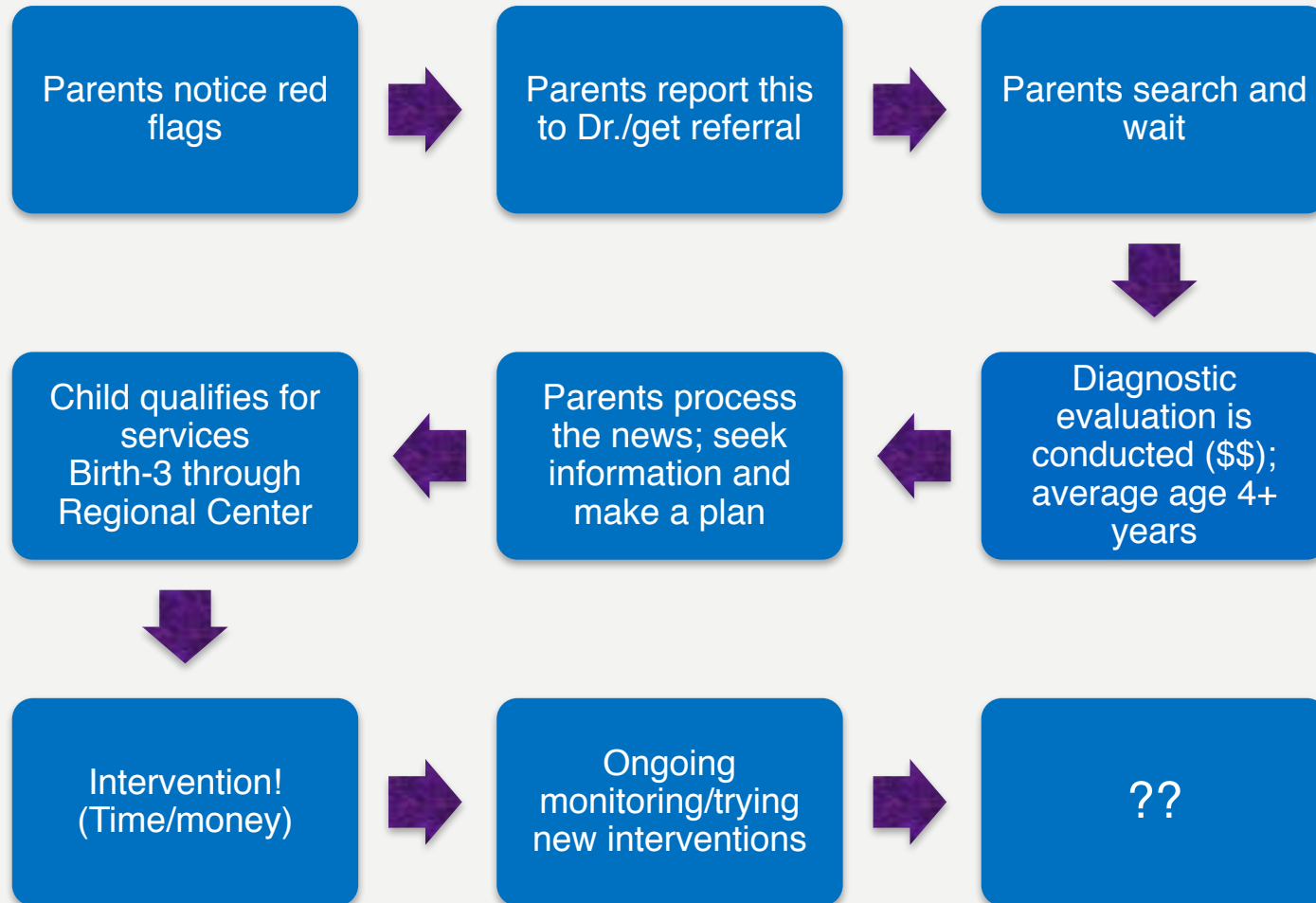
ASD Feature	Associated Strength
Insistence on sameness, inflexible adherence to routines	Consistent, reliable, logical, punctual, rule follower, devoted to accuracy
Highly restricted, fixated/very intense interests	'Expert' in specific area(s)/encyclopedic knowledge
Uneven cognitive profile	Exceptional strengths/savant-like skills (often visual processing/very verbal/enhanced memory)
Weak central coherence	Attention to detail/pattern recognition/impressive rote memory
Social/theory of mind deficits	Honest, nonjudgmental, non-manipulative, humble
Disengagement of attention	Highly focused; not easily distracted

WHY NOW: THE AUTISM CLIFF



- Large cohort of children diagnosed with ASD as part of the 'autism epidemic' are/will be approaching adulthood
- This will be a growing population
- We have an 'ill-prepared and underfunded adult service system charged with meeting their needs' (Gerhardt & Lainer, 2011)
- Autism services cost U.S. citizens \$236-262 billion annually; a majority of costs in the U.S. are in adult services – \$175-196 billion, compared to \$61-66 billion for children (Buescher et al., 2014)

THE JOURNEY



Employing Individuals with ASD



Positively impacts quality of life, cognitive functioning, and well-being (Walsh, Lydon, & Healy, 2014)

Employed individuals demonstrated greater mental health, life satisfaction, marital or family satisfaction, and self-perceived physical health than those who are unemployed (McKee et al., 2005)

Work is an important means of social inclusion and offers individuals often excluded from society, such as those with disabilities, a social outlet and a chance to contribute to society (Carew et al. 2010)

Employment is also a necessary step toward economic self-sufficiency and, hence, greater inclusion in society (Migliore et al. 2014)

WHY IS EMPLOYMENT GOOD?

ASD AND EMPLOYMENT

40% of individuals diagnosed with ASD have average or above average IQ (Chaman et al., 2011)

Discrepancy between IQ and adaptive behavior scales remains into adult life

At least half of all young adults with ASD have no vocational or educational services in the years immediately following high school (Shattuck et al., 2012)

Many studies report employment rates of 25-30% (Holwerda et al. 2012; Magiati et al., 2014)

Among those employed, jobs tend to be low skilled, part time and poorly paid

Underemployment is prevalent (Mavranezouli et al., 2014); only 6-10% are *competitively* employed (Wilczynski et al. 2013)

In review, this is NOT a temporary set back, it persists throughout adult life

WHY THE LOW RATES?

Getting the job

- Putting themselves 'out there'
- Finding the right fit
- Interviews


On the job

- Lengthy verbal instructions
- Office culture and 'politics'
- Team roles


Challenges associated with ASD

- Comorbid psychiatric and medical diagnoses
- Behavioral issues (e.g., stereotypies)
- Sensory issues

PREDICTORS OF EMPLOYMENT SUCCESS FOR INDIVIDUALS WITH ASD – WALSH, LYDON, & HEALY, 2014

- **Individual characteristics** (i.e., level of communication ability, interpersonal skills, gender, control of self-stimulatory behaviors, being older, having accrued 10 to 15 years of education, and not having a comorbid diagnosis)
 - **Amount of family and work support** (e.g., in the form of financial incentives, daily praise, and maintenance of program contingencies)
 - **Characteristics of the job** (i.e., success was less likely if the job involved problem solving, flexibility, decision making, or prioritization skills)
 - **Elements of employer support which promoted job success** (i.e., support with job finding, job placement, and maintenance, participation in educational programs, modifications of the environment, and supervision and implementation of behavioral contracts).
- 

PREDICTORS OF EMPLOYMENT FAILURE FOR INDIVIDUALS WITH ASD

- **Individual characteristics** that predicted job failure were lack of motivation, inability to make decisions and solve problems, lack of flexibility and speed, and, in one participant, uncontrolled encopresis
 - **Lack of family support**
- 

HIRING QUALIFIERS

Is the candidate
a good cultural
fit?

Does the
candidate have
previous
achievements?

How does the
candidate handle
hypothetical
questions?

Can they do the
work ?

Does the
candidate show
passion and
enthusiasm?

THE INTERVIEW

What do we look for?

- Small talk
- Rapport
- Selling oneself
- Appropriate verbal and nonverbal response
- Saying what interviewer wants to hear
- Self-reflection
- Confidence

Sometimes this is completely unrelated to the job duties, and the skills required for the job!



WHAT DO EMPLOYERS LOOK FOR?



Dependability/Reliability (97%)



Integrity (87%)



Respect (84%)



Teamwork (83%)



Customer Focus (78%)



All of these are soft skills and point to attitude and work ethic. Many businesses answering this questionnaire noted that specific skill sets can be taught to qualified candidates, but the above qualities are **difficult** to teach.

(Data is from the Society of Human Resource Management)

MOST COMMON REASONS PEOPLE ARE FIRED

- **Stealing Company Equipment**
- **Lying to a client or your boss**
- **Bullying or Harassing a Colleague**
- **Not Doing Your Work**
- **Calling Out or Coming in Late on a Regular Basis**

(sources: business insider, themuse.com)



NOW WHAT?

We are at the beginning:

- There is now (some) longevity data about young adults with ASD
- A few large businesses have piloted programs
- There are families and entrepreneurs creating small, specific work environments

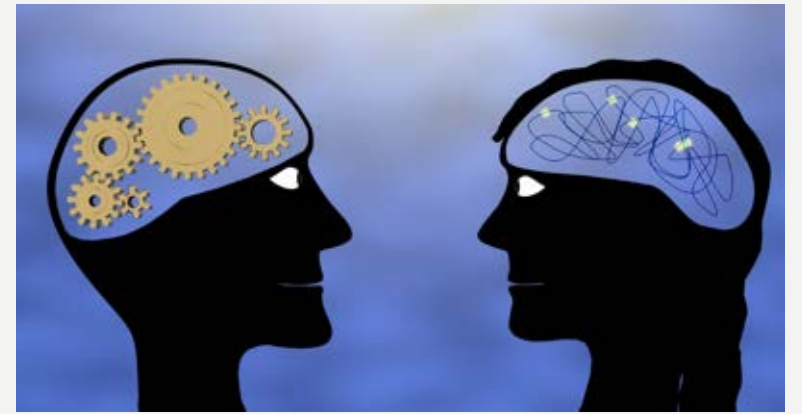
Employers and Autism

A diverse workforce
is good for business



BENEFITS OF NEURODIVERSITY

According to Robert D. Austin and Gary P. Pisano's article in HBR, "Most managers are familiar with the advantages organizations can gain from diversity in the backgrounds, disciplinary training, gender, culture, and other individual qualities of employees. Benefits from neurodiversity are similar but more direct. Because neurodiverse people are wired differently from 'neurotypical' people, they may bring new perspectives to a company's efforts to create or recognize value."



"That's part of the thinking on this idea of neurodiversity; that we do better when we mix people who think differently or are wired a bit differently."

NEURODIVERSITY: A COMPETITIVE ADVANTAGE (HBR)

- Leadership in your industry
- Productivity gains
- Quality Improvement
- Access to an untapped talent pool
- Better management practices
- Reputational enhancement
- Increased innovative capabilities
- Broad increases in employee engagement



THE AUTISM ADVANTAGE

“By adjusting our hiring practices, we are able to recruit from a new talent pool – a talent pool that is rich with mad skills... We’re hiring these folks because they’re amazingly talented individuals who are going to help us do amazing things at Microsoft.”

- Lay Flurrie, chief accessibility officer at Microsoft and head of the company’s disAbility employee group



SPECIALISTERNE: NEURODIVERSITY AT WORK

- Founded in 2004 by Thorkil Sonne after his son was diagnosed with ASD
- Focus on the *ability* of neurodiversity (e.g., attention to detail, high accuracy, innovative thinking, loyalty and honesty)
- Consults with companies worldwide to develop targeted work descriptions, assess qualities/characteristics required for potential roles, providing outreach and partnership with service providers/community agencies to ensure pool of talented candidates



Workability (readiness to thrive in a work place)

Professional skills (skills needed for the job at hand)

Specialist skills (skills that often come with autism)

Shared skills (skills shared with others, such as team work, project management)

**SPECIALISTERNE:
NEURODIVERSITY
AT WORK**

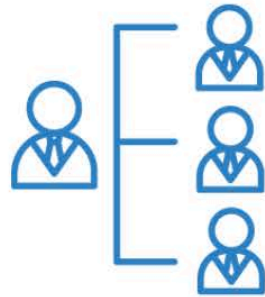
***IDENTIFYING
COMPETENT
CANDIDATES***

SPECIALISTERNE: NEURODIVERSITY AT WORK

STAGE 1
**Identify
Roles**



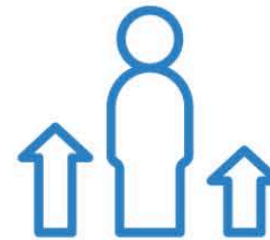
STAGE 2
**Sourcing &
Recruiting**



STAGE 3
**Assessment
& Training**



STAGE 4
Onboarding



STAGE 5
Employment



NEURODIVERSITY IN ACTION: *4 INNOVATIVE COMPANIES*

I. Microsoft: Seattle, Washington based

- **Hiring full time positions**
- **10 candidates identified**
- **Started by Mary Ellen Smith, Corporate VP**
(she has a son with autism)
- **Partnered with Specialisterne, following SAP**
- **Process: mentor based system with a two week trial after interviews**



NEURODIVERSITY IN ACTION: *4 INNOVATIVE COMPANIES*

Walgreens

- 2. Walgreens:** Anderson, South Carolina based
- **2007 hired folks with developmental disabilities, including ASD, at distribution center**
 - **2008 became the most productive distribution center**
 - **Determined that neurodiverse hiring was very good for business**
 - **Process: built a training center for individuals with neuro-developmental disabilities**
 - **Partnered with “Have Dreams Academy”**
 - **Program started by former Senior VP, Randy Lewis (son Austin has autism)**

NEURODIVERSITY IN ACTION: 4 INNOVATIVE COMPANIES

3. SAP: (Systems, Applications and Products) German based, Pilots in India and Ireland

- **2012 launched pilot, Autism at Work Initiative**
- **Partnered: Specilaisterne, Denmark**
- **Have set a company goal of 1% of their global workforce being individuals with ASD**
- **Process: month long screening**



NEURODIVERSITY IN ACTION: *4 INNOVATIVE COMPANIES*



“Historically there seemed to be a certain perception of this population as being incapable of performing corporate level work. In reality people on the spectrum offer so much to an organization...willing to think outside of the box and view this cadre of talents a “value add.”

Stephanie Roemer, Freddie Mac
Diversity Manager

4. Freddie Mac: (Virginia based)

- **Recent college graduates brought on as paid interns (computer science, math, finance)**
- **Partner: Autistic Self Advocacy Network**
- **Train managers who train interns**
- **Have a Diversity Manager in charge of the program and company training**

IN DEPTH LOOK AT SAP AS A MODEL

Program began: May, 2013, Autism at Work Initiative in India and Ireland

Progress: May, 2015, have hired 40 employees with a goal of 100 by 2015 end (goal met)

What have they Learned and Implemented?

- They are hiring people to do tech jobs
- They needed to address social and communication issues with candidates
- They knew they needed partners
- They had to change their interview and screening processes
- They had to create a training program for all staff

Interviewing and Screening

- Month long screening process
- Use of Legos to build robots following detailed instructions and time lines
- Interviewing questions can be answered at various sites and various time lines:
- while taking a walk, in a peer group, 1:1, whatever the individual preference



IN DEPTH LOOK AT SAP AS A MODEL

Program began: May, 2013, Autism at Work Initiative in India and Ireland

Progress: May, 2015, have hired 40 employees with a goal of 100 by 2015 end (goal met)



SPECIALISTERNE
Passion for details



Hiring

- Candidates are paired with a trained mentor during screening
- Once hired, mentor becomes the job coach
- This period of coaching lasts about 90 days
- Mentors remain available to any situation that arises
- 4 to 6 weeks of training are provided in the following soft skills:

Communication

Team Work

Meeting Etiquette

E-mail Etiquette

Disability Disclosure/Self Advocacy

Partner with Specialisterne for IT Career Training

- Skill set for specific jobs

Jobs Titles Filled: Software Testing, Data Analysis, Quality Assurance, IT Project Management, Graphic Design. Finance Administration, Human Resources

COMPARATIVE MODEL: FREDDIE MAC

- Partner: Autistic Self Advocacy Network (ASAN)
- Internship Program: college degree IT, finance, investments and capital markets
- ASAN identifies candidates, crafts job descriptions, train managers who assist Interns in adjusting to corporate life.
- Offer 3 paid internships
- Internship lasts for 16 weeks
- Must find accommodations in the DC area during this time
- They have extended internships to assist with successful outcomes

MANY BUSINESSES ARE DEVELOPING ASD-SPECIFIC PROGRAMS



- Vodafone, Germany, training managers and business leaders as well as hiring Autonomy Works, Chicago, operations and back office work that was going offshore



- HP in Australia, Autism Program, 2015
- ULTLRA , technology start up, majority of employees have autism
- Rising Tide Car Wash, Parkland, Florida, all workers have autism



- Home Depot, strong recruitment and accommodation program, myTHDHR@homedepot.com
- Beau's Coffee, Wilmington, NC, hires all disabilities including ASD
- EY is piloting a program with 4 employees working as account-support associates



- ZenithOptimedia, company has a VP of Corporate Social Responsibility and Inclusion
- Extraordinary Ventures, NC, event set up, laundry services, mail services, dog walking, city bus clean up, football parking, all related to the University of North Carolina
- Spectrum Designs, Long Island, NY, employs 30 folks with ASD, 2011
- Ford, Michigan, Ford Inclusive Works, training program for 5 positions, 2016
- Towers Watson's Autism Hiring Pilot Program, 2015
- The Badger Mountain Orchard, Kennewick, WA, changed their culture and process to hire employees with ASD



EXAMPLE PROCESS



MOVING FORWARD

- How do we best prepare individuals with ASD for successful (and competitive) employment?
- Need to improve the hiring process, including:
 - Modifying job descriptions
 - Identifying available jobs
 - Modifying interview process
 - Modifying onboarding process
 - Potential assistance with independent living tasks
- Need to prepare/improve the work environment, including:
 - Staff education
 - Cultural shift
 - Reorganization of jobs/duties
 - Reorganization of teams
 - Workspace environment



A globe of the Earth is centered in the image, showing the Americas. It is held by several hands of different skin tones, symbolizing global unity and support. The background is a clear blue sky with some light clouds at the bottom. The text is overlaid on the globe and hands.

MOVING FORWARD

**GETTING THE WORLD READY FOR
NEURODIVERSE INDIVIDUALS!**

QUESTIONS?

Contact:

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Clinical: sterlingpsych@gmail.com

www.lindseysterlingphd.com

The problem with thinking of the spectrum in this way, is that a perception of an autistic person also becomes linear.



You're only a little autistic, Archie.

Hm. I still don't understand, can you be less vague?

You're able to have a normal conversation with me and act pretty normal! You're not severely autistic.



...And so you see, if someone thinks you're on a 'low end' of this spectrum, this often happens:



Archie you can handle all of this just fine, you're not *that* autistic.



NEW Situations
TOO MUCH NOISE
LACK of ROUTINE
SMART tight clothing
DONT STIA
loads of conversations all at once
DONT FIDGET
BE MORE ORGANISED!