



# Unlock Strategies for Making Workplaces Inclusive of Neurodiversity

By Mark Harris

ife in the modern world is characterized by the diversity of human experience. With a global population of approximately 8 billion people, how could it be otherwise?

A range of influences affect how individuals perceive and interact with the world. These influences include socioeconomic status, race, ethnicity, language, gender, religion, geographical location, childhood development, and other factors. People invariably see the world through different lenses.

One of these lenses involves the function of the human brain: How do people mentally process information and relate to the world? Interestingly, no singular definition explains how a "normal" brain works.

Considerable natural diversity exists in the cognitive function of human beings.<sup>2</sup> In other words, thinking, learning, and behaving in different ways is normal.

Neurodiversity is a term used to describe these natural differences. The term first emerged in the late 1990s in the work of Australian sociologist Judy Singer. She believes the way her brain works as a woman with autism is not a disorder or deficit but a natural difference in what it means to be human. She says, "I'm not quite disabled, and I am not quite mainstream."

As a framework for understanding brain differences, neurodiversity encompasses the perspective that cognitive variability in a group, community, or society is normal. But neurodiversity does not necessarily involve

a clinical diagnosis. Being neurodivergent is not a medical condition.

Many medical and psychiatric researchers believe the concept of neurodiversity can enrich our understanding of diagnosable conditions such as autism, dyslexia, attention-deficit/hyperactivity disorder, and other neurodevelopmental conditions. This research is shaping new interventions to increase employment and other opportunities for people with neurodivergence.

### **A Comprehensive Perspective**

In a broad sense, neurodiversity is associated with social movements for diversity, equity, and inclusion for all people. The term encompasses the idea that just as biodiver-

#### neurodiversity

sity is necessary for a healthy ecosystem, neurodiversity is necessary for a group, community, or society to thrive and grow.<sup>5</sup> Disability rights advocates have embraced neurodiversity to destigmatize disability and promote inclusion and equal rights for neurodivergent people throughout society.

"Neurodiversity
is just one of the
diversities, like
racial and gender
diversity," says
Lawrence Fung,
MD, PhD,
director of
the Stanford

Neurodiversity Project Stanford University in Palo Alto, California. "Neurodiversity is about the diversity of our brain. Now, there are diversity movements because there is not much inclusion and equity in the different aspects of diversity. Neurodiversity is another angle of looking at how we can improve opportunities for people [with] differences."

The concept of neurodiversity recognizes that every neurodivergent person has unique strengths and challenges. But whether a particular difference or characteristic is viewed as a strength or limitation will depend on the context or environment, notes Dr. Fung, who is also an assistant professor in Stanford University's department of psychiatry and behavioral sciences.

For example, some people with autism

#### Resources

**Center for Neurodiversity** at Rowan University https://sites.rowan.edu/neurodiversity/

**Frist Center for Autism and Innovation** at Vanderbilt University School of Engineering

https://www.vanderbilt.edu/autismandinnovation/

**Stanford Neurodiversity Project** at Stanford Medicine https://med.stanford.edu/neurodiversity.html

may exhibit repetitive behavior or thoughts. Is this an inherent disability? Not necessarily. "If someone is doing something over and over again and not getting anywhere, we call it perseveration," explains Dr. Fung. "But if the result is good, you're going to call it persistence. You're going to call it persistence. You're going to call it perseverance. It's the same characteristic, but the outcome is driving people in the environment to say this is for good."

Many people with autism and neurodivergence have unique skills and talents to offer the world. Yet society and medicine often emphasize the disability or problem associated with a neurodevelopmental diagnosis. In response, neurodiversity studies emphasize the might focus on how to develop personal interests and goals.

"The medical model is about the diagnosis, what's wrong, [and] the symptoms," says Dr. Fung. "Typically, in the medical model, we use lists of symptoms to characterize the condition. The strengths-based model of neurodiversity [uses] positive psychology and psychiatry [to understand] how we can maximize [peoples'] strengths. So, we're looking at it in a more comprehensive way. It's not just about what the IQ test is telling us; it's about many different things, including the person's character strengths and tendencies. Our goal is to get the person to be happier and more fulfilled and have a good trajectory of development. That's what we are trying to do

strengths-based model of neurodiversity. While acknowledging individuals' unique challenges, the strengths-based model strives for an encompassing understanding of what it means to be neurodivergent. This approach emphasizes the developmental potential for neurodivergent people in education, work, and life. For example, in a therapeutic setting, a strengths-based approach to counseling

instead of trying to figure out that we have a problem and [extinguishing] the problem."

The concept of neurodiversity is also informed by the social environment and its effect on the experience of disability. "The social model of disability is about [how] the environment [shapes] peoples' disability," says Dr. Fung. "For example, if we don't have [sidewalk] curb cuts, we are going to see people in a wheelchair be [inhibited]. They cannot do a lot of things. They cannot get onto the pavement. But when there

is consideration of how the environment can be shaped so everyone is included, the person in the wheelchair will be able to do much more."

This outlook does not deny that using a wheelchair has challenges. But the social model of disability reframes our understanding of disability to highlight how the social environment can create disabling barriers.6

Neurodiversity studies draw on pioneering educational research in human development and intelligence, says Dr. Fung. This research includes the multiple intelligences theory, which provides a more comprehensive approach to understanding human intelligence.7 Developed in the 1980s by Harvard researcher Howard Gardner, PhD, this

> approach categorizes intelligence based on the idea of multiple pathways to learning<sup>7</sup>:

- Linguistic
- Logical-mathematical
- Spatial
- Bodily-kinesthetic
- Musical
- Intrapersonal
- Interpersonal
- Naturalist

For example, some people might be more verbally oriented, while others show an aptitude for conceptual or abstract thinking. Other people might have highly refined musical intelligence or are particularly sensitive to the feelings of others. Thus, people learn and express their intelligence in different ways.

A theory of identity development known as Chickering's Seven Vectors of Development also influences neurodiversity research. Based on the research of Arthur

Chickering, PhD, the seven vectors of development address issues involving how people manage emotions and interpersonal relationships and develop com-

petence, autonomy, purpose, and integrity in their lives. The theoretical framework is concerned with how other people (e.g., educators, parents, and

For Dr. Fung and other researchers, insights from these areas of developmental science provide a framework for their approach to making a neurodivergent person's immediate environment more beneficial for development.

employers) influence a person's life.8

#### **Better for All**

Today, multiple initiatives in education and business are underway to improve access and opportunity for neurodivergent people in the workforce. For instance, the Stanford Neurodiversity Project sponsors the Neurodiversity at Work Program, a collaborative initiative that brings employers and job seekers together to shape more neurodiverse-friendly work environments. Other academic programs working on

cational and employment opportunities for neurodiverse people include the Frist Center for Autism and Innovation at Vanderbilt University in Nashville and the Center for Neurodiversity at Rowan University in Glassboro, New Jersey. These centers combine multidisciplinary research in neuroscience, psychology, and other disciplines with resources to help neurodivergent students and job seekers find meaningful careers.

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Experts agree that missed opportunities to develop a neurodivergent individual's potential hurt the individual, employers, and organizations that could benefit from the vast talent pool in the neurodivergent community. With high unemployment reported in the autistic community, this negligence in embracing neurodivergent individuals is especially unacceptable.

"We know individuals who exemplify characteristics that compete with societal definitions of normal are often excluded from job opportunities in the workplace," says Chiara Latimer, MFT, codirector of the Center for Neurodiversity at Rowan University. "We hear language like 'they weren't a good fit' instead of [employers] looking at the strengths those individuals bring. Employers might say they want a

### **Fast Facts**

Neurodiversity describes the breadth of the human experience of the world, in school, at work, and through social relationships. Driven by genetic and environmental factors, an estimated 15% to 20% of the world's population exhibits some form of neurodivergence.12

diverse team with creative and innovative thinkers, but when they have opportunities to do so, oftentimes they are hesitant."

> Many factors cause society's failure to do more on behalf of neurodivergent people. One concern is organizational systems' inability to understand how to better accommodate neurodivergent individuals in the workforce, including in the hiring process. **Employment** barriers can start right at the front door of workplace culture. Some neurodivergent people might feel particularly uncomfortable in job interviews, avoiding eye contact or having other difficulties with their interactions. Even when an individual has a strong aptitude for skills an employer needs, such as attention to detail, information management, or other proficiencies, their potential could go unrecognized if the hiring process excludes a skills test or other way of verifying their aptitude.9

Various factors can make the hiring process fair and productive, depending on the position or organization, explains Latimer. But flexibility is likely the key to crafting a more neurodivergent-friendly hiring process. "One idea is to not interview people at all, allowing someone to just submit a portfolio of their work," suggests Latimer. "If you're in an organization and have to do the traditional interview, one thing you can do is allow candidates to review interview questions in advance. You can also make sure to ... [allocate] enough time. You can be willing to rephrase questions and allow people time to think and respond to the questions. These are just a few ideas of some best practices."

Accommodating employment practices does not equate to granting special favors or privileges to certain people. In some capacity, every workplace is built on accommodations. A neurodiverse-friendly workforce or organization does not discriminate against neurodivergent staff, recognizing the value of accommodating all employees fairly and equitably. In this sense, the organizational culture might value a more elastic approach toward workplace accommodations, regardless of whether someone has a diagnosable condition requiring accommodations under the Americans with Disabilities Act.<sup>10</sup>

"All human beings need accommodation, but accommodations that work for most people tend not to be thought of as accommodations," says David Caudel, PhD, associate director of the Frist Center for Autism and Innovation at Vanderbilt University. "For example, if you think about a workplace such as a corporate office, the temperature is kept at a certain level. The way people interact with each other on a professional level, how we talk, and what we say and don't say-all of these are designed as accommodations so that the people who show up can do their work with minimum distractions. We all need accommodations. It's just that for those of us who are autistic or neurodivergent, accommodations can

look different than [those made for] everybody else."

While considerable progress in enhancing public awareness

and recognition of neurodiversity issues has occurred, challenges remain in the workforce, acknowledges Dr. Caudel. "Over 80% of people on the autism spectrum are unemployed or underemployed, [including] people with college degrees—even graduate degrees," he observes. "And part of the issue is that there is a lot of science that we don't yet understand about autism and other forms of neurodivergence. But one [thing] we do know is that with the right accommodations and support, these people could be brilliant, successful contributors to society. That's why we take a strengths-based approach."

A physicist by training, Dr. Caudel is an adult with autism who was diagnosed with Asperger syndrome—now described as autism spectrum disorder (ASD) level 1—in his 30s. As an autism researcher, his perspective is informed by an appreciation for how pivotal public education is to creating a more understanding environment for neurodivergent people in the workforce.

"Particularly with ASD level 1, [autism is] often referred to as an invisible disability," says Dr. Caudel. "That's because when people see our differences and us struggling with things they don't normally struggle with, they jump to conclusions. They assume we're narcissistic or care only about ourselves. Or they might assume that we're just trying to be jerks. When in reality, what they are seeing is [our] struggle. And so, in a situation that should call for patience, compassion, and understanding, we get dehumanized. We get ostracized.

"We do know individuals [with autism] can work in any sort of job, including as researchers and scientists, [physicians], nurses, and medical assistants," he continues. "We also can see that in workplaces where they have some basic understanding of neurodiversity and how to accommodate and include people, [neurodivergent] folks tend to thrive and do well. But in environments where people do not recognize that neurodiversity exists, we tend to suffer the most."

#### **Brain or Shine**

Due to pandemic-related adjustments to employment practices, the work environ-

## **What Conditions Can** a Neurodivergent **Person Have?**

Medical criteria do not define what it means to be neurodivergent, and so a variety of conditions can fall under this term. People who identify as neurodivergent may have at least one of these conditions or disorders—although people with these conditions may choose not to identify as neurodivergent<sup>9</sup>:

- · Autism spectrum disorder
- Attention-deficit/hyperactivity disorder
- Down syndrome
- Dyscalculia (difficulty with math)
- Dysgraphia (difficulty with writing)
- · Dyslexia (difficulty with read-
- Dyspraxia (difficulty with coordination)
- Intellectual disabilities
- Mental health conditions (e.g., bipolar disorder or obsessive-compulsive disorder)
- Prader-Willi syndrome
- Sensory processing disorders
- Social anxiety disorder
- Tourette syndrome
- Williams syndrome

ment has become more flexible or accommodating in some practices (e.g., via remote work). This cultural shift may benefit neurodivergent people in the workforce, according to experts.

"With our experience in the pandemic, we saw individuals that may not have ever needed accommodations in the workplace needing accommodations," notes Latimer. "We should move forward from what we've learned and not go back just out of familiarity. We have to adopt a new understanding of what a flexible work environment could be. If we want innovators in our workforce. we should recognize that innovators work in a variety of ways. We need organizations [that] explicitly say, 'We want you to work in the way that's best for [you].' And if that's working at home, wonderful. If it's in the office, great. If it's with dim lighting or noise-canceling headphones, that's OK too. If it's with what we call nontraditional work hours, great. We have to challenge ourselves and ask: How do we get the best productivity out of employees? And it's probably going to be by allowing them to tell us what they need but also presenting options."

Neurodiversity programs and initiatives have largely occurred in large corporate settings, the information technology (IT) sector, and higher education. In health care settings, researchers are exploring neurodiversity, but more work remains. "The medical model has been the backbone of medicine for a long time," says Dr. Fung. "To bring in new concepts of how to do things in a drastically different way is especially difficult. It's more difficult than in other workplaces, such as IT. There are a lot of people in IT who already know they are neurodiverse and want to make things better for their employees."

The extent to which neurodiversity is recognized and accepted within the health care workforce can also benefit neurodivergent patients. "We have patients that are neurodiverse, and they need help," notes Dr. Fung. "Our job as physicians and medical providers is to take care of [neurodivergent patients]. And if we understand them better, we can provide better care. That is one angle we are trying to get the medical community to understand, because a lot of people in medicine have no idea they are seeing neurodiverse patients. Studies published by Kaiser Permanente in California prove it's a big problem."

"The question isn't 'Can neurodivergent people work in health care?' " adds Latimer. "They can, because they already do. Whether or not people are disclosing, we know from looking at prevalence rates across the country that ... there are already neurodivergent people who are working in health care. So, it's not a matter of [suddenly] trying to open a door but rather recognizing how we can provide better access and eliminate barriers."

While society is increasingly focusing on diversity, equity, and inclusion, issues involving neurodiversity are often likely to go unnoticed. This is part of the challenge for the health care field. While no data depicts how many neurodivergent physicians work in the U.S. health care system, observers imagine it as a small minority.5 However, attention to these issues is increasing. A recent commentary for the American Academy of Pediatrics notes the need for physicians and medical education to do more to meet the needs of the neurodiverse community, including enhancing opportunities for neurodiverse pediatricians to enter the health system.5

While research in this area is relatively new, recommendations tailored to neurodiversity in health care systems are likely on the horizon, reports

Dr. Fung.

#### **Celebrating Diversity**

In her long career, Jonette Yazzie, CMA (AAMA), of Moreno Valley, California, has worn many hats, including medical assisting educator, staff supervisor, billing office manager, and other positions in medical practices. She has also grown to appreciate differences in people. Whether in the classroom or on the job, everyone brings their own unique stamp to how they learn, think, and perform at work, she asserts.

"I truly believe we don't all learn or work in the same way," says Yazzie, who retired in 2022 as an educator at Platt College in Riverside, California. "Your brain is just wired differently than mine. Sometimes people with autism have a strength that's so strong. ... Our brains are just different. And in the end, we have to learn to be OK with our differences."

What about the prospect of the health care system becoming more openly inclusive of neurodivergent staff? "I think a lot of people

are probably scared because it's different," says Yazzie. "It's not how we've always done it. I believe we need to become more

open-minded, because there are strengths among neurodiverse people. ... When we can match jobs with peoples' strengths,

> then we are building not only a better world, but we're building a better health care system."

As an educator, Yazzie notes that even tasks with established parameters or guidelines can have degrees of individual variation in how those tasks or assignments are done from one person to another. Regarding education and training, finding ways to work with peoples' differences while strictly adhering to safe practices, standards, and requirements is crucial.

Being flexible and open to change is also necessary to evaluate ways to better accommodate people's differences, suggests Yazzie. As an educator, Yazzie recalls working with a military veteran with Tourette syndrome—a
condition
associated with
tics and other
symptoms<sup>11</sup>—who
wanted to work as a medical assistant at a veterans affairs

hospital. He sometimes had difficulty with certain tasks, such as giving injections or drawing blood. Yazzie felt he would thrive in a front office position welcoming patients, managing appointments, and completing related office assignments. She arranged his transfer to a different program track in which she felt he could be more successful.

Yazzie also recalls working with young adults who she believes may have been hyperactive and would do better in their work or training if they could sometimes listen to music. "What is wrong with letting them listen to some music if they can hear and engage with me?" she asks. "Sometimes, this would help keep them on an even path and manage themselves better. Instead of saying, 'This is the way it's always been, and this is the way we have to do it,' I think we should try to find ways to be flexible and work with people."

Of course, the strength-based model does not encourage ignoring disabilities or limitations in a person's cognitive or social skills but working to find the right balance in a diagnostic assessment. It aims to find how someone can grow in ways that bring them happiness and satisfaction.

"The strengths-based approach is important because individuals have been told for so long what they can't do and are not good at," concludes Latimer. "The neurodiversity paradigm recognizes not only one's strengths but also how those strengths can fit in the larger society. The other piece of it is challenging ableism—these thoughts that people may have about disability and individuals who have a formal diagnosis. Some of us have been trained in a medical model, so we have to challenge ourselves around the ableist views that we may have learned. Especially in the workplace, if we can create environments where people are able to express what they need without [worrying] about maintaining employment or

## **Neurodiversity Basics**

**Neurodiversity:** "A concept that regards individuals with differences in brain function and behavioral traits as part of normal variation in the human population." <sup>13</sup>

**Neurotypical:** "Having, relating to, or constituting a type of brain and behavioral functioning that represents the middle 68% of the human population." <sup>13</sup>

**Neurodiverse** or **neurodivergent:** "Having, relating to, or constituting a type of brain functioning that is not neurotypical."  $^{13}$ 

being seen as less than, it will help us create a much better workforce."

Today, many examples of well-known, accomplished individuals are considered neurodivergent, such as animal scientist Temple Grandin, Olympic gold medalist Simone Biles, and climate activist Greta Thunberg.9 They are members of a large neurodivergent community that is rich in potential, skills, and talents.

The emerging field of neurodiversity studies is opening the door to a better understanding of how to promote diversity, equity, and inclusion for neurodivergent people. Through improved patient care, mental health services, and social and workplace support systems, neurodivergent individuals can more easily live meaningful, productive lives as equal participants in a society that supports and values their contributions to the world.

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