



Neuroinclusivity in Academia:
Increasing accessibility for trainees

Thursday, March 27
12:00 - 1:30 PM
LSI 1.346 (faculty lounge)

Land acknowledgement

UBC Vancouver is situated in the traditional, ancestral and unceded territory of the x^wməθk^wəyəm (Musqueam) – People of the River Grass.

M&I EDI Committee

Equity, Diversity and Inclusion at
UBC Microbiology and Immunology



Ongoing initiatives

MBIM EDI
Committee

Let's Talk EDI
series

Indigenous student
mentorship

First-Generation Student
Mentorship Program



THE UNIVERSITY OF BRITISH COLUMBIA
Microbiology and Immunology
Faculty of Science

Expand research
opportunities for
underrepresented
STEM groups

Amplify diverse
voices in hiring,
networking, and
seminars

Develop inclusive
teaching practices
for diverse
backgrounds and
learning styles

Address systemic
and socioeconomic
barriers to academic
and research training
success

Karen
Smith



Maria
Tokuyama



Carolina
Tropini



Ninan
Abraham



W. Austin Guild
(Grad student rep)



Mya Bal
(UG student rep)



Henok Sahile
(PDF rep)



Andrew Santos
(EL faculty)



Sarah Anderson
(Staff rep)



LET'S TALK EDI

Current organizers:

W. Austin Guild



Tom Worthington



Maria
Tokuyama



Past organizers:

Etienne Melese

Nawshin Binte Alim

Laryssa Vachon

Past events:

- National Day for Truth and Reconciliation, 2024
- Celebrate Black History - February 23, 2023
- EDI Holiday Celebration - December 6, 2022
- National Day for Truth and Reconciliation, 2022
- Celebrate Pride - June 16, 2022

Community Guidelines



Openness

Be open to new or differing ideas

Embrace discomfort



Confidentiality

Learnings can leave with you, but stories stay here



Balance

Share space and the floor

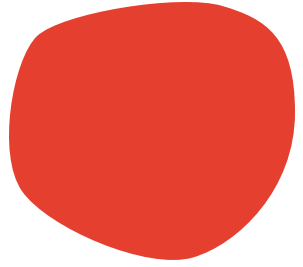
Speak for yourself, not for or about others



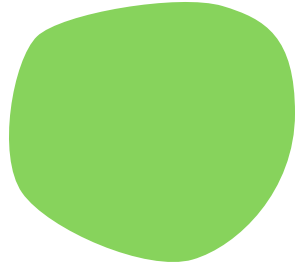
Respect

Refrain from language that insults, excludes, or dismisses others

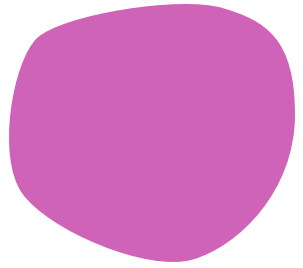
Agenda



- What is neurodiversity?
- Why should we care?



- Social v Medical models of disability
- Neurodivergent traits are human traits
- What assets do neurodivergent people bring?



- How can we make the workplace/academia more accessible to neurodivergent individuals?
- Measurable benefits of having neurodiverse teams

Neurodiversity: A History

1997, Harvey Blume

Autistics, freed from face-to-face encounters, are communicating in cyberspace

“Neurological pluralism”

2000 Kassiane Asasumasu

Inclusion, not exclusion

“Neurodivergent”

“Neurodivergence”

2021, Ari Ne’eman

When disability is defined by behaviour, outcome measures should not promote “passing”

Trait-based approach

1999, Judy Singer

Undergraduate sociology thesis

‘Why can’t you be normal for once in your life?’ From a ‘problem with no name’ to the emergence of a new category of difference

“Neurodiversity”

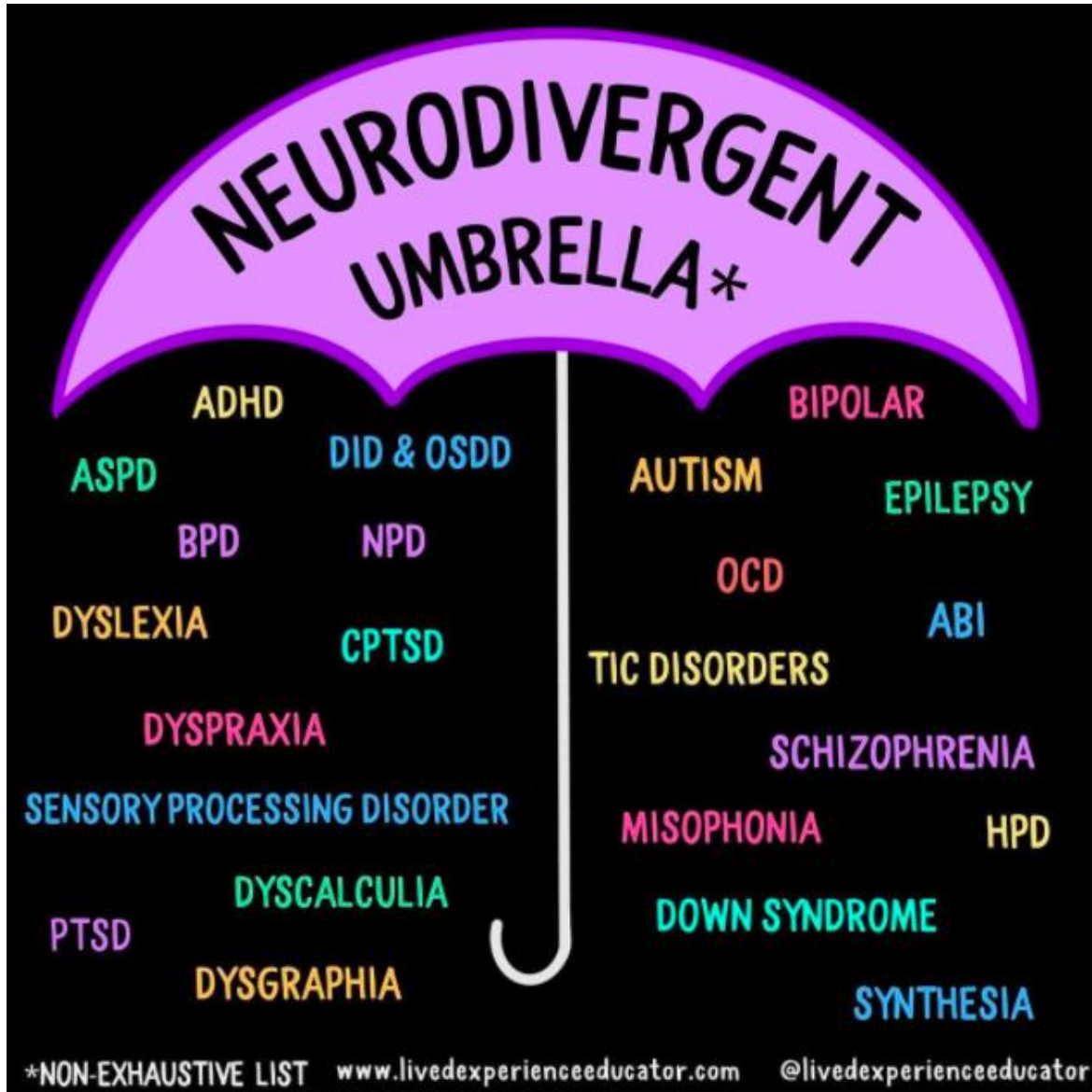


2006, Autistic Self Advocacy Network (ASAN)

Founded by Ari Ne’eman and Scott Robertson

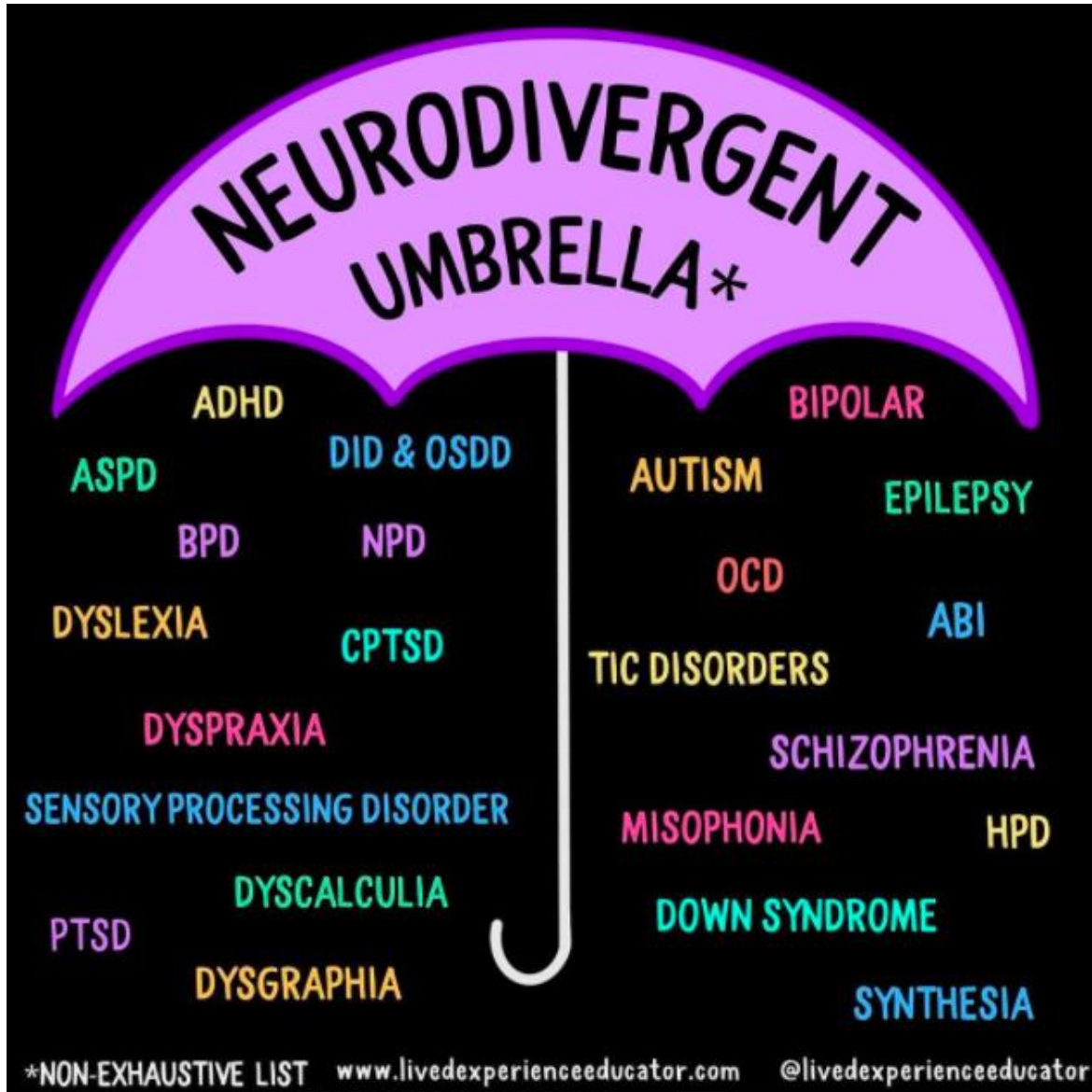
Joined with greater disability rights movement

What is neurodiversity?



- **Diversity in human brain and cognition** across the population
- Neurodivergent individuals share differences in **thinking, processing and communication**
- This might result in a range of symptoms, especially relating to **executive functioning**
 - Self-control
 - Flexibility
 - Task Initiation
 - Organization
 - Planning and Time Management

What is neurodiversity?



Ari Ne'eman

"Neurodiversity is best understood as applying to individual traits rather than to whole people or populations"

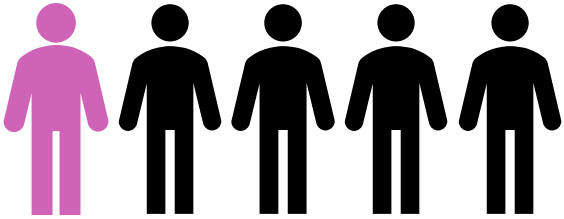
Some neurodivergent conditions or neurodiverse traits can be considered "bad" or because of negative experiences

- e.g.: traumatic brain injury, PTSD, Down Syndrome, schizophrenia
- e.g.: self injury, unwanted/disturbing thoughts, hallucinations

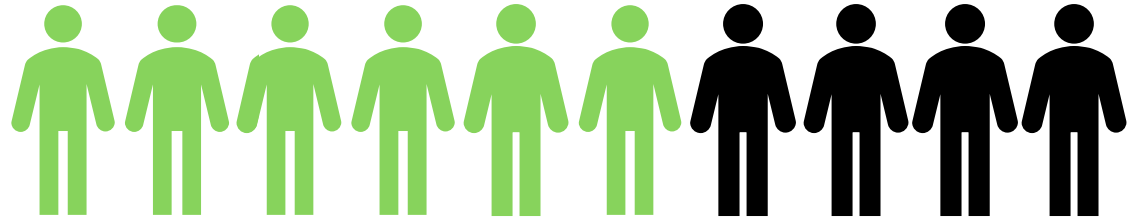
It is vital to **treat intrinsically harmful behaviours**, whilst **accepting non-harmful or adaptive neurodiverse traits**

Why should we care?

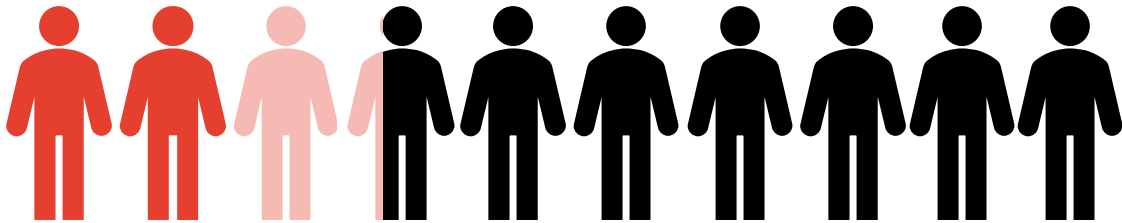
1 in 5 people are neurodiverse¹



Adults with ADHD are 61% more likely to be fired than those without ADHD³



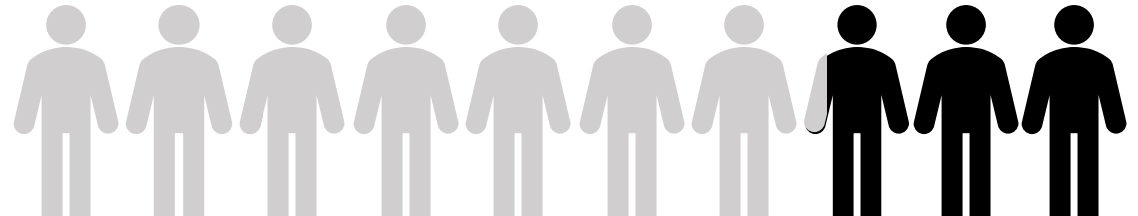
Just 33% of autistic people are in employment in Canada²



And 41% of them are underemployed²



72% of organisations do not consider neurodiversity in their organisation's people management practices⁴



Why now?



In this room are future employers, hiring committees, group leaders, teachers and mentors



Neurodiversity is, inherently, a hidden disability, and individuals are often very good at hiding it



Academia is attractive to neurodivergent people

Social Model of Disability

Institutional

- Lack of employment opportunities
- Non-inclusive legislation, policies and procedures
- Lack of educational opportunities



Environmental

- Inaccessible infrastructure
- Lack of services
- Poor communication

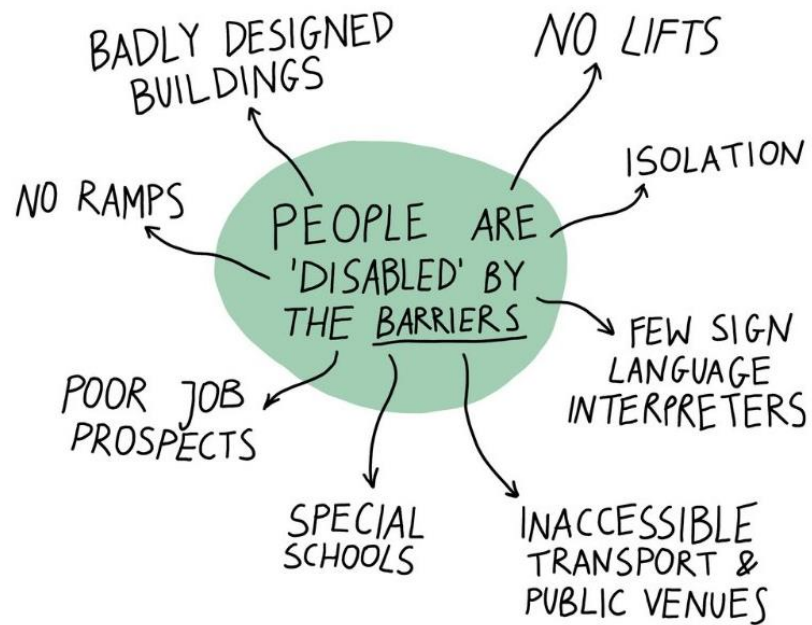
Attitudinal

- Negative stereotyping
- Poor understanding
- Increased social isolation

Social Model of Disability

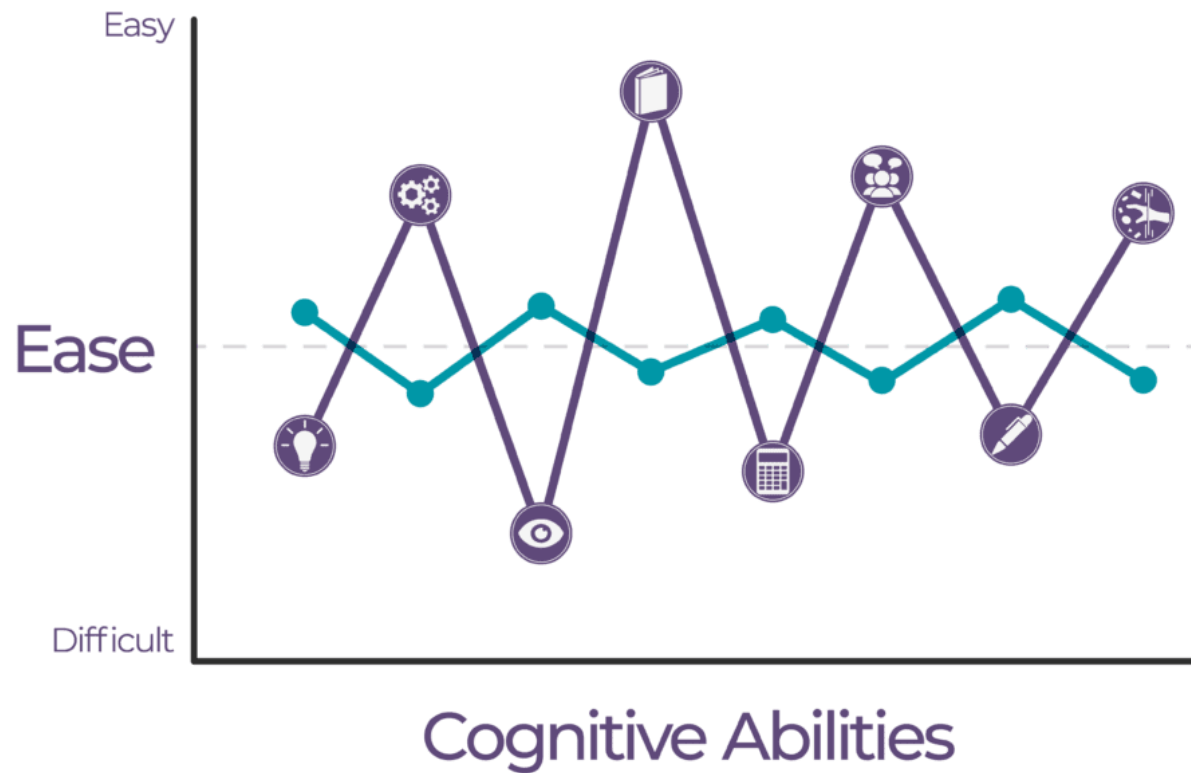
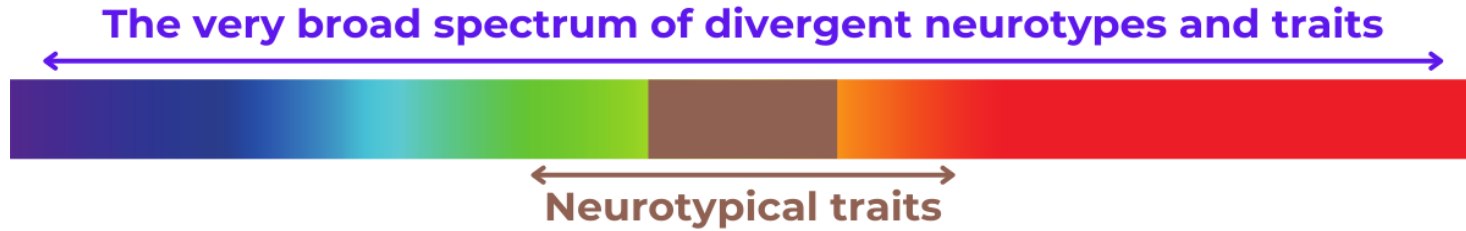
- **Medical model** = something wrong with the individual
- **Social model** = something wrong with society

The Social Model VS The Medical Model



This does not exclude the role of medications, therapies and treatments for disabled people!

Neurodivergent Traits are Human Traits



Take 5 minutes to build
your profile!

*This isn't "neurodiversity quiz"

Easy
Above
average

Ease or
Ability

Hard
Below
average

Language &
Communication

Literacy

Working
Memory

Emotional

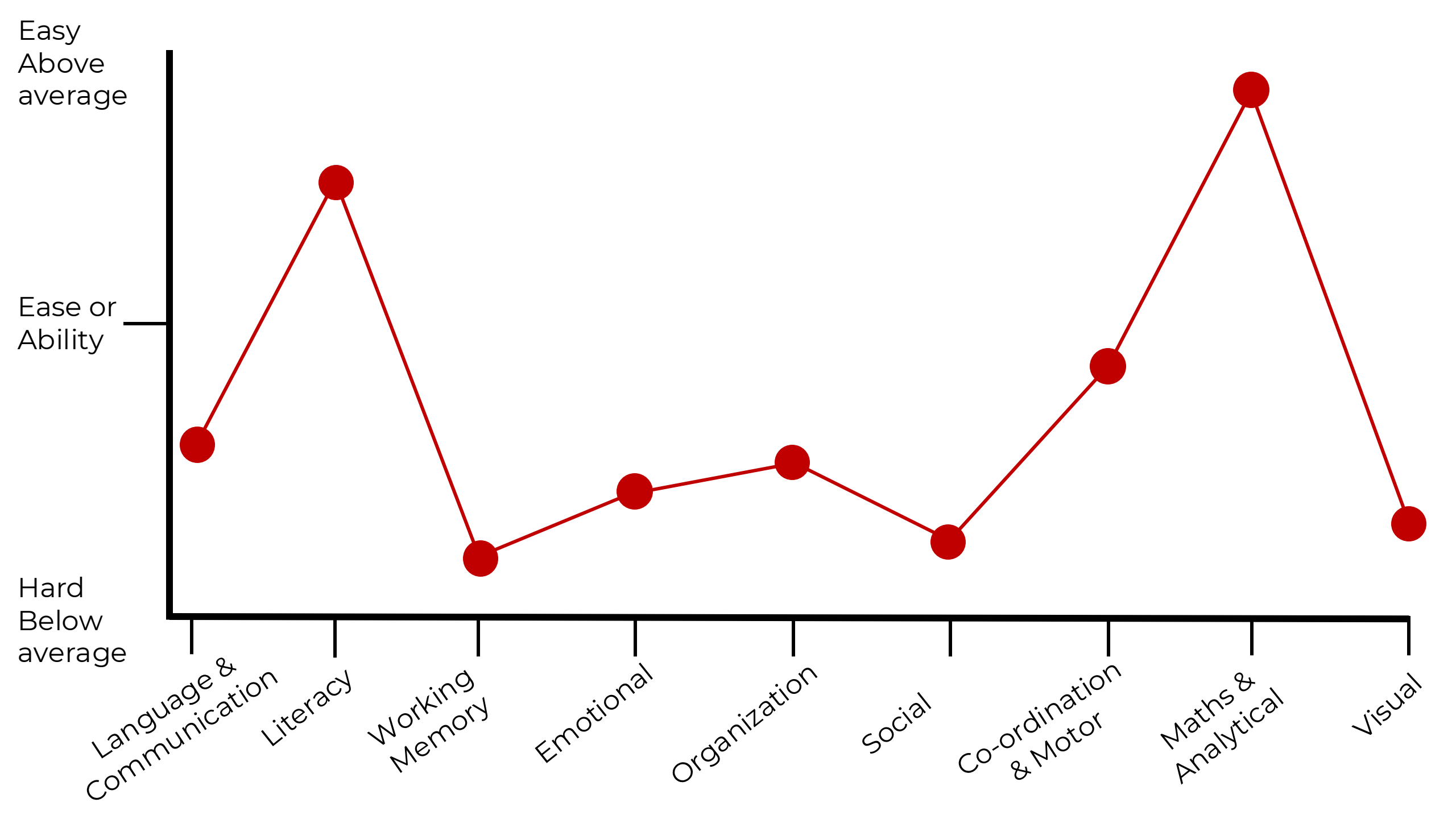
Organization

Social

Co-ordination
& Motor

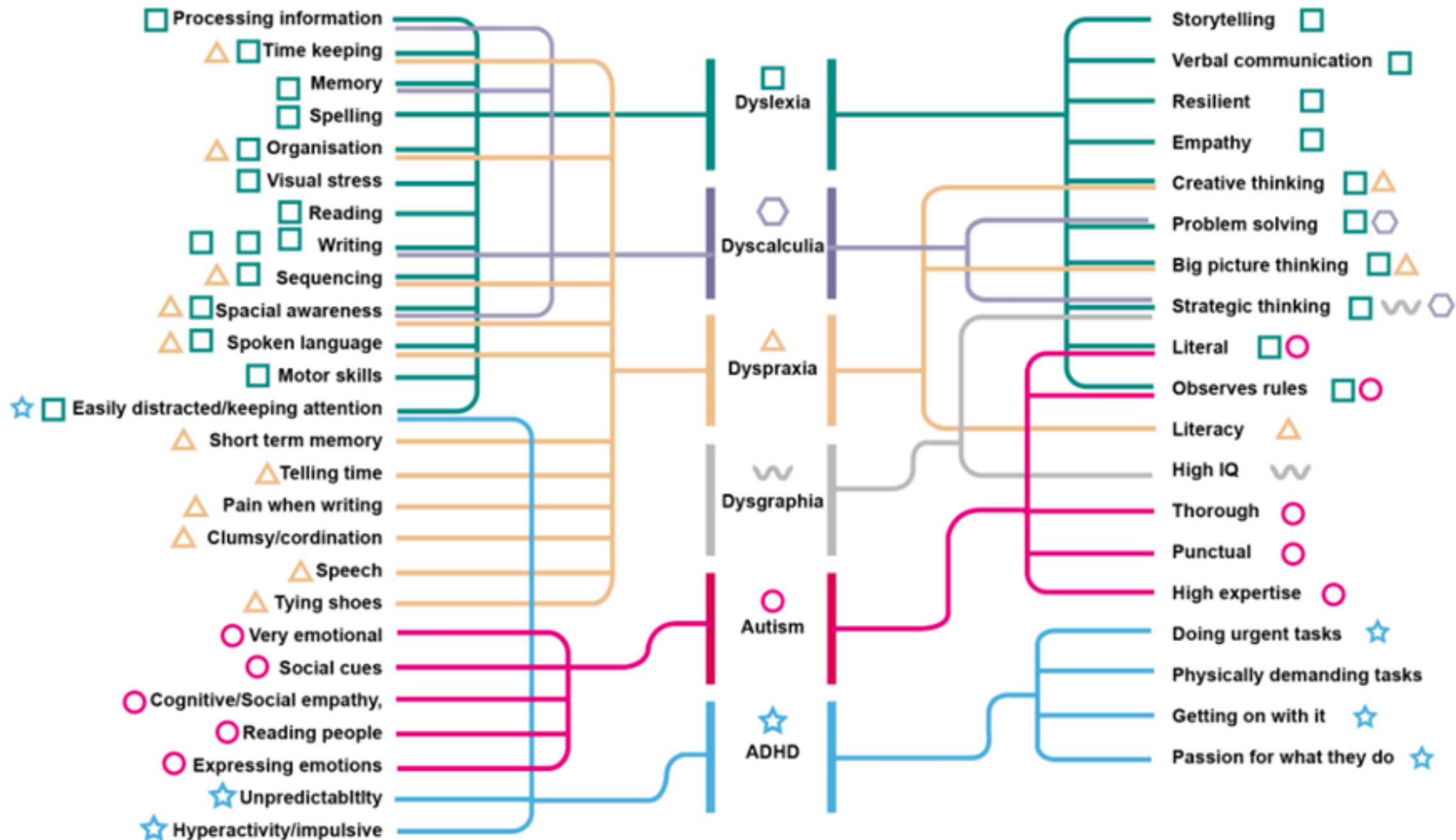
Maths &
Analytical

Visual



May struggle with

Possible strengths



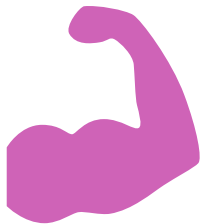
Improving Accessibility



Getting In



Staying In



Playing to our Strengths

Considering Neurodiversity in the Workplace

Anyone who is **qualified, skilled or valuable** to your team should be **included and accommodated**.

Neurotypical

- Makes the workplace more accessible for parents and/or caregivers
- Allows everyday errands or requirements to be slotted in around working hours
- Allows individuals to work at times that suit their best working hours (circadian rhythm/chronotype)
- Better work-life balance

Organisation

- Increased productivity
- Better job satisfaction
- Attracts talent
- Reduced sick absences



Neurodivergent

- Makes the workplace more accessible to individuals who might otherwise be unable to work
- Reduced pressure on executive functioning skills e.g.: timekeeping
- Allows the individual to work at quieter times, to aid focus or reduce pressures of masking

Benefits of Neurodiversity in the Workplace

Institute of Leadership & Management: 20-30% of employers stated they would be uncomfortable employing or managing someone with neurodivergent conditions

Forbes: “Diverse and inclusive cultures are providing companies with a competitive edge over their peers”

CIPD: “Organisations seeking to become more inclusive and get the best out of an increasingly diverse workforce need to focus much more on people’s strengths and what they do well rather than what they can’t do or aren’t very good at.”

Helga Alvarez (CTO at Leaf): “For me, the biggest takeaway in recruiting and retaining a high-performing team is to create a space where everyone can feel safe being themselves”

Harvard Business Review: Neurodiverse teams are up to 30% more productive

J.P. Morgan: In the correct environment, autistic people are 48 to 140% more productive than their peers

Knock-on effects



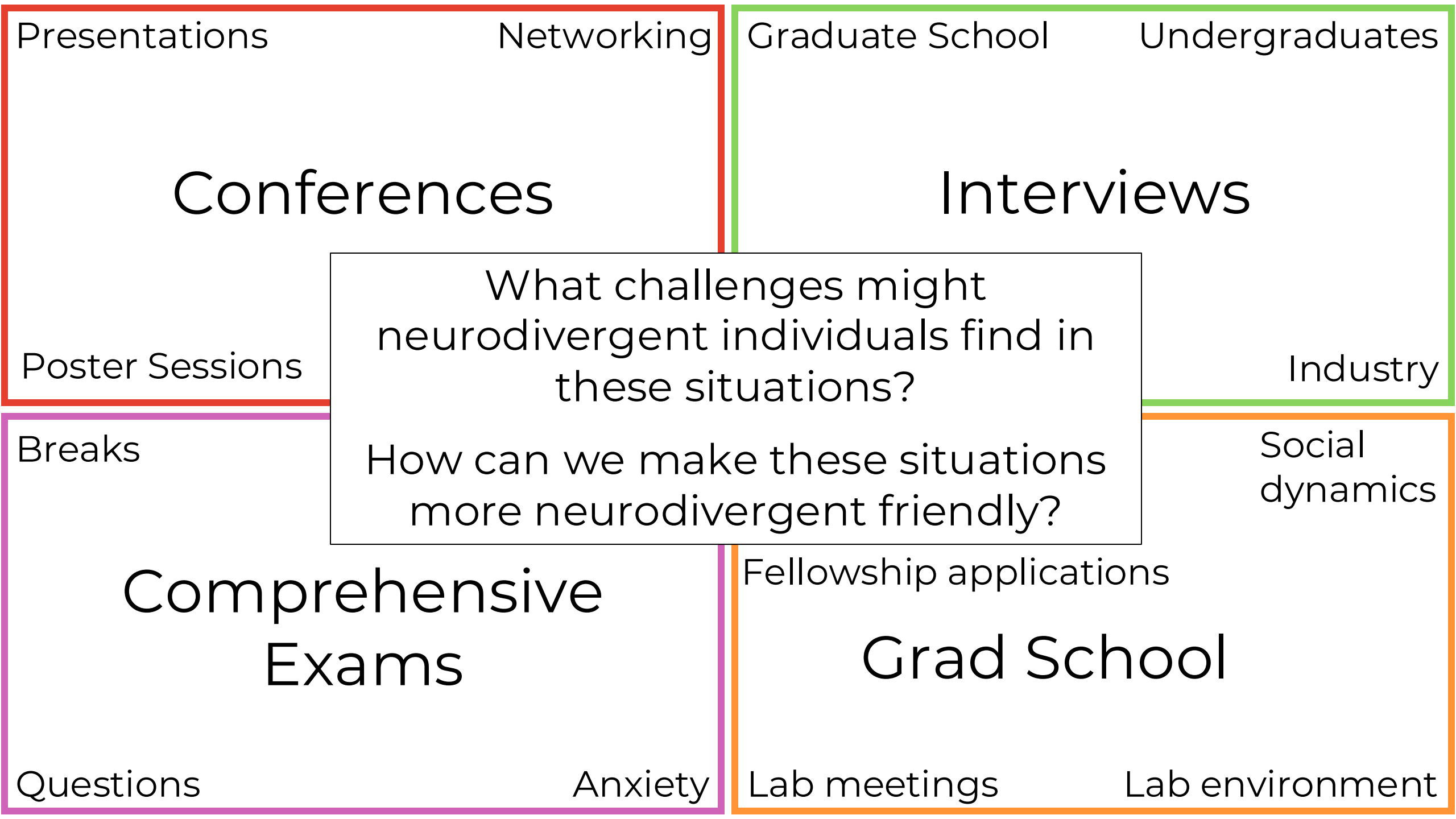
**Improved relationships
with family, friends
and co-workers**

**Improved mental health, self-
esteem and self-acceptance**



**Finding one's place in
the world**





Conferences

Interviews

What challenges might neurodivergent individuals find in these situations?

How can we make these situations more neurodivergent friendly?

Comprehensive Exams

Grad School

Resources

Neurodiversity Celebration Week https://www.neurodiversityweek.com/	Great website to explore, with lots of resources for many different groups of people
Canadian Centre for Diversity and Inclusion (2024) Neurodiversity 101: Supporting a neurodiverse workforce https://ccdi.ca/blog/neurodiversity-101-supporting-a-neurodiverse-workforce/	Canadian-specific information on neurodiversity and recommendations for workplaces
Specialisterne https://ca.specialisterne.com/	Worldwide company focussed on increasing employment of neurodivergent individuals
Doyle, N (2020) Neurodiversity at work: a biopsychosocial model and the impact on working adults <i>British Medical Bulletin</i> 135 108-125 https://doi.org/10.1093/bmb/ldaa021	A review that offers an overview of neurodiversity from medical, psychiatric and sociological lenses, particularly of working adults
Syharat, C M (2023) Experiences of neurodivergent students in graduate stem programs <i>Frontiers in Psychology</i> 14 :1149068 https://doi.org/10.3389/fpsyg.2023.1149068	A qualitative look at neurodivergent graduate students
Ford, C (2024) What went wrong with autism research? Let's start with lab mice. Vox https://www.vox.com/future-perfect/377739/autism-research-mice-lab-models	A cool article on whether animal models of autism are useful for autistic people
<i>Paquette, A</i> To mask or not to mask?: A story of a neurodivergent graduate student in STEM https://michelejacobsen.ca/mask-or-not-mask-neurodivergence/	A blog post following a student's experience with dyslexia throughout undergraduate and graduate studies
UBC Disabilities United Collective https://ubcduc.wixsite.com/website/assessment-guide	Advocacy and support resource group for disabled students at UBC.
UBC Counselling https://students.ubc.ca/health/counselling-services/	First point of contact for mental health concerns at UBC.
UBC Centre for Accessibility https://students.ubc.ca/about-student-services/centre-for-accessibility/	Facilitation of disability-related accommodations and programming designed to remove barriers for students with disabilities and ongoing medical conditions.

Please fill out survey before you leave!



Results from discussion

Suggestions are underlined

Conferences

- Lots of socialization and being “on”
- 12-hour days → lots of “mandatory” activities
 - Some penalize you for not attending all of them
 - Creates a lot of pressure
- Designated break area
 - Sensory friendly rooms
 - Provide a quiet environment
- Should be part of the planning and not a secondary thought
- Written, not just verbal, questions
 - Helps with comprehension and participation
 - Virtual option (e.g.: Slido) for asking questions – helpful for both people asking questions and presenters
- Networking can be overwhelming
 - Would be helpful to have small, facilitated groups
 - Pre-prepped questions or activities to help initiate conversation
 - Seating plans help – mixes groups, helps if you don’t know anyone
- We’re all socially anxious – even PIs, so you’re not alone → this helps to create safe spaces
- Poster presentations
 - Very loud environment
 - Would be helpful to space everyone out, across space and/or time

Release schedules earlier to allow you to mentally prepare for the activities appropriately

- E.g.: CSV “award” was to present after poster → had to stay up to prep
- Socialization pressure
 - Not a diverse event selection (e.g.: drinking, but not everyone drinks)
 - Other activities (e.g.: bowling) are good to allow turn taking and socialising without pressure to drink
- Everyone goes to conferences for different reasons
 - Could be included on your ID card?
 - E.g.: I’m looking for help with experimental design/analysis
 - E.g.: I’m looking for a post-doc
 - E.g.: I’m looking to hire ...
 - Could also help with initiating conversation, getting past initial small talk
- Office hours for keynote speakers

Results from discussion

Suggestions are underlined

Graduate School

- Social dynamics
 - Events
 - Asking for help or reagents
 - Networking
 - Inviting speakers or committee members
 - Navigating politics of academia
- Research
 - Self-paced
 - Lack of clear guidelines
 - Hard to multitask
- Seminars
 - Nervous to ask questions
 - Virtual option (e.g.: Slido) for asking questions – helpful for both people asking questions and presenters

Fellowship applications

- Needs social/volunteer experience to be well-rounded
- Asking for letters of recommendation
- Logistics, keeping track of deadlines and required documents

Comprehensive exams

- Thinking on your feet, “curveballs”
- Public speaking & verbal communication
- Put more weight on written portion of comp exams
- Breaks
- Options to sit comprehensive exam
 - Some people find giving comps/defences/interviews over Zoom easier than in person

Interviews

- Charisma/interpersonal skills often valued more over abilities
- Record videos instead of live interviews
- Scheduling interviews on different days or at different times of day rather than crammed into a short period of time