



The Riddle (2014)  
<https://www.youtube.com/watch?v=QbK4Ge8zgF8>

# Understanding Bias: A Necessary Component for Building Equity and Inclusion Infrastructure

The Michigan Audiology Coalition

## MAC Conference

East Lansing Marriott at University Place,  
Lansing MI

October 13, 2022

**Arie L. Nettles PhD NCSP HSP**  
**Professor of Clinical Pediatrics**

Developmental Medicine  
Pediatric Psychology

**Director, Office of Inclusion & Health Equity**  
Monroe Carell Jr. Children's Hospital at Vanderbilt  
Vanderbilt University Medical Center

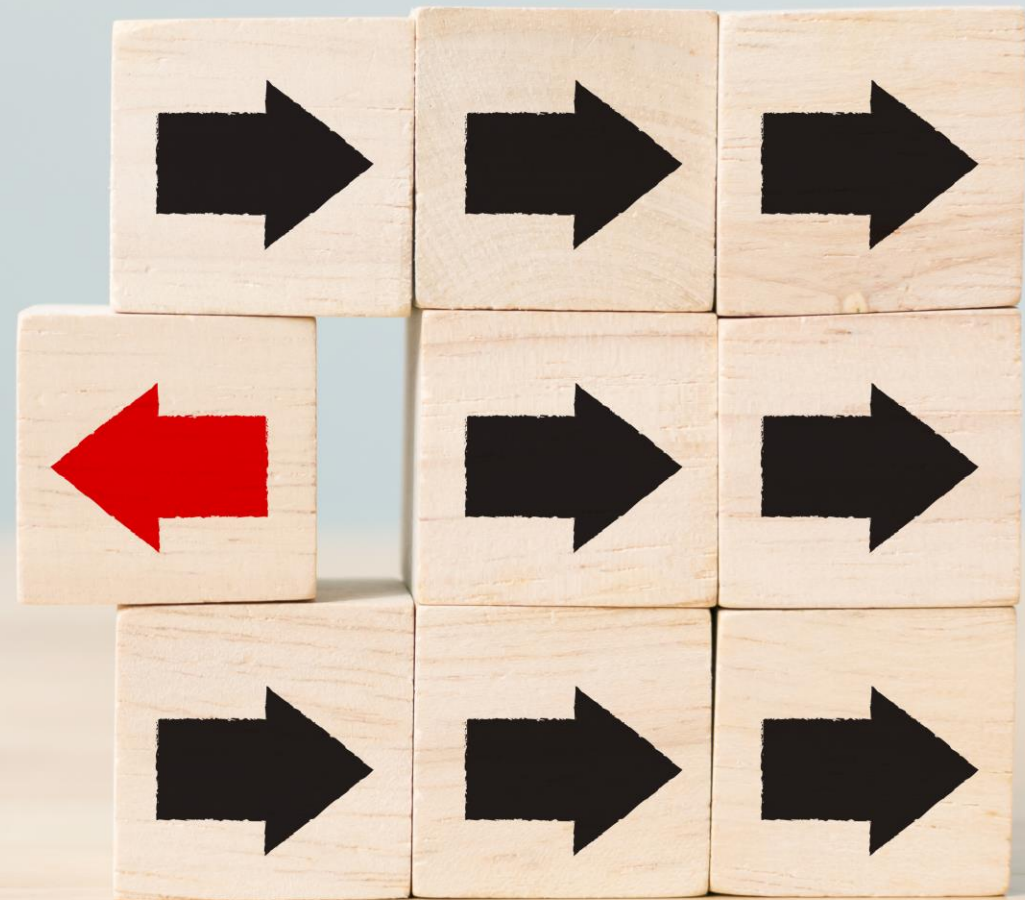


**“This work was developed on the unceded, ancestral traditional Lands of the Peoria, Anishinabewaki, Odawa, and Mississauga peoples.**

To learn more about the land you love and work on,  
<https://native-land.ca/territory-acknowledgement/>



*We see the world as we are,  
rather than the way that it is.*





A view of Earth from space, showing the curvature of the planet and the blue oceans. The word "bias" is written in large, white, lowercase letters across the center of the image.

**bias**

**If you're human, you're biased.**



# Raising Awareness = Reducing Bias

Focus on the science and research of bias can reduce its impact.



“Awareness is the  
greatest agent  
for change.”

- Eckhart Tolle







different way of looking at their surroundings. That's art to me.

- Maya Lin



architecture is the time you spend on it.

- David Chipperfield

aren't actually very important. I don't take 'no' too seriously.

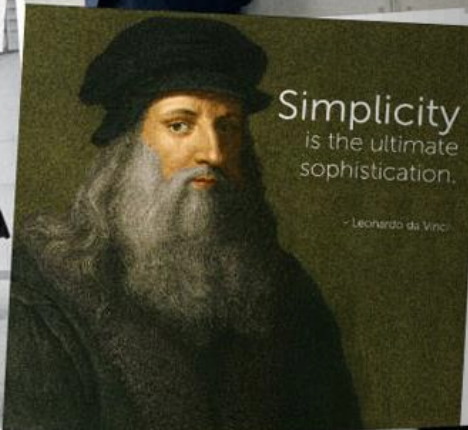
- Richard Rogers



vacation  
If you  
build build  
why sit on the

I think you never stop learning.

- Norman Foster



Simplicity is the ultimate sophistication.

- Leonardo da Vinci

When I'm working on a problem, I never think about beauty. But when I've finished, if the solution is not beautiful... I know it's wrong

- Buckminster Fuller



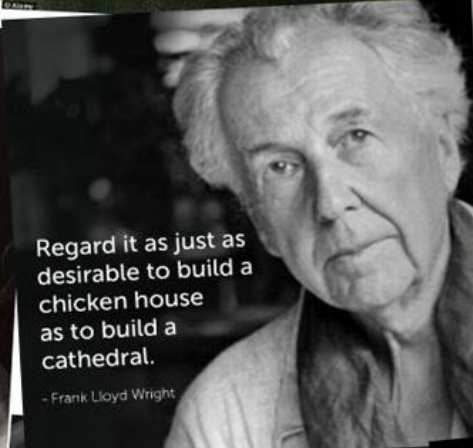
Nothing is ever guaranteed, and all that came before doesn't predicate what you might do next.

- Maya Lin

# The leader is the cultural architect.



think about architecture all the time. That's the problem. I've always been like that. I learn it sometimes.



Regard it as just as desirable to build a chicken house as to build a cathedral.

- Frank Lloyd Wright



Architecture is the reaching out for



Dr. Marion Downs  
Pioneering Audiologist

SheHeros



Architecture

As **leaders for equity**, we must examine, unpack and mitigate our own biases and dismantle the policies and structures that hold inequity in place.

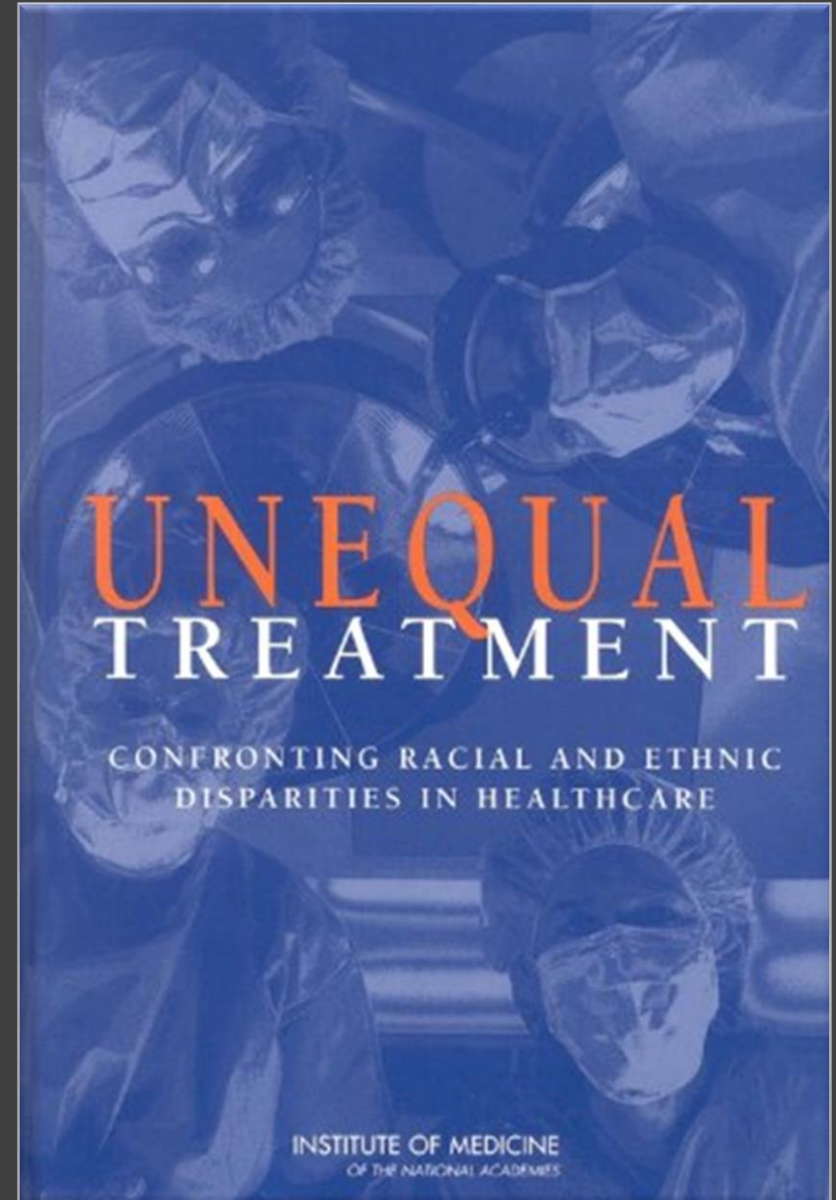


The U.S. public health system has been challenged in constructive ways over the past 2 years, from **fighting a novel virus to managing the resulting pandemic**, and **surmounting pressure from the general public to reconcile past and present trauma fueled by health and racial inequities** that claim lives and perpetuate physical, mental, and emotional harm in predominantly Black, Indigenous, and other non-white communities.

...**Unconscious bias saturates health care** and the governing public health systems in the United States and presents a **call to action** for professionals in the public health field to keep racial and health equity at the forefront of solutions to the “wicked problems” faced in this field.

# Shaping the Future for Health 2001

How can disparities exist when health care professionals dedicate themselves and work hard to provide the highest possible quality of care?



# Learner Outcomes

1

Identify how the processes of the unconscious mind, supported by brain research, impact critical decisions, making interpretations, and everyday functioning.

2

Identify how one's own background can largely inform how one views the world.

3

Plan actionable steps to mitigate bias and build the infrastructure for equity and inclusion individually and organizationally.

# Hippocrates



Quote over 2500 years  
old. Adapted from  
Kandel & Schwartz  
1985

“Men ought to know that from the brain, and from the brain only, arise our pleasures, joys, laughter, and jests, as well as our sorrows, pain, griefs, and tears. Through it, in particular, we think, see, hear, and distinguish the ugly from the beautiful, the bad from the good, the pleasant from the unpleasant....It is the same thing that makes us mad or delirious, inspires us with dread and fear, whether by night or by day, brings sleepiness, inopportune mistakes, aimless anxieties, absentminded, and acts that are contrary to habit.”



Perceptions

Interpretations

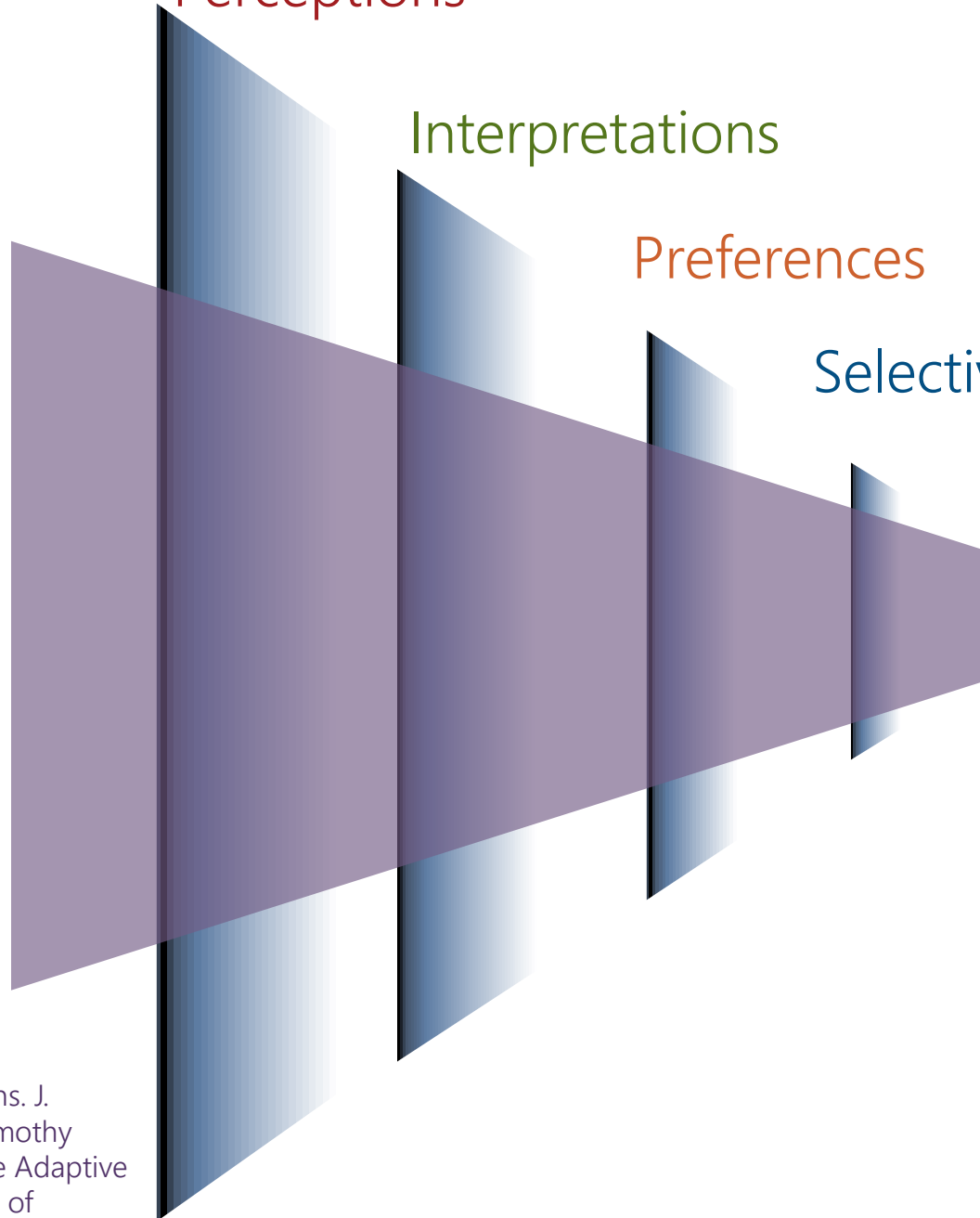
Preferences

Selective Attention

11 million pieces  
of information at  
any one time



40-50 pieces of  
information get  
absorbed



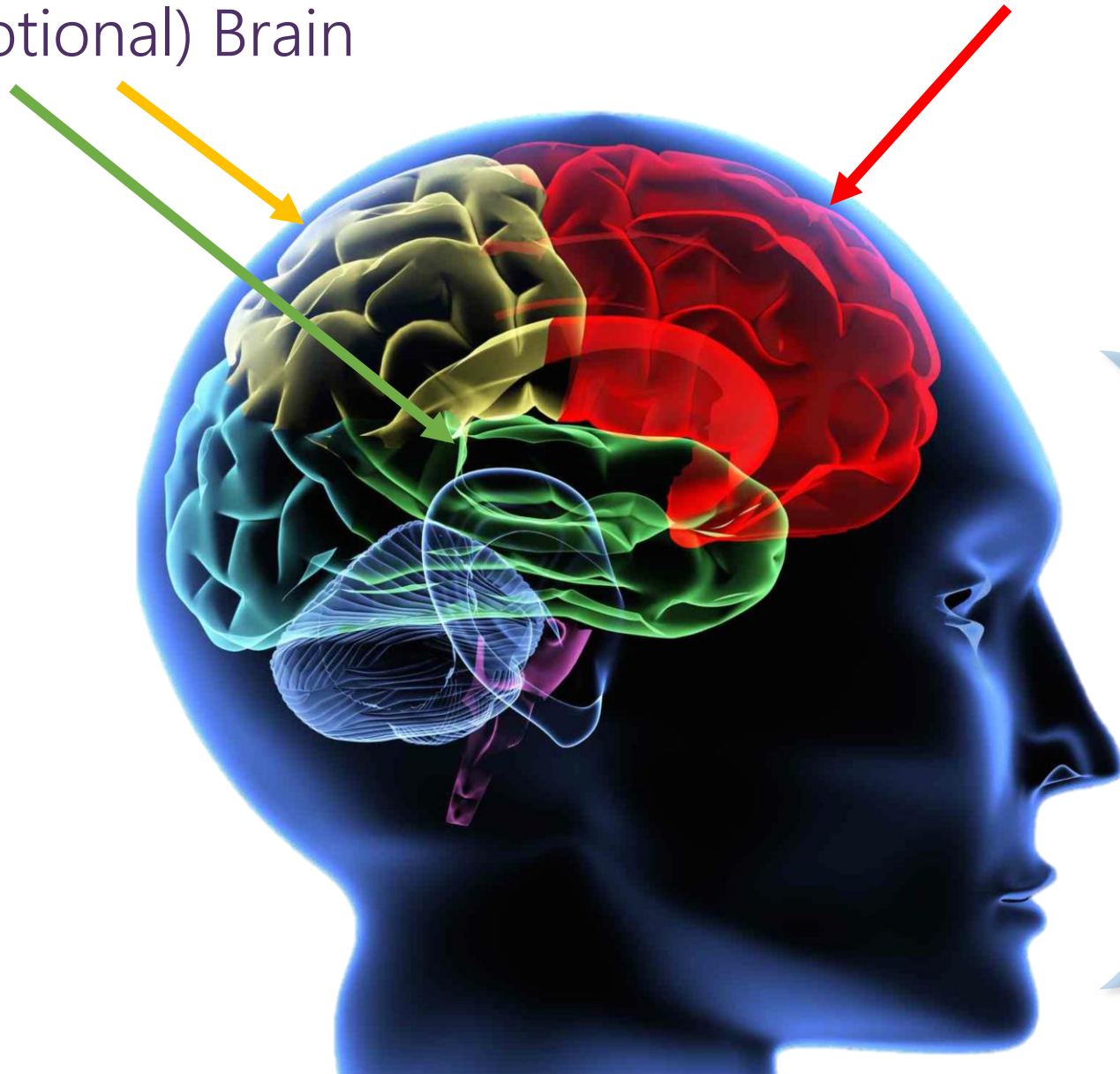
Source: T. Norretranders, *The User Illusion*. Trans. J. Sydenham (New York: Viking, 1998), cited in Timothy Wilson, *Strangers to Ourselves: Discovering the Adaptive Unconscious* (Cambridge, Mass.: Belknap Press of Harvard University Press, 2002), 24.



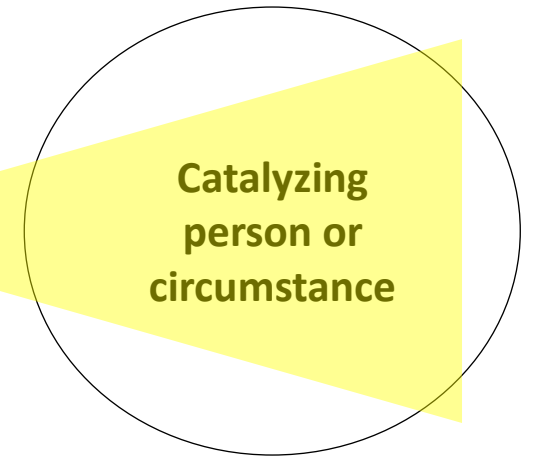
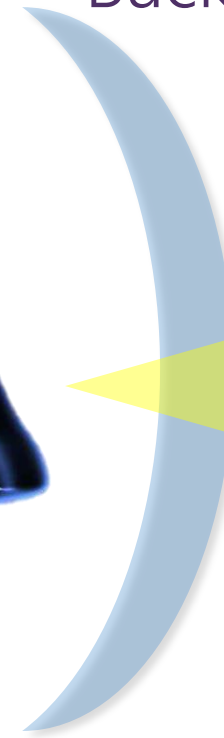


Slow (Thinking) Brain

Fast (Emotional) Brain



Background



**Catalyzing  
person or  
circumstance**




John Ridley Stroop, 1935




John Ridley Stroop, 1935

# **SCHEMA: A MENTAL FILING CABINET**



# My Story



- Everyone has a culture
- Learned at a young age
- Our cultural values and norms are so much a part of us that we often fail to distinguish them from “who we are.”
- Defines the “right way to behave” based on culture most familiar.

# CULTURE: Key Concepts

**Cultural Knowledge:** Familiarization with selected cultural characteristics, history, values, belief systems, and behaviors of the members of another ethnic group (Adams, 1995).

**Cultural Awareness:** Developing sensitivity and understanding of another ethnic group. This usually involves internal changes in terms of attitudes and values. Awareness and sensitivity also refer to the qualities of openness and flexibility that people develop in relation to others. Cultural awareness must be supplemented with cultural knowledge (Adams, 1995).



# CULTURE: Key Concepts

**Cultural Sensitivity:** Knowing that cultural differences as well as similarities exist, without assigning values, i.e., better or worse, right or wrong, to those cultural differences (National Maternal and Child Health Center on Cultural Competency, 1997).

**Cultural Competence:** A set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals and enables that system, agency, or those professionals to work effectively in cross-cultural situations (Cross, Bazron, Dennis, & Isaacs, 1989)





# What is bias?

A tendency or inclination that results in judgment without question.





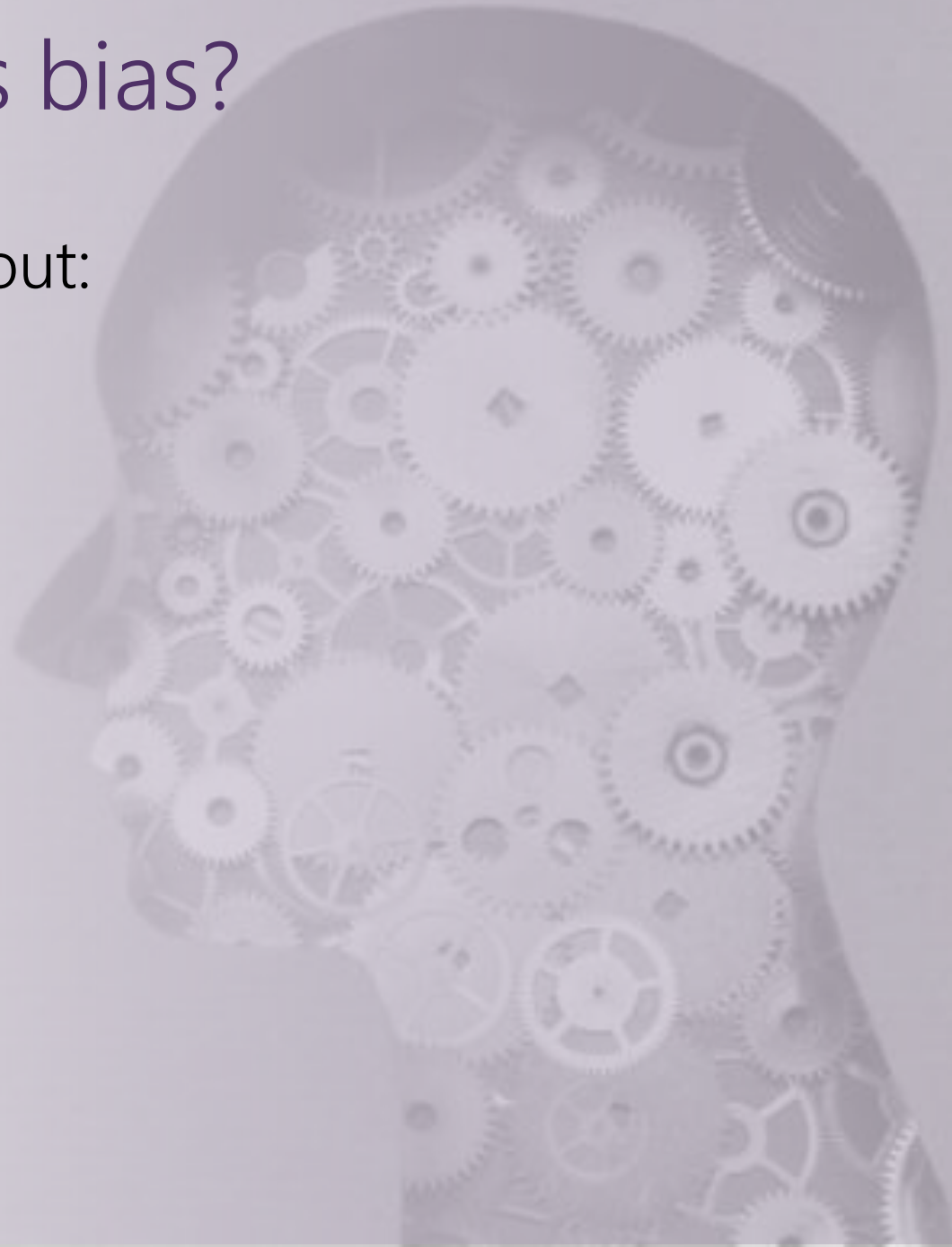


# What is Unconscious bias?

Mental associations without:

- Awareness
- Intention
- Control

These often conflict with our conscious attitudes, behaviors, and intentions.



# MICROAGGRESSIONS

“SUBTLE ACTS OF EXCLUSION”  
(HBR 2022)

Brief and commonplace daily verbal, behavioral, or environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative prejudicial slights and insults toward any marginalized group.

Not pronouncing or spelling an individual's name correctly

People moving away from you or holding their breath when around you

Not giving eye contact when the individual is speaking

Making assumptions about skills/abilities/temperament of the individual based on stereotypes

Interrupting an individual when they are speaking

Ignoring what you have said/instructed and asking other people for clarity or confirmation

Ignoring individuals in meetings and in the workplace

Subjecting an individual to more criticism and harder judgement compared to their white counterparts

Continually arranging team social events based around alcohol, thereby making an individual feel unwelcome

Dismissing an individual's opinion or perspective

A lack of awareness of personal space and personal boundaries which can lead to uncomfortableness

What does a microaggression look like?

Making assumptions about seniority. The micro-aggressive assumption being that the most senior person in the room is white



<https://youtu.be/92GHIYKayEM>

Evans. The Hearing Journal, October 2021

**Implicit/ Unconscious  
Bias in Audiology:**

How Does it Affect  
Families of Deaf  
Children

Support for building  
awareness, reducing bias  
in Audiology

**Serving Culturally and  
Linguistically Diverse Patients in  
Audiology:**

Part 1: Avoiding  
Microaggressions

Colella, Friedland, & Gaeta. The Hearing Journal, April 2021

Culture

Group

Individual

Institutional



6



Just because you are right,  
does not mean that I am wrong.  
You just have not seen life  
from my side.

9





# Clinical decision- making



... can be as much  
of a function of  
**who the patient is**  
as much of **what**  
**the patient has.**

McKinley, E.D., Garrett, J.M., Evans, A.T. et al. Differences in end-of-life decision making among black and white ambulatory cancer patients. *J Gen Intern Med* 11, 651–656 (1996)

# Impact of Perception?

According to Dr. Christine Yoshinaga-Itano, Audiologist and Research Professor, Institute of Cognitive Science, University of Colorado Boulder

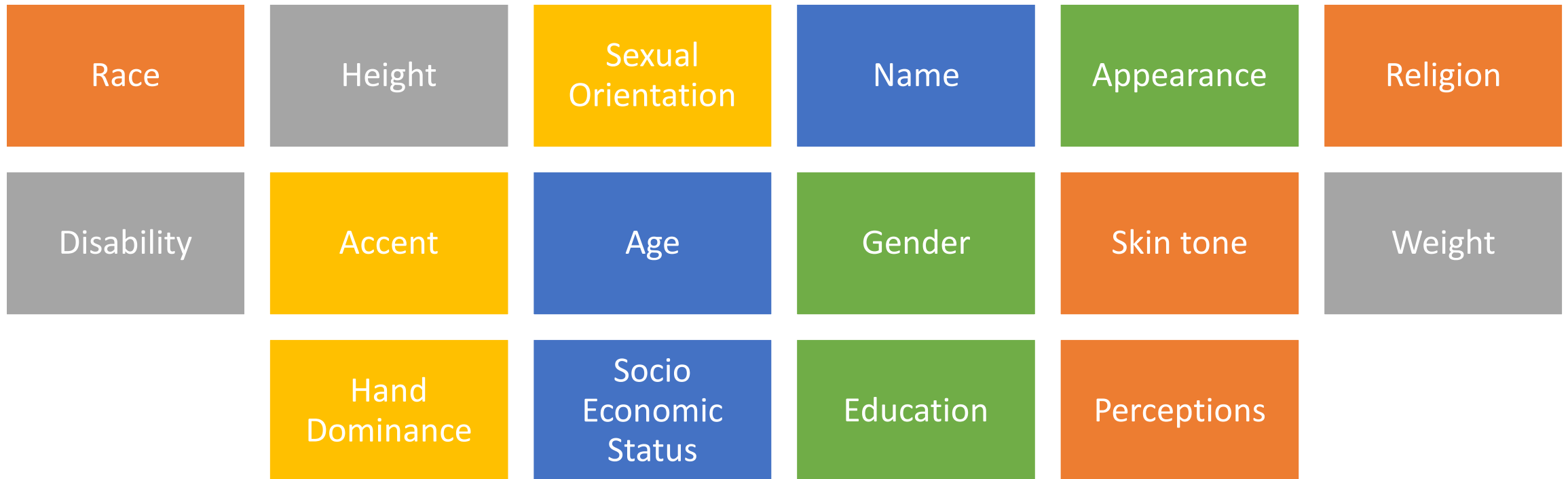
“Babies with hearing loss need early intervention, but only half get it.”

“We showed that failure to diagnose hearing loss early can create an environmentally induced and preventable secondary disability, **making children function much like children with cognitive delay.**”  
(2017)





# Which biases do you recognize as your own?



# Other bias examples

Authority

Beauty

Confirmation

Conformity

Affinity

Status quo

Anchor

Idiosyncratic  
rater

Overconfidence

Recency

So many more...







**RESPECT IS LIKE AIR**  
You don't really  
notice it until it's  
not there- and then  
it's all you notice!

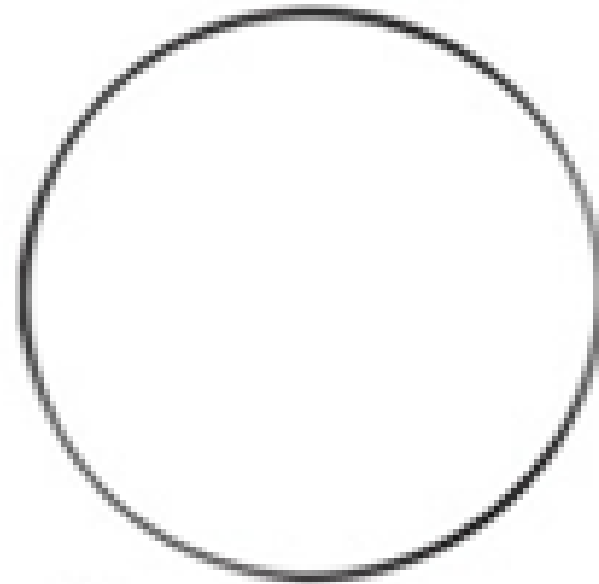
**Respect Others and Yourself**



Activity:

Who is in your  
circle?

circle of trust

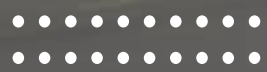


•  
↖ you



# Maslow's Hierarchy





“...being excluded from a group triggers activity in the same regions of the brain associated with physical pain.”







October Is  
**NATIONAL  
AUDIOLOGY  
AWARENESS  
MONTH**

**CONNECT**

*with* **Audiology**

Countering  
Unconscious Bias

# Engage in Perspective Taking

*T. Sykes 2010*

Three types of Perspective Taking:

**Self / Other/ Third Party**

Perspective of the **self**: This is how the situation is interpreted from your own experience, based on your own thoughts and feelings in that situation.

Perspective of **other**: This is how the situation is interpreted from the experience of the other person involved in the situation, based on their thoughts and feelings.

Perspective of **third party**: This is how the situation is interpreted from someone who isn't involved in the situation, but instead looking from a neutral, outside perspective (the "the fly on a wall" approach).



Hearing Speech Deaf Center

## Actively Engage Families

Family engagement is a collaborative and strengths-based process through which early childhood professionals, families, and children build positive and goal-oriented relationships.

# Lack of engagement: **Families can feel**

Unwelcomed and uncomfortable



Their needs are not being met



Misunderstood

# Lack of engagement: **Providers can feel**

Families are not committed to their child's hearing wellness



Families do not recognize the provider's hard work



Families “make-up excuses” for not participating



# Three tips to Actively Engage Families

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- ❑ Start with looking at yourself; and challenge your own assumptions.
- ❑ Acknowledge families as equal partners: Constantly revisit and revise plans based on input from families.
- ❑ Meet parents where they are: The ways families contribute to their child's education may differ.

# Thoughtful Data Collection Considerations Monitoring Disparities

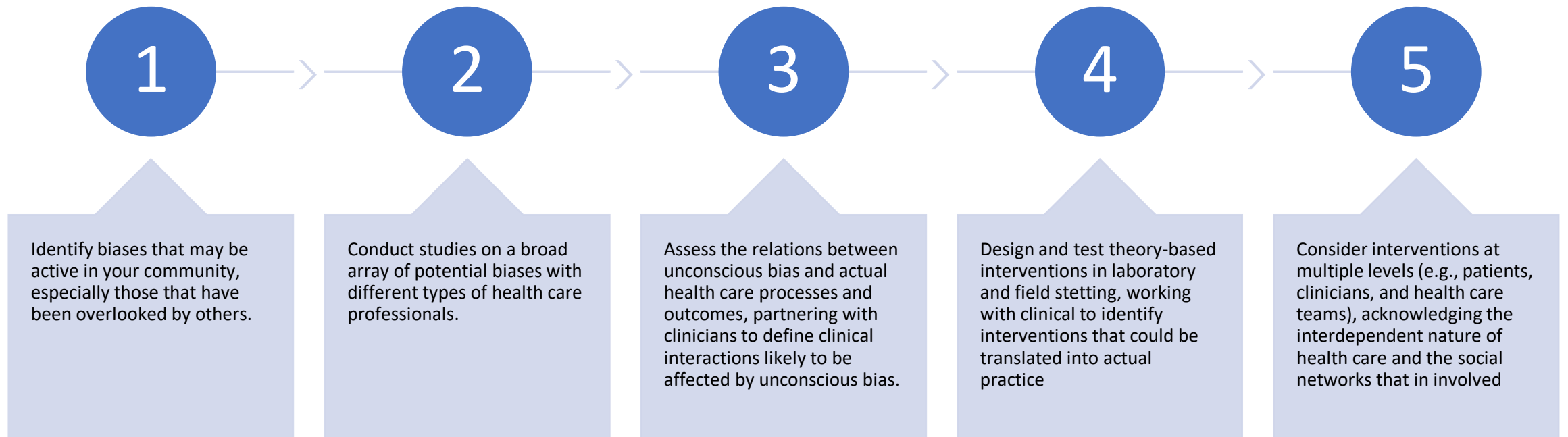
- What data to collect and for what
- **Myth: One approach fits all when collecting race, ethnicity, language data and social determinants data**
- **Tailor data collection based on the population served, financial resources, and capacity of the electronic health record**



Pediatric Audiology, ChEARS Hearing Center of CA  
San Diego

# Incorporate an identified gap in the field in discussions

## A Roadmap for Future Research on [Unconscious] Bias in Health Care







The Hearing Bus is bringing care to small towns and rural areas of Southwest Michigan (2012)

*Christina Studts, PhD, (ACCORDS) 2021*

“Not just stories of parents who felt like giving up because it was so hard to access services, but also stories of educators who came to people’s homes and stood outside the window to interact with the children, and audiologists who met with families, curbside to troubleshoot problems with devices.”

“There are things that individuals did to make sure no children fell through the cracks, and those are the stories we hope to give to policy makers....”

COVID-19 Pandemic Presented Unique Challenges to Children Who are Deaf or Hard of Hearing and Their Families Under-studied or excluded from studies

<https://news.cuanschutz.edu/medicine/covid-19-children-deaf>

# Use inclusive language

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Discuss information in a way that minimizes bias and promotes equity



Living with Hearing Loss and  
Becoming a Bilingual  
Audiologist and Mom

Illegal immigrant	Undocumented immigrant
Noncompliant	Nonadherent
Minority	Historically marginalized
Vulnerable	Made vulnerable or disenfranchised
Social problem	Social injustice



## **COVID-19 The PANDEMIC**

# **VIRTUAL COMMUNICATION**

Welcome to the new normal, as abnormal as it is. The collateral industry response COVID-19, given social, physical distancing and working remotely, have forced the shift to a virtual process.

A stylized purple flower with a green stem and leaves is positioned on the left side of the text. The background is a light blue and white watercolor wash.

*The* biggest  
communication  
problem is we do  
not listen to  
understand. We  
listen to reply.

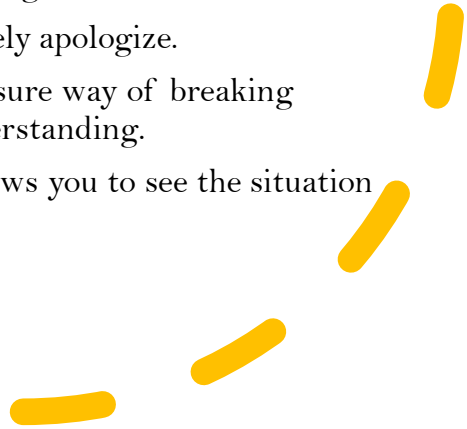
A small purple fleur-de-lis logo is centered above the text.

*The Purple Flower*



# BEHAVIORS FOR BOLD, INCLUSIVE CONVERSATIONS

Adapted from *We Can't Talk  
About that at Work: How to Talk  
about Race, Religion, Politics,  
and Polarizing Topics* (The  
Winters Group Inc.)

- ❑ **Acknowledging:** You don't know everything; there is always something to learn.
  - ❑ **Legitimizing:** Other perspectives are just as valid as yours and should be listened to for understanding, not necessarily agreement.
  - ❑ **Listening:** Listen to understand. Listen for your own cultural assumptions, perceptions and expectations.
  - ❑ **Reflecting:** Spend more time reflecting on your own values and beliefs.
  - ❑ **Describing:** Learn to describe the behavior before providing you interpretation and expand the number of interpretations you consider.
  - ❑ **Contextualizing:** Consider the circumstances, conditions and history of the topic for which you are having a bold, inclusive conversation.
  - ❑ **Pausing:** Take a deep breath. Think about what you are going to say. Pause to more patient as well. Be patient of mistakes.
  - ❑ **Accepting:** Accepting does not mean agreeing. You are accepting that there are myriad worldviews, and it is important to learn more about them.
  - ❑ **Questioning:** Be curious, not judgmental about differences.
  - ❑ **Respecting:** Respect the dignity of every person even when you don't agree with them.
  - ❑ **Apologizing:** If you say something that offends someone else, genuinely apologize.
  - ❑ **Connecting:** Making meaningful connections across difference is one sure way of breaking down barriers and enhancing our capacity for empathy and share understanding.
  - ❑ **Empathizing:** Sympathy leads to patronization and pity. Empathy allows you to see the situation from the perspective of the other person.
- 

Our brains are  
wired to run  
from pain;  
whether our  
own or  
someone  
else's



To see the world as others see it



To be non-judgmental



To understand another's feelings



To communicate the understanding of  
that individual's feeling

The background of the slide is a blurred photograph of several wooden figures, possibly chess pieces or stylized human figures, arranged in a line. The figures are light-colored wood and have rounded heads. The background is out of focus, creating a soft, bokeh effect.

# Empathy

Empathy allows you to see the situation from the perspective of the other person.

Winters, 2017



Brené Brown, *Empathy* 12.10.2013





Biases are most pronounced when one is busy with other tasks, distracted, tired, anxious, and under time pressure.



Shine the  
flashlight on  
**YOURSELF!**

CookRoss 2015

## REFLECTION

Yes, I'm human!  
Yes, I have biases!

RAISE  
AWARENESS  
=  
REDUCE BIAS



JENNIFER BROWN

# INCLUSION

DIVERSITY, THE NEW WORKPLACE  
& THE WILL TO CHANGE

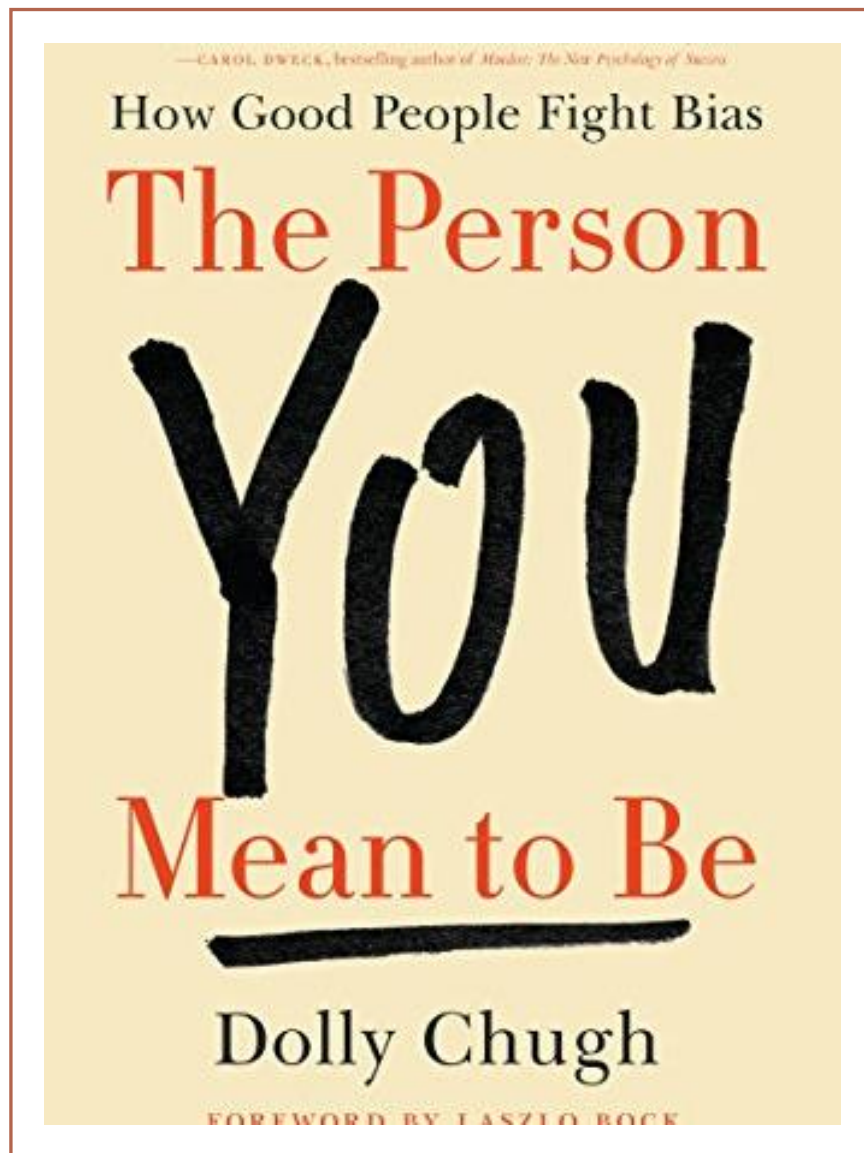


Harnessing the power of diversity and inclusion is essential for the very viability and sustainability of every organization

Talent who feel fully welcomed, valued, respected, and heard by their colleagues and their organizations will fuel this growth.

Being the person, we mean to be starts with a look at ourselves.

- Only way to be on the right side of history is to be a *good-ish*— rather than good— person. *Good-ish* people are always growing.
- “Ordinary privilege”—the part of your everyday identity you take for granted, such as race for a white person, sexual orientation for a straight person, gender for a man, or education for a college graduate.





The Unconscious  
is Malleable

# Unconscious Bias Training Is More Important Than Ever

It is a necessity!  
It is only a  
piece of the  
puzzle





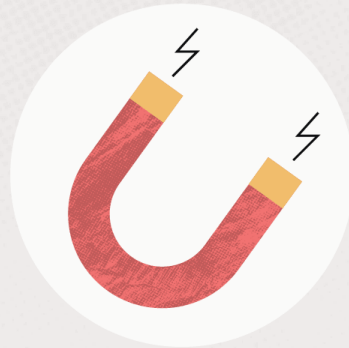
Unconscious bias training is not just the flavor of the week!

Training makes a difference if the focus is on:

- Skills for rewriting the scripts**
- Growing new personal and professional competence**



## Benefits of tackling unconscious bias



Attracts  
diverse talent



Leads to fair  
decision-making



Encourages creativity  
and innovation



Improves employee  
engagement




Results in higher levels  
of productivity



Increases  
company revenue

<https://asana.com/resources/unconscious-bias-examples> 5.17.2021



Building  
infrastructure:  
Unconscious  
bias training  
that works

Increasing awareness isn't enough. Teach people to manage their biases, change their behavior, and track their progress.

*“Imagine a weight-loss program that told participants to step on the scale and left it at that.”*

# 5 Steps: Teaching people to manage biases, change behavior, and track progress



Stress that “you hold the power”



Create empathy



Encourage interactions among people from different groups



Encourage good practices and continued learning



Set a broader strategy for broader impact



USU Pediatric Audiology Service South Beginnings Utah

# Be intentional

Structured, purposeful approach

Don't be afraid

Engage experts

Ask questions



**What do you want your culture to be?**

**May I talk? May we talk?**

**Will I be heard? Will we be heard?**



**DON'T UNDERESTIMATE THE  
POWER  
OF YOUR WORDS**

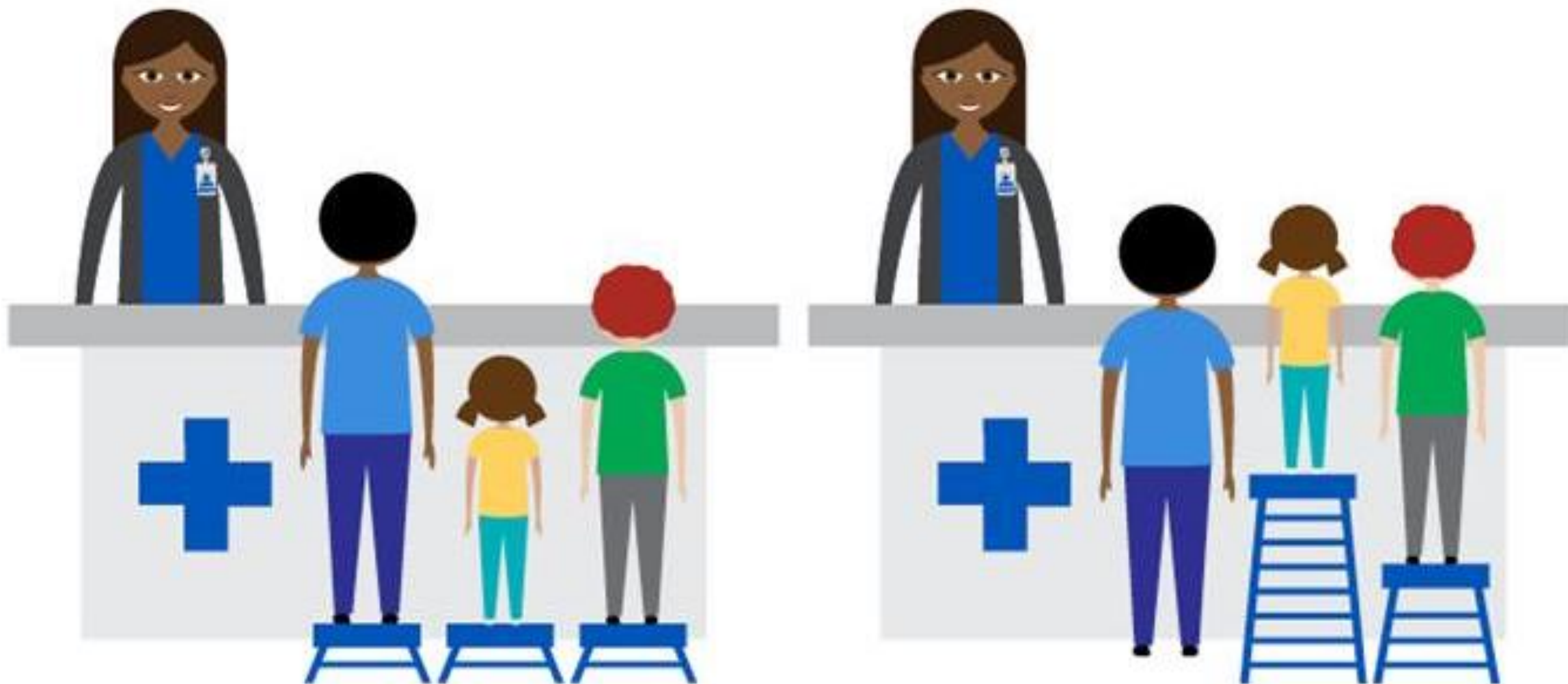


Bias, equity and  
building  
infrastructure

The work of  
embedding  
equity into  
every aspect  
of our roles  
cannot be  
accomplished  
overnight.

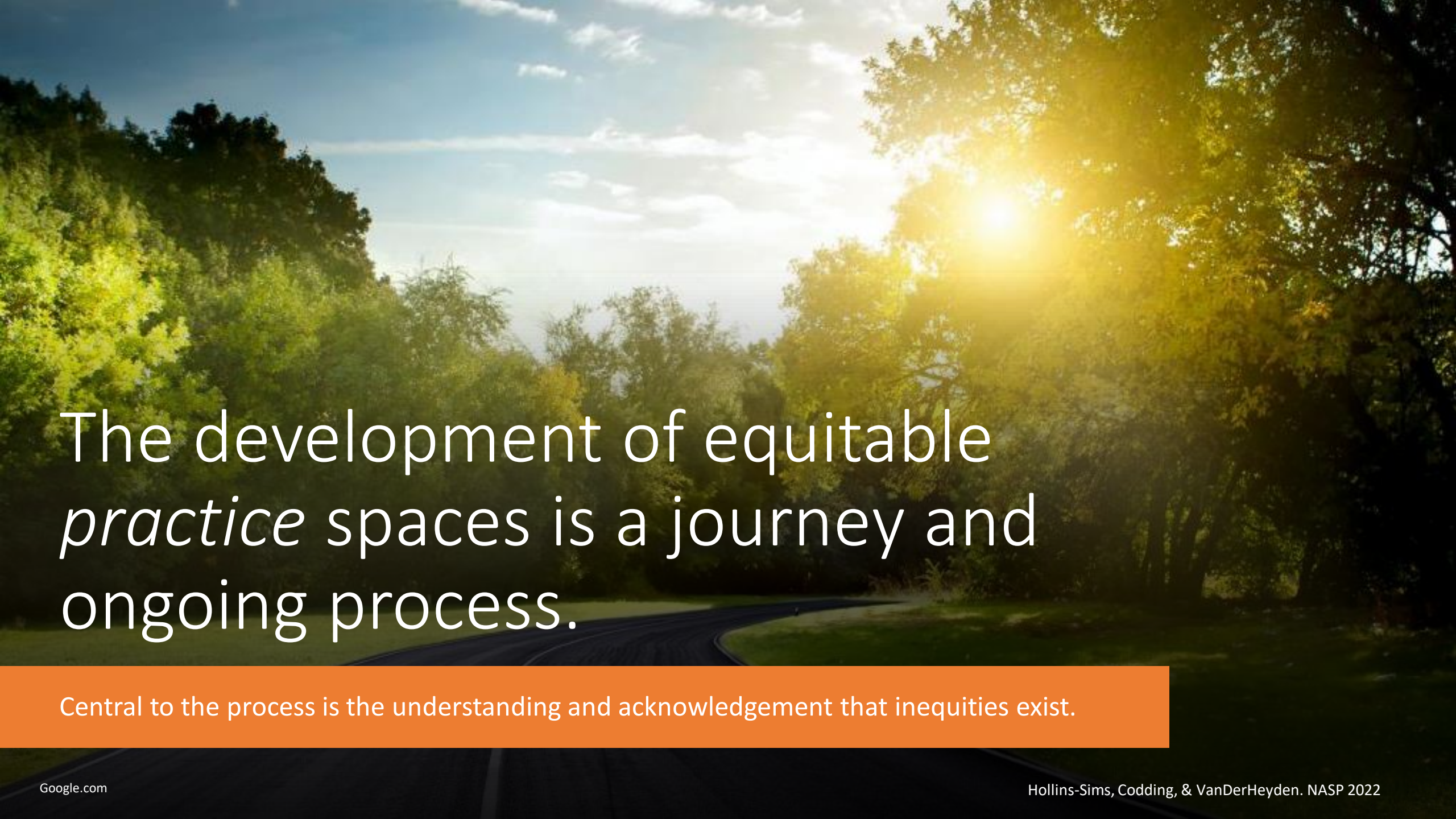


There is tension between equity and efficiency. (Keels & Malley, 2021)



Equality/Equity





The development of equitable  
*practice* spaces is a journey and  
ongoing process.

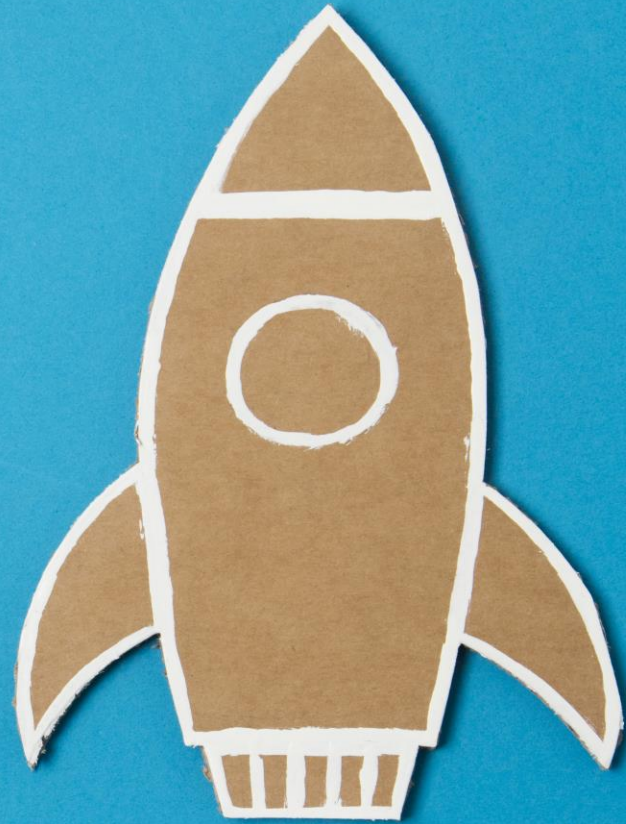
Central to the process is the understanding and acknowledgement that inequities exist.

Raising awareness to  
reduce bias takes  
**TIME!**



*Freedom is the pause between  
stimulus and response.*

- Rollo May





# Take a P.A.U.S.E.

A quick way to check your reaction

**P**

- **Pay attention** to what's actually happening—not the interpretation

**A**

- **Acknowledge your assumptions** given your lens on the matter

**U**

- **Understand your background** and how that might color your experience

**S**

- **Seek other perspectives** on what might be happening

**E**

- **Examine your options** and make a decision

Seeing things  
from a  
different  
perspective.

Perspective

Be the girl on the right



# 6 Takeaways

- Bias is a normal function of the human brain:
  - It is a shortcut to interact with the world
  - It is necessary for survival.
- Unconscious biases are mental associations without awareness, intention, or control. These may conflict with our conscious thoughts and views.
- Our background and cultural experiences largely inform how we view and react to the world. Shine the flashlight on yourself.
- Sometimes our initial response is not the best one; stopping to **PAUSE** when making decisions is an effective way to check our assumptions and reactions.
- The work of embedding equity into every aspect of our roles cannot be accomplished overnight; a process; and journey.
- By raising awareness, we reduce bias and can implement actionable steps to mitigate bias and build the infrastructure for equity and inclusion individually and organizationally.



# Activity:

By raising awareness, we reduce bias and can implement actionable steps to mitigate bias and build the infrastructure for equity and inclusion individually and organizationally.

**Within the next 6 months or by April 15, 2023:**

- 1. One individual actionable step to mitigate bias**
- 2. One organizational actionable step to mitigate bias**



<https://www.youtube.com/watch?v=H2nJaNj4lw0>



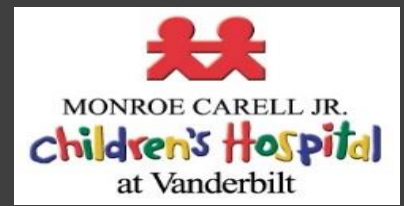






**Arie Nettles, PhD, NCSP, HSP**  
*Professor, Clinical Pediatrics*  
*Director, Office of Inclusion and Health Equity*

# Understanding Bias: A Necessary Component for Building Equity and Inclusion Infrastructure



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 <https://www.vumc.org/oihe/>