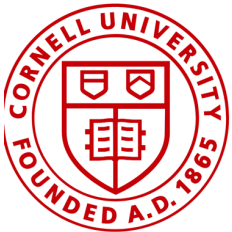


What can neuroscience do for communities?

Marlen Zoraida Maria Gonzalez Caraballo, PhD
Department of Psychology, Assistant Professor
Community Neuroscience Initiative, Director



#scienceisateamsport



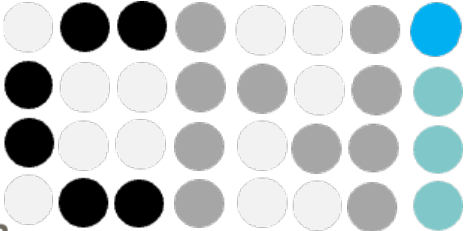
Adam Anderson, Eve De Rosa



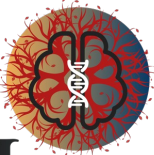
Senegal A. Mabry



Action
Research
Collaborative



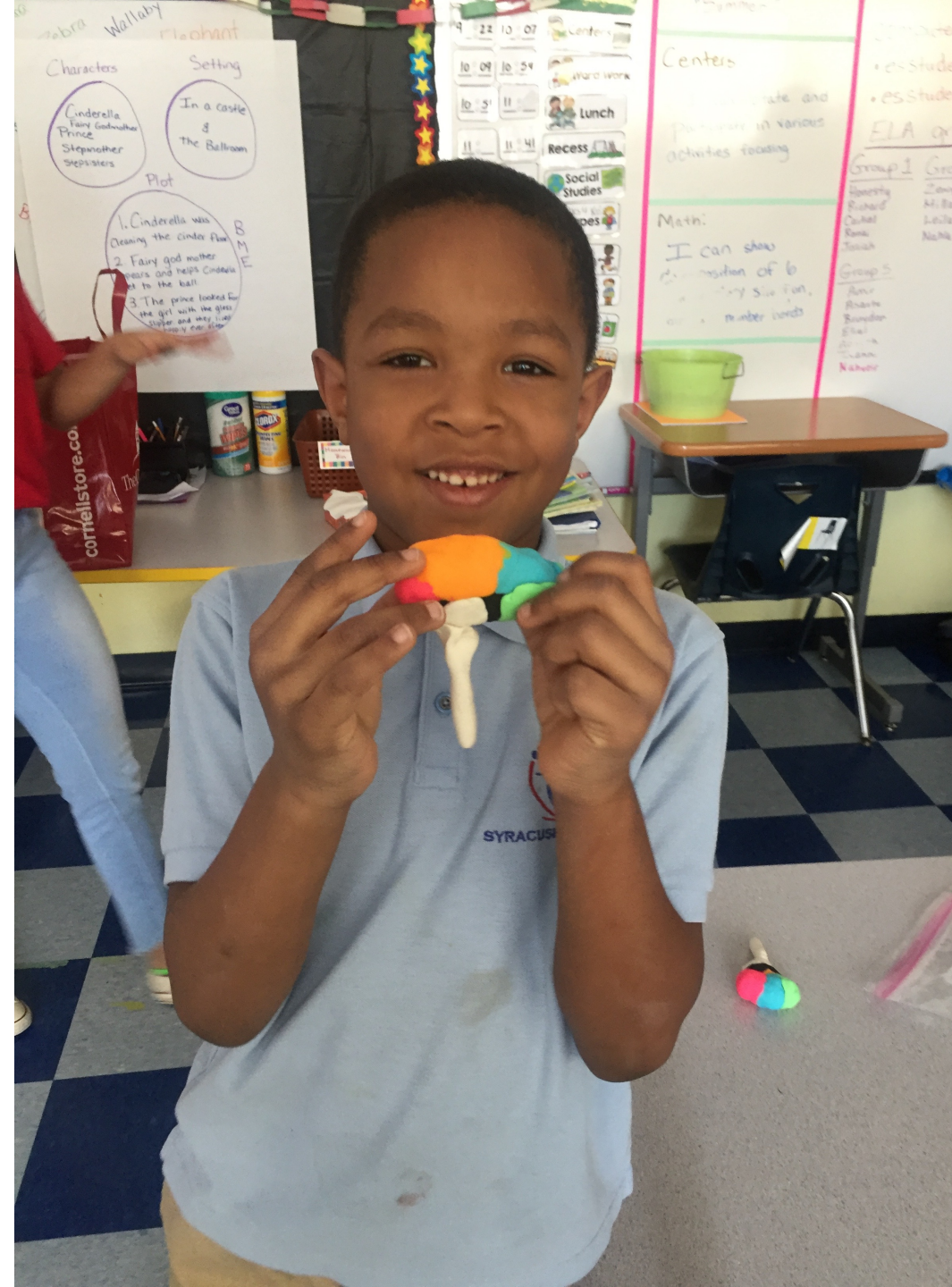
LIFE
HISTORY LAB



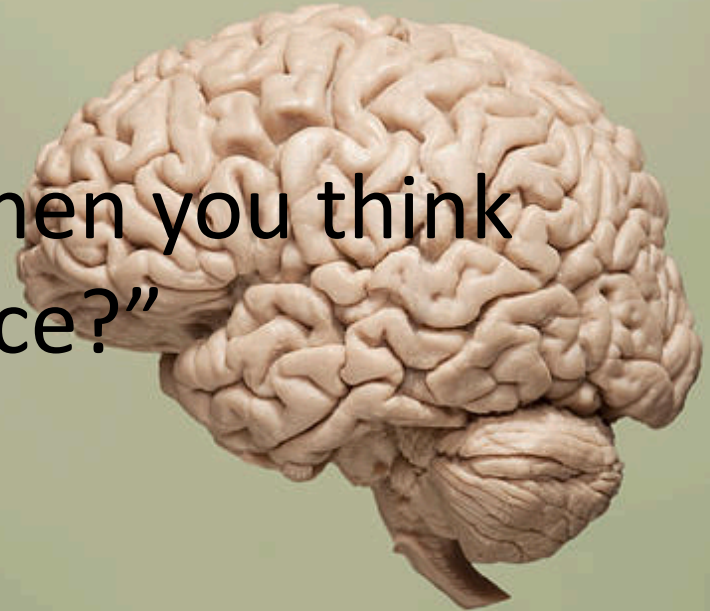
Jessica J. Connelly, PhD
James P. Morris, PhD
Jim A. Coan, PhD
Joseph P. Allen, PhD

Goals

- Reframe what neuroscience is
- Introduce a community neuroscience approach
- Talk about CNI's work
- Elicit conversation



What do you think about when you think
about “neuroscience?”



Neuroscience i

CHILD DEVELOPMENT

Special Section | [Full Access](#)

JOURNAL ARTICLE

Targeting Parent to Improve Outcomes Sustained adolescent

Amanda Sheffield Morris [✉](#)
Sophie A. Hartwig, Amy E. T

June C Lo, Su Mei
Wei Shan Cher, Jo

Sleep, Volume 41,

Published: 10 Ap



Trauma at the Border: Can Neuroscience Inform Legal Advocacy?

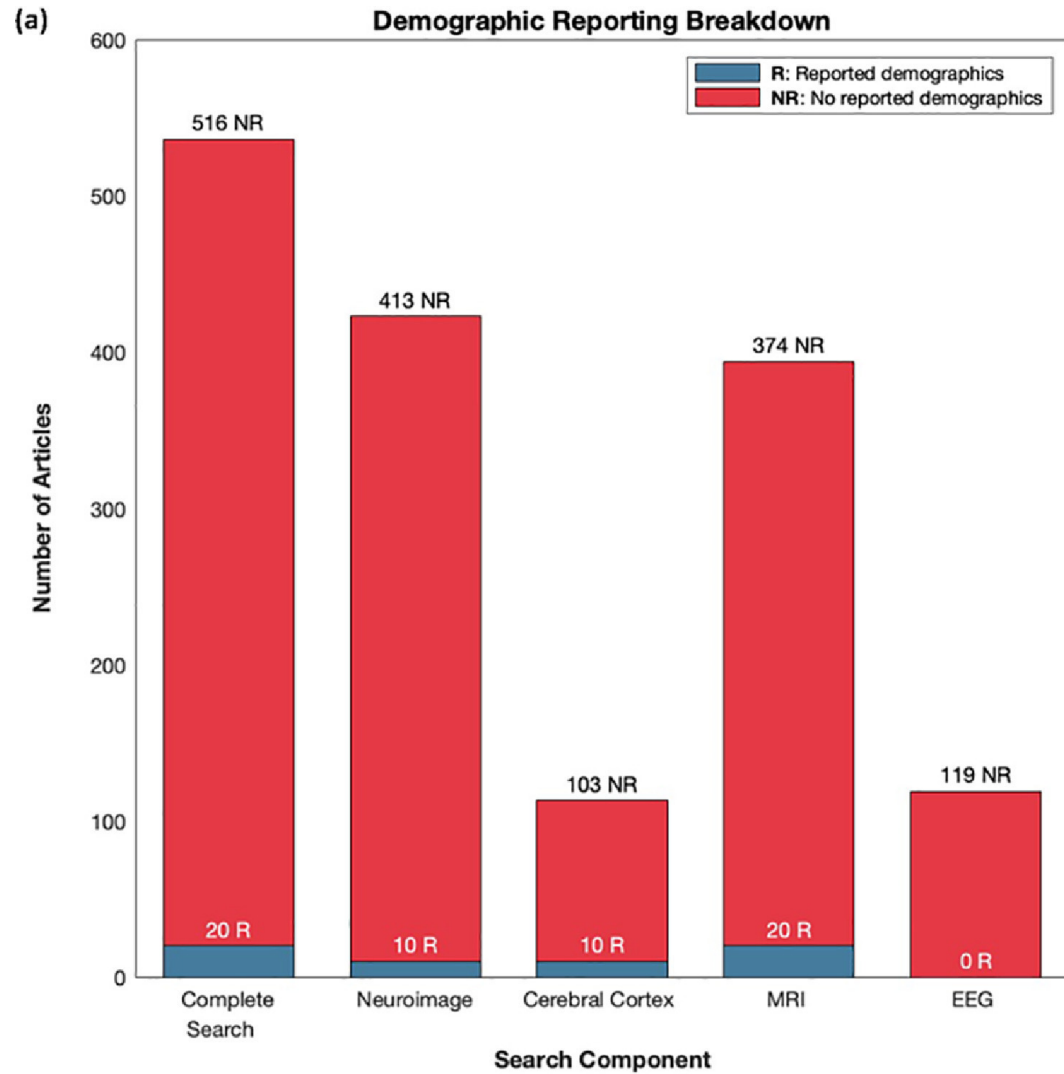
[📅 February 28, 2019](#) [👤 Francis X. Shen](#) [📁 Francis X. Shen, Health Law Policy](#)

Inequality in neuroscience

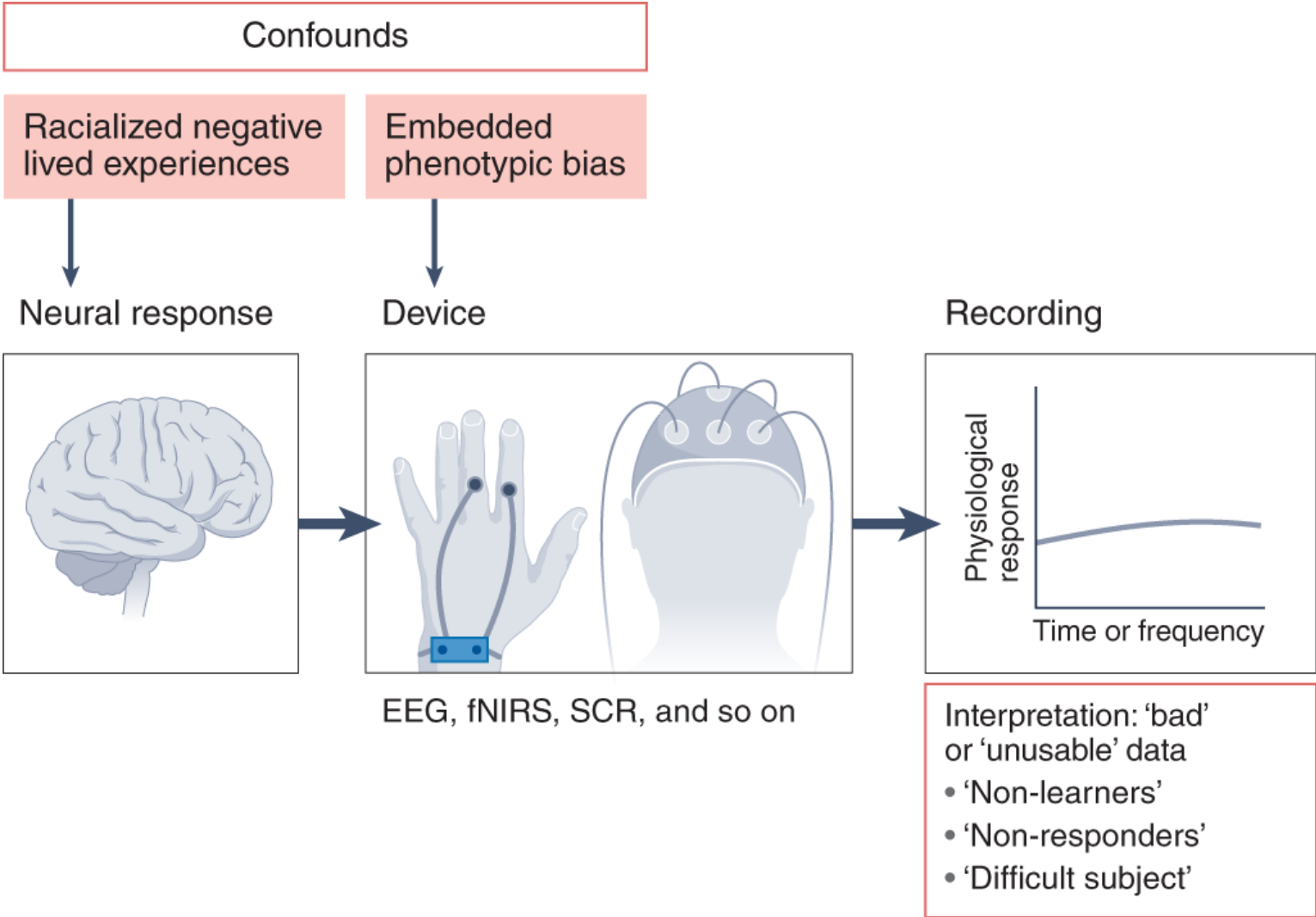
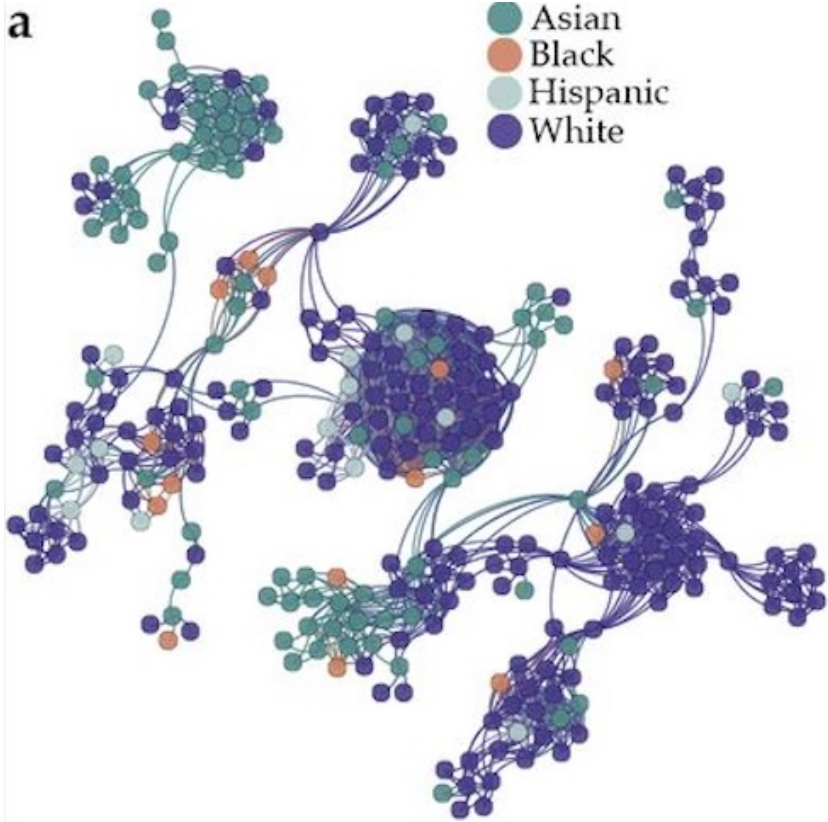
- Who is making these decisions and with what information?
- To what extent is the research reflecting people's actual lived experiences?
- May essentialize structural issues as biological
- Information on inequalities from research team to research participants



Inequality in neuroscience



Inequality in neuroscience



Inequality in neuroscience

- Deficit focused/
stigmatizing

Example	White-Centered Approach	Black Feminist Approach
Overall conceptualization of Black women's unique experiences of stress	<ul style="list-style-type: none">• Deficit-based, decontextualized, biological framing rooted in White supremacy, patriarchy, heterosexism• Collapsing stress exposure over diverse groups to consider the average stress exposure	<ul style="list-style-type: none">• Strengths-based and intersectional approach that considers race, gender, class, sexual orientation, history and systems of power/oppression• Consideration of intersecting, marginalized identities and context of stress exposure

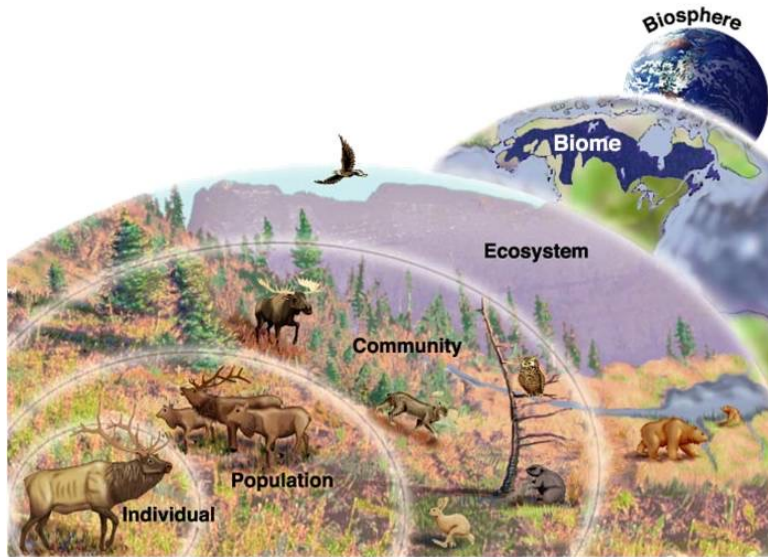


“As you enter positions of trust and power, dream a little before you think.”

–Toni Morrison

Solution? Community Neuroscience

An approach to how we generate and communicate our science



Ecological



Contextual



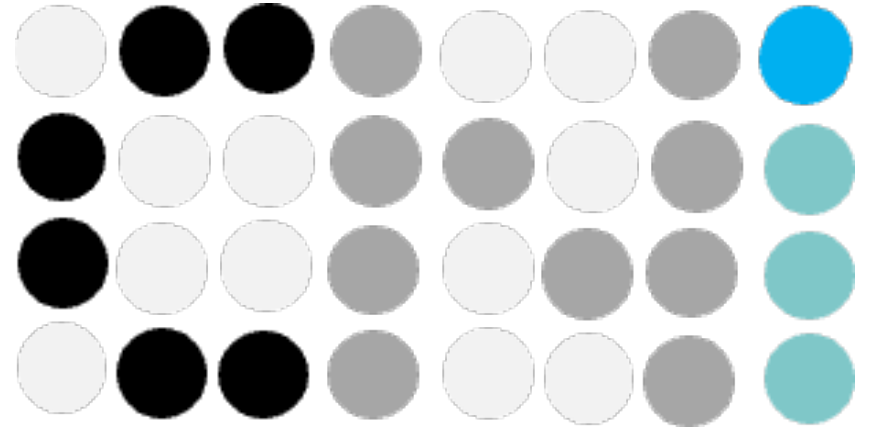
Democratized

The Community Neuroscience Initiative

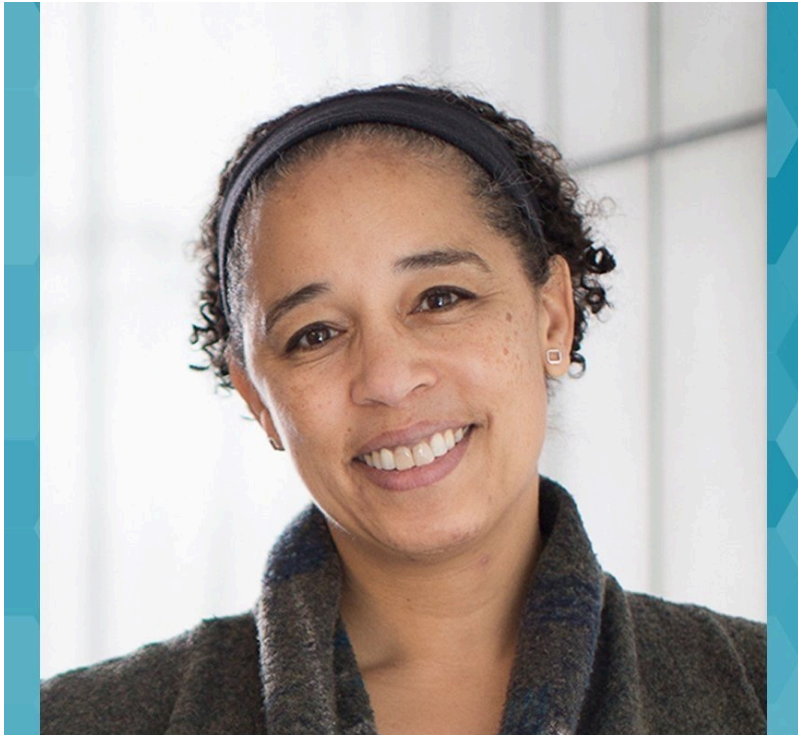
MISSION: To democratize neuroscience

- Make it **accessible**
- Make it **translational**
- Make it **inclusive**

A democratized neuroscience is one that **speaks** to people with minimal jargon, **applies** to their lived experiences, and **destigmatizes** mental illness and neurodiversity.



Who is CNI?



Associate Prof. Eve DeRosa



Prof. Adam K. Anderson



Graduate Fellow Senegal A. Mabry

Who is CNI?



Research Coordinator Geneva M.
Hidalgo Nazario



CNI Volunteers

Where is CNI?

- Syracuse NY
 - 30% Black American
 - 10% Latine any race
 - 40% of students live in poverty
 - #1 for childhood poverty



How is CNI...democratizing neuroscience?

- Neuroeducation
- Neuroconsulting
- Neurocommunity



How is CNI...democratizing neuroscience?

- Neuroeducation
- Neuroconsulting
- Neurocommunity





Neuroeducation: CNI Accessible Neuroscience Lectures

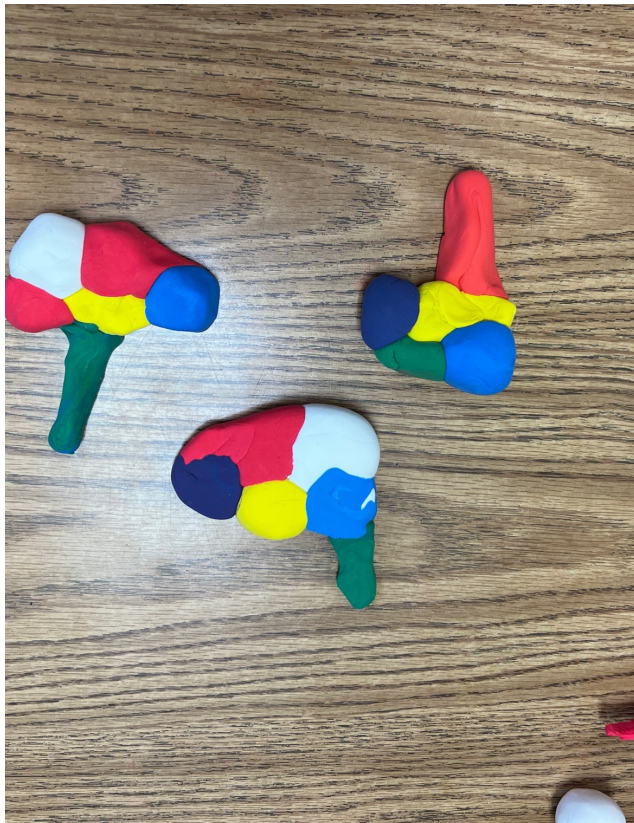
Gina Poe: Sleep

Andre Fenton: Distraction and memory

Kelli Duncan: Neuroplasticity

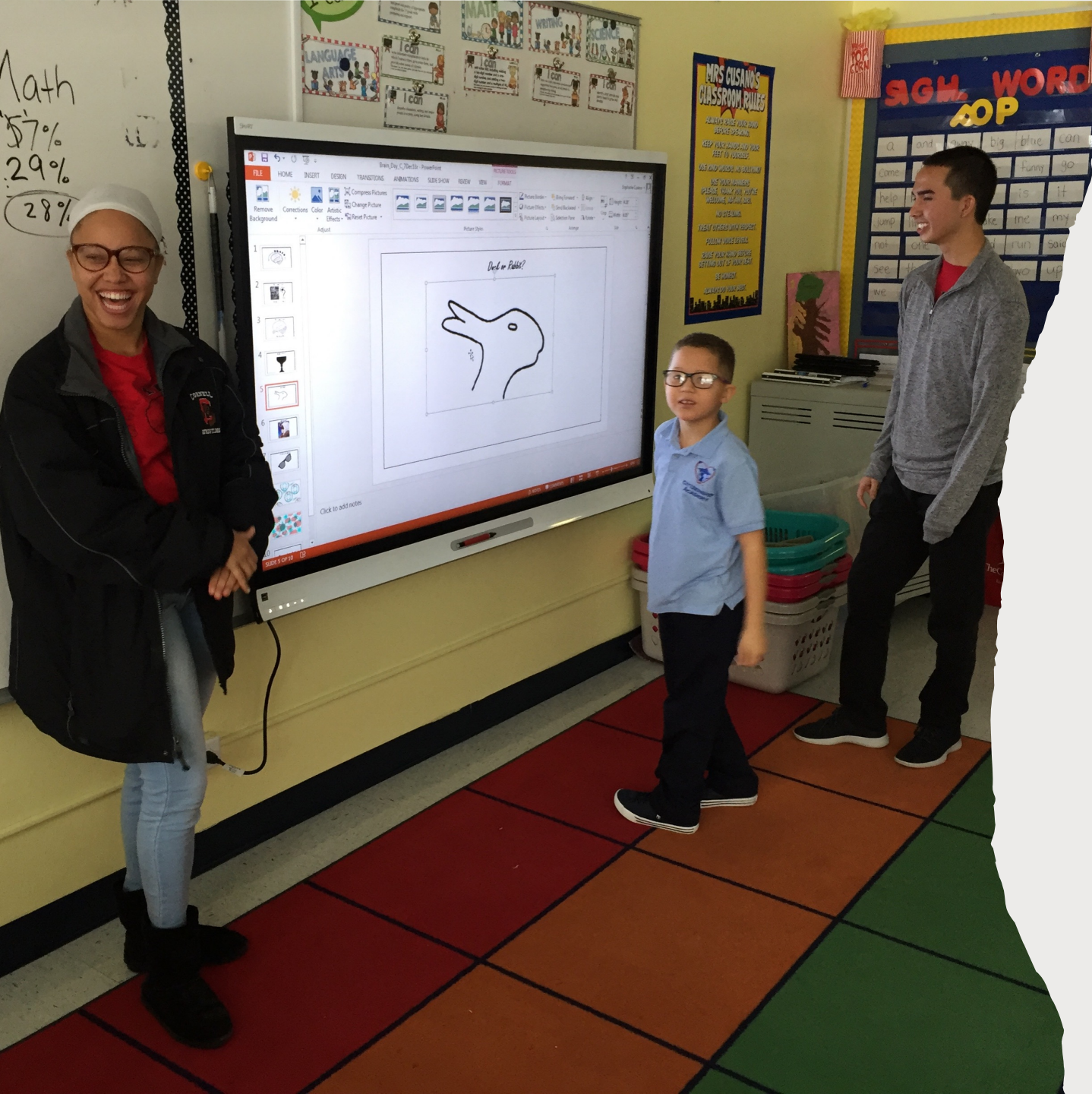
Kevin Jones: Perception & neurodiversity

Dominique Pritchett: Motor coordination and learning



Neuroeducation: Curriculum for students

- My Brother's Keeper Teaching Opportunity Corps II
 - Targets equity and diversity in teaching
 - 7 Educators
- STEAM Curriculum using neuroscience to understand perception, self-regulation, emotions



Brain Days Beta (2018 -2019)

- **Who:** PRYDE Scholars and Syracuse High School students
 - Selected on interest and commitment not “merit”
- **Where:** K-4 Charter school (57% Black; 15% Latine)



Neuroeducation: Get to Know your Brain Days

- Train the trainer model
 - 5 teachers
 - 100 2nd to 5th graders
- STEAM at Dr. King Elementary
- Seymour Dual Language Academy
 - Brain Days delivered in Bilingual English/ Spanish

How are we doing?

Get to Know Your



- Can TOC-II scholars teach neuroscience effectively?

YES

- Students enjoy lessons and show that they retain the material
- Scholars have built confidence over time

Can educators teach neuroscience? YES

Lesson 1

Liking:

86.5% said they really liked it

Learning:

76.5% said they learned a lot

Learning self-efficacy:

78% High

11.5% middle

1.9% Low

Demonstrated learning:

80% Total

38.5% most

42.3% All

Lesson 2

Liking:

73%

Learning:

67.6%

Learning self-efficacy:

75% High

16.7 middle

8.3% Low

Demonstrated learning:

89.2% Total

29.7% Most

59.5% All

Lesson 3

Liking:

73%

Learning:

81%

Learning self-efficacy:

75.6% High

22% middle

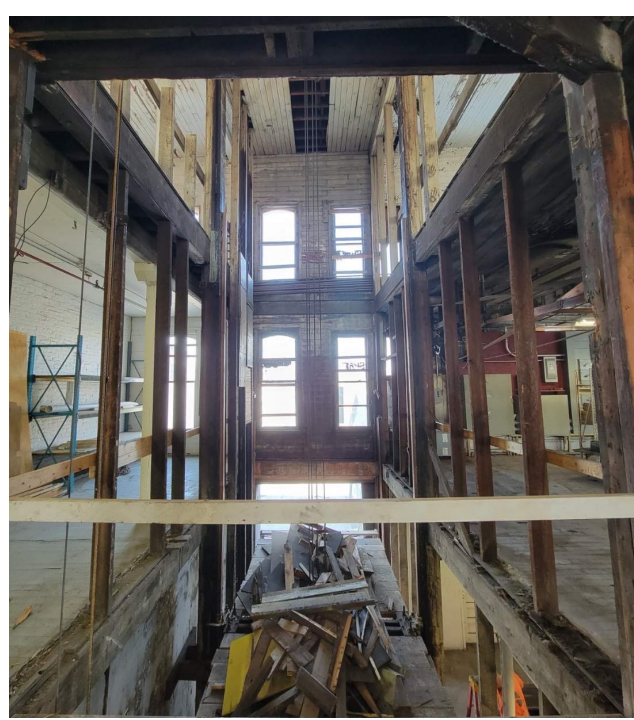
2.4% Low

Demonstrated learning:

95.2% Total

38.5% Most

71.4% All

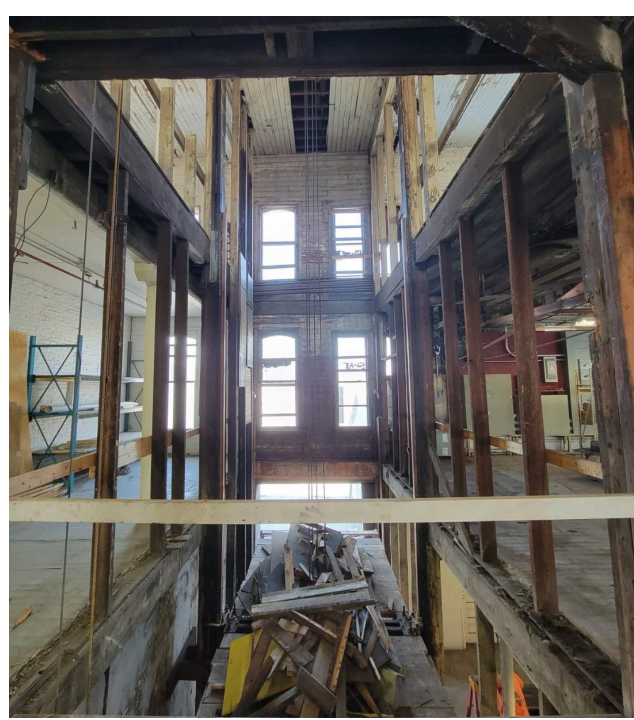


Neurocommunity: Brain Hub

Reclaim ourselves our time and
space (ROOTS)

- Mindfulness Based Stress Reduction
- Purpose

H O P E L A B



Neurocommunity: Brain Hub

- Reduce stress to cultivate purpose
- Create safe space to talk about stress

“I knew I needed this. This gave me permission to take time for myself and focus on what I think, not what others think.”

H O P E L A B

Coming up 2023-2024!



PLASTICITY: HOW EXPERIENCE SHAPES TRAITS AND GENERATIONS

DATE:
ZOOM:

Get to Know Your



Brain!



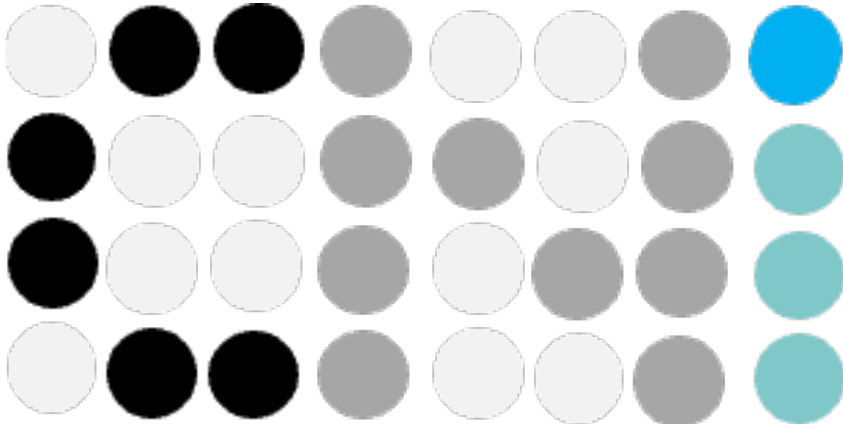
IMPROVING OUTCOMES FOR BOYS AND YOUNG MEN OF COLOR



NEW YORK STATE BOARD OF REGENTS
STATE EDUCATION DEPARTMENT

So, what can neuroscience do for you and your communities?

And what can we do, together, for a more equitable and representative neuroscience?



“As you enter positions of trust and power, dream a little before you think.”

–Toni Morrison