

# Do Implicit Racial Biases Matter in Autism?



Brian Boyd, PhD

Professor & Director

Juniper Gardens  
Children's Project

University of Kansas

# Overview

---

- Provide a general overview of implicit bias and its impact on behavior
- Present preliminary findings on relationship between implicit bias and outcomes of autistic children and youth
- Engage in a discussion about how this work can inform future research directions







## DIAGNOSIS

- Delayed or misdiagnosis for Black children
- Under-identification and delayed diagnosis for Latinx children

## ACCESS TO SERVICES

- Fewer and lower quality services
- More service deserts
- Lack of coordinated care or medicinal home
- Less access to services post-high school

## PHENOTYPIC DIFFERENCES

- More severe symptom presentation for Latinx children
- Increased likelihood of Black children having a co-occurring ID

---

**Racial/Ethnic  
Disparities  
in ASD**

## Intersection of Race & Class in U.S.

"Concentrated  
disadvantage"

# 60%

OF AMERICAN INDIAN,  
BLACK AND LATINX  
CHILDREN LIVE IN LOW-  
INCOME HOUSEHOLDS  
COMPARED TO

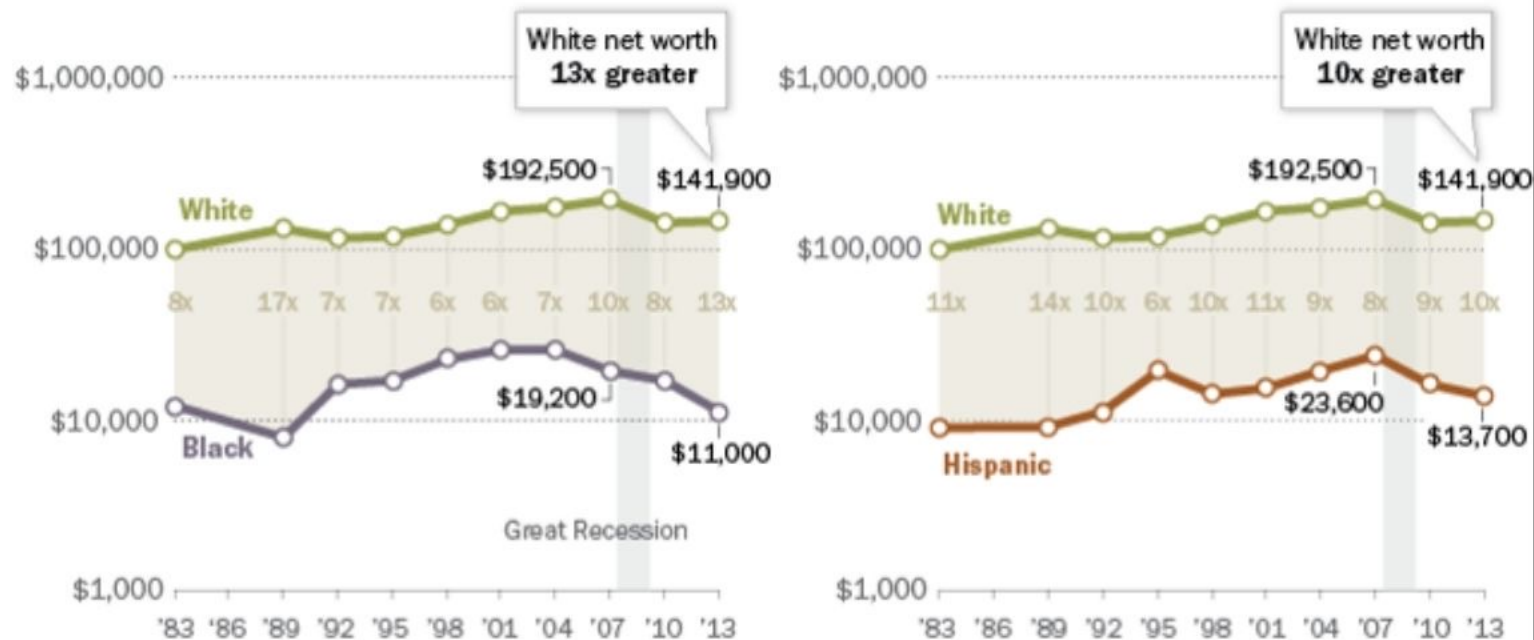
# 30%

OF WHITE AND ASIAN  
CHILDREN

Low-income racial  
minorities are more  
likely to live in and  
attend lower-  
resourced, racially  
segregated  
neighborhoods and  
schools

## Racial, Ethnic Wealth Gaps Have Grown Since Great Recession

Median net worth of households, in 2013 dollars



Notes: Blacks and whites include only non-Hispanics. Hispanics are of any race. Chart scale is logarithmic; each gridline is ten times greater than the gridline below it. Great Recession began Dec. '07 and ended June '09.

Source: Pew Research Center tabulations of Survey of Consumer Finances public-use data

PEW RESEARCH CENTER

# Identity Cannot be Dissected

"Multiply minoritizing identities"  
impact outcomes

- Autism ("disability") + Racial/Ethnic Minority
- Autism + LGBTQIA+





# Role of Societal Forces

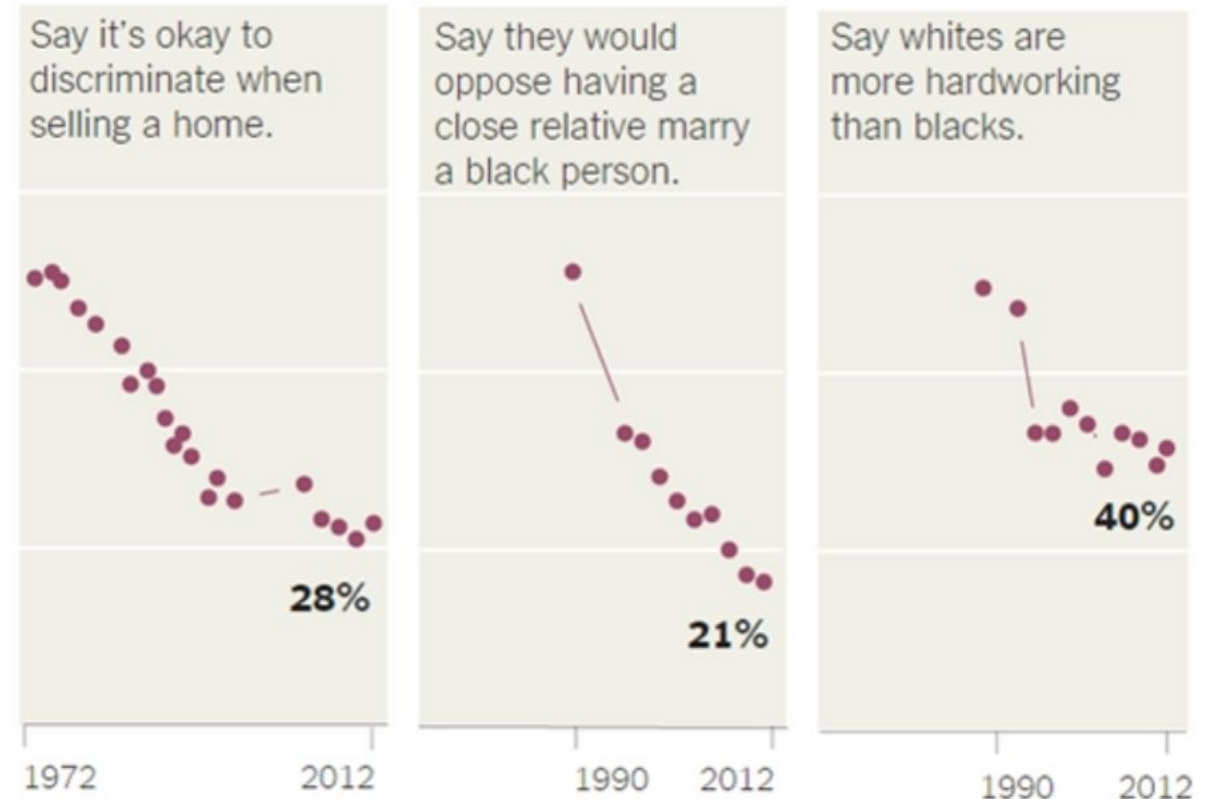
- Systemic factors of racism, wealth inequality, residential segregation, unequal resource allocation
- Implicit racial bias





# Racial attitudes of White Americans have become gradually less biased

## The Views of White Americans

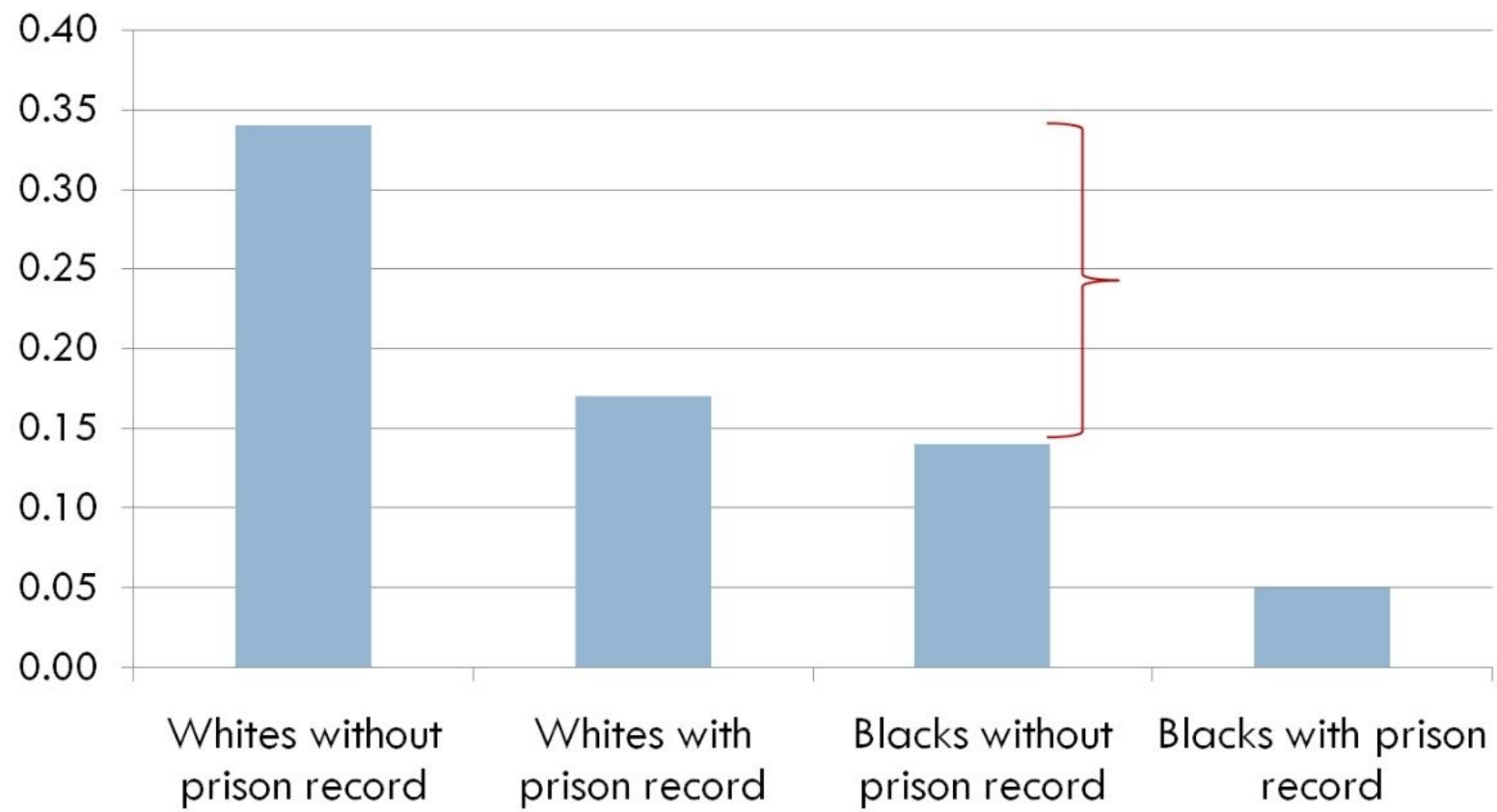


General Social Survey; Social Trends in American Life

**Job applicants:  
Percentage called  
back**



Pager, 2003



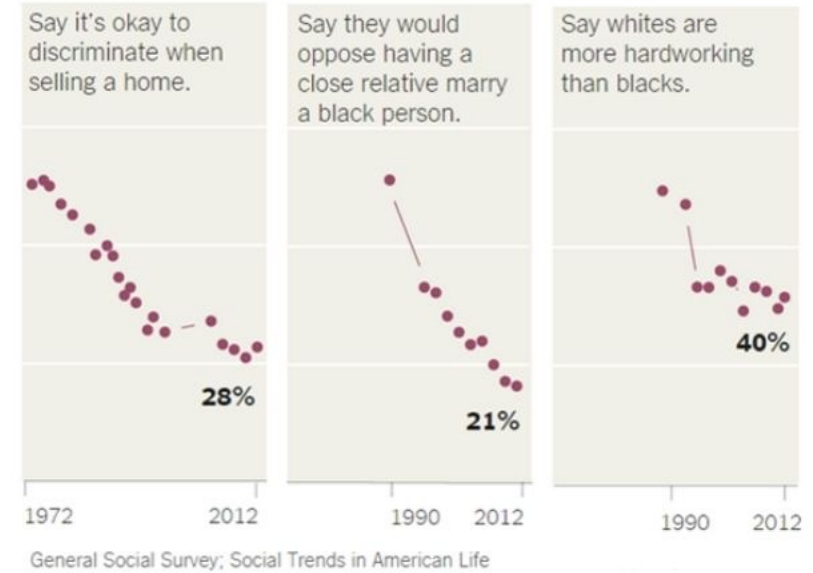
**Percentage called  
back**

Pager, 2003

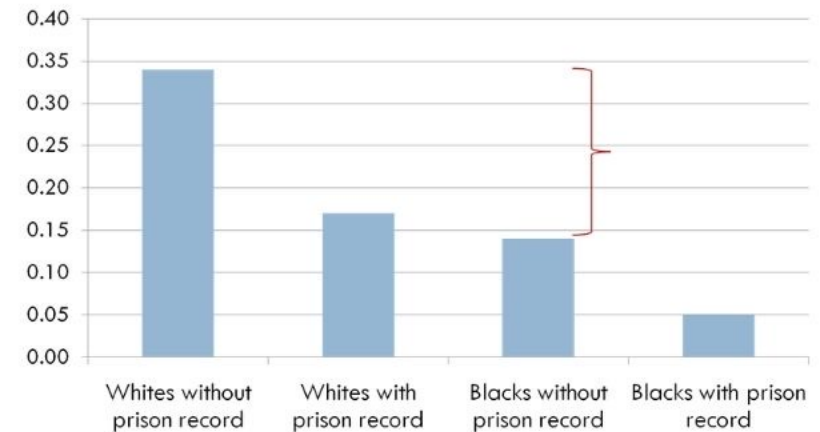


# How can both be true?

## The Views of White Americans

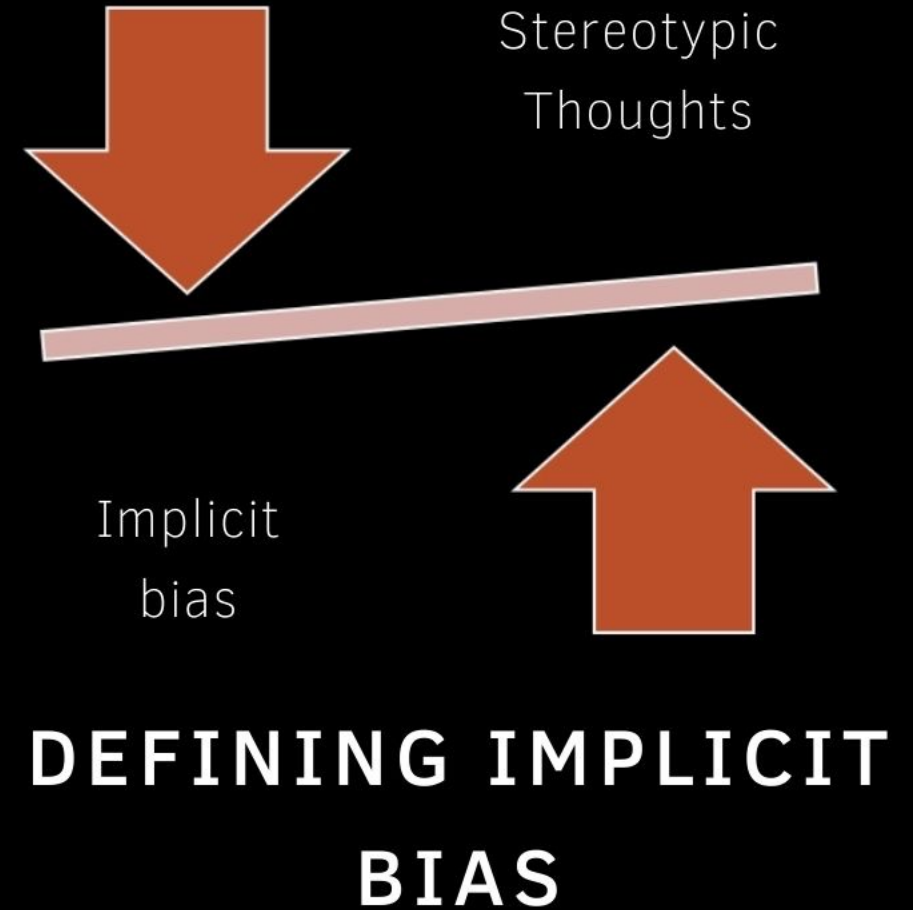


## Percentage called back



Pager, 2003

- Implicit bias = mental associations linking social groups to stereotypic attributes. They are involuntary, often unconscious thoughts and actions.
- Implicit biases may lead to stereotypic thoughts, or implicit bias may form if one is exposed to persistent stereotypes about a particular group.
- Implicit biases are normal to have and almost everyone has them.
- Implicit biases are present even when people actively reject explicit biases (e.g., overt prejudicial attitudes).



---

# Mental Associations...

- Come to mind voluntarily.
- Do not care whether you agree with them or like them.
- Can shape action.





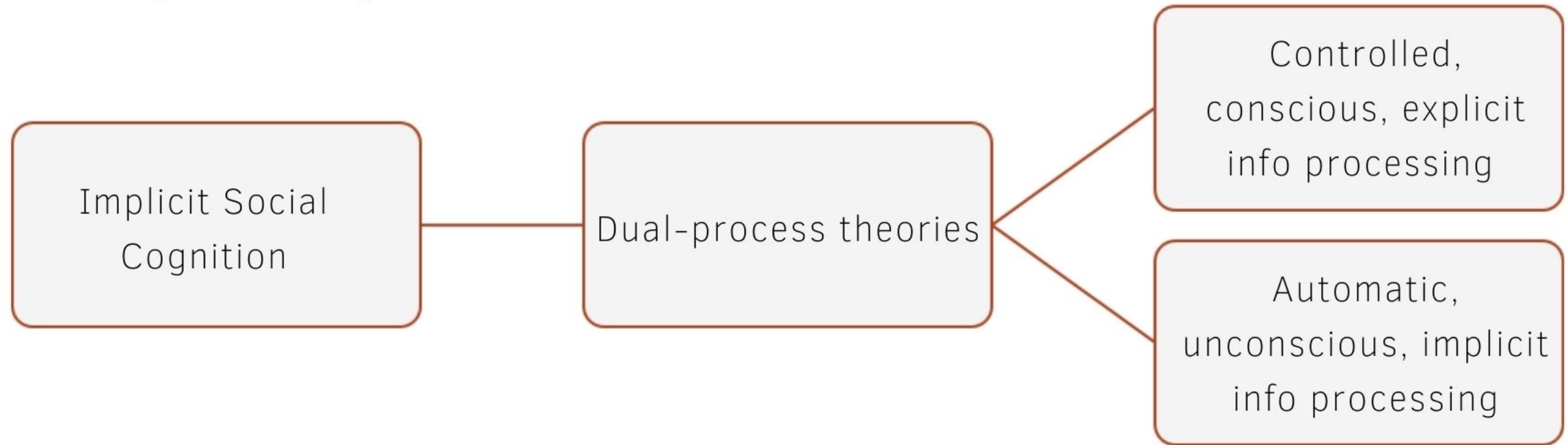
# Am I biased?



# Implicit bias is not a euphemism for racism

Implicit bias is a side-effect of normal cognitive processes rather than character flaw

- categorization, generalization, association



# Research on implicit bias

## IMPLICIT BIAS IS ASSOCIATED WITH BEHAVIORAL PERFORMANCE



implicit bias based on race is related to:

- friendly interactions with a Black conversational partner
- less positive patient-doctor interactions
- biased sentencing among jurors and judges
- discriminatory hiring for jobs

**HAVING MORE FORMAL EDUCATION  
IS ASSOCIATED WITH LESS EXPLICIT  
PREJUDICES BUT EDUCATION IS NOT  
ASSOCIATED WITH IMPLICIT BIASES**

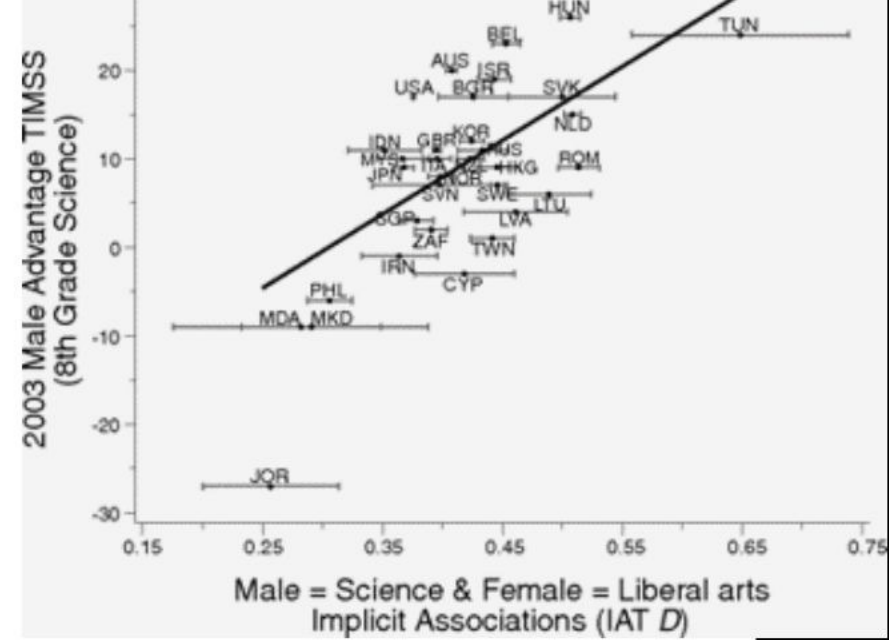


**Biased people  
or biased  
environments?**

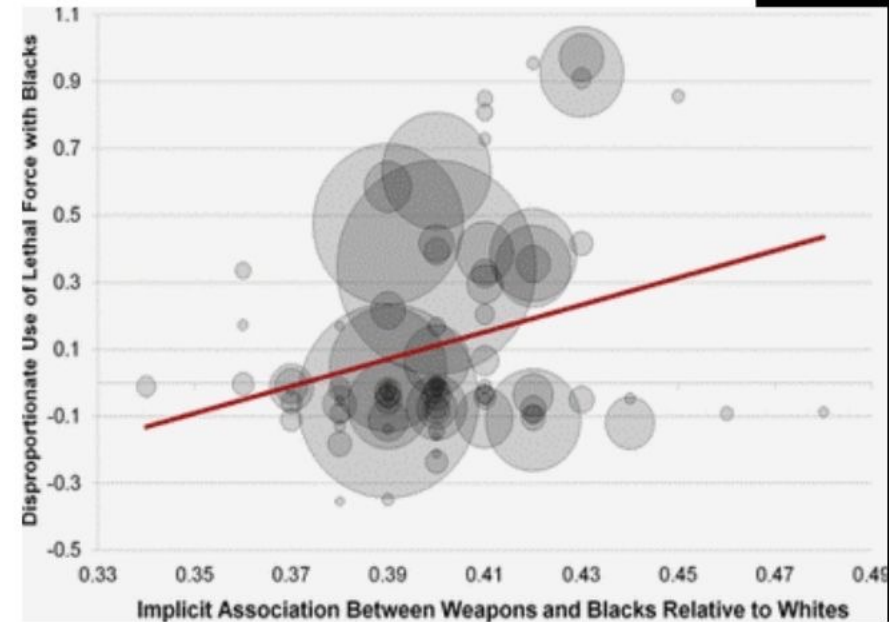


Geographical correlations with disparities are strong.

## Social environments



Gender bias and STEM performance across countries  
(Nosek et al., 2009)



Race bias and disparate police use of force  
(Hehman et al., 2017)

---

## STATES/COUNTIES WITH HIGHER AVERAGE IMPLICIT BIAS HAVE:

- Larger health disparities in cardiovascular disease
- Larger race disparities in infant health
- Larger race disparities in upward mobility
- More google searches for racial slurs
- More residential segregation
- More school segregation

**Social  
Environments**



How is implicit  
bias measured?

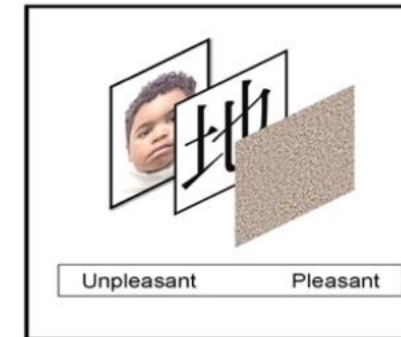
---

## IMPLICIT ASSOCIATION TEST (IAT)

- The IAT is administered via computer and requires users to rapidly sort words/attributes ("emotional") into two target categories ("male" vs. "female").
- Primary DV is reaction time
  - Poor reliability (internal consistency & test-retest)
  - Questions over predictive validity
- <https://implicit.harvard.edu/implicit/takeatest.html>

## AFFECTIVE MISATTRIBUTION PROCEDURE (AMP)

Primary DV is the difference in how often an attribute is selected for one category vs. the other (e.g., how often is the word unpleasant chosen when "viewing" a Black vs. White face?)



# Popular Implicit Bias Tests



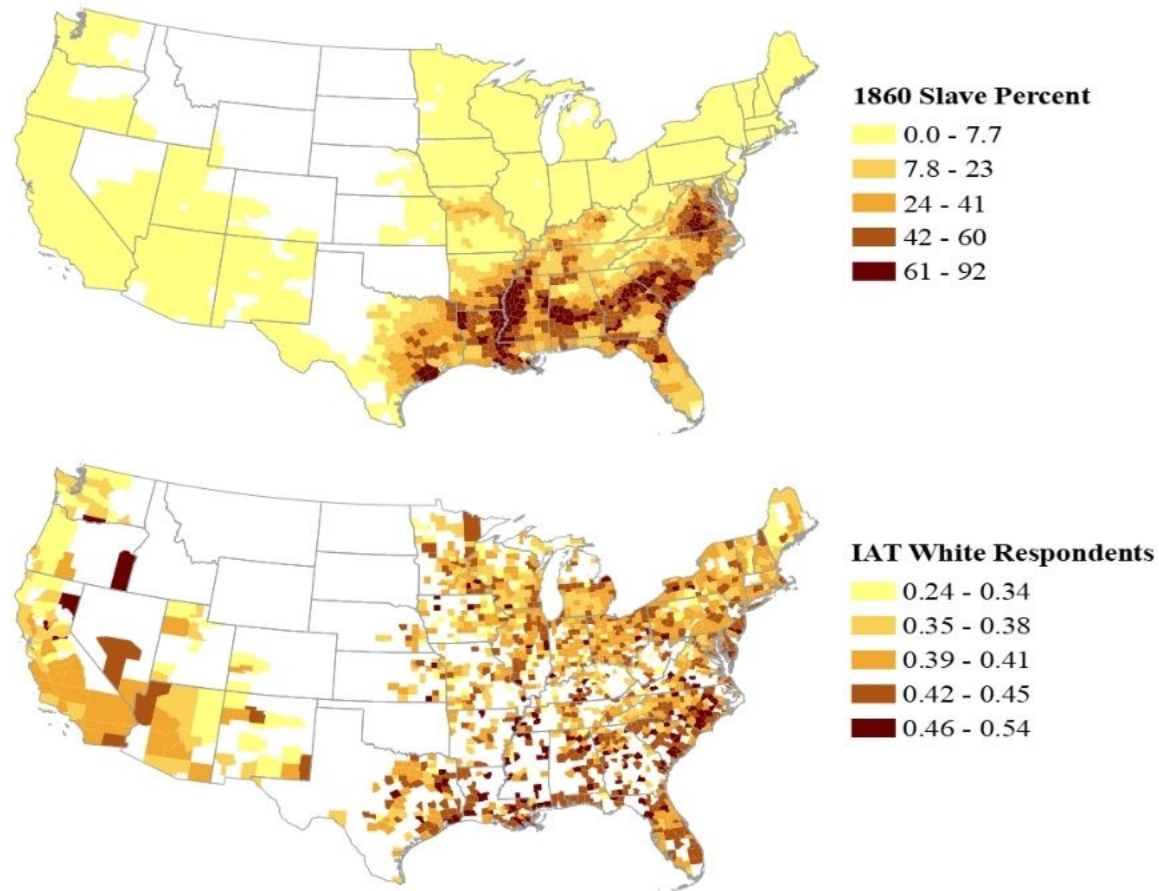


# **Project Implicit Association Test (IAT)**

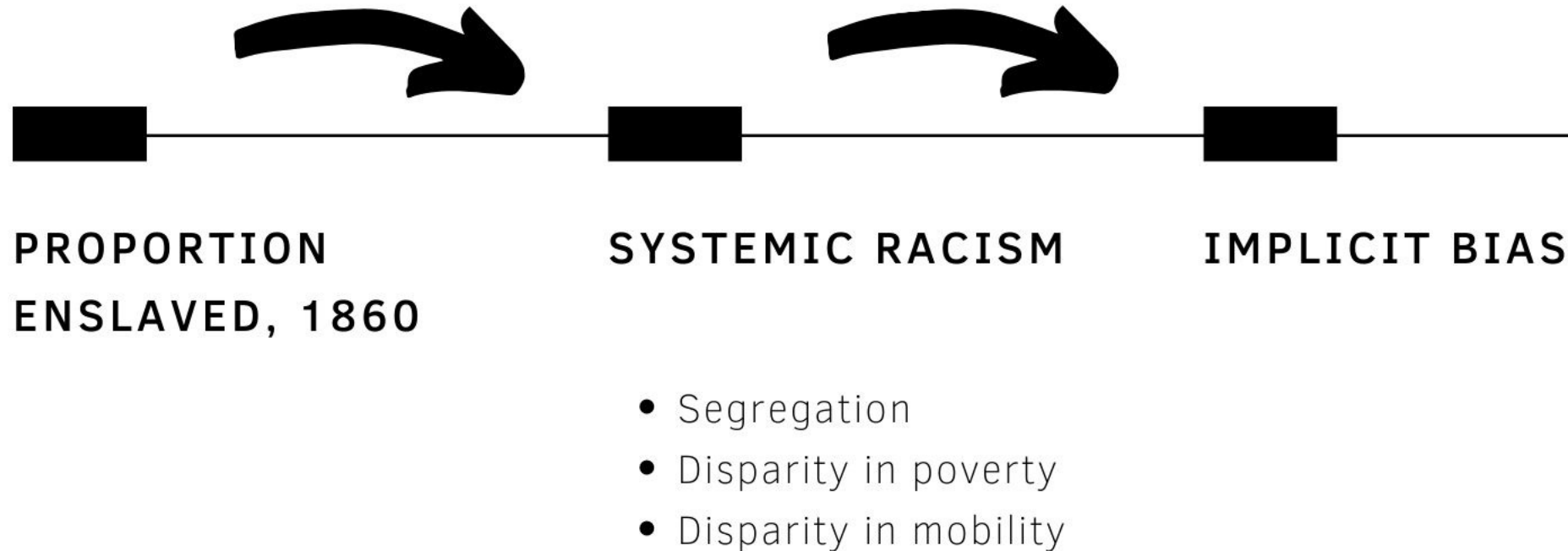
---

# Association between enslaved population and implicit bias

Payne, Vuletich, & Brown-Iannuzzi, 2019



# Systemic racism links historical racism to today's implicit bias



Payne, Vuletich, & Brown-Iannuzzi, 2019

# Implicit bias & ASD

OBEID ET AL (2020) HAD 493 COLLEGE STUDENTS COMPLETE THE RACE IAT

STUDENTS ALSO EVALUATED VIGNETTES DEPICTING AN AUTISTIC CHILD OR A CHILD WITH CONDUCT DISORDER THAT WAS PAIRED WITH A PHOTO OF A BLACK OR WHITE CHILD

**WITHIN GROUP RACIAL BIASES WERE FOUND**

- White college students were more likely to associate autism with White children and conduct disorder with Black children
- Black college students did the opposite



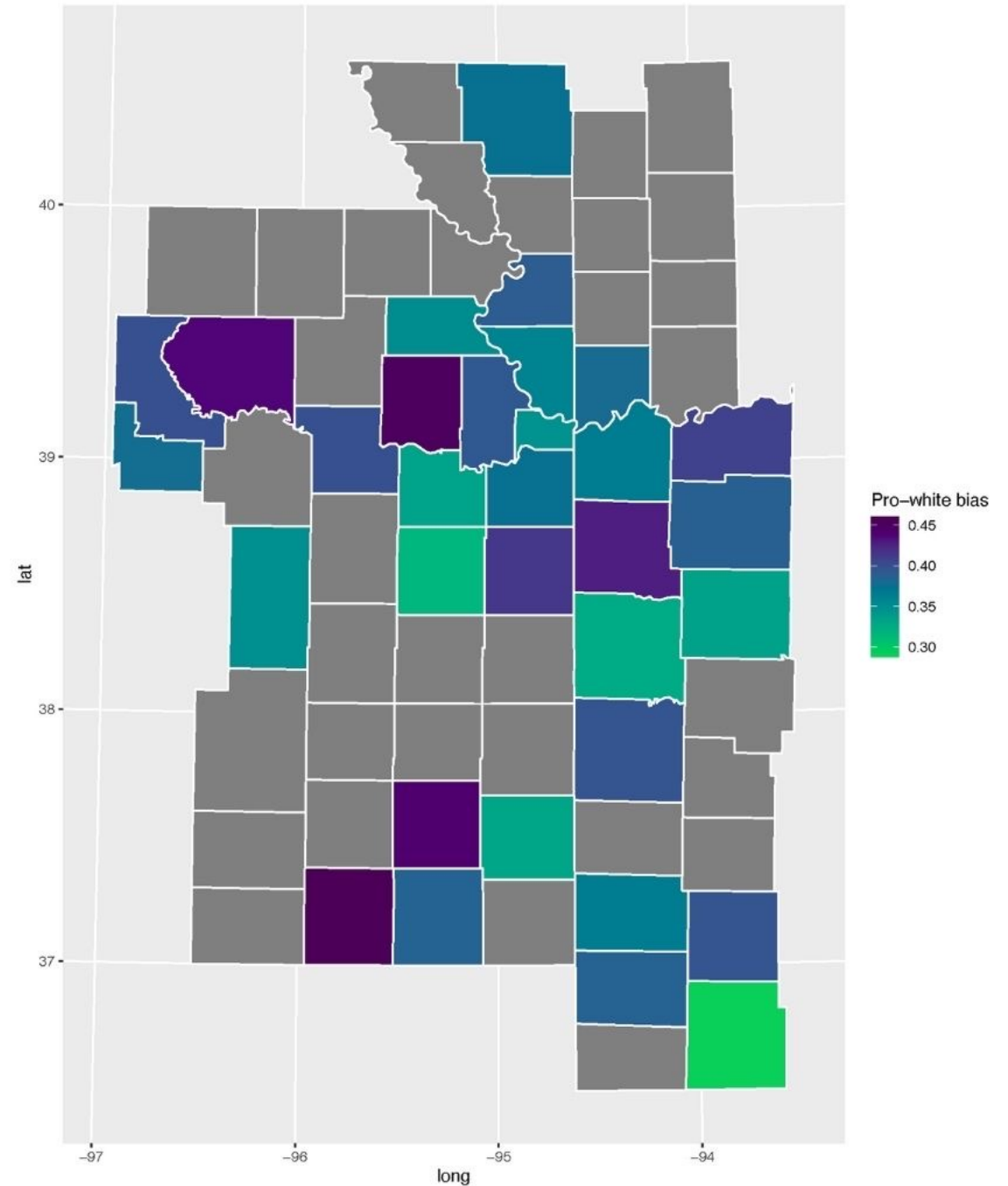
**What does implicit bias  
look like in Kansas?**





# Project Implicit data in the Kansas City Metro

Darker purple is indicative of increased pro-white implicit bias



Sample size

81

BLACK OR LATINO  
CHILDREN

107

WHITE CHILDREN



## Implicit bias was...

- Positively associated with school referrals ( $r=0.22$ ;  $p=0.05$ ), a child having an IEP ( $r=0.30$ ;  $p=0.01$ ) and the total number of school services ( $r=0.25$ ;  $p=0.02$ ) the child received
- Negatively associated with a child's primary care provider being a pediatrician ( $r=-0.25$ ;  $p=0.03$ ),



All interventions to change individual's implicit bias have failed  
(because implicit bias is not a stable attitude to begin with).

Changing the situation is more powerful.



**What Can We Do  
About Implicit  
Bias?**





# Public policy and social norms matter.

Anti-gay implicit bias decreased nationally following legalization of same sex marriage in 2015.

In states that legalized same sex marriage earlier, anti-gay implicit bias changed earlier.



---

## Conclusions

- Racial / ethnic disparities in autism persist
- Those disparities may reflect larger structural inequalities in society
- Solutions to these disparities will take more than individual behavior change





# Acknowledgments

END



**Keith Payne**

**Professor**

**University of North  
Carolina-Chapel Hill**



**Anna Wallisch**

**Postdoctoral Fellow  
University of Kansas**

**Funding from the Institute of Education  
Sciences (R324A170151)**