Protecting Our Patients and Ourselves From Stereotype Threat and Unintended Bias

Living the Children's Way: Advancing Health Equity Part 2 of 3
Grand Rounds, Children's Hospital of Minnesota,
September 15, 2016

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Disclosures

Disclosure:

- I am the Executive Director of Partners in Equity & Inclusion
- Partners in Equity & Inclusion is a non-profit.
- I have yet to draw a salary or any compensation… but I might some day.

No conflicts of interest

Learning objectives

Participants will leave the Grand Rounds with:

- Basic knowledge re: the nature and impact of:
  - Unintended (automatic, usually unconscious) biases.
  - Stereotype (social identity) threat.
- Increased insight into the relevance of these phenomena for:
  - Patient care.
  - Your goals, well-being, and effectiveness.
- Awareness of specific evidence-driven strategies

for reducing the potential detrimental effects of unintended (automatic, usually unconscious) biases and stereotype threat.

Why did music sound better when played by a man in open auditions…

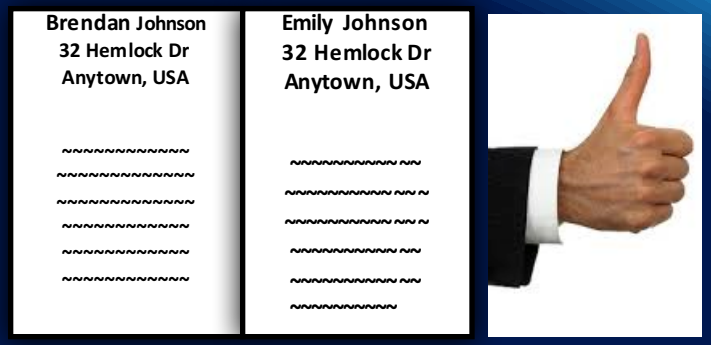
…but when they auditioned from behind curtains, judgments of quality were the same for men and women?

Goldin & Rouse, 2000

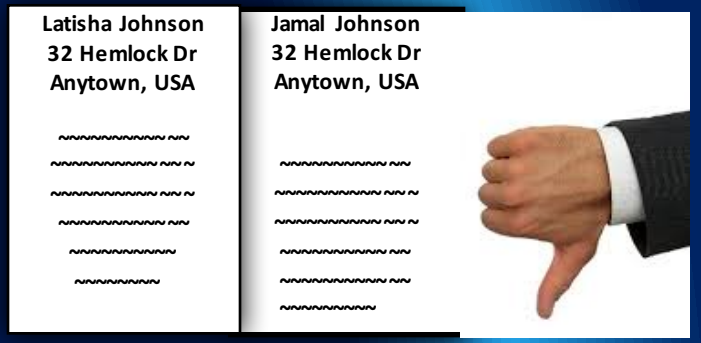
Why did law firm partners find more errors in a legal brief when they were randomly assigned to the group that was told it was written by a black 3rd year associate…

…than they did when they were in the group that was told it was written by a white 3rd year associate?

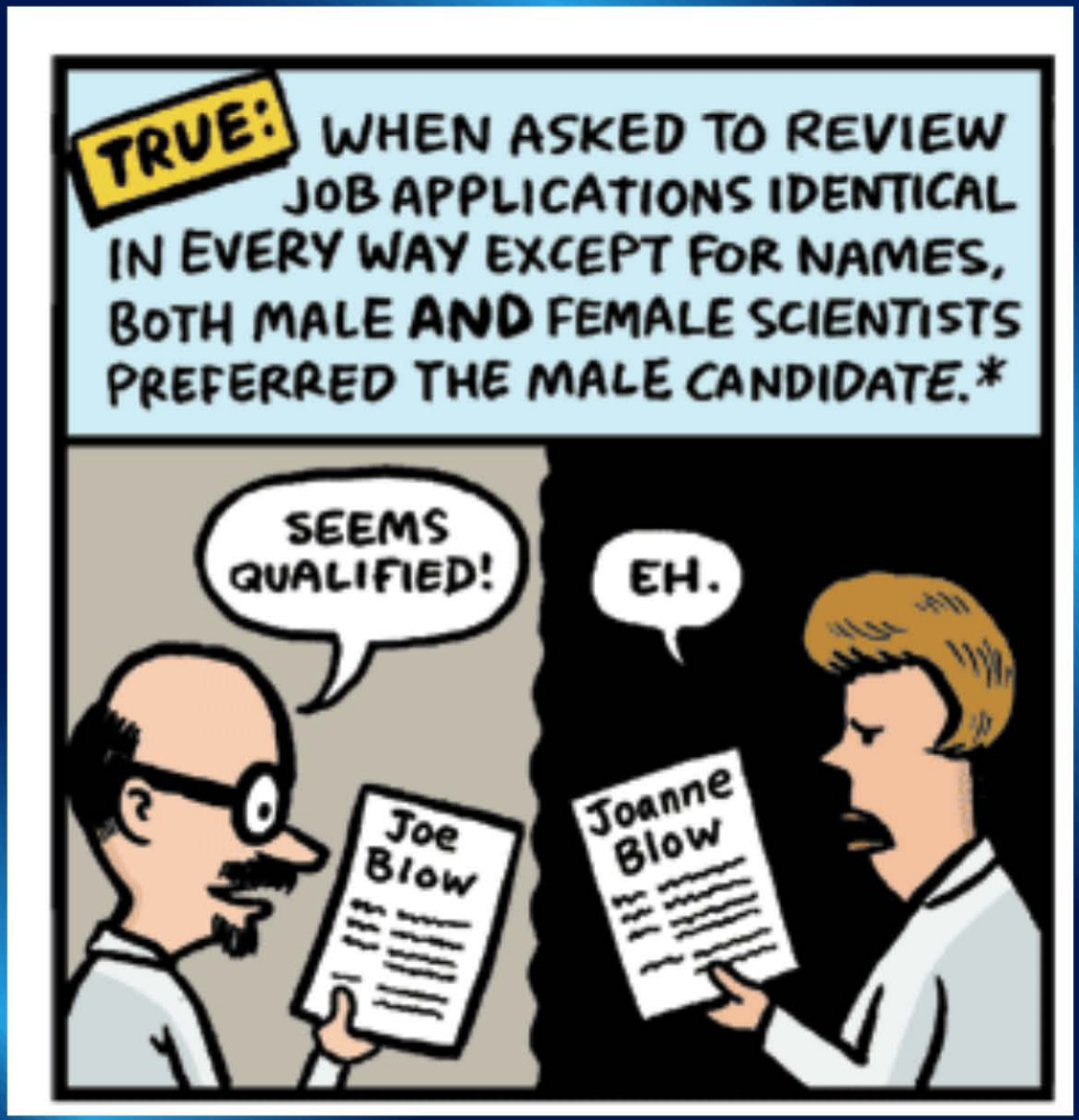
Reeves, 2014



Why did the exact same resumes responding to 1300 want ads get 50% more call-backs when they had a white sounding (vs black sounding) names?



Bertrand and Mullainathan, 2003



Why?

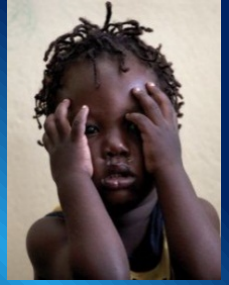
Moss-Racusin et al, 2012

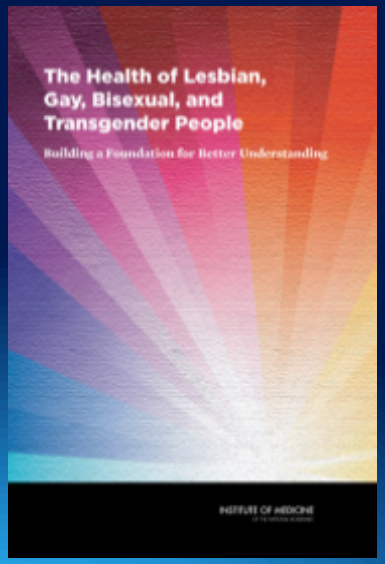
Why were consciously unbiased pediatricians more likely to report they would prescribe a narcotic for pain control following surgery for white children …

….than for black children – in identical clinical case vignettes?

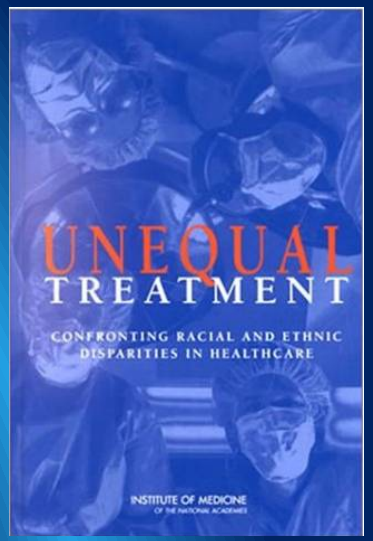
Sabin & Greenwald, 2012

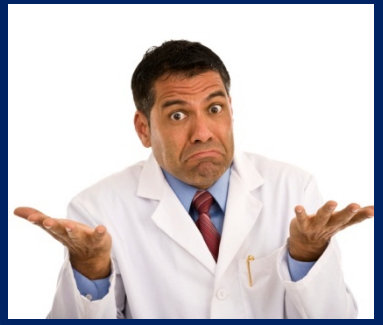


Why is it that over 1000 peer-reviewed studies found inequalities in medical care – even with same insurance in same facilities and even when the patient is a child?





We don’t think the way we think we think.

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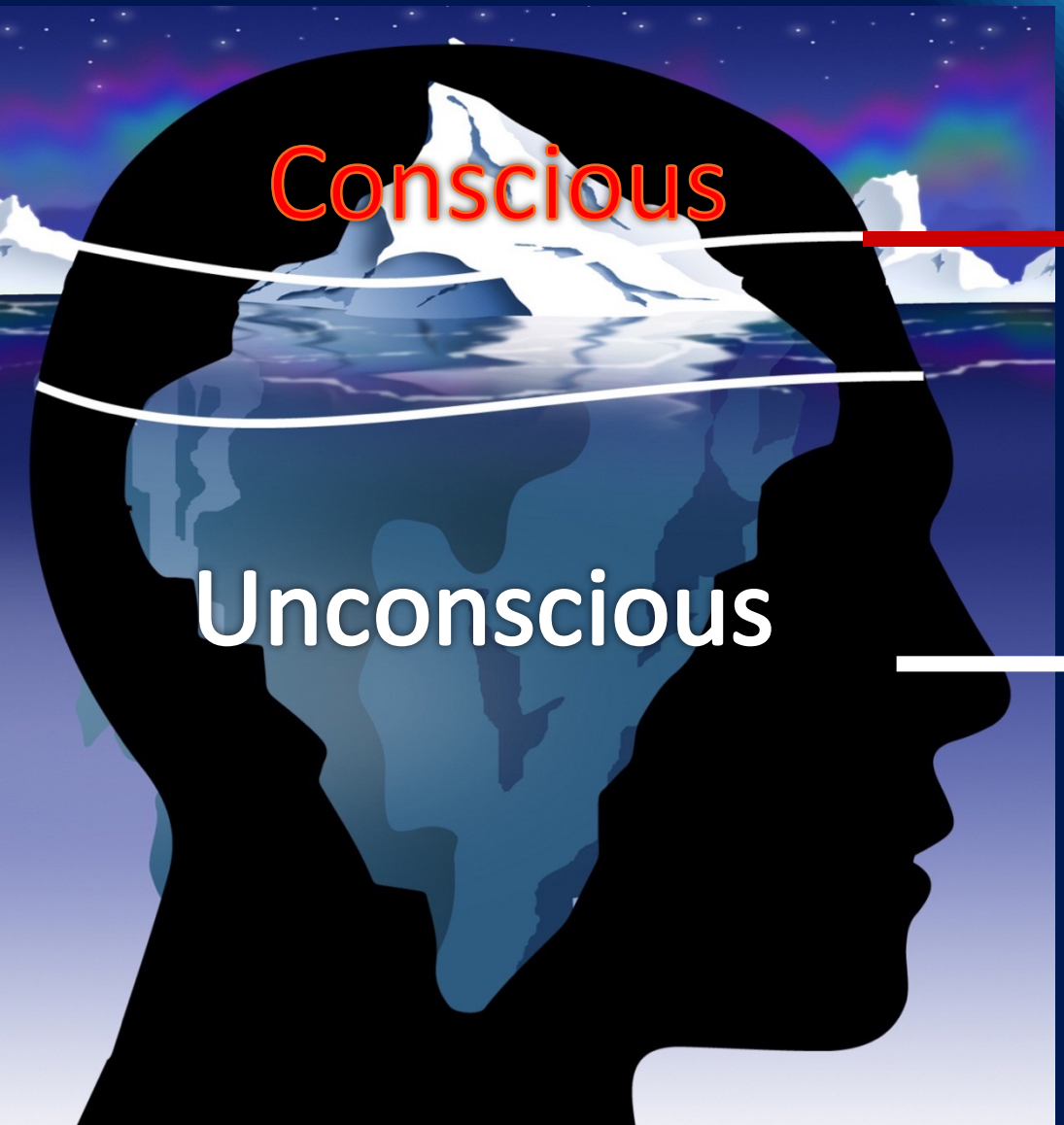
We have 2 systems that do different kinds of thinking. The are both important. We usually only aware of one – but the other one runs the show



The kind of thinking that we are aware of.
Conscious, explicit, effortful, deliberative, Slow
Energy Intensive

The kind of thinking that we are usually not aware of.
Unconscious, implicit, Effortless, automatic
Fast
Efficient

Unconscious, implicit, effortless, automatic fast

Unconscious mental processes help us deal with the millions of bits of information that surround us

Implicit Social-Cognitive Processes are Highly Developed and Nuanced

- We automatically assign people to a particular class or group..
- The characteristics assigned to that group are often **unconsciously & automatically activated & applied.**

The Impact of the *"Affective flash"*

- Towards (leaning in) & Away (leaning away)
- Dozens of studies showing that we come up with cognitions, beliefs, that are consistent with our first emotional response.
- Influences non-verbal behavior, setting up negative feedback loop.

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The Impact of the "*Affective flash*"

- White people interpret facial expressions of black individuals as more hostile than than the same (computer morphed) facial expressions on white people.

  Evidence suggests that the perceived threat commonly associated with Black men may generalize even to young Black boys.

Hugenberg & Bodenhausin, 2003l APS, 2005; Todd et al, 2016

Implicit attitudes can affect non-verbal behavior - creating a negative feedback loop

- Unconscious bias been shown to predict higher rates of **blinking** and less **visual contact.**
- Higher levels of visual contact (i.e., time spent looking at another person) often reflect greater attraction, intimacy, and respect,
- Higher rates of blinking reflect more negative arousal and tension.
- People strongly rely on nonverbal behavior when interpreting others.

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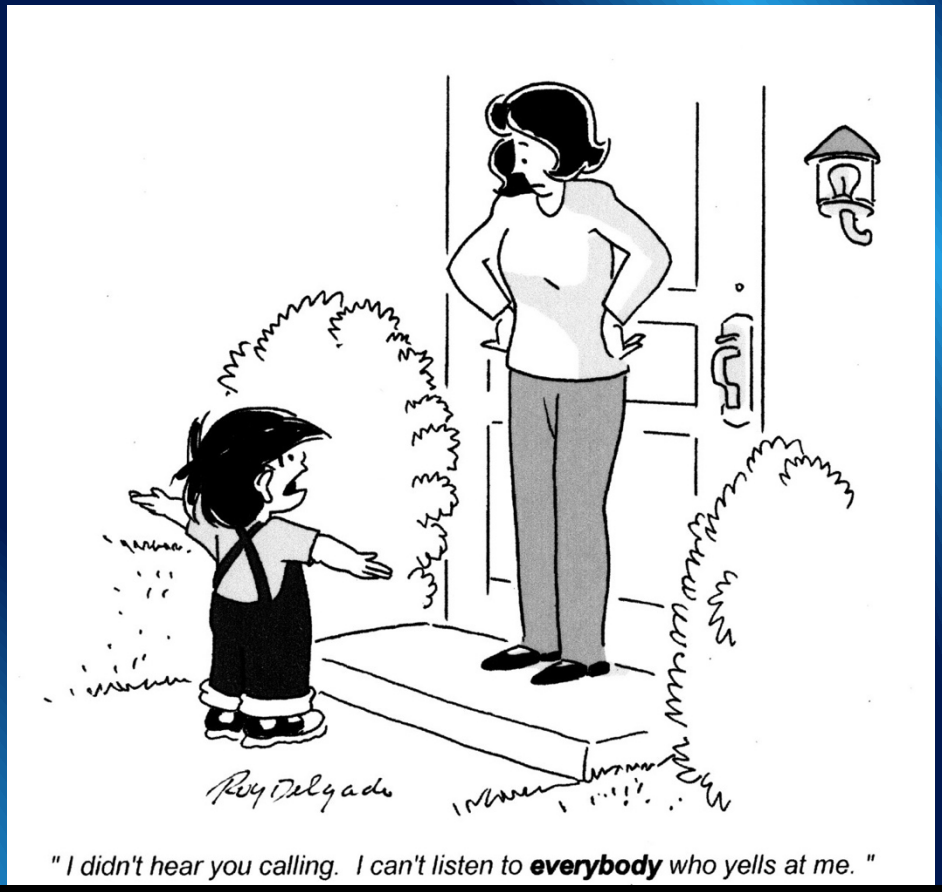
Automatically activated stereotypes are supported by confirmation biases

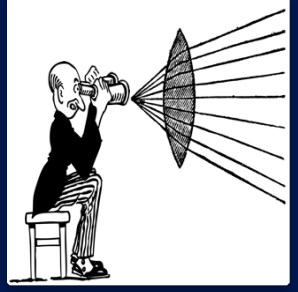
We seek confirming evidence to support a belief rather than look for disconfirming evidence to refute it (despite the latter often being more persuasive and definitive).

Automatically Guides Our Attention

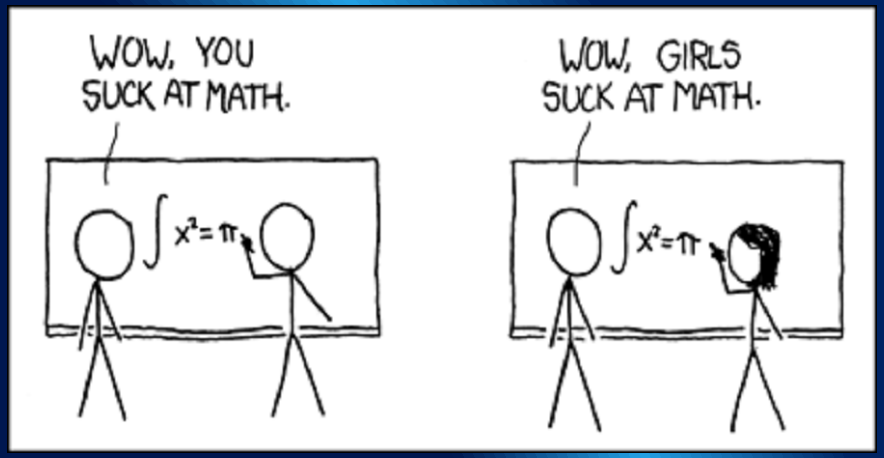
"Selective Attention Bias"



"I didn't hear you calling. I can't listen to ***everybody*** who yells at me"



Creates a lens through which Information is interpreted.



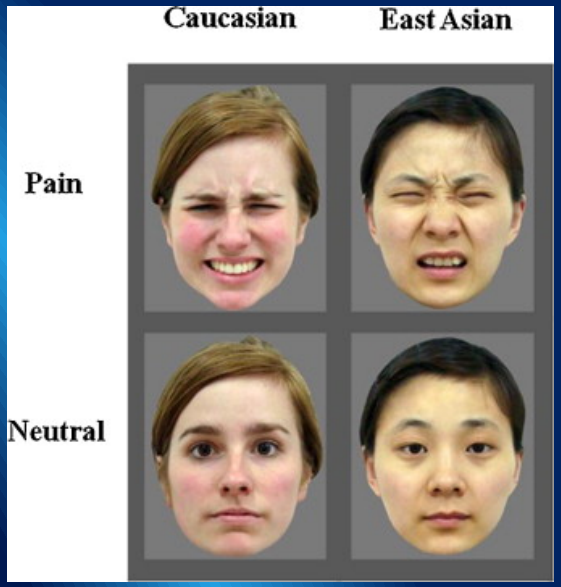
Challenges to Empathy

Oxytocin modulates the racial bias in neural responses to others' suffering

Feng Sheng[a,b], Yi Liu[a], Bin Zhou[c], Wen Zhou[c], Shihui Han[a,*]

[a] Department of Psychology, Peking University, Beijing, PR China
[b] Guanghua School of Management, Peking University, Beijing, PR China
[c] Institute of Psychology, Chinese Academy of Sciences, Beijing, PR China

Avenanti, A., Sirigu, A., Aglioti, S., 2010. Racial bias reduces empathic sensorimotor resonance with other-race pain. Current Biology 20, 1018–1022.



- Responses to pain differ by in-group vs outgroup.
- Use of neuropeptide (oxytocin) intensifies difference.
- Perhaps part of the explanation for the massive evidence of disparities in pain treatment…

Implicit vs. Explicit Attitudes

- Although there have been dramatic declines in explicit bias, implicit racial, LGBT, obesity, age, gender, disability bias is still pervasive.
- 75% of White Americans show a significant implicit preference for Whites over Blacks.
- Implicit racial attitudes loosely correlated with explicit attitudes (~.40).

Key point:

- Even if we do not endorse them we have shared knowledge of them – we know what they are.

How is it possible for unconscious biases to be so different than our conscious beliefs?

"Implicit biases come from the culture. I think of them as the thumbprint of the culture on our minds.

Dr. Mahzarin R. Banaji, quoted in Hill, Corbett, & Rose, 2010, p. 78

Associated Press AP - Tue Aug 30,11:31 AM ET

A young man walks through chest deep flood water after looting a grocery store in New Orleans on Tuesday, Aug. 30, 2005. Flood waters continue to rise in New Orleans after Hurricane Katrina did extensive damage when it

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Average (138 votes) ★★★★☆

AFP 3:47 AM ET

Two residents wade through chest-deep water after finding bread and soda from a local grocery store after Hurricane Katrina came through the area in New Orleans, Louisiana.(AFP/Getty Images/Chris Graythen)

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Average (211 votes) ★★★★☆

RELATED

- Katrina's Effects, at a Glance AP - Tue Aug 30, 1:26 PM ET

Hurricanes & Tropical Storms

Implications of Physician Unintended (Implicit, Automatic) Bias

Implicit racial bias among physicians has been shown to influence clinical decision-making for a wide range of conditions, ranging from racial disparities in rates of patient referral to thrombolysis, to disparities in quality of post-operative pain care for children.

Implications of Physician Unintended (Implicit, Automatic) Bias

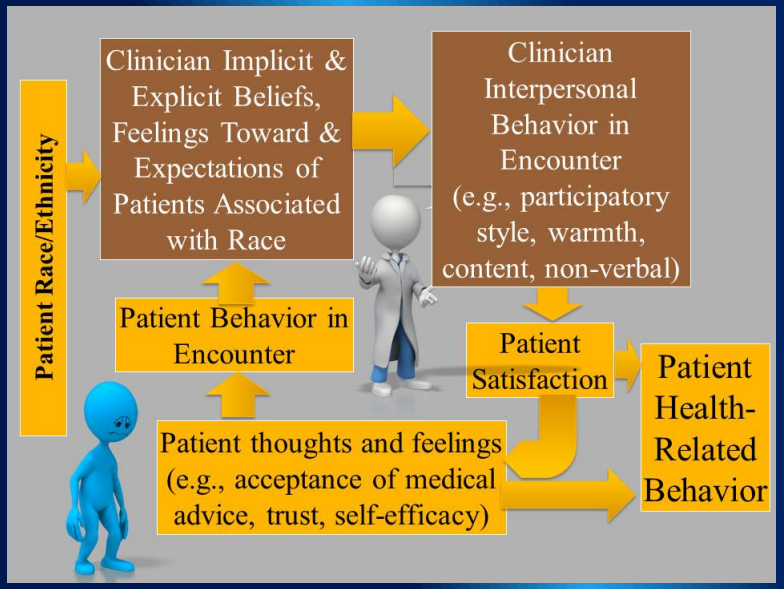
- Complex and subtle effects on physician-patient interactions.
- Level of implicit racial bias against blacks have been found to be inversely associated with:
  - patient-c entered behavior,
  - visit length,
  - warmth,
- …and positively associated with:
  - rapidity of speech and
  - verbal dominance during the encounter.

Dovidio et al, 2008;Cooper et al, 2012; Blair et al,2013; Hagiwara et al, 2013, Penner et all, 20019, 2010

Implicit Bias Can Affect Interpersonal & Technical Quality of Care

Studies showed black patients reported:

- less respect for, confidence in, and trust in the advice of medical professionals who **scored higher in implicit racial bias**.
- This distrust predicted lower levels of adherence to the physician's recommendations,



Cooper and colleagues (2012), Penner et al 2010, 2012, Penner et al, 2016

When The Patient Is A Child

Are physicians who care for children less biased?

- No - difference Race IAT scores between MDs and the general population
- No - difference among new MDS between Adult and Child Race IAT scores.
- No differences by specialty.

Johnson TJ, et al, 2016; Sabin et al

Is it different when the patient is a child?

Perhaps not. Evidence of disparities in:

- Referral to specialists.
- ADHD Diagnosis and Treatment.
- Care for ASD and DD.
- Psychiatric diagnosis and treatment for youth with systemic lupus erythematosus

Morgan et al, 2013; Coker et al., 2016; Zuckerman, 2013; Magana et al, 2015'Night et al, 2013

Effects on the Parents/Caregivers

- Significantly lower satisfaction inpatient care among Black vs White parents
- NICU, single facility (n=207)
- URM children more likely to be seen as at risk for child abuse (eval for suspicious injury)
- Minority parents asked more often than whites about violence, smoking, drinking, and drug use.

Nagarajan et al, 2016; Martic et al, 2016;Skellern et al, 2016

Automatically Activated Expectations Affects Everyone

"A white heterosexual male? — what assistance could *you* possibly need?"

STEREOTYPE THREAT (SOCIAL IDENTITY THREAT)

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Stereotype Threat Is A (Often Unconscious) Response To A Negative Group Stereotype.

When something in a cues one of our group identities
(e.g. woman, black, elderly, white male).

and cues awareness of group stereotype
(e.g. bad at math, unintelligent, feeble, racist).

we may experience the effects of stereotype threat.

- (e.g performance decrements -"de-skilling"- often in stereotype-consistent ways, psychological and physiologic effects).

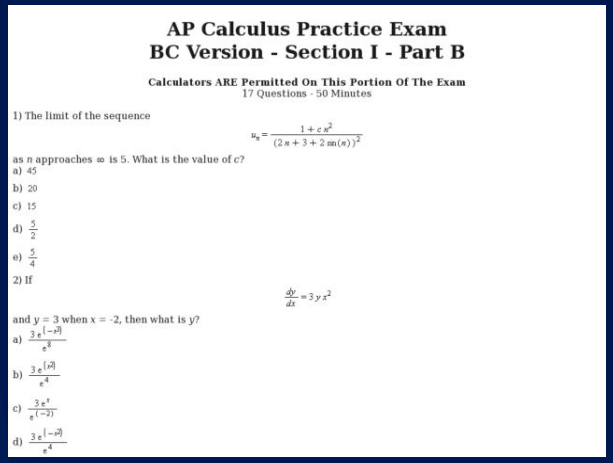
Hundreds of studies:

http://wp.me/p7SFQq-1UW

Women/Girls & Math

Females do worse than males on math tests when the gender question comes first – but not when asked after the test.

Danaher & Crandall estimated 4700 more girls a year would receive AP calculus credit if the question that asks about the student's gender was moved to the back of the test.



AP Calculus Practice Exam
BC Version - Section I - Part B

Calculators ARE Permitted On This Portion Of The Exam
17 Questions - 50 Minutes

1) The limit of the sequence

$$u_n = \frac{1 + c\,n^2}{(2\,n + 3 + 2\sin(n))^2}$$

as n approaches ∞ is 5. What is the value of c?

a) 45

b) 20

c) 15

d) $\frac{5}{2}$

e) $\frac{5}{4}$

2) If

$$\frac{dy}{dx} = 3\,y\,x^2$$

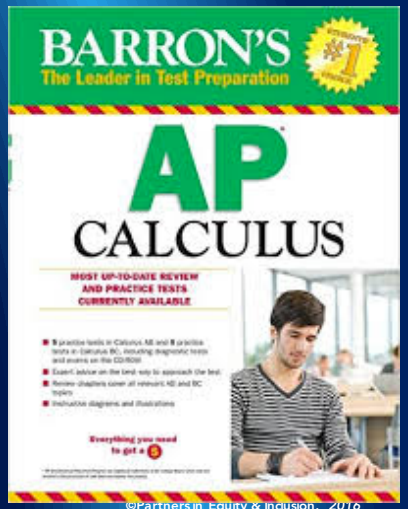
and $y = 3$ when $x = -2$, then what is y?

a) $\frac{3\,e^{(-2^3)}}{e^8}$

b) $\frac{3\,e^{(2^3)}}{e^4}$

c) $\frac{3\,e^4}{e^{(-2)}}$

d) $\frac{3\,e^{(-2^3)}}{e^4}$



Men and “Social Sensitivity”

Men did worse on a test that assesses accuracy in interpreting others' non-verbal behavior when told it was it test of "social sensitivity" than when told it tested "information processing”.

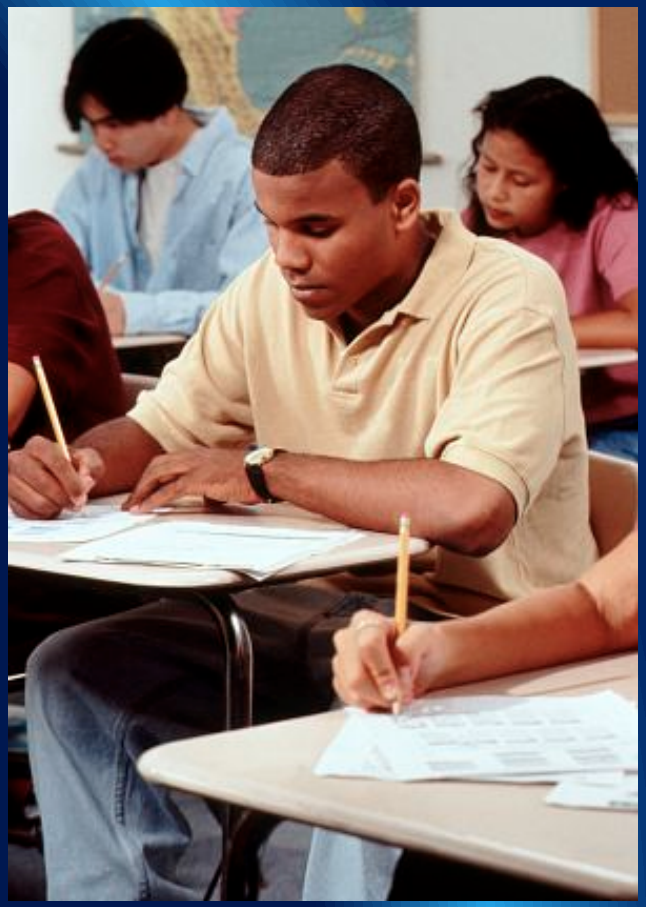
White vs Minority on Golf & other Athletics

White golfers did worse than black golfers when told they were taking a test of “natural athletic ability”. Black golfers did worse than white golfers when told the test required "sport strategic intelligence”.

African Americans, Latinos & Low SES Students & Intelligence Tests

Black test takers performed worse than white test takers when told it was a test of intelligence.

When told test was a lab task that did not indicate intellectual ability, black and white test takers performed at same level.



Whites & Racist Stereotype Threat: Contributes to Failure of D&I Efforts

- Stereotype threat: "white racist"
  - The anxiety associated with this threat has negative cognitive and behavioral consequences
    - impairment of working memory caused by self-regulatory behaviors (e.g., monitoring or regulating ones behaviors to avoid appearing prejudiced),
- Fidgeting, avoiding eye contact
- Physically distance themselves from African American conversation partners.
- Increases in implicit (unconscious) pro-white bias.

Effect diminished when whites are think of the interaction as an opportunity to learn.

Additional Examples

- Women in negotiating ability.
- Whites compared with Asian men in mathematics
- Elderly & Women Safe driving
  - Statistically 65 and older safest drivers – except when reminded of stereotype
  - Women vs men but only in the randomized condition told that study was investigating why men are better drivers than women. Half hit jaywalking pedestrian.
- Elderly in memory tasks
- Women in golf, but only in presence of male skill evaluator.

Physiologic Effects

Stress response

- Sympathetic nervous system activations
- Increased blood pressure
- Increased cardiac output and total peripheral resistance
- Inflammation processes associated with numerous disease processes.

Other Psychological Effects

- Anxiety
- Reduced Motivation
- Disengangement
- Disidentification

Stereotype Threat Affects Everyone

"It is indiscriminate in cursing any group for which a negative stereotype applies, and it does so across a range of domains from intellectual to. What is also so striking and debilitating about the phenomenon is how seemingly easily seemingly easily stereotype threat can be activated."

A naturalistic study of stereotype threat in young female chess players. Rothgerber, H &Wolsiefer, K. Group Processes & Intergroup Relations 2014, Vol 17(1) 79–90, page 79,

WHAT CAN BE DONE?

Protecting Our Patients and Ourselves From Stereotype Threat and Unintended Bias

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Note

- These strategies are responsive to the best current evidence – strongest studies replicated numerous times in other settings - thus *evidence-driven.*
- There is a dearth randomized trials testing the effectiveness of these strategies in health care settings.

How To Protect Yourself From Stereotype Threat

- Identify the situations & people that are most likely to trigger stereotype threat for you.
- Think about your unique characteristics, skills, values, or roles - things you value, that are important to you.
  - If possible, jot them down & why they are important.
- Remember that the anxiety and "de-skilling" caused by stereotype threat is not relevant to your actual abilities.
- Activate "alternate identities". Everyone belongs to multiple groups. Focus on an identity that does not have negative stereotypes relevant to the situation.
- Bring to mind a time you felt competent, powerful, strong (whatever is relevant). Focus on that experience

Strategies to Reduce Unconscious Bias Overlap with Strategies to Prevent Stereotype Threat

Strategies that prevent us from being unintentionally "hijacked" by unconscious (implicit) biases also serve to protect those around us from Stereotype Threat

Self-awareness with Self-Compassion

- Might require some self-acceptance work

CRUCIAL: Learning & Growth Mindset

- Understand – and communicate to others - that mistakes are to be expected.
- We walk in different worlds, right next to each other.
- For true change it has to be safe for people to learn from their inadvertently hurtful actions
- It has to be safe for people to be able to say it when something hurtful or harmful has happed.

Exposure to Counter-Stereotypic Images







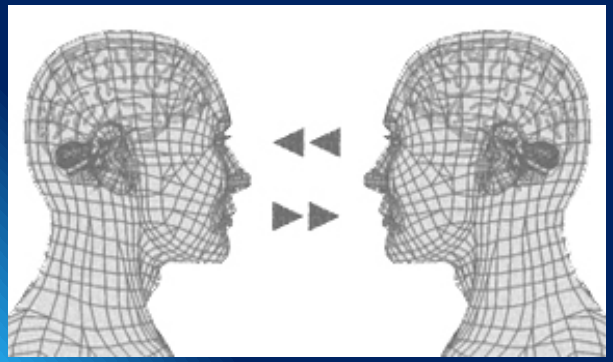



Lai, et al, 2014

Perspective Taking Skills

- Perspective taking with others will make them less likely to experience stereotype threat due to unintended biases.
- Check accuracy and be open to correction.

Empathy (Perspective-Taking)



- Empathy (both cognitive component, perspective-taking and emotional component) shown to diminish activation and impact of implicit biases
- Reduces seeing other in terms of group category
- Increases sense of common identity

– Challenges: empathy for pain of someone of another race is diminished compared to same - race empathy.

Partnership can create an unconscious sense of the other as a part of your in-group

- Similar to some team building exercises.
- Mind-hack, cognitive shortcut: use words like "we" and "us" and "our" instead of “I” “yours” and “mine”.
- Find the common goal.

Reduce Stress & Cognitive Overload

Bias, stereotypes more active: ↑cognitive load or ↓cognitive proce

- **Cognitive Load:** "time pressure, noise, inadequate staffing, training, feedback, supervision, high communication load, overcrowding
- **Protective factors:** routines, protocols, adequate time per patient and between patients, and sufficient staffing resources

Johnson et al, 2016

Emotional Regulation Skills

- Increase positive emotions:
- Positive emotions have been shown to to inhibit the activation of unconscious stereotypes and prejudices
- Associated with use of more inclusive social categories, increases in the capacity to see others as members of a common “ingroup”.

Johnson et al, 2005; Allen et al, 2010

Emotional Regulation Skills

- Reduce negative emotions
  - Negative feelings such as anger and disgust can exacerbate implicit bias towards stigmatized or undervalued patients–
  - This is true even if the source of the negative emotion has nothing to do with:
    - the current situation or with
    - the social group involved

DeSteno, 2009

Contact

- Evidence it improves white but not URM attitude towards intergroup interactions..
- Conditions for improvement include:
  - Between group friendships
  - Endorsement by authorities
  - No inter-group competition
  - Equal status among team members
  - Common goals & success in achieving goals

Pettigrew and Tropp, 2008

Any strategy that allows us to experience each other in terms of our unique personal qualities vs through a lens created by group category.

Targeted Strategies to Protect Others from Stereotype Threat

Growth mindset:

- Focus on mistakes as necessary for growth, not signs of a personal deficit.
- Help others see low performance as situational, malleable or temporary.

Targeted Strategies to Protect Others from Stereotype Threat

- Encourage self-affirmation
- Ask about successes, accomplishments, things they are proud of.
- Ask them about what they value most.
- State that no one group is better at task than another (telling girls that girls and boys do equally well on a test eliminated stereotype threat.)
- Teach about stereotype threat .

Creating Identity-Safety: Reducing Unconscious Bias & Eliminating Stereotype Threat Triggers

- Conduct an environmental audit for stereotype-consistent or reinforcing cues.
  - Images, artwork, educational materials, pamphlets, magazines, TV channels in waiting room.
- Physical space – is anyone excluded? How does the décor reflect the diversity of stakeholders?
- Ask teams of stakeholders representing relevant groups to conduct audit.

Creating Identity-Safety For Patients: Reducing Unconscious Bias & Eliminating Stereotype Threat Triggers

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Be Aware of Barriers to Action

- The topic of triggers an automatic "away" response laden with strong emotion.
- Humans have an automatic preference for information that increases positive emotions (and an aversion to information that increases negative emotions).

Thank you!

Q & A

Link to references:

http://wp.me/p7SFQq-1UW

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Partners in Equity & Inclusion is a nonprofit organization founded and guided by diversity scientists who are passionate about translating the strongest and most current evidence into practical and effective approaches for achieving true equity, and deep diversity and inclusion.

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