



# Unconscious Bias In Healthcare

APHA Webinar on Unequal Treatment:  
Disparities in Access, Quality and Care

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# Clinician bias is one documented contributor to health care inequalities

Large and every-growing body of evidence that patient group identity (race, gender, sexual orientation, size...) can affect clinicians':

- Question-asking in clinical interview (and thus information gained)
- Diagnostic decision-making
- Symptom management
- Treatment recommendations
- Referral to specialty care
- Interpersonal behavior predictive of patient trust, satisfaction and adherence

# Primary explanation points to the role of unconscious, automatic (implicit) attitudes



[Surg Clin North Am.](#) 2012 Feb;92(1):137-51. doi: 10.1016/j.suc.2011.11.006. Epub 2011 Dec 6.

## The role of unconscious bias in surgical safety and outcomes.

[Santry HP<sup>1</sup>](#), [Wren SM](#).

[Author information](#)

[Abstract](#)

## Doctors' unconscious racial biases leave patients dissatisfied

■ Physicians are encouraged to remember that each patient is an individual. Exposure to different cultures improves understanding about people's differences, health professionals say.

MEDICAL CARE  
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## Research on the Provider Contribution to Race/Ethnicity Disparities in Medical Care

[MICHELLE VAN RYN, PhD, MPH](#)

Perm J. 2011 Spring; 15(2): 71-78.  
Published online Spring 2011.

## Unconscious (Implicit) Bias and Health Disparities: Where Do We Go from Here?

[Irene V Blair, PhD](#), [John F Steiner, MD, MPH](#), and [Edward P Havranek, MD](#)

[Author information](#) ▶ [Copyright and License information](#) ▶



## Physicians and Implicit Bias: How Doctors May Unwittingly Perpetuate Health Care Disparities

[Elizabeth N. Chapman, MD<sup>1,5</sup>](#), [Anna Koatz, MA, MPH, PhD<sup>4</sup>](#), and [Molly Carnes, MD, MS<sup>1,2,3,4,5</sup>](#)

EDITORIAL

Editorials represent the opinions of the authors and JAMA and not those of the American Medical Association.

## Exploring Unconscious Bias in Disparities Research and Medical Education

[J Health Care Poor Underserved.](#) Aug 2009; 20(3): 896-913.

doi: [10.1353/hpu.0.0185](#)

## Physicians' Implicit and Explicit Attitudes About Race by MD Race, Ethnicity, and Gender

[DR. Janice A. Sabin, PhD](#)

PMCID: PMC31

### Article

#### An Investigation of Associations Between Clinicians' Ethnic or Racial Bias and Hypertension Treatment, Medication Adherence and Blood Pressure Control.

[Irene V Blair](#), [John F Steiner](#), [Rebecca Hanratty](#), [David W Price](#), [Diane L Fairclough](#), [Stacie L Daugherty](#), [Michael Bronsert](#), [David J Magid](#), [Edward P](#) [more]

[Journal of General Internal Medicine](#) (Impact Factor: 3.28). 02/2014; DOI:10.1007/s11606-014-2795-z

# Numerous reviews and conceptual frameworks

van Ryn, M. and S. S. Fu (2003). "Paved with good intentions: do public health and human service providers contribute to racial/ethnic disparities in health?" Am J Public Health 93(2): 248-255.

Burgess, D. J., S. S. Fu, et al. (2004). "Why do providers contribute to disparities and what can be done about it?" JGIM 19(11): 1154-1159.

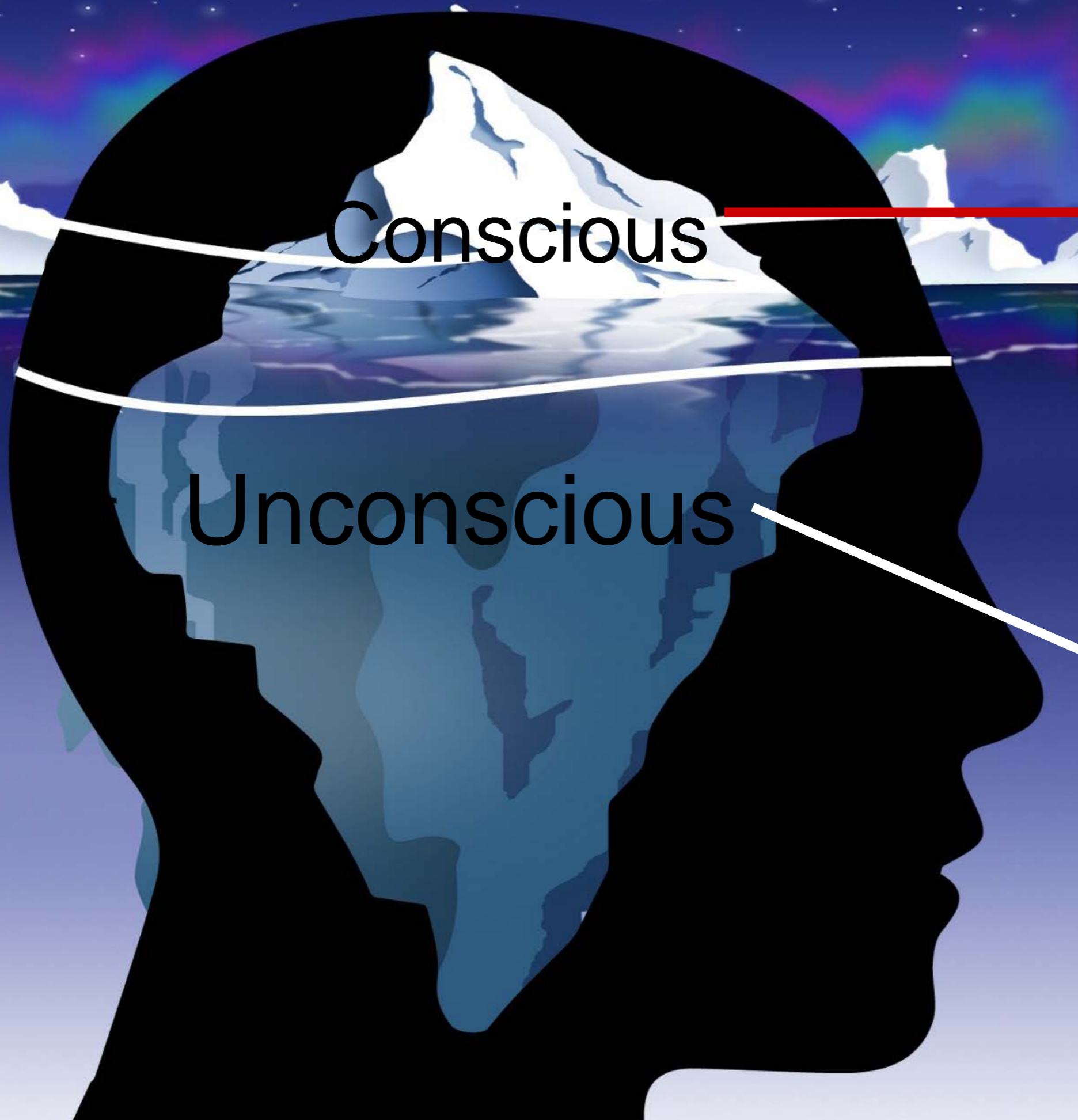
Stone, J. and G. B. Moskowitz (2011). "Non-conscious bias in medical decision making: what can be done to reduce it?" Medical education 45(8): 768-776.

van Ryn, M., D. J. Burgess, et al. (2011). "The Impact of Racism on Clinician Cognition, Behavior, and Clinical Decision Making." Du Bois review : social science research on race 8(1): 199-218.

Dovidio, J. F. and S. T. Fiske (2012). "Under the radar: how unexamined biases in decision-making processes in clinical interactions can contribute to health care disparities." Am J Public Health 102(5): 945.

Chapman, E. N., A. Kaatz, et al. (2013). "Physicians and implicit bias: how doctors may unwittingly perpetuate health care disparities." JGIM 28(11): 1504-1510.

Penner, L. A., N. Hagiwara, et al. (2013). "Racial Healthcare Disparities: A Social Psychological Analysis." European Review of Social Psychology 24(1): 70-122



Conscious

Unconscious

Explicit  
Effortful  
Deliberative  
Slow

Implicit  
Effortless  
Automatic  
Fast

## Background

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

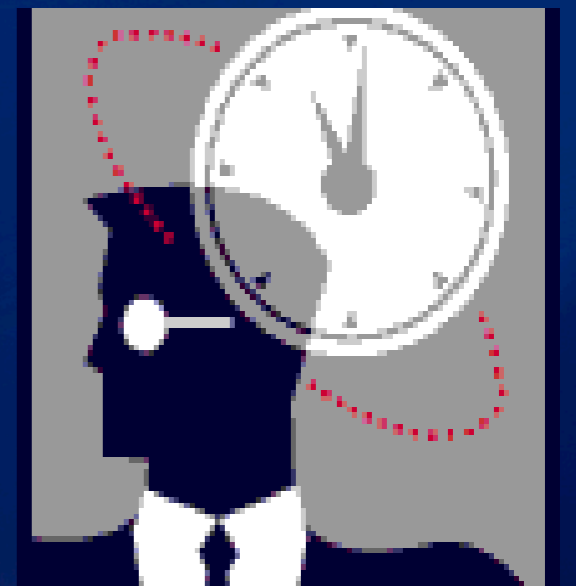
Serves our need for **cognitive efficiency**

Serves need to predict what is going to come next



# Implicit social biases (negative implicit attitudes) are one byproduct of our cognitive processing system

- Can be as simple as an “affective flash”.
- Can be a complex set of beliefs & expectations.
- Can contain subtypes.
- Numerous other cognitive biases.

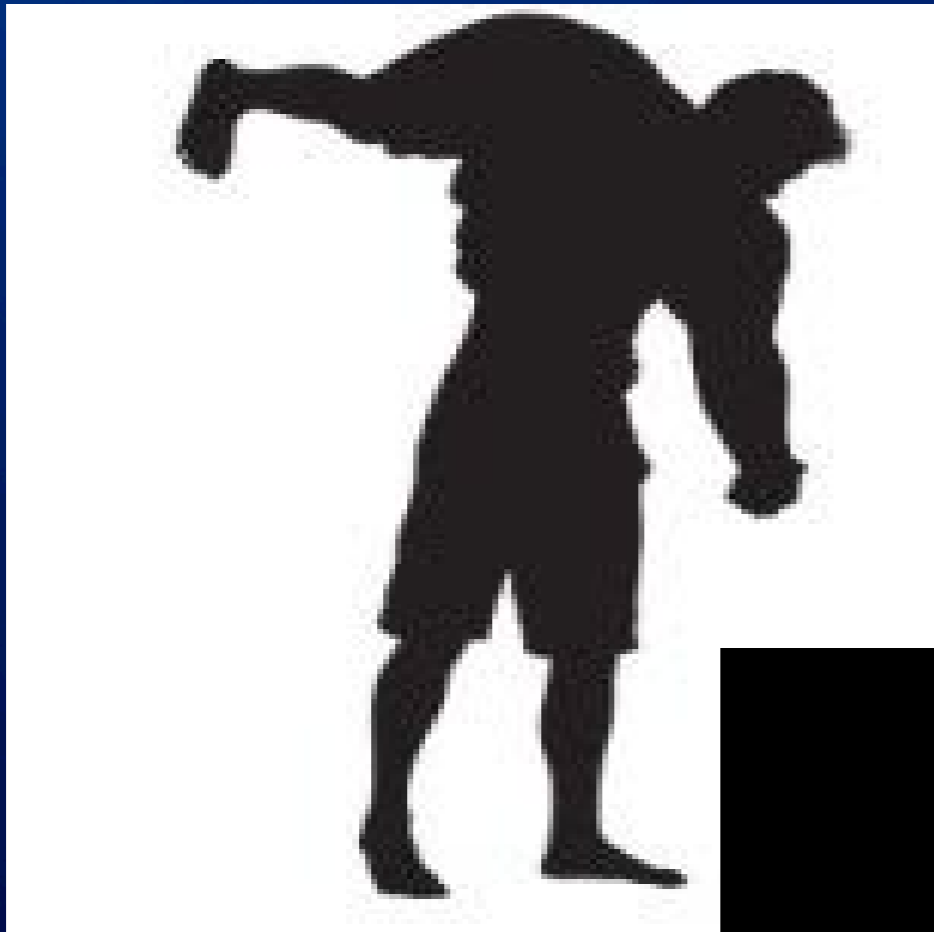


# The impact of the “Affective flash”

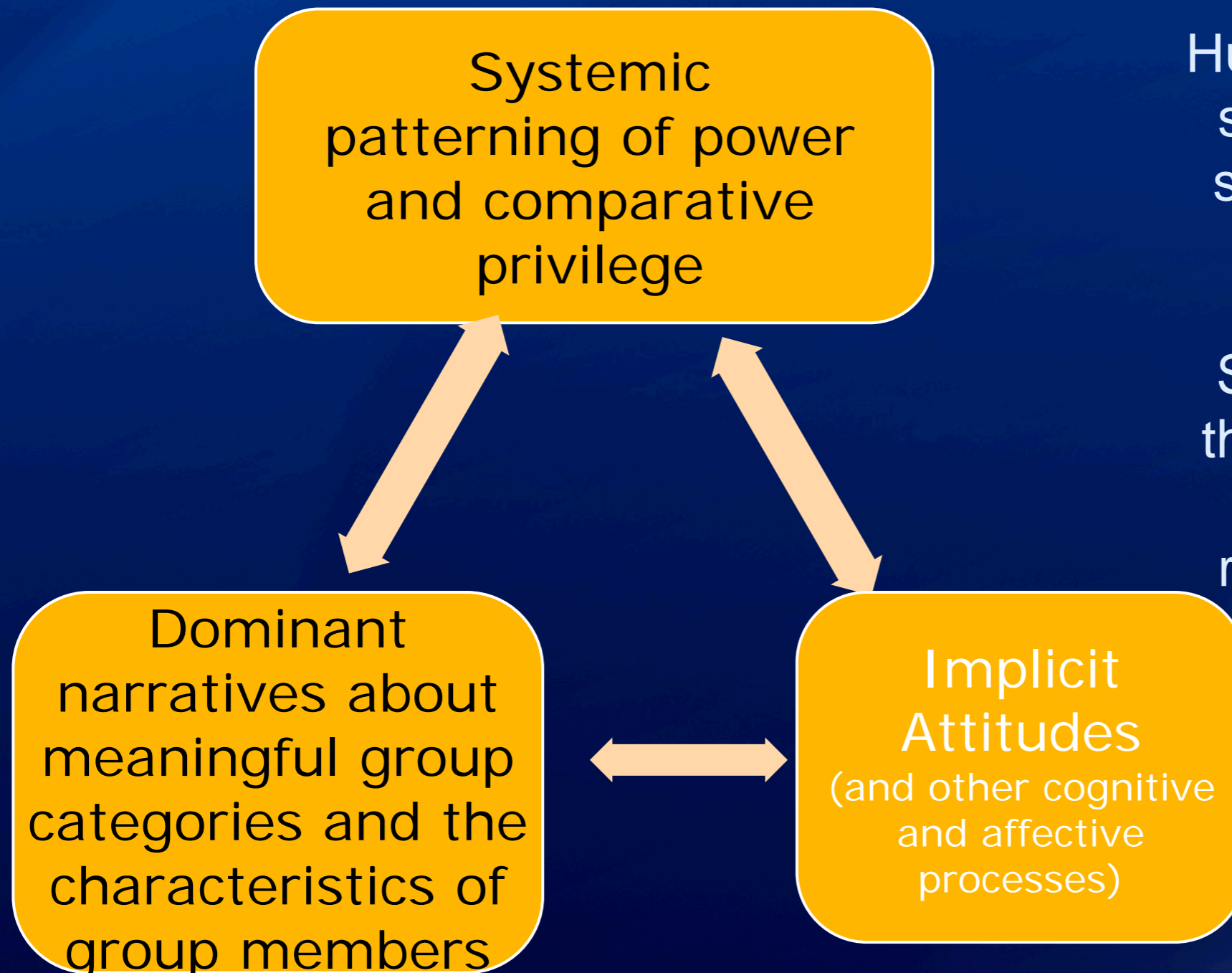
- Towards (leaning in) & away (leaning away)
- Dozens of studies showing that we come up with cognitions, beliefs, that are consistent with our first emotional response.
- Influences non-verbal behavior, setting up negative feedback loop.



Creates a lens both in WHAT we notice and how we interpret what we notice (make meaning).



# The relationship between implicit bias and structural racism



Humans are wired to have specific ways of making sense of and reacting to the world

Structural factors shape the way we think & react. The way we think and react (or fail to) upholds social structure

Lack of attention to the way we perceive, process and use information is a rate limiting factor in achieving our goals

# Interventions

So what do we do about it?

If efforts to remedy societal racism and other socially structured inequalities are to be successful, they **MUST** take into account the way we think – must attend to implicit cognitive processes

**WHY IS IT  
EASIER TO BELIEVE THAT  
150,000,000 AMERICANS  
ARE BEING LAZY  
RATHER THAN  
400 AMERICANS  
ARE BEING GREEDY**

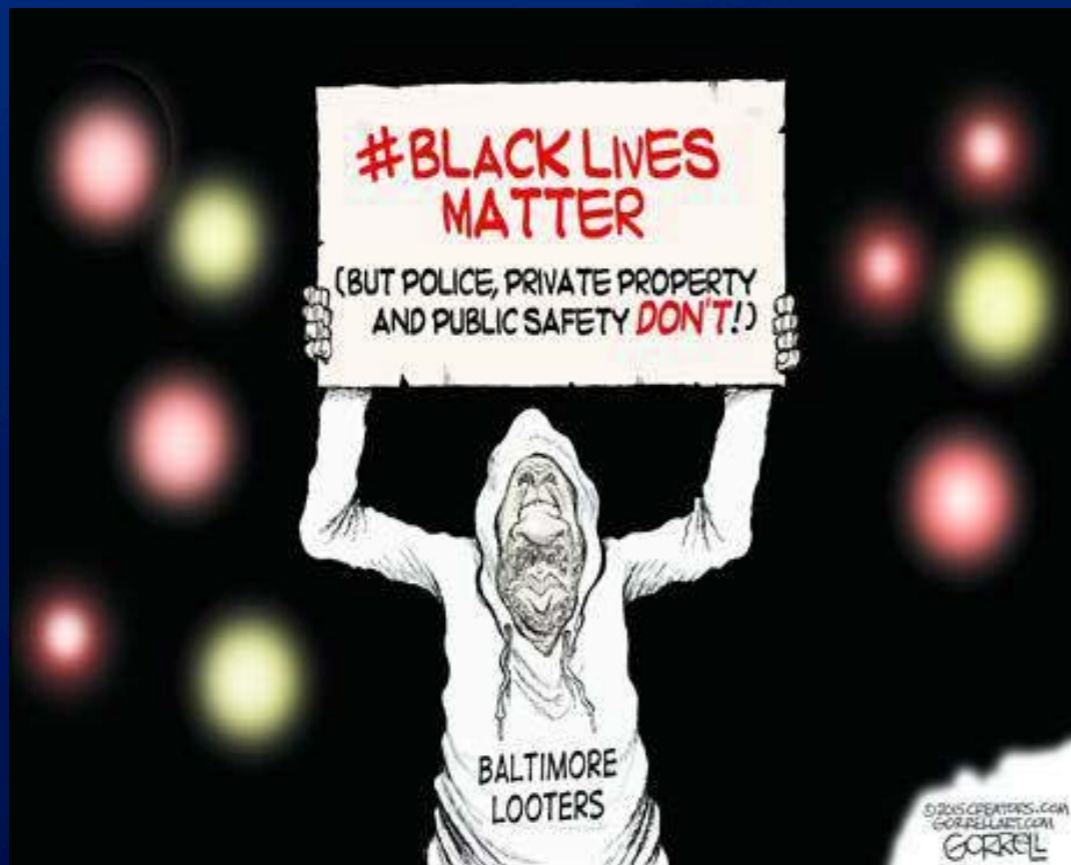


OCCUPY

Graphic: Reuters - www.reuters.com

Next Slide: Distressing image warning

# Manipulation of emotion-laden associations to strengthen harmful associations



We need to speak to the implicit cognitive system in our communications

Images, values, emotions, threat (due to forces not in public interest)

# What works in health care?

Some interventions out there, none assessed for ability to prevent implicit biases from having an impact on patient care

# What does the evidence suggest?

Organizational/institutional level targets for change:

- Diversity climate and role-modeling
- Cognitive load
- Positive intergroup
- Counter-stereotypic imagery ...

Strongest evidence for CHANGE in implicit biases: Increase exposure to counter-stereotypes. Decrease negative-stereotype consistent cues.





# What does the evidence suggest?


Individual level targets for change:

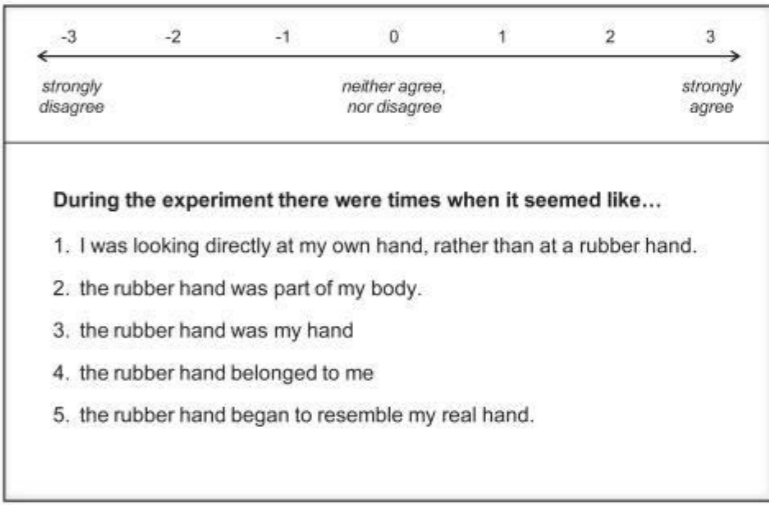
- Increase internal/intrinsic motivation
- Increase cognitive empathy
- Increase emotional regulation skills
- Increase partnership building (common in-group identity)

# Strategies that may be effective regardless of motives, world-view and explicit attitudes

Under specific multisensory conditions, we can experience artificial body parts or fake bodies as our own body parts or body, respectively.

Operating an avatar with another race lowers implicit bias "Ownership of an outgroup body has been found to be associated with a significant reduction in implicit biases against that outgroup"

A. 

B. 

During the experiment there were times when it seemed like...

1. I was looking directly at my own hand, rather than at a rubber hand.
2. the rubber hand was part of my body.
3. the rubber hand was my hand
4. the rubber hand belonged to me
5. the rubber hand began to resemble my real hand.



[Front Hum Neurosci](#). 2015 Mar 24;9:Over my fake body: body ownership illusions for studying the multisensory basis of own-body perception [Itteni K<sup>1</sup>](#), [Maselli A<sup>2</sup>](#), [Kording KP<sup>3</sup>](#), [Slater M<sup>4</sup>](#).

[Cognition](#). 2013 Aug;128(2):170-8. 2013. . Experiencing ownership over a dark-skinned body reduces implicit racial bias. [Maister L<sup>1</sup>](#), [Sebanz N](#), [Knoblich G](#), [Tsakiris M](#).

[Front Psychol](#). 2014 Jan 13;4:1016. Change my body, change my mind: the effects of illusory ownership of an outgroup hand on implicit attitudes toward that outgroup. [Farmer H<sup>1</sup>](#), [Maister L<sup>2</sup>](#), [Tsakiris M<sup>2</sup>](#).

End.... Thank you!

Supplemental  
Material:  
Other considerations

# Intensity & type of intervention needed will vary by individual characteristics

Some sociopolitical attitudes are associated with higher implicit racial and other biases, tendencies to stereotype and make negative attributions about patients from stigmatized groups.

Existing strong internal/intrinsic motivation to control prejudice associated with lower bias, ability to prevent implicit biases from affecting behavior.

# Barriers to Action

- The topic of racism 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).



# Barriers to Action (Automatic or implicit cognitive tendencies)

- Cognitive dissonance
- Strong motivation to protect self-concept



“I am in control of my thoughts and behavior.”

**Very Unpleasant Tension**

“I am not consciously aware of much of what guides my perceptions and behavior,”

# Barriers to Action (Automatic or implicit cognitive tendencies)

- Cognitive dissonance
- Strong motivation to protect self-concept



“I am deeply committed to equality & eliminating discrimination.”

**Very  
Unpleasant  
Tension**

“I have unconscious biases can lead me to behave in discriminatory ways.”



# Barriers

- Cognitive dissonance
- Need to protect self-concept
- Generalized sense of threat
- Conscious beliefs justify implicit attitudes



## Reject conflicting evidence!      Tension Resolved!

- *The IAT isn't valid.*
- *This might be true for other people but I am enlightened/a social justice activist/self-aware/different.*
- *There is a black President – bias is a thing of the past*
- *People who talk about this are...* (fill in any number of discrediting adjectives or motives)

# Barriers

*“Notice flaws!”*



Studies showing inequalities in health care, education, evaluation, pay, promotions, hiring, Mortgage.



*“Much better studies!”*



Studies finding no inequalities



# Barriers

Systemic patterning of  
power and comparative  
privilege



Implicit Biases

White people – even egalitarian white people – tend to have automatic “away” response to word privilege

Connected to automatic human wiring/response tendencies

- Guilt
- Threat/fear
- High salience of their own struggle- jump to feeling struggles are being invalidated
- Overgeneralization and difficulties holding complexity = any acknowledgement of privilege is interpreted as “all the good in your life is unearned and un-deserved”
- Maybe term comparative will help

# Individual targets for Change

## Empathy/ Perspective-taking skills

- Perspective-taking skills (the cognitive component of empathy) have been shown to: inhibit the activation of unconscious stereotypes and prejudices.
- Increases both individuation and sense of commonality.
- Challenges: empathy for pain of someone of another race is diminished compared to same - race empathy.

## Emotional regulation skills

- Providers who experience positive emotion during clinical encounters may be less likely to categorize patients in terms of their racial group
- Use of more inclusive social categories,
- View themselves as being part of a larger group which can facilitate empathy and increase the capacity to see others as members of a common “ingroup”.

## Partnership-building skills

- Reduce the likelihood that implicit bias will affect provider behavior and decision-making;
- Create common “in-group identity”, develop a sense that their partner is on the same “team”, working together towards a common goal.
- Perceptions of common in-group identity facilitates perspective taking and affective empathy .

# Intensity of intervention needed will vary by individual characteristics

- For example, individuals with strong INTERNAL motivation to control prejudice have:
  - Lower implicit bias
  - With sufficient cognitive resources, can reduce implicit bias activation & application.

