The Science of Bias: How Cognition and Motivation Impact Judgment

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Overview

- What is Social Psychology?
  - Definitions
- Who is Biased?
  - Explicit & Implicit Associations
- How Can Bias Affect Judgments?
  - Empirical Evidence
- Conclusion

Part 1: Definitions

WHAT IS SOCIAL PSYCHOLOGY?

Definitions

- Social Psychology
  - The scientific study of how individuals think, feel, and behave in a social context.
    - Real or imagined presence of other people

- Social Cognition
  - The study of how people make sense of themselves and others
    - Focus on process in addition to content
    - Informed from research in cognitive psychology

Tenets of Social Psychology

- The Social Construction of Reality
  - The way a person construes a person situation dictates our thoughts, feelings, and behavior
- The Dual Determinants of Behavior
  - Personality x Situation/Context = Behavior
- The Power of the Situation
  - Situations often have a large, underappreciated influence on our thoughts, feelings, and behavior
  - Personality is often overemphasized

Demonstration

A LITTLE MATHEMATICS

Pick a number...

- Pick a number between 1 and 9
- Subtract 5
- Multiply by 3
- Square the number
- Add the digits
- If number is less than 5, add 5 to it. If the number is greater than 5, subtract 4
- Take the absolute value
- Multiply by 2
- Subtract 6

Pick a number...

- Map your number to its corresponding letter in the alphabet (A=1, B=2, C=3…)
- Pick the name of a country that begins with that letter
- Take the second letter of that country and pick a mammal that begins with it.
- Think of a common color of that animal

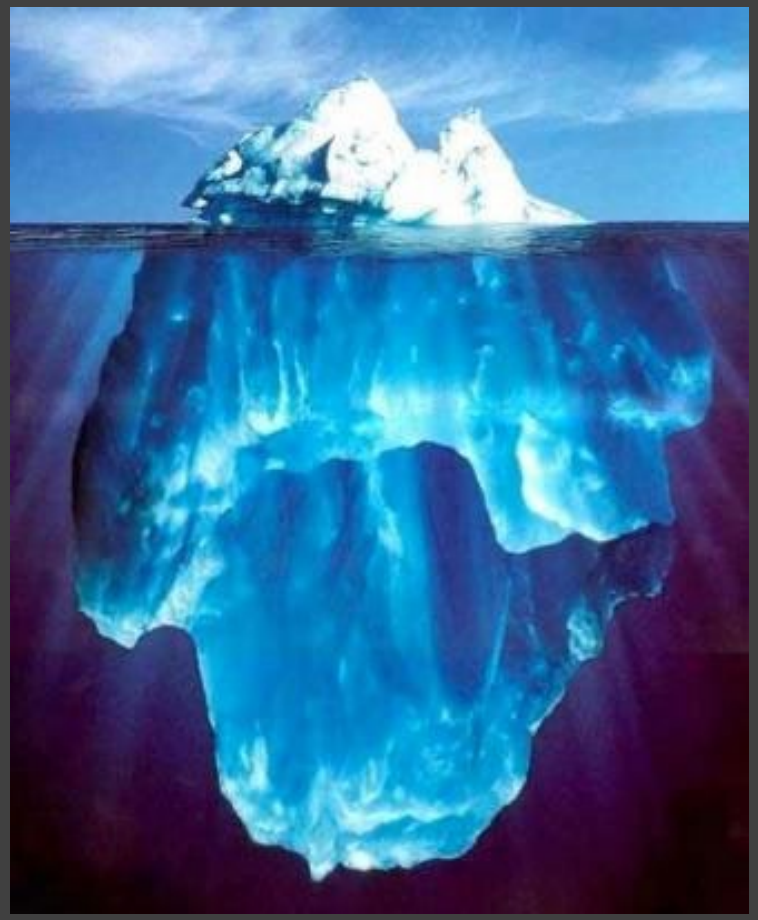
Grey Elephant from Denmark

Brown Orangutan from the Dominican Republic OR Dominica

Yellow Jaguar from Djbouti

How Did He Do That?!?

- The *Availability Heuristic*
  - Making judgments based on the ease with which information comes to mind.
- Countries:
  - Denmark, Dominica, Dominican Republic, Djbouti
- Mammals:
  - Elephant, Orangutan , Jaguar
- Colors
  - Grey, Brown, Orange



Part 2: Who Is Biased?

EXPLICIT & IMPLICIT ASSOCIATIONS

More Definitions

- *Stereotypes*
  - Traits and behaviors
- *Prejudice*
  - Attitudes and feelings
- *Discrimination*
  - Behavior

- Explicit vs. Implicit
  - What you're aware of (conscious)
  - What you're unaware of (unconscious)

Demonstration

MEASURING IMPLICIT ASSOCIATIONS

LEFT side if
UNPLEASANT
or
BLACK

RIGHT side if
PLEASANT
or
WHITE

Implicit Association Test

http://implicit.harvard.edu

LEFT side if
UNPLEASANT
or
WHITE

RIGHT side if
PLEASANT
or
BLACK

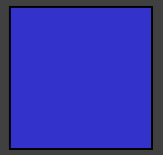
Demonstration

COLOR NAMING

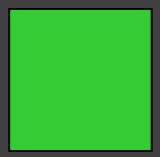
Color Naming

Red

Yellow



Blue



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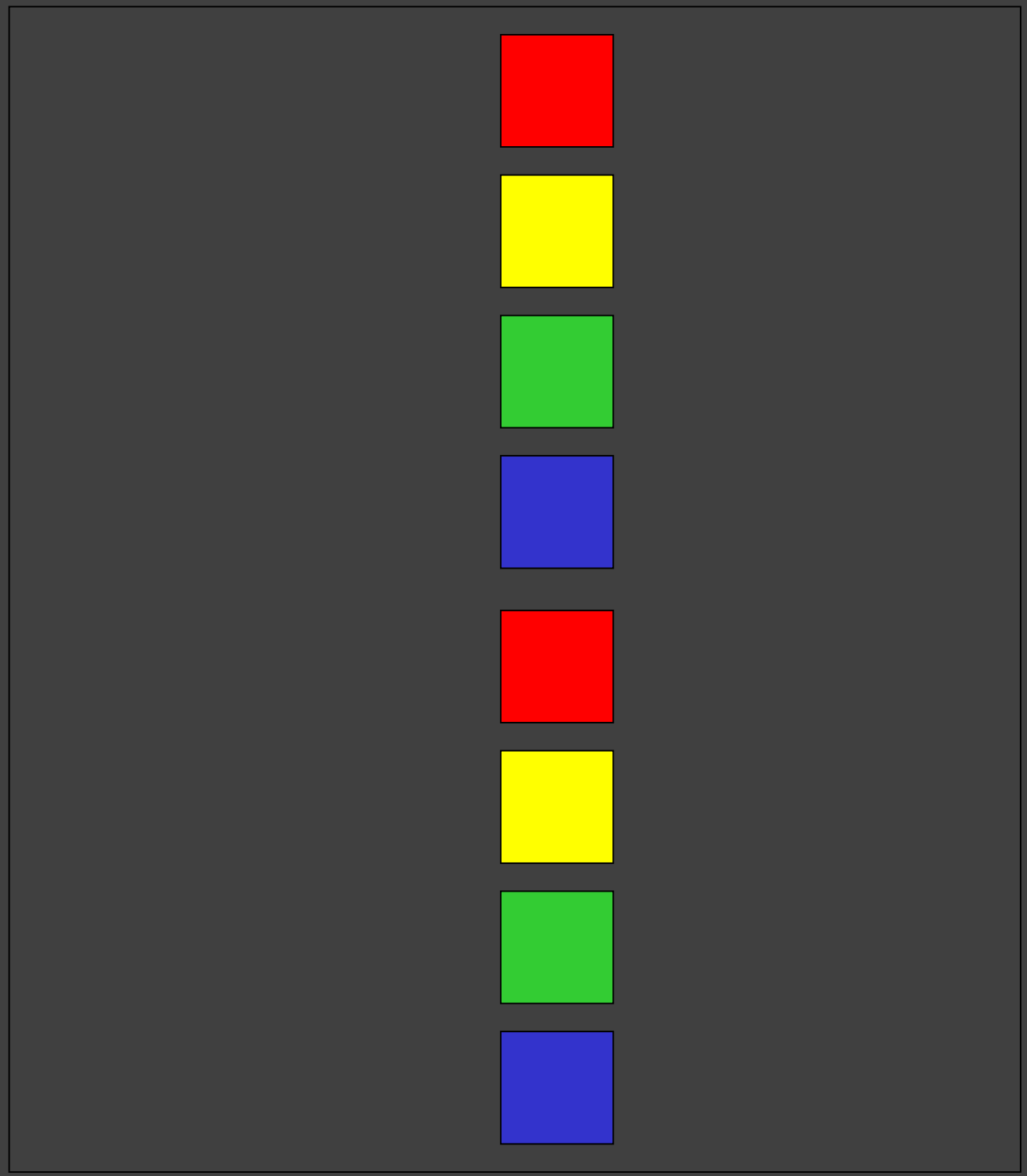


GREEN

RED

YELLOW

BLUE

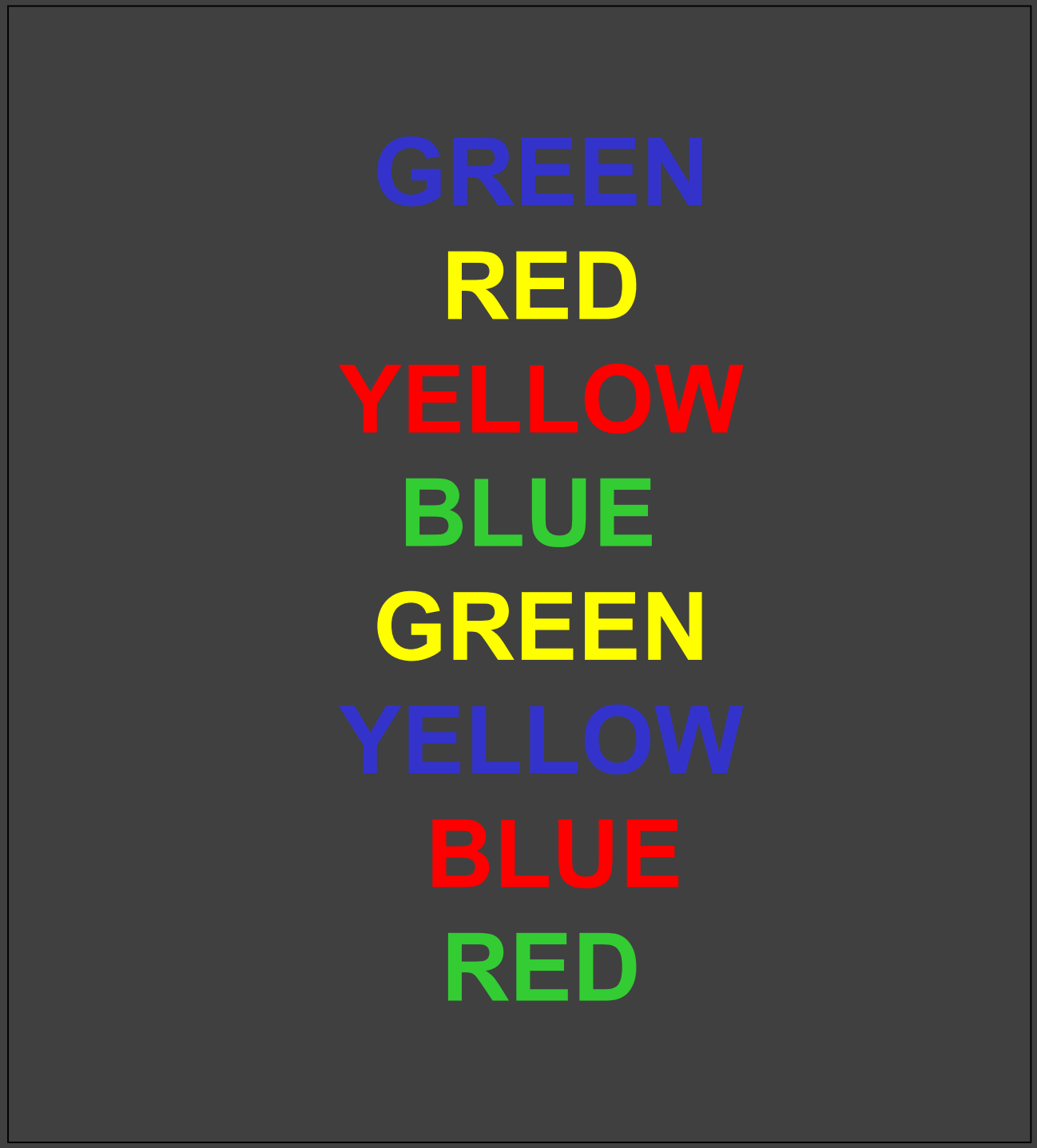
GREEN

YELLOW

BLUE

RED

PROFESSOR
MADDOX
DISPLAYS
INCREDIBLE
KNOWLEDGE
POISE
AND
GRACE


GREEN
RED
YELLOW
BLUE
GREEN
YELLOW
BLUE
RED

VERDE

ROJO

AMARILLO

AZUL

VERDE

AMARILLO

AZUL

ROJO

Two “Modes” of (Social) Cognition

CONTROLLED PROCESSING

- Slow
- Conscious
- Optional
- Effortful

AUTOMATIC PROCESSING

- Fast
- Unconscious
- Mandatory
- Efficient

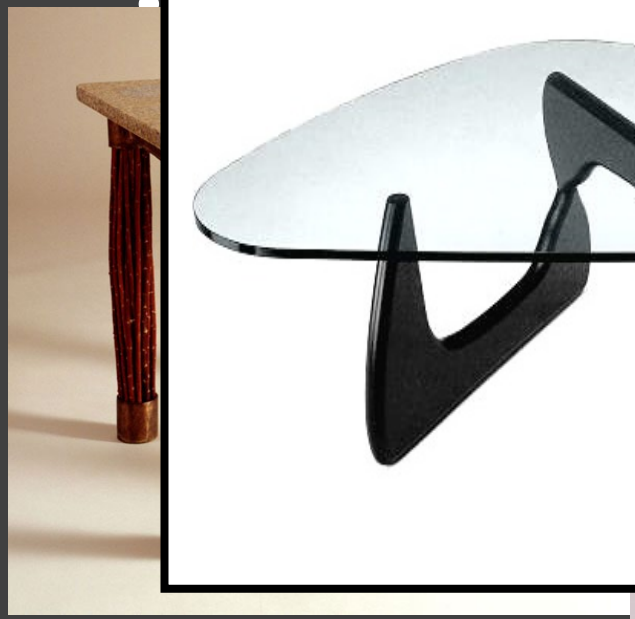
- Once learned, reading is fairly automatic.
- Ignoring words requires control.

Implicit Associations

- Associations like these are everywhere
  - Age, Race, Gender, Political Affiliation, etc…
- They might be inconsistent with how you think about yourself
  - I'm not biased
- They are pervasive
  - We are usually unaware but they can influence real judgment and behavior
    - Not just knee-slapping

Why is Bias Pervasive?

- Humans often rely on cognitive short-cuts
- to ca



Why is bias pervasive?

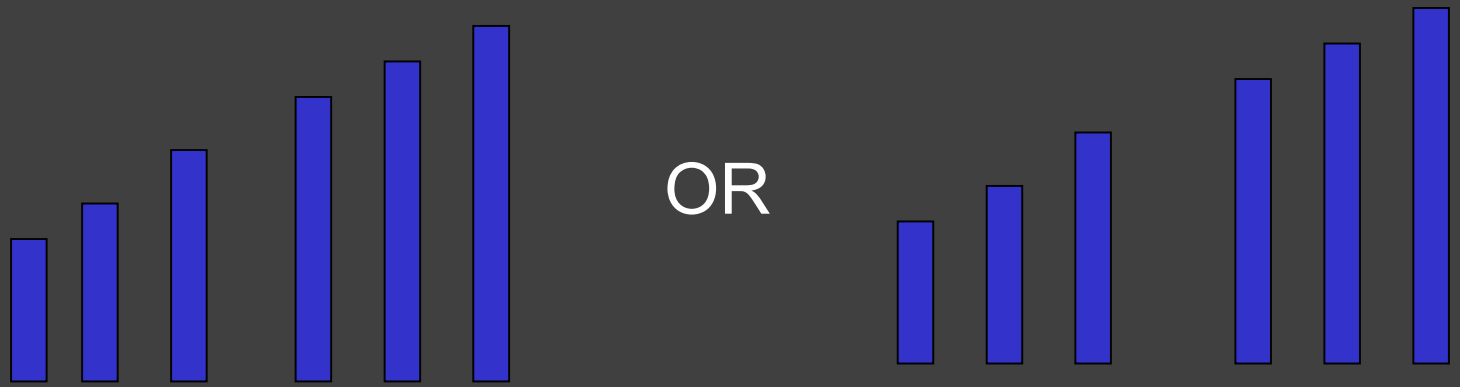
Tajfel & Wilkes (1963)

Lines Condition

Labeled Lines Condition

Why is bias pervasive?

Tajfel & Wilkes (1963)



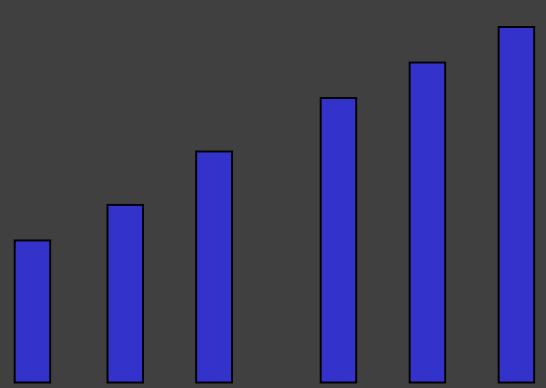
Lines

Labeled Lines

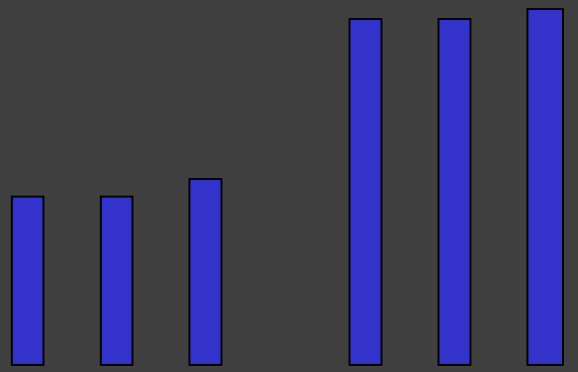
Why is bias pervasive?

Tajfel & Wilkes (1963)

Participants who got the labels recalled them differently:



Lines



Labeled Lines

Why is bias pervasive?

- What about *social* categorization?
  - These tendencies apply to how we see *people* as well
  - Produces belief that: "*they're all the same*"
    - Appearance
    - Opinions
    - Behaviors
    - Etc.

How Can Bias Affects Judgments?

EMPIRICAL EVIDENCE

Examples of Bias

- Employment
  - Resumes and Job Interviews
- Academics
  - Standardized Test Performance
- Law Enforcement
  - Profiling and Use of Force

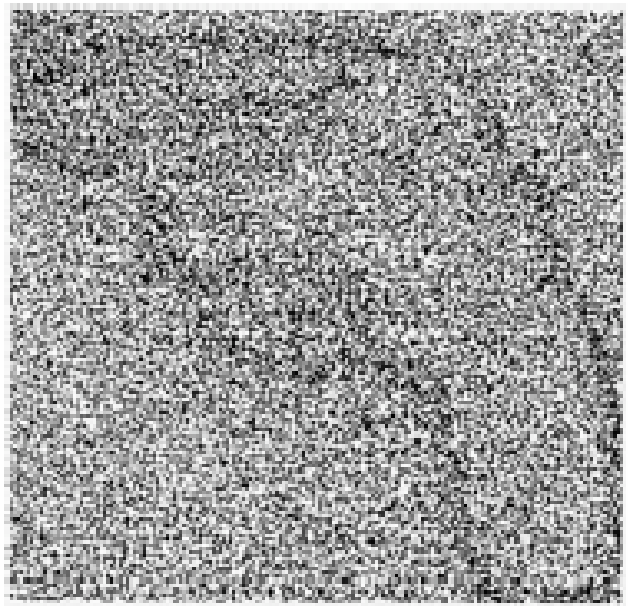
Expectancies Bias Memory
Allport & Postman (1946)

-
-

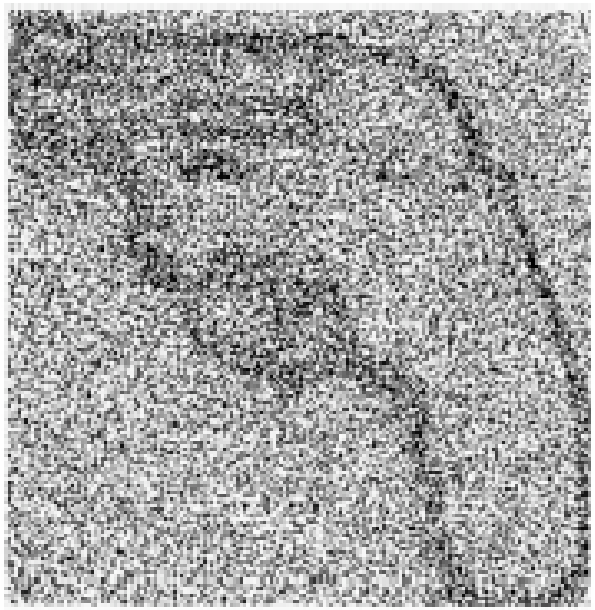
Race and Crime Associations

Eberhardt et al. (2004) Exp. 1

- IV: Prime (none, White face, Black face)
- DV: Recognition of crime-related or crime unrelated images

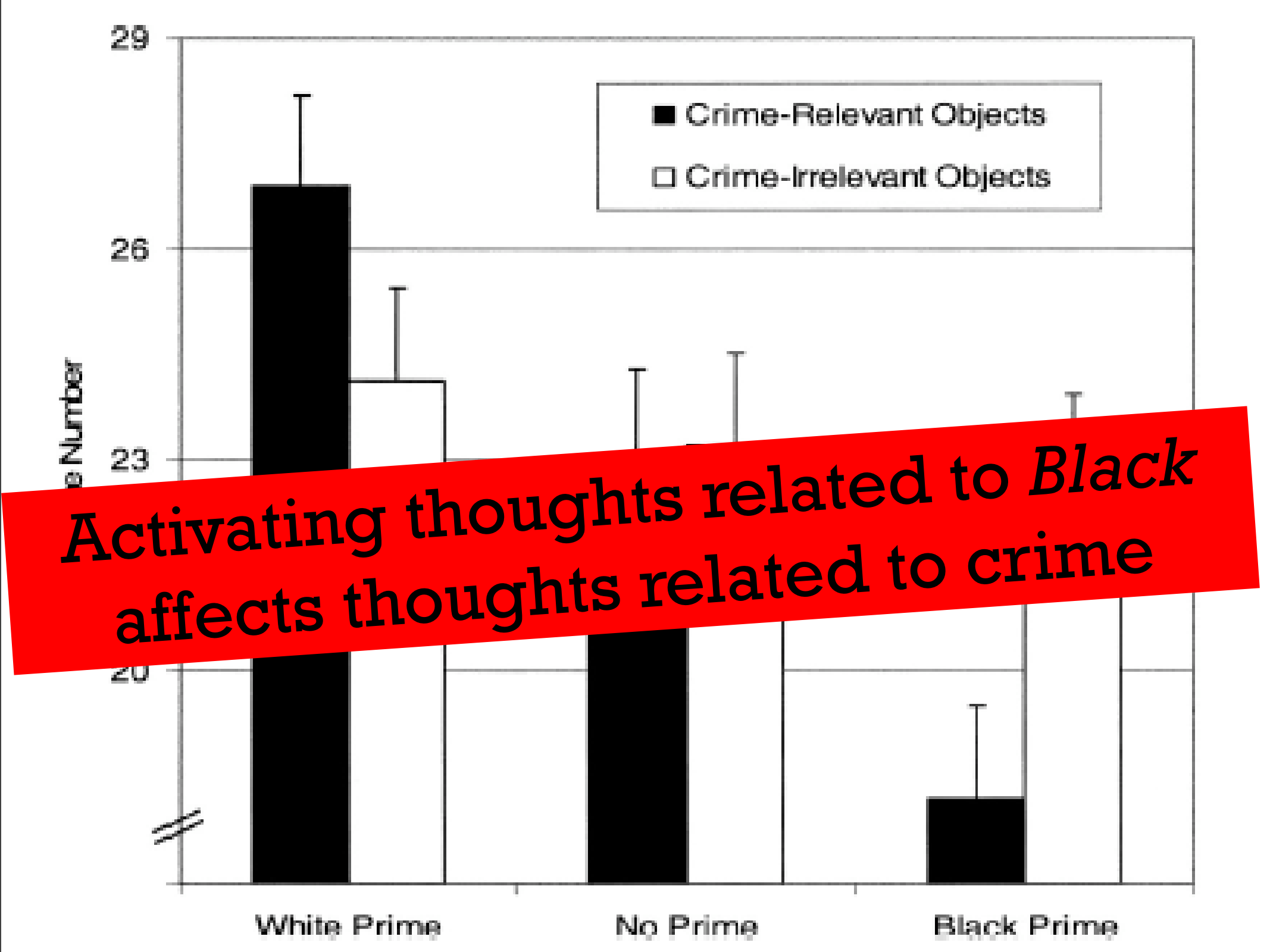


Frame 1



Frame 20

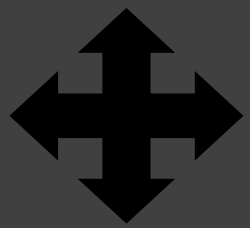
Frame 41

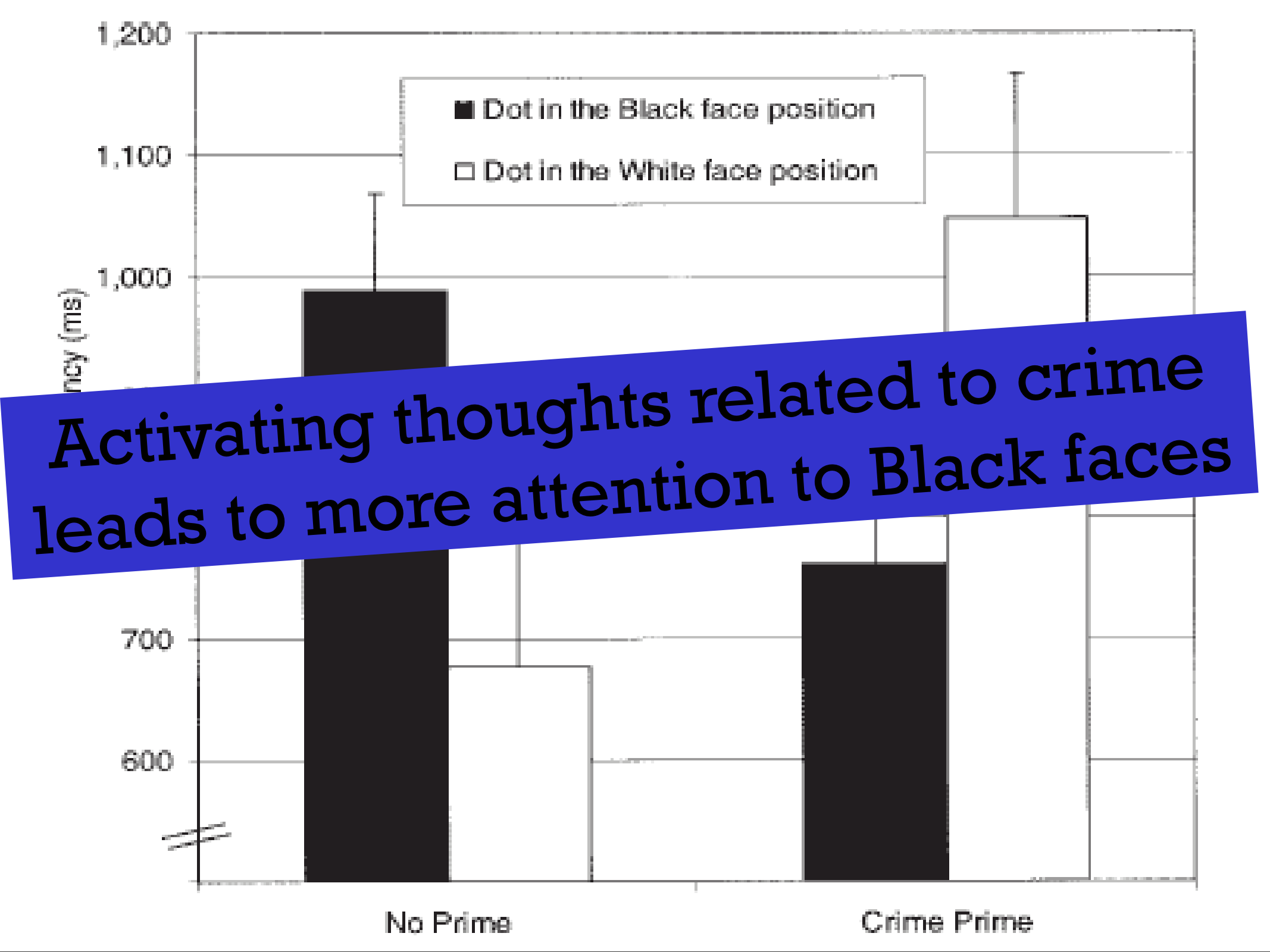


Activating thoughts related to *Black* affects thoughts related to crime

Race and Crime Associations
Eberhardt et al. (2004) Exp. 2

- IV: Prime (none or crime-related image)
- DV: time to detect the dot





Activating thoughts related to crime leads to more attention to Black faces

Implicit Bias and the Law

- Police simulations: respondents quicker to “shoot” unarmed Black vs. White targets (Mekawi & Bresin, 2015)
- Racial disparities persist in charging decisions, plea deals, and other trial outcomes that disadvantage Blacks (Sommers & Marotta, 2014)
- Americans express greater support for trying violent juveniles as adults when example provided is case with Black offender (Rattan et al., 2012)
- School discipline: teachers less likely to give 3rd chance to Black vs. White students (Okonofua & Eberhardt, 2015)

Conclusion

- Implicit and explicit stereotypes guide:

What we perceive

What we remember

How we explain behavior

What we believe about ourselves

How we act towards others

…and they are self-reinforcing

Conclusion: Personality and Context Matter

- Everyone has the potential to show bias
  - Racially biased does not equal Racist
    - Don't just search for the "bad apples". Consider the influence of the barrel
- Addressing bias isn't just about changing what you do, but changing our environments.
  - Media, school, workplace, etc.
- We can use what we know about process to "hack" the system to facilitate equitable outcomes.

Thank You!