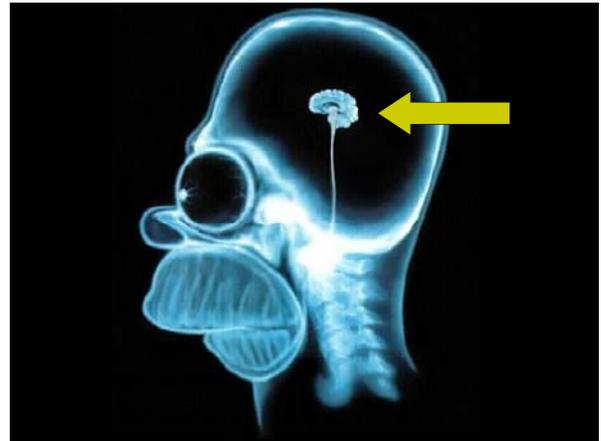


## Social Cognition and Decision-Making: The Pros and Cons of Autopilot

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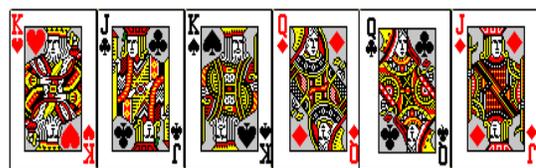


## Goals of this Presentation

- Normalize the association between information processing and how we relate to others (social cognition).
- Examine implicit bias and the “condition” of being human.
- Challenge the notion of “color blind”.
- Context is race, but discussion could extend to many other characteristics or groups.
- **Nothing presented today, however, is an excuse.**



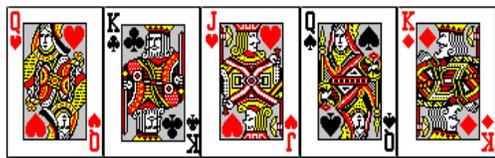
## But First... Pick A Card




## Focus On Your Card




## Your Card Is Gone




## Names?



## Repeat After Me...

Croak  
Poke  
Joke  
Soak  
Broke

What is the white part of an egg?

## Bias and Decision-Making

- Complex and nuanced.
- Intertwined with many other social cognitive processes.
  - Attitudes
  - Heuristics
  - Schemas
  - Stereotypes
- So... let's start with some basic definitions...

## Terminology

- In group (us)
- Out group (them)
  - Minimal group paradigm – it doesn't take much to establish preference and belonging
- Racism: prejudice and/or discrimination based on race
  - Prejudice (affective)
  - Discrimination (behavioral)
  - Stereotype (cognitive)

## Terminology

- Bias is a preference for a group based on attitudes, heuristics, schemas, stereotypes, etc.
- Can be positive or negative
- Explicit (aware)
- Implicit (unaware)

## Implicit (unaware)

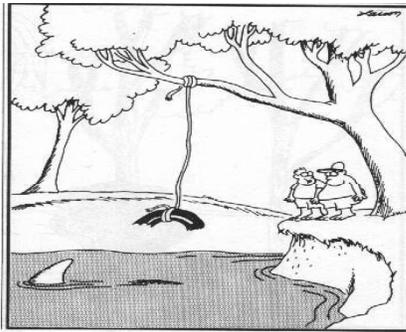
- Processes affectionately known as "mind bugs"
- Framing questions:
  - How much control do you have over your brain?
  - How aware are you of what is going on around you?
  - Are there "glitches" that might be operating in your brain day-to-day?
- Example: Basketball Game
 

<http://www.youtube.com/watch?v=Ahg6qccoay4&feature=related>

## Information Processing

- We are bombarded with information and stimulus every minute of our existence.
- Processing all of this “stuff” would simply overwhelm us.
- Our brain has to quickly sort through and categorize information and stimulus for us to function.
- And that (automatic processing) can be very useful...

## ...for example...!



"Listen . . . You go tell Billy's mother, and I'll start looking for another old tire."

## ...and another (more routine) example...

- Please read the following...
  - I adda a qwer zcada eqai adfjk, fdaklad qeeqmoxn pwiq te nveh majdury. U dogn fo usni rep soz cocley. Zorg noyb goo?
- Now, read this...
  - I cnoat blveiee I aulacty uesdnatnrd waht I am rdanieg. Aoccdrnig to rscheearch at Cmabrigde Uinervtisy, it deosn't mittaer inwaht oredr the ltteers in a wrod are, the olny iprmoatnt tihng is taht the frist and lsat ltteer be in the rghit pclae. The rset can be a taotl mses and you can sifll raed it wouthit a porbelm. Tihis is bcuseae the huamn mnid deos not raed ervey lteer by istlef, but the wrod as a wlohe.

## Automatic Processing and Interference: Read the Word

BLUE BLACK GREEN  
 YELLOW RED BLUE  
 RED BLACK GREEN

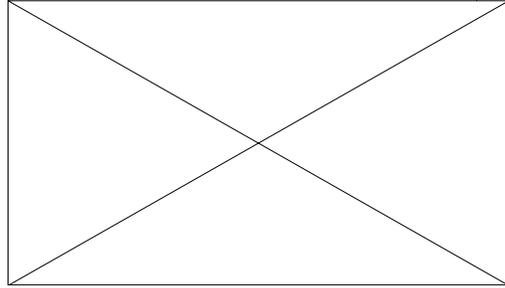
## Automatic Processing and Interference: Say the Color of the Word

BLACK BLACK GREEN  
 YELLOW BLUE RED  
 RED SHARK! BLUE

## Recap

- We are flooded with information, and process much of it automatically
- Automatic processing is necessary for us to function
- Automatic processing can be very **helpful**
  - Fight or flight / primitive brain
  - Saves cognitive resources
- Automatic processing can be very **unhelpful**
  - On some tasks we pay a price for efficiency (interference)
  - Is not always accurate

## The Lunch Date



## The Lunch Date: Brief Debrief

- What assumptions did you make about the characters?
- What stereotypes did you engage?
- How would the story look from an alternate perspective?

## The Situation: Part I



- Washington, DC (2007)
- Metro Station
- Bach for 45 minutes
- 2000 passed by
- Every parent made child move on when they stopped to listen
- No applause when done
- Made a total of \$32

## The Situation: Part II



- Joshua Bell
- Considered one of the greatest musicians in the world
- Played one of the most intricate pieces ever written
- Sold out a Boston theater two nights before (\$100 per seat average – same music)
- Violin in picture?
  - \$3.5 Million

## Stereotypes

- The process of developing **categories** of information begins at birth.
- As we mature, categories develop around observables.
  - Color
  - Gender
  - Age
  - Body type



## Stereotypes

- Categories also begin to include those that are socially constructed



## Stereotypes

- Over time, we learn to associate certain characteristics with certain categories of information.
  - Professor ≈ absent-minded
- We learn characteristics of categories from many sources (e.g., parents).
- The characteristics attached to a given category are a stereotype.
- Stereotypes can be positive or negative as well as generally accurate or inaccurate.
- They are roughly diagnostic (“quick and dirty”)

## Think of Stereotypes

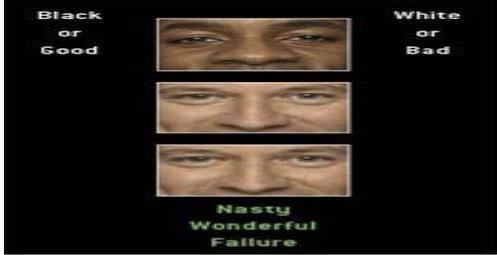
## Think of Stereotypes

## Implicit Bias

- Implicit bias operates outside of awareness.
- It is a preference for a group based on implicit attitudes, stereotypes, etc.
- It works both ways (reciprocal / synergistic).
  - Automatic processing (discussed)
  - Stereotypes (discussed)
  - Self-fulfilling prophecy
  - Confirmation bias
  - Fundamental attribution error
- All of these things “flavor” our decisions.

### How Do We Know It Exists?

- Implicit Association Test (IAT)



### IAT

BLACK

WHITE

(black or white face)

### IAT

GOOD

BAD

(positive or negative word)

### IAT

WHITE

or  
GOOD

BLACK

or  
BAD

(white or black face)

**OR**  
(negative or positive word)

### IAT

WHITE

or  
BAD

BLACK

or  
GOOD

(black or white face)

**OR**  
(positive or negative word)

### Results

- Time to recall and respond reflects strength of associations we hold between categories and characteristics
  - Faster times suggest more "practiced" or stronger linkages (i.e., routine, comfortable, etc.)
  - Slower times suggest less "practiced" or weaker linkages (i.e., uncommon, uncomfortable, etc.)
- Significant (statistical) difference in speed between last two task slides suggests a preference / bias
  - Usually reported on a continuum from "none" to "strong"

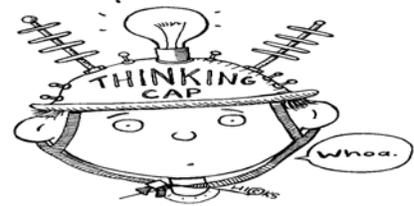
<https://implicit.harvard.edu/implicit/demo/>

## Implications



## Can It Be Controlled?

- First, we need to think about thinking some more...
- Also known as “meta-cognition”



## Thinking about Thinking

- Low effort processing
  - Quick and peripheral
  - Relies on heuristics
  - Low accuracy in many circumstances
  - We are more likely to engage when under high cognitive load or stress
  - Weaknesses related to *ordinary personology* (our day-to-day understanding of how the world works)



## Low Effort Processing

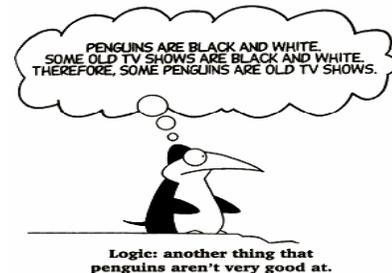
- Example: coin flips (probability)
  - Nine fair coin flips come up heads – what are the chances the next flip is going to be heads as well?



## Low Effort Processing (continued)

- Example: bank teller (representativeness)
  - Angie is 30 years old. In college, she majored in accounting. She also was very concerned with issues of social justice and discrimination. Is Angie more likely to be:
    - a bank teller, or
    - bank teller and active in the feminist movement?
- Faulty heuristics and errors in logic can contribute to biased decisions...

## Thinking Errors: We Are Not Alone



## Thinking about Thinking



- High effort processing
  - Deliberate and central
  - Considers “rules” carefully
  - More likely to be engaged under low cognitive load and low stress
  - Accuracy tends to be better
  - Accuracy can be further enhanced through training (e.g., regarding probability)
  - Can help suppress acting on generalized information (e.g., stereotypes)

## So...?

- We can work to process information differently and counteract some of the influence of stereotypes and judgment heuristics.
- Requires...
  - Self awareness
  - Intrinsic and/or extrinsic motivation
  - An “active fight” each and every time
- Let’s look at some specific strategies...

## Strategies: Education



## Strategies: Engage high effort processing



## Strategies: Reduce cognitive load and stress



## Strategies: Organizational Review

- Honest examination of workforce and power structure.
- Strive to set new and positive norms (tell me what to do right alongside what is wrong).
- Open communication.
- Culture of holding each other accountable.



### Strategies: Exposure

### Strategies: Environment

- What messages do your materials and workplace symbols send?
  - Clear
  - Diverse
  - Respectful
  - Stress-enhancing or stress-reducing (think customer service)
  - Linkages between frustration and self-fulfilling prophecy

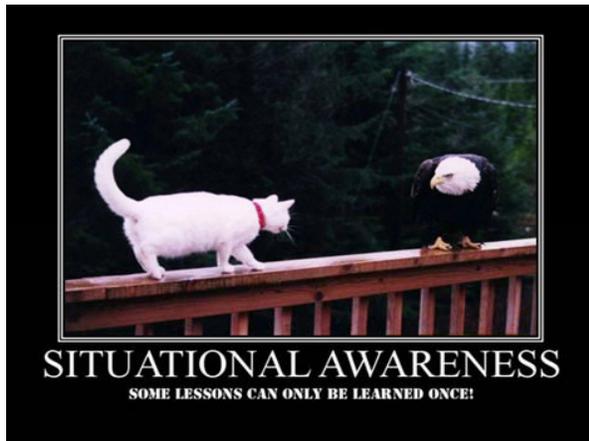
### Strategies: Checklists

### Strategies: Mindfulness

Mind Full, or Mindful?

"Hey, wait a minute! This is grass! We've been eating grass!"





## Strategies: Debiasing



## Strategies: Look to other fields



## Summary: No Easy Answers

- Stereotyping and implicit bias are normal cognitive processes.
- Everyone is susceptible to implicit social cognition - understanding this provides a common ground for dialogue.
- Much of social cognition is an automatic process - but not an excuse.
- Education can reduce stereotypes, prejudice, and discrimination. (Talk to your children!)

## Summary: No Easy Answers

- Historical, sociological, and shame based approaches to reducing MOR/DMC **alone** are likely inadequate.
- Considering the psychology of how we process and act on information must be part of the discussion about race.
- It still will take effort and time – perhaps a long time – to see meaningful change.

## Take Home Message

- Things ARE going on in your brain that you do not even know about – and they DO influence how you acquire, retain, retrieve, and act on information about others.
- Education
- Reflection and mindfulness
- Reduce stress – slow down
  - You deserve it
  - The people you work with deserve it
- Get motivated for the active fight
- Ask yourself: if the person in front of me was a different color / gender / shape / etc. – would I be making the same decision?

## Homework

- Discuss what you heard today with others (e.g., co-workers)
- Practice mindfulness



## Final Exam

- A man and his teenaged son went fishing for the day.
- On the way home they had a terrible accident.
- The father was killed and the son was seriously injured.
- When the son arrived in the emergency room, the doctor looked down at the boy and said, "Oh no! This is my son!"
- How can this be?

## QUESTIONS?

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