



**CalPoly**  
Pomona

**CSU** The California State University  
**Student Success Analytics**  
Certificate Program



# Understanding & Overcoming Implicit Bias in the CSU

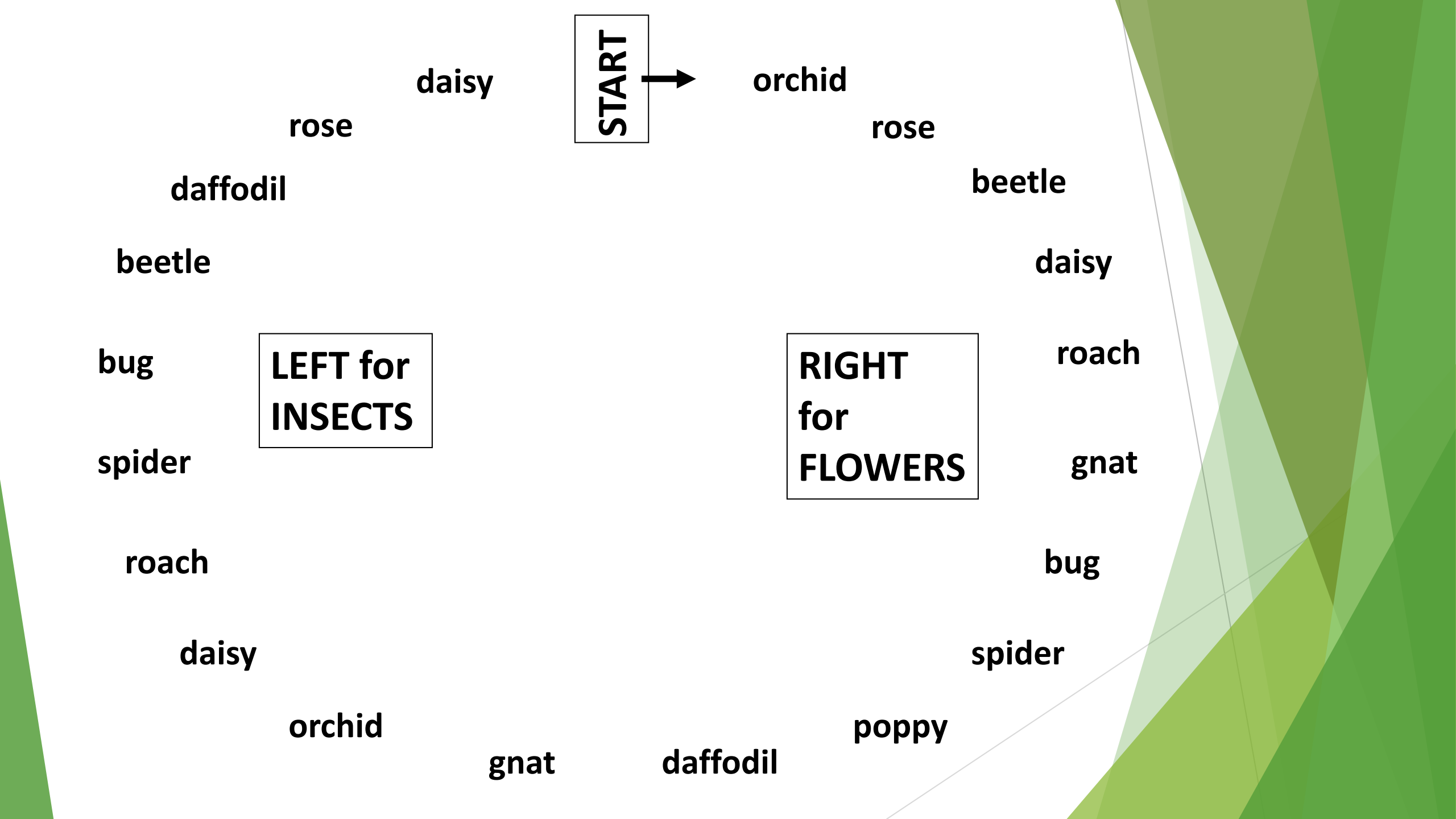
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2019 CSU Certificate Program  
in Student Success Analytics

# Overt prejudice on the outs...

- ▶ Overt prejudice and discrimination have been in decline for decades.
- ▶ “a clear majority of Americans were telling pollsters in the early 1980s... that they opposed race discrimination in nearly all its forms... there is no reason to believe that most of them were lying...”  
(Michelle Alexander 203, 2010)
- ▶ Social scientists knew that prejudice did not just vanish.

# A new search began...

- ▶ ... for indirect measures of social attitudes  
→ measures that don't depend on self-report
- ▶ Most popular: Implicit Association Test (IAT)
- ▶ How does it work?



**START**



**LEFT for  
INSECTS**

**RIGHT  
for  
FLOWERS**

daisy

orchid

rose

rose

daffodil

beetle

beetle

daisy

bug

roach

spider

gnat

roach

bug

daisy

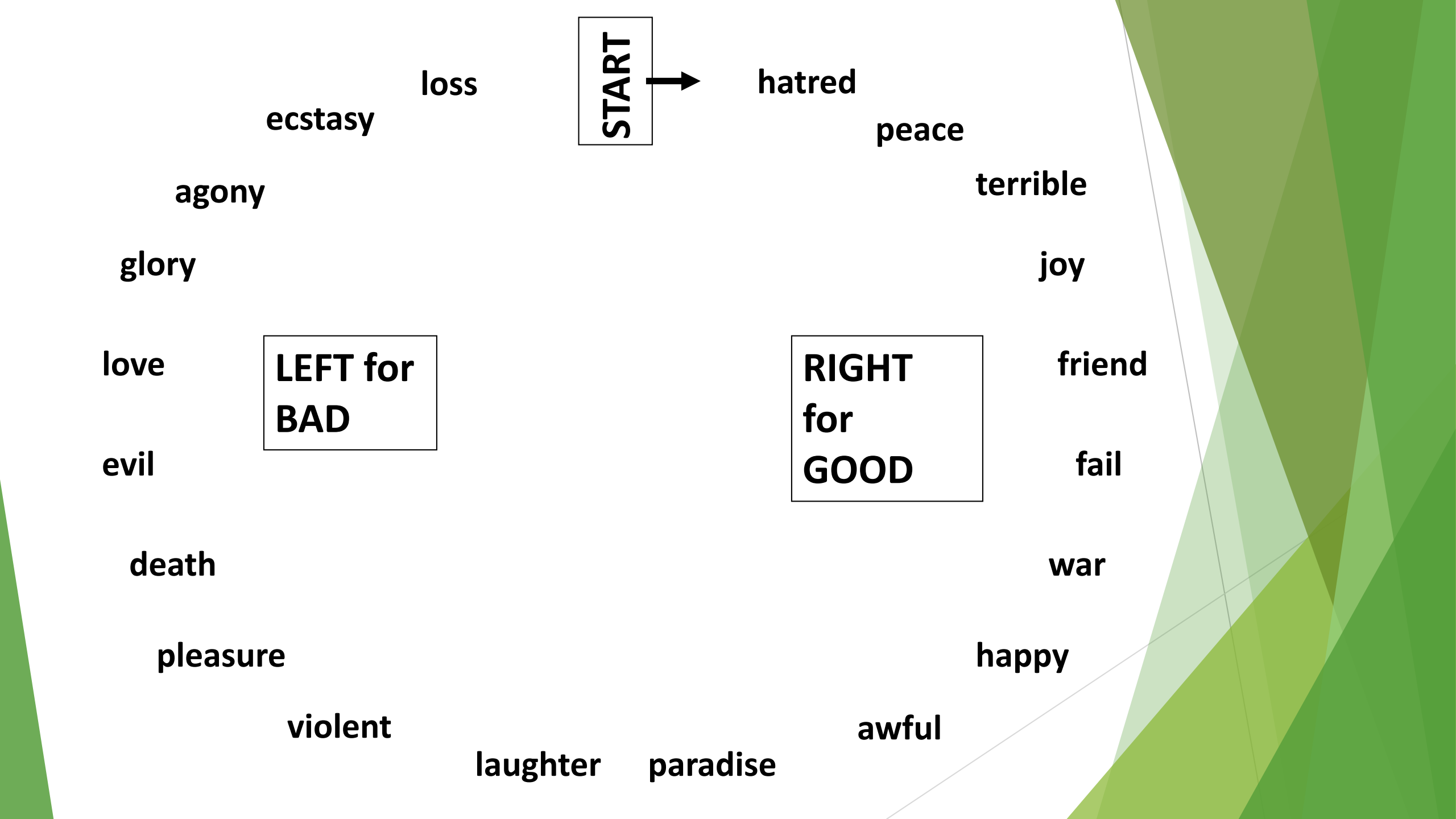
spider

orchid

poppy

gnat

daffodil



**START**



beetle

joy

daffodil

love

poppy

hatred

bug

peace

gnat

glory

daisy

terrible

orchid

war

spider

happy

rose

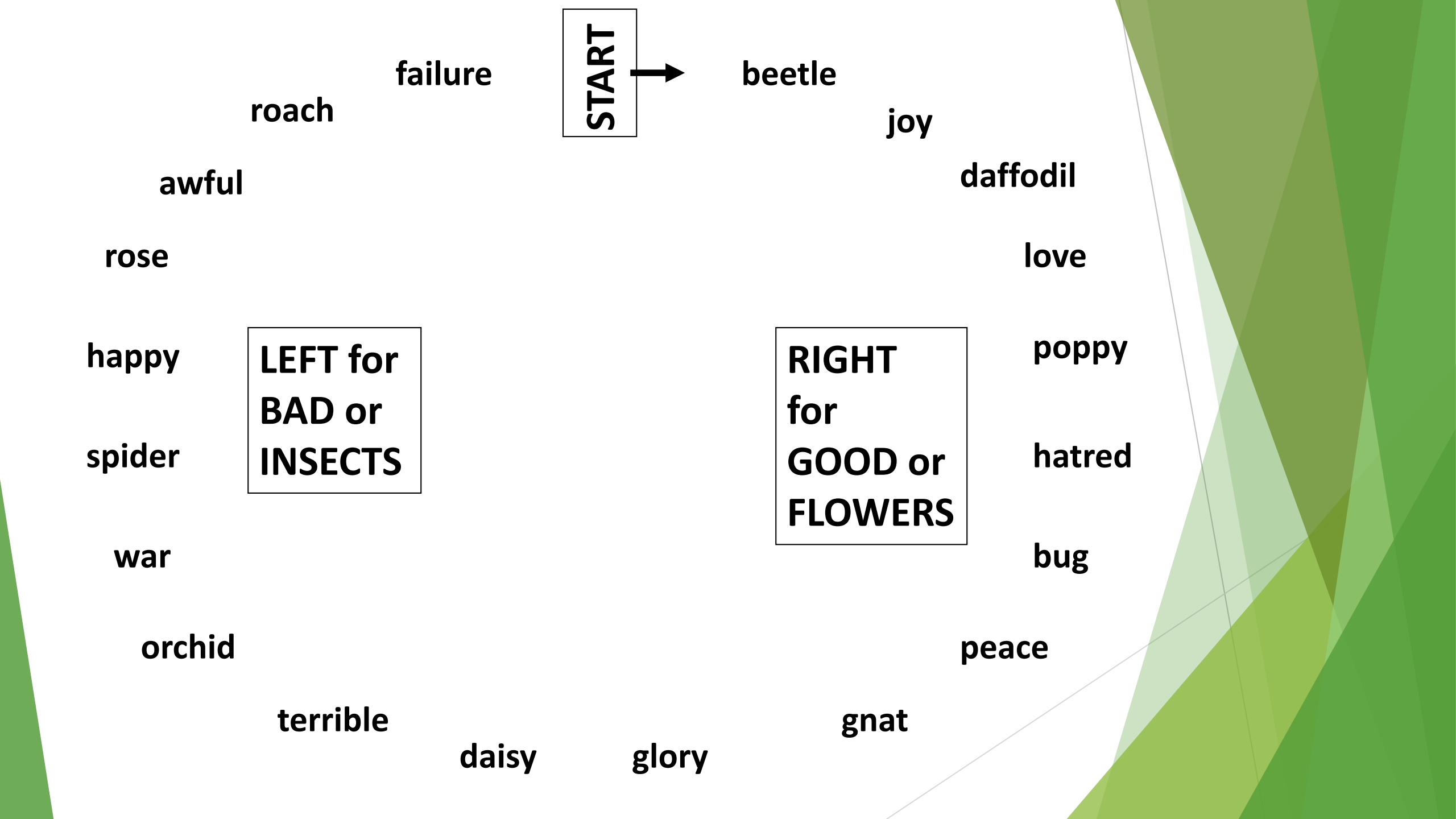
awful

roach

failure

**LEFT for  
BAD or  
INSECTS**

**RIGHT  
for  
GOOD or  
FLOWERS**



failure  
spider  
awful  
beetle  
happy  
daisy  
war  
daffodil  
terrible  
gnat

**LEFT for  
BAD or  
FLOWERS**

**START**



poppy

joy

orchid

love

roach

hatred

bug

peace

rose

glory

**RIGHT for  
GOOD or  
INSECTS**

White  
or  
bad

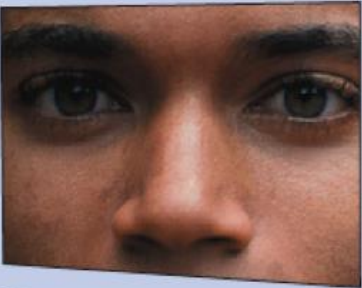
Black  
or  
good

Black  
or  
bad

White  
or  
good

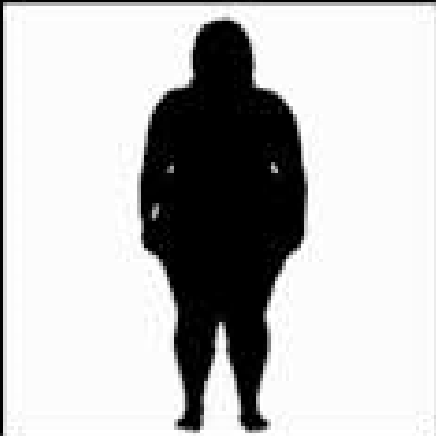
Asian American  
or  
Foreign

European American  
or  
American



Thin People  
or  
Good

Fat People  
or  
Bad



Female  
or  
Family

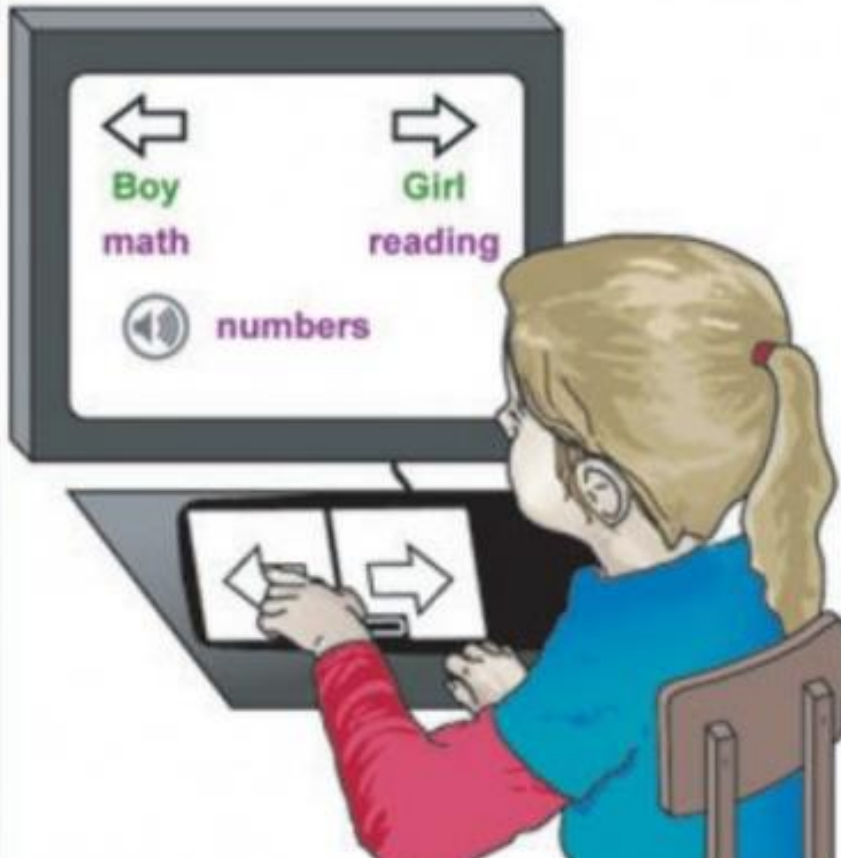
Male  
or  
Career

Michelle



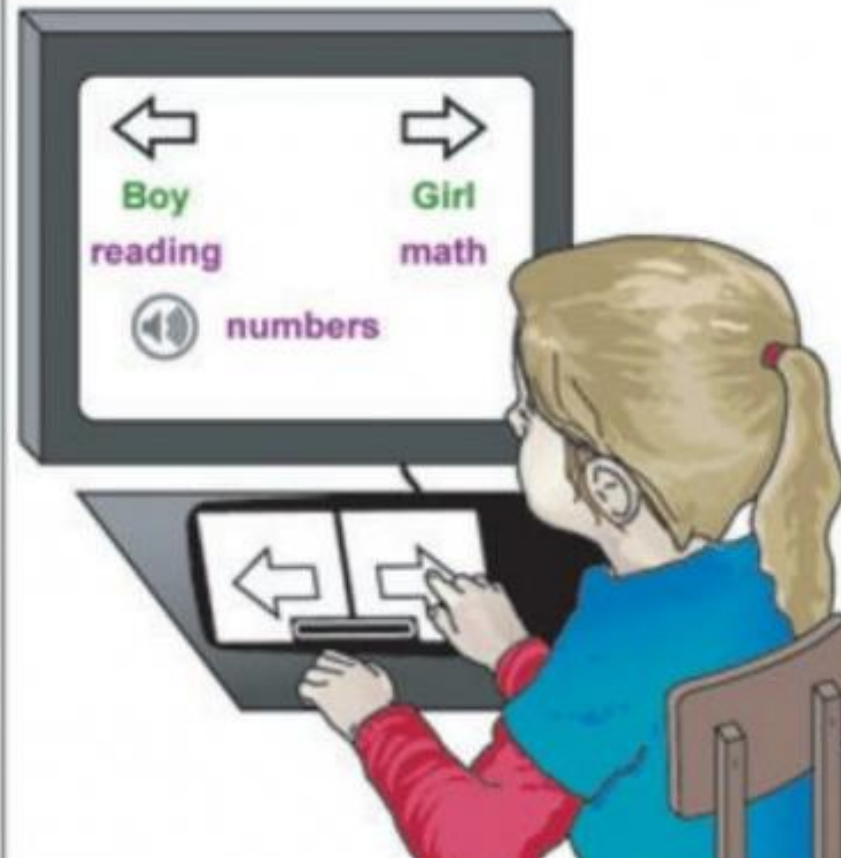
# Implicit Gender Stereotypes

**A** Stereotype Congruent (easy/fast)



Item List:  
story  
Emily  
graph  
David  
numbers  
Hannah

**B** Stereotype Incongruent (difficult/slow)







Item List:  
books  
Sarah  
addition  
Michael  
numbers  
Jessica

A

Disability Good		Nondisabled Bad
<input type="radio"/>		<input type="radio"/>
<input type="radio"/>	poison	<input type="radio"/>
<input type="radio"/>		<input type="radio"/>
<input type="radio"/>	evil	<input type="radio"/>
<input type="radio"/>		<input type="radio"/>
<input type="radio"/>	good	<input type="radio"/>
<input type="radio"/>		<input type="radio"/>
<input type="radio"/>	terrific	<input type="radio"/>

B

Disability Bad		Nondisabled Good
<input type="radio"/>		<input type="radio"/>
<input type="radio"/>	happy	<input type="radio"/>
<input type="radio"/>		<input type="radio"/>
<input type="radio"/>	love	<input type="radio"/>
<input type="radio"/>		<input type="radio"/>
<input type="radio"/>	bad	<input type="radio"/>
<input type="radio"/>		<input type="radio"/>
<input type="radio"/>	vomit	<input type="radio"/>

# Is Juanita brainy?

- ▶ Participants tend to associate...
  - ▶ “Charles” and “Catherine” with: *able, brainy, knowledgeable, perceptive, and resourceful*
  - ▶ “Carlos” and “Juanita” with: *dense, dull, gullible, ignorant, and inept* (Weyant 2005)
- ▶ Speakers with Spanish accents: judged less competent
  - ▶ esp. when speaker is a woman, or listener is a man (Nelson et al. 2016)
- ▶ (Even Mexican American students say “illegal immigration” contributes to the “decline of society”)  
(San Miguel et al. 2011)

# What does the IAT predict?

## Rooth (2010) – field study in Sweden

- ▶ Submitted 1,500 job applications, with Swedish- vs. Arab-sounding names (otherwise identical)
- ▶ Overall, Swedish names were 3x more likely to get a callback for an interview
- ▶ 3 months later, the employers took an IAT
  - ▶ Measured implicit stereotypes about work performance
  - ▶ IAT predicted fewer callbacks

# Implicit Bias in the Classroom

- ▶ Dutch teachers: explicitly unprejudiced, but implicitly biased, toward Arab-Muslim students
- ▶ Implicit biases predicted...
  - ▶ expectations of student success, and
  - ▶ ethnic achievement gaps in their classes (van den Bergh et al. 2010)
  - ▶ Similar results in two large studies in Italy (Alesina, Carlana et al.)
- ▶ Texas teachers: toward black & Latinx students...
  - ▶ gap b/t teacher and student's perception of motivation
  - ▶ lower grades in math and English (Harvey et al. 2015)

# Implicit Bias in the Classroom

- ▶ White undergrads gave lessons to either black or white students (Jacoby-Senghor et al. 2016)
- ▶ Implicit race biases led these “instructors” to...
  - ▶ be visibly anxious
  - ▶ give poorer lessons
  - ▶ (even non-black learners who watched videos of these lessons learned less)

# Social actions and “microbehaviors”

Self-reported attitudes → controllable behaviors,  
e.g., how friendly our words are.

(McConnell & Leibold 2001; Dovidio et al. 2002)

Implicit biases predict tacit and subtle behaviors:

- how much eye contact we make
- how rapidly we blink
- how far away we sit
- whether we lean forward or back
- how much we laugh at a joke

# Students' Biases about Themselves: Stereotype Threat & Impostor Syndrome

- ▶ Being reminded of stereotypes about your group
- ▶ Anxiety about confirming those stereotypes
  - Reduces test performance
  - Reduces amount of practice before test (Stone 2002)
  - Reduces sense of belonging and valuing of a domain



# Cues in the Environment

What does it take to remind folks of stereotypes about their group?

Very little!

Suppose you're an impressionable student walking into your first computer-science class...







# Cues in the Classroom

(Cheryan et al. 2009, 2011; Masters et al. 2016)

“Geeky” comp-sci classrooms:

- reduce women’s interest and expected success in computer science,
- but have no effect on men.

Girls & women: up to 3x more likely to express interest in comp-sci if in the neutral room.

Environments influence our “sense of ambient belonging... or feeling of fit in an environment.”

What messages are we sending about who belongs in our offices, classrooms, syllabi, and campuses?



# Evaluations of job applications

(Uhlmann and Cohen 2005)

2 hypothetical candidates for job as chief of police

- 1 had “street” experience but little formal education
- 1 had formal education but little street experience
- 1 was a man and 1 was a woman

# Evaluations of job applications

(Uhlmann and Cohen 2005)



Street Smart



Book Smart



Book Smart



Street Smart

Participants say:  
“Street smarts are most  
important. Promote the man!”

Participants say:  
“Book smarts are most important.  
Promote the man!”



# Tools for Reform: Decision-Making Criteria

“Reverse” pro-woman bias found for hiring Chair of Women’s Studies.

If participants decided in advance whether street- or book-smarts was more important,

→ No hiring bias at all.

The lesson: settle criteria in advance!



# Tools for Reducing Bias

More than our implicit biases,  
our goals shape our behavior.



# Tool #1: The Life-Changing Magic of If-Then Plans

Concrete plans that specify the when, where, and how...

“I’d like to cut back on smoking” vs.

“If I feel a craving for cigarettes, then I will chew gum!”

“My New Year’s resolution is to work out more” vs.

“When I leave work on Tuesdays, then I will go to the gym!”

Identify the problem contexts and formulate concrete plans for how to act in those contexts.

- easy to form, easy to remember, easy to execute

# Tool #1: The Life-Changing Magic of If-Then Plans

More likely to interrupt women than men?

→ “If she’s talking, then I won’t.” (Louise Antony)

Student participation?

→ “If someone who hasn’t spoken yet raises her hand, then I’ll call on her!”

→ “If a student says something anomalous, then assume that I don’t understand (not that student doesn’t make sense)!”

# Your Homework: Brainstorm...

- ▶ What are some contexts where you might be affected by, or encounter, bias?
- ▶ What are some plans for response you can put in place?
- ▶ Plan structure:
  - ▶ If [description of context],
  - ▶ Then [I will act in a certain way]!

# Context context context

- ▶ “If a person underperforms,  
then I will consider situational causes!”
  - ▶ car trouble, family or work problems, course load, etc.
- ▶ “When we plan talks, dinners, and on-campus events,  
then we will make sure they are accessible!”

# Tool #2: Approach Mindset

Trawalter and Richeson (2006)

- ▶ Adopt an “approach-oriented” mindset to interactions.
  - ▶ Prevention-focused: “avoid appearing prejudiced in any way during the interaction.”
  - ▶ Promotion-focused: “approach the interaction as an opportunity to have an enjoyable intercultural dialogue.”
- Make intergroup contact “rewarding rather than depleting” (411).
- When I meet a new person, then I’ll tell myself it’s an opportunity to learn!

# Tool #3: Find Common Ground

(Mallet et al. 2008, West et al. 2014)

- Find similarities with outgroup members, even about trivial things: apples vs. oranges and carpet vs. hardwood



- Both rooting for the same Bachelor?
- Both hoping that the tyranny of the no-good cheating Pats will end?
- Are you both rooting for the Starks to rule Westeros?  
Both fans of *Black Mirror*? *Stranger Things*?
- Would you rather always be: 10min late or 20min early?

# Tool #4: Intergroup Cooperation

- ▶ Get people from different groups to work together toward common goal
  - ▶ Best example: desegregating US military
  - ▶ Sports teams, first-year roommates
- ▶ Constantly Consider Context: construct social environments that foster intergroup cooperation
- ▶ Brainstorm: how to do this at your own institutions?
- ▶ Maybe: coordinate different student organizations in an event, form teams of people from different groups

# Tool #5: The Power of Perspective

- ▶ Transformative narratives (Vezzali et al. 2014)
  - ▶ Harry Potter reduces bias!
  - ▶ Children, high school, and even college students
  - ▶ Increases capacity to take others' perspective
- ▶ If someone acts in a way I don't understand, then I will try to imagine their perspective!



# Tool #6: Success, Setbacks, & Motivation

- ▶ When we put new interventions in place,
- ▶ we tend to lose motivation to keep pushing (effectively thinking, “ok, my work here is done”).
  - ▶ This is true even if the intervention has no effect!
  - ▶ Collect data—formally and informally—to see if these tools work for you!
- ▶ Treat effective interventions as evidence that we can make progress if we keep trying, not that we have met all our goals.
- ▶ “When we make progress, then we will remind ourselves how far we have to go!”
- ▶ “When there are setbacks, then we will keep fighting!”

# Thanks to you, Nele, and the Student Success Analytics Team!

Email me for more slides and references, any questions and comments!

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More info and links at my website:

[alexmadva.com](http://alexmadva.com)

See also: [Reducing Stereotype Threat](#), [Project Implicit](#), [Active Bystander Strategies](#)