Inclusive Leadership, Prejudice, and the Brain: Harnessing the Universal in Social Cognition

Susan T. Fiske
Department of Psychology
Princeton University
Only 2 Kinds of People

- Friend or foe?
  - With us or against?
  - Part of the problem or the solution
  - Warm, friendly, trustworthy, sincere
OK, Maybe 4 Kinds of People

- Friend or foe?
  - Warm, friendly, trustworthy, sincere

- Able or unable?
  - Competent, able, skillful, capable

- Warmth x competence → 4 clusters
Welcome to my seminar on dealing with difficult coworkers.

Difficult coworkers generally fall into one of these groups.

Lazy, Mean, Smart, Crazy

The only way to deal with them is to quit your job and become psychological researchers.

Thanks for coming.
SCM Prejudices

- Come in distinct types
- From society & stereotypes in mind
- Universal across culture
- Happen for individuals
- In distinct regions of brain
- Predict distinct patterns of discrimination
Distinct Types

- Friend or foe? = Warmth
- Able or unable? = Competence
- Stereotype Content Model (SCM)
  - Warmth x competence
### Stereotype Content Model


<table>
<thead>
<tr>
<th></th>
<th>Lo Competence</th>
<th>Hi Competence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hi Warmth</strong></td>
<td></td>
<td><strong>Pure favoritism</strong></td>
</tr>
<tr>
<td><strong>Lo Warmth</strong></td>
<td><strong>Pure antipathy</strong></td>
<td></td>
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## Stereotype Content Model


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<td>poor, welfare, homeless</td>
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<td>poor, welfare, homeless Disgust</td>
<td>Jews, Asians, rich, professionals Envy</td>
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SCM Studies

- [American] society’s opinions of groups
- Common groups nominated
- Rate on
  - Warmth (warm, friendly, sincere)
  - Competence (competent, skillful, capable)
  - Social structure
  - Emotions
  - Behavior
SCM: US Representative Sample
(Cuddy, Fiske, & Glick, *JPSP*, 2007)
Prejudices

- Come in distinct *types*
- From society & stereotypes in *mind*
- Universal across *culture*
- Happen for *individuals*
- In distinct regions of *brain*
- Predict distinct patterns of *discrimination*
Prejudices

- Come in distinct types
- From ideas of society & stereotypes in mind
  - Status → competence
  - Competition → (low) warmth
- Universal across culture
- Happen for individuals
- In distinct regions of brain
- Predict distinct patterns of discrimination
Social Context → Group Stereotype

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Competence</th>
<th>Warmth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>0.77 (0.55 to 0.87)</td>
<td>0.12</td>
</tr>
<tr>
<td>Competition</td>
<td></td>
<td></td>
</tr>
</tbody>
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<td>Status</td>
<td><strong>.77</strong> (.55 to .87)</td>
<td>.12</td>
</tr>
<tr>
<td>Competition</td>
<td>.05</td>
<td>-.25 (.08 to -.48)</td>
</tr>
</tbody>
</table>

From US, EU, Latino, & Asian samples
### Social Context → Group Stereotype

(Caprariello, Cuddy, & Fiske, *GPIR*, 2009)

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<tr>
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<td>High</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>Low</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>High</td>
<td></td>
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(Caprariello, Cuddy, & Fiske, GPIR, 2009)

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<th>Competence</th>
<th>Warmth</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>High</td>
<td>4.58</td>
<td>3.47</td>
</tr>
<tr>
<td>High</td>
<td>Low</td>
<td>4.83</td>
<td>4.13</td>
</tr>
<tr>
<td>Low</td>
<td>High</td>
<td>2.80</td>
<td>3.35</td>
</tr>
<tr>
<td>Low</td>
<td>Low</td>
<td>3.21</td>
<td>3.84</td>
</tr>
</tbody>
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Prejudices

- Come in distinct *types*
- From ideas of society & stereotypes in *mind*
  - Status → competence
  - Competition → (low) warmth
- Universal across *culture*
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Prejudices

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German Data (Eckes, 2002)
American Students: 1932-2007
(Bergsiecker, Leslie, Constantine, & Fiske, under review)
## Italian Fascists
*(Durante, Volpato, & Fiske, *EJSP*, 2009)*

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<tbody>
<tr>
<td>Hi Warmth</td>
<td></td>
<td>Italians, Aryans</td>
</tr>
<tr>
<td>Lo Warmth</td>
<td>Blacks, Half castes</td>
<td>Jews, English</td>
</tr>
</tbody>
</table>
SCM: Universal or Culture-Bound?
(Cuddy, Fiske, Kwan, Glick, et al., BJSP, 2009)

- Warmth x competence map
  - Collective warmth (harmony) > (individual) competence?

- Many groups mixed
  - Result of multi-cultural, egalitarian values?
  - Unnecessary in homogeneous, hierarchical cultures?

- Ingroup favoritism → outgroup derogation
  - No ingroup love prejudice → ???
SCM: Japanese data (Cuddy et al., 2009)
SCM: Hong Kong data
(Cuddy et al., 2009)
SCM: South Korean data (Cuddy et al., 2009)
### Ingroup Favoritism


<table>
<thead>
<tr>
<th>Sample</th>
<th>Positivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western (2 U.S., Belgium)</td>
<td>.29 - .49</td>
</tr>
<tr>
<td>Asian (Japan, Hong Kong, S. Korea)</td>
<td>.02 - .18</td>
</tr>
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</table>

Positivity averages across warmth & competence, which show same patterns.
Prejudices

- Come in distinct types
- From ideas of society & stereotypes in mind
- Universal across culture
  - But outgroup prejudices without ingroup favoritism
- Happen for individuals
- In distinct regions of brain
- Predict distinct patterns of discrimination
Prejudices

- Come in distinct types
- From society & stereotypes in mind
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- Happen for individuals
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Intergroup Perception $\rightarrow$ Person Perception
(Russell & Fiske, *EJSP*, 2008)

- Individual competition & status $\rightarrow$
  individual warmth & competence
Methods

- **Participants:** Princeton Undergrads (n=46)
- **Cover:** National Impression Formation Study on how synthesize info from different sources
  - Interact & form impression of another student
  - Background (status)
  - “Subliminal” info
  - Game (competition)
  - Rate warmth & competence
- 2 (status) x 2 (competition)
Competition → Perceived Warmth

(Russell & Fiske, *EJSP*, 2008)
Status $\rightarrow$ Perceived Competence

(Russell & Fiske, *EJSP*, 2008)
Status $\rightarrow$ Competence on Intelligence Index (SAT, GPA)
Prejudices

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Prejudices

- Come in distinct types
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Female Subtypes (Eckes, 2002)
Hypotheses

(Cikara, Eberhardt, & Fiske, under review)

For heterosexual men, sexualized women have instrumental value, so they will:

- Recognize bodies of sexualized women
  - Not faces
- Activate neural tool-use network
  - Correlated with recognition
- Deactivate social cognition network
  - Correlated with hostile sexism
Participants & Design (Cikara et al.)

- 21 heterosexual male students

Independent variables:
- 2 (bikini/clothed) X 2 (female/male target)

Dependent variables:
- BOLD response
- Surprise face & body recognition
- Hostile Sexism (Glick & Fiske, 1996)
Sample Stimuli (Cikara et al.)
Recognition Test: Bodies

Gender (1, 20) = 17.78, p < .001, η² = .47;
Clothing (1, 20) = 11.33, p < .005, η² = .36
Left thalamus/pulvinar nucleus correlates with $d'$ for sexualized female bodies: $r(19) = .42, p < .05$
First v. Third Person Verb IAT

First Person Verbs
- use
- push
- pull
- squeeze
- turn
- fold
- grasp

Third Person Verbs
- uses
- pushes
- pulls
- squeezes
- tums
- folds
- grasps
Female Participants

IAT Results

Male Participants grasp grasps grasp

1st-Sexual
3rd-Clothed

3rd-Sexual
1st-Clothed

1st-Sexual
3rd-Clothed

3rd-Sexual
1st-Clothed

RT (ms)

1,000

900

800

700

600

\( t(15) = -2.22, p < .05, \eta^2_p = .25 \)
Hostile Sexism & Whole Brain: Deactivation of Social Cognition Network

William's test $t(19) = 2.9, p < .005$, one-tailed

Mitchell, 2008
HS Correlation within mPFC

mPFC
BA 10
33 voxels

Parameter Estimate

HS & = .38
HS & = -.59

r(19) = -.59, p = .01
Sexualized Female Bodies

(Cikara et al., under review)

- Remembered best
- Correlated with thalamus activation
  - ~ Motor-memory relationship
- Associated with first-person actions
- Sexism de-activates mPFC
  - Social cognition network
- Possible neural signatures for unique prejudices
Prejudices

- Come in distinct types
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- Happen for individuals
- In distinct regions of brain
  - But depends on social goals
- Predict distinct patterns of discrimination
Prejudices

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SCM: US Representative Sample
(Cuddy et al., JPSP, 2007)

[Graph showing the relationship between competence and warmth, with various groups plotted along the axes.]

- **PITY**
  - Exclude, demean
  - Competence: Low, Warmth: High

- **DISGUST**
  - Attack, fight
  - Competence: Low, Warmth: Low

- **PRIDE**
  - Help, protect
  - Competence: High, Warmth: High

- **ENVI**
  - Cooperate, associate
  - Competence: High, Warmth: Low
Predicting Discrimination: US Survey (Cuddy et al., *JPSP*, 2007)
Overall Stereotype Content Model

Social Structure (Competition, Status) → Stereotypes (Warmth, Competence) → Emotions (Disgust, Pity, Envy, Pride) → Behavior (Active, Passive, Help & Harm)
Implications

- Not all biases are equivalent
  - Most stereotypes are ambivalent
  - Most prejudices create mixed emotions
  - Most discrimination includes both help & harm

- People don’t know this
  - Automatic = unconscious
  - Ambiguous = hard to detect
  - Ambivalent = mixed

- Monitor overall patterns
U.S. Collaborators

- Tiane Lee, Ann Marie Russell, Mina Cikara, Hilary Bergsiecker, Princeton University
- Lasana Harris, New York University
- Amy Cuddy, Harvard Business School
- Cara Talaska, Eastern Michigan University
- Peter Caprariello, University of Rochester
- Virginia Kwan, Alex Todorov, Princeton University
- Peter Glick, Lawrence University
- Jennifer Eberhardt, Stanford University
- Shelly Chaiken, Berkeley CA
International Collaborators

- Britain: J. Oldmeadow
- Belgium: S. Demoulin, J-Ph. Leyens, V. Yzerbyt
- Bulgaria: K. Petkova & V. Todorov
- China: V. Kwan & M. Bond
- Costa Rica: V. Smith-Castro & R. Perez
- France: J-C. Croizet
- Germany: R. Ziegler
- Israel: N. Rouhana
- Italy: F. Durante, D. Capozza, C. Volpato
- Japan: M. Yamamoto & T. T. Htun
- Korea: H-J. Kim
- Netherlands: E. Sleebos & N. Ellemers
- Norway: J. Perry
- Portugal: J. Vala
- South Africa: A. Akande
- Spain: R. Rodriguez Bailon, E. Morales, & M. Moya
- Wales: G. Maio
Thank you