Measuring Subtle Bias: Ambivalent Stereotypes

Susan T. Fiske
Psychology & Public Affairs
Princeton University
Subtle Stereotype Content: Beyond Valence

• Friend or foe? = Warm intent
• Able or unable? = Competent to enact intent
• Warmth x competence space

Multiple Methods
• Surveys’ correlational data
• Experiments, online & lab
• Cross-national patterns re inequality (conflict)
• (Neural signatures)
• Spontaneous natural language
U.S. Data: Online Sample
(Kervyn, Fiske, & Yzerbyt, Soc Psych, 2015)
Stereotype Content

Correlational Methods
Correlational Method

- Phase I: Nominate society’s groups
  - ~30 adults
  - [Translated and back translated]
  - Common groups (>15%)
- Phase 2: Rate (16-30) groups
  - 60-100 adults
  - In society’s view:
    - Warmth, competence
    - Competition, status
    - Emotions, behaviors
- Group is unit of analysis
  - Psychometrics: factors, reliability
  - Plot means in warmth x competence space
  - Cluster analysis
Generalization?
US Representative Sample
(Cuddy, Fiske, & Glick, *JPSP*, 2007)
Generalization over Levels?
U.S. Immigrant Subtypes
(Lee & Fiske, IJIR, 2006)
“Universal” Warmth & Competence? Generalizes:

- **US samples**
  - Convenience (Fiske et al., *JPSP*, 2002)
  - Online mTurk (Kervyn et al., *SP*, 2015)
  - Representative (Cuddy et al., *JPSP*, 2007)

- **Over place**
  - Each country’s own groups on 5 continents
    (Cuddy et al., *BJSP*, 2009; Durante et al., *BJSP*, 2013; Durante et al., *PNAS*, 2017)

- **Over time**
  - Italian Fascists (Durante, Volpato, & Fiske, *EJSP*, 2010)
  - American students since Katz & Braly, 1933 (Bergsieker, Leslie, Constantine, & Fiske, *JPSP*, 2012)

- **Over levels: Subtypes of**
  - Lesbians (Brambilla et al., *SP*, 2011)
  - Immigrants (Lee & Fiske, *IJIR*, 2006)
  - African Americans (Fiske, Bergsieker, Russell, & Williams, *DuBois Review*, 2009)
  - Native Americans (Burkely, Andrade, Durante, & Fiske, *CDEMP*, 2017)
  - Muslims (Saud & Fiske, in prep)

- **Over species**
  - Animals (Sevillano & Fiske, *JASP*, 2016)
  - Corporations (Kervyn, Fiske, & Malone, *JCP*, 2012)
Over-humanizing? Animal Collectives
(Sevillano & Fiske, JASP, 2016)
Brands as Intentional Agents
(Kervyn, Fiske, & Malone, *JCP*, 2012)
Structure ➔ Stereotype Content

Correlational & Experimental Methods
Overall Causal Model

Social Structure (Competition, Status) → Images (Warmth, Competence) → Emotions (Disgust, Pity, Envy, Pride) → Behavior (Active, Passive, Help & Harm)
Structure–Stereotype Correlations  
(Kervyn, Fiske, & Yzerbyt, SP, 2015)

Averaged across 25 nations (36 samples; Durante et al.)

- Status-Competence $r = .90$
- Competition-Warmth $r = -.32$
  - Measured competition over resources only  
  - --> symbolic competition over values  
  - Measured warmth variously  
  - friendly, sociable  
  - --> trustworthy, moral
- New Competition-Warmth regressions  
  - Old $b = - .30$  
  - New $b = - 1.11$
Structure $\rightarrow$ Stereotypes

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

Support for A.
Fiske, Xu, Cuddy, & Glick (1999)
- correlational data
Fiske et al. (2002)
- correlational data
Eckes (2002)
- correlational data
Cuddy et al. (2009)
- cross-cultural correlational data

Support for B.
Fiske et al. (2002)
- correlational data
Cuddy et al. (2007)
- correlational data
- experimental data

Support for C.
Cuddy et al. (2007)
- correlational data
- experimental data

Societal Structure $\rightarrow$ Stereotypes $\rightarrow$ Prejudice $\rightarrow$ Discrimination

This causal link remains untested.
Structure → Stereotypes

IVs
• Status
• Cooperation/Competition

DVs
• Competence
• Warmth

Due to political and economic circumstances, demographers predict waves of immigration in the next few years from an ethnic group outside our borders called Wallonians. In their home country, members of this group typically have prestigious jobs, and are well educated and economically successful [low-status jobs, and are uneducated and economically unsuccessful]. However, they also take power and resources from [share power and resources with] members of other groups. When members of this ethnic group arrive here, to what extent will people here be likely to view incoming group members in the following ways?
Table 1. Mean competence and warmth ratings by condition

<table>
<thead>
<tr>
<th>Status</th>
<th>Competition</th>
<th>Competence</th>
<th>Warmth</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>High</td>
<td>4.58 (1.39)</td>
<td>3.47 (1.26)</td>
</tr>
<tr>
<td>High</td>
<td>Low</td>
<td>4.83 (1.35)</td>
<td>4.13 (1.44)</td>
</tr>
<tr>
<td>Low</td>
<td>High</td>
<td>2.80 (1.03)</td>
<td>3.35 (0.95)</td>
</tr>
<tr>
<td>Low</td>
<td>Low</td>
<td>3.21 (1.21)</td>
<td>3.84 (1.20)</td>
</tr>
</tbody>
</table>

*Note: Bolded means significantly differ from other column means at $p < .05$. Standard deviations are in parentheses.*
Going Micro:
Structure → Stereotypes
(Russell & Fiske, EJSP, 2008)

• Princeton students in lab
• IVs
  – Cooperation/competition
    (Team Game/Winner Takes All)
  – Status
    (SES in Study 1; Roles in Study 2)
• Play
  – Study 1 “partner”: tit for tat
  – Study 2 live partner
• DVs
  – Expected traits (Study 1)
  – Perceived traits (Study 2)
• Cooperation → warmth
• Status → competence
Going Macro:
Structure → Stereotypes
(Durante et al., BJSP, 2013)

N=37 national samples
• **Average Warmth-Competence** $r = .40$
  • Some ambivalence
  • Range -.19 to .91
  • What explains this?
• **Ambivalence correlates with inequality**
  • W-C $r$ correlates with Gini, $r = -.34$

French Swiss:
hi equality, lo ambivalence

South Africa:
hi inequality, hi ambivalence
Structural Inequality Predicts Stereotype Ambivalence
(Durante et al., BJSP, 2013)

$N = 37; \quad r (35) = -.34, \quad p < .05$
Structure → Stereotypes

• SCM’s structural predictors
  • Status predicts competence, $r = .90$
  • Competition predicts less warmth, $r = -.32$ [∼.70]
• Gini correlates with competition-warmth, $r = .48$
  • *More equality: Competitive groups aren’t warm*
• Gini correlates with an unpredicted link
  • Competition-competence, $r = .26$
  • Gini with that, $r = .49$, p<.01
  • *More equality: Competition is not competence*
• W-C ambivalence $r$ correlates with $n$ of groups in
  • HW-LC ($r = -.48$, p<.01), pity
  • Not LW-HC (.09,ns), envy
  • *So equality moves pitied groups into the ingroup*
Updated Inequality Data

$r = -.33$, $p<.029$

$n = 43$
Convergence?
Big Two Dimensions in Social Cognition

• Asch, 1946
• Bales, 1950
• Foa, 1961
• Bakan, 1966
• Rosenberg, Nelson, & Vivekananthan, 1968
• Zanna & Hamilton, 1972
• Abelson, Kinder, Fiske, & Peters, 1982
• Peeters, 1993, 2002
• Vonk, 1996, 1999
• Phalet & Poppe, 1997
• Fiske, 1998
• Alexander, Brewer, & Hermann, 1999
• Abele, 2003; Abele et al., 2016
• Judd, James-Hawkins, Yzerbyt, & Kashima, 2005

• Adversarial Synthesis
• Abele, Ellemers, Fiske, Koch, & Yzerbyt
• Shared Horizontal & Vertical Evaluative Dimensions
  • H = Communion, Warmth
    – Sociality
    – Morality
  • V = Agency, Competence
    – Ability
    – Assertiveness
Challenges to SCM

• Maybe not 2 dimensions
  – What about morality?
  – What about beliefs? Politics? Religion?
  – Maybe just one = evaluation? Similarity?

• SCM selected dimensions
  – From literature & theory
  – Functional approach: “Thinking is for doing”
  – Not spontaneous
Data-driven Free Response
(Nicolas, Bai, & Fiske, in prep)

• Spontaneous generation studies (1-3)
  – Present groups one at a time
  – Ask for free responses (e.g., characteristics)
  – Use natural language analyses for content
  – Response order, timing

• Information-seeking studies (1-2)
  – Describe context, new, unknown group
  – Arriving in neighborhood or nation
  – Moving to their neighborhood or nation
Spontaneous Generation Studies 1-3

- S1-3: N = 392, 242, 400, online adults
- Groups (from lit)
  - S1: 87 groups, each P saw all
    - 3 responses per group
    - Code own response
  - S2: 87 groups, each P saw 30
    - 2 responses per group, 2 blocks (PxG)
    - Fast responses requested, recorded RT
  - S3: 43 groups, each participant saw 6
    - 6 responses per group
    - Order
    - Warmth and competence scales
    - Ingroup identity
Study 1

Please list 3 characteristics that you spontaneously think about the following type of person (please use single words if possible, and not more than two per box)

People who are [.....]

<table>
<thead>
<tr>
<th>Mentally Handicapped</th>
<th>Middle-class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elderly</td>
<td>Rich</td>
</tr>
<tr>
<td>Blind</td>
<td>Lawyers</td>
</tr>
<tr>
<td>Disabled</td>
<td>CEOs</td>
</tr>
<tr>
<td>Unemployed</td>
<td>Politicians</td>
</tr>
<tr>
<td>Farmers</td>
<td>Vegan</td>
</tr>
<tr>
<td>Stutterers</td>
<td>Ivy-leaguers</td>
</tr>
<tr>
<td>Drug addicts</td>
<td>Republican</td>
</tr>
<tr>
<td>Homeless</td>
<td>German</td>
</tr>
<tr>
<td>Welfare recipients</td>
<td>Home-schooled</td>
</tr>
<tr>
<td>Undocumented immigrants</td>
<td>Nerds</td>
</tr>
<tr>
<td>Prostitutes</td>
<td>Hackers</td>
</tr>
<tr>
<td>Criminals</td>
<td>Engineers</td>
</tr>
<tr>
<td>Obese</td>
<td>Scientists</td>
</tr>
<tr>
<td>Christian</td>
<td>Accountants</td>
</tr>
<tr>
<td>White</td>
<td>Investors</td>
</tr>
<tr>
<td>American</td>
<td>Bankers</td>
</tr>
<tr>
<td>Asian</td>
<td>Middle-eastern</td>
</tr>
<tr>
<td>Gay</td>
<td>Black</td>
</tr>
<tr>
<td>Teachers</td>
<td>Hispanic</td>
</tr>
<tr>
<td>Nurses</td>
<td>Crossdresses</td>
</tr>
</tbody>
</table>

Which of the following characteristics fits best what you meant by [...]

- Traditional/Conservative
- Progressive/Liberal
- Confident/Assertive
- Not confident/Not assertive
- Competent/Skilled
- Incompetent/Unskilled
- Wealthy/High-status
- Poor/Low-status
- Friendly/Sociable
- Unfriendly/Unsociable
- Trustworthy/Honest
- Untrustworthy/Dishonest
- NONE OF THE ABOVE
Responses Captured by Dictionaries

• After preprocessing
  – Cleaning
  – Spell check
  – Lemmatization

• Self-coding agrees with dictionary topics

• 13 Dictionaries account for
  – 87-88% of total responses
  – 57-66% of unique responses
### Studies 1-3: Counts on Main Topics

<table>
<thead>
<tr>
<th>Studies 1-3:</th>
<th>Out of 3 responses</th>
<th>Out of 2 responses</th>
<th>Out of 6 responses</th>
<th>Mean %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability</td>
<td>.50</td>
<td>.35</td>
<td>.92</td>
<td></td>
</tr>
<tr>
<td>Agency</td>
<td>.45</td>
<td>.37</td>
<td>.90</td>
<td></td>
</tr>
<tr>
<td><strong>Competence</strong></td>
<td><strong>.94</strong></td>
<td><strong>.62</strong></td>
<td><strong>1.82</strong></td>
<td><strong>31%</strong></td>
</tr>
<tr>
<td>Morality</td>
<td>.50</td>
<td>.33</td>
<td>1.16</td>
<td></td>
</tr>
<tr>
<td>Sociability</td>
<td>.45</td>
<td>.23</td>
<td>.92</td>
<td></td>
</tr>
<tr>
<td><strong>Warmth</strong></td>
<td><strong>.86</strong></td>
<td><strong>.50</strong></td>
<td><strong>1.86</strong></td>
<td><strong>28%</strong></td>
</tr>
<tr>
<td>Beliefs</td>
<td>.21</td>
<td>.15</td>
<td>.26</td>
<td></td>
</tr>
<tr>
<td>Politics</td>
<td>.15</td>
<td>.09</td>
<td>.18</td>
<td></td>
</tr>
<tr>
<td>Religion</td>
<td>.06</td>
<td>.06</td>
<td>.08</td>
<td></td>
</tr>
<tr>
<td>Status</td>
<td>.29</td>
<td>.23</td>
<td>.55</td>
<td></td>
</tr>
</tbody>
</table>
Teaser: Information Seeking Studies

• Which dimensions when?
  – Neighborhood/nation
  – Psychology/sociology

• Warmth (Sociability, Morality) always among top
  – Especially in SCM/Personal: x 3 studies
  – Relatively, in Distant: Beliefs x 3, Competence x 2
Stereotype Content: Beyond Valence

• Warmth x competence space
• Structure → Stereotypes
  (→ Prejudice → Discrimination)

Multiple Methods
• Surveys’ correlational data
• Generalization over place, time, levels
• Experiments, online & lab
• Cross-national patterns re inequality (conflict)
• (Neural signatures)
• Spontaneous natural language
Thank you!

**The Fiske Lab**
People making sense of people: Intergroup relations, social cognition, and social neuroscience