Implicit versus explicit social attitudes in diversity research and training: Are we as unbiased as we think?

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Presented by:
Sequana Tolon, Adena Young-Jones, and Donald Fischer
Outline of Presentation

I. Introduction of Implicit versus Explicit Attitudes
II. Attitude Activity
III. IAT Demonstration
IV. IAT Research
   I. Procedure
   II. Hypothesis
   III. Results
   IV. Implications and practical utility
Implicit versus Explicit Attitudes
Implicit versus Explicit Attitudes

- Research shows that people do not realize the extent of their own prejudices because they are so well-learned and operate outside our awareness.
Implicit versus Explicit Attitudes

• “Bogus Pipeline” versus Questionnaires
  • Sigall and Page (1971)
Implicit versus Explicit Attitudes

• “Bogus Pipeline” versus Questionnaires
  • Sigall and Page (1971)
 Implicit versus Explicit Attitudes

• Both implicit and explicit tests have value (Wittenbrink, Judd, & Park, 1997)
  – Implicit stereotypes compared to explicit reports
    • Explicit tests were related to implicit measures
Implicit Attitude Activity
Examples of IAT test topics:

- Gender
- Religion
- Native American
- Arab-Muslim
- Skin-tone
- Weapons
- Disability
- Race
- Gay-Straight
- Age (young-old)
- Presidents
- Asian-European
Implicit Association Test (IAT)

• Implicit Association Test (IAT; Greenwald & Banaji, 1995)
  • Tool which measures underlying attitudes and stereotypes in an indirect and automatic manner
Implicit Association Test (IAT) Demonstration

https://implicit.harvard.edu/implicit/selectatest.html
Background of the Research Study

Inspiration for research

- Rudman, Ashmore, and Gary (2001)
  - Explicit Racial Prejudice
  - Motivation to Control Prejudiced Reactions Scale
  - IAT-Preference
  - IAT-Stereotype

The present study attempts to replicate and extend the findings of Rudman et al. (2001).
Hypotheses

• **Hypothesis 1:** Students’ implicit and explicit racial attitudes will change over time (pre-post differences).

• **Hypothesis 2:** The changes in racial attitudes will be more evident in the pre-post change for the explicit measures among students in the diversity course than for students in the adjustment course.

• **Hypothesis 3:** The changes in racial attitudes will be more evident in the pre-post change for the implicit measures among students in the adjustment course than for students in the diversity course.
Demographics

Participants

• Participants \((N = 86)\)
  – Only 44 were used
• 10% Minority
Procedure & Measures

• The assessments took place approximately mid semester

• Assessment Measures
  – Explicit Racial Prejudice
  – Motivation to Control Prejudiced Reactions Scale
  – IAT-Preference
  – IAT-Stereotype

• Students were provided immediate feedback regarding their scores
Table 1. Concept Labels (in italics) and Word Stimuli for the Implicit Association Tests

<table>
<thead>
<tr>
<th>Race</th>
<th>Evaluation</th>
<th>Stereotype</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Black 6 faces</td>
<td>• Positive joy glorious wonderful love happy laughter pleasure peace</td>
<td>• Negative terrible nasty evil hurt horrible failure awful agony</td>
</tr>
<tr>
<td>• White 6 faces</td>
<td>• Mental Strength math educated scientist smart college read</td>
<td>• Physical Ability athletic run boxing dance jump rhythmic</td>
</tr>
</tbody>
</table>
Intervention Concept

Pre-test Assessment

- Diversity Course
- Adjustment Course

Time elapse

Post-test Assessment

- Diversity Course
- Adjustment Course

Time elapse
Results

• Descriptive statistics

• Zero-order correlations
Table 2. Descriptive Statistics for Study Variables.

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pretest Measures</strong>¹</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation to Control</td>
<td>86</td>
<td>4.42</td>
<td>.79</td>
<td>.83</td>
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<tr>
<td>Racial Prejudice</td>
<td>86</td>
<td>2.28</td>
<td>.60</td>
<td>.84</td>
</tr>
<tr>
<td>IAT-Preference²</td>
<td>85</td>
<td>-4.74</td>
<td>.47</td>
<td>.67</td>
</tr>
<tr>
<td>IAT-Stereotype³</td>
<td>85</td>
<td>-1.56</td>
<td>.42</td>
<td>.72</td>
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<tr>
<td><strong>Posttest Measures</strong>¹</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation to Control</td>
<td>73</td>
<td>4.67</td>
<td>.78</td>
<td>.86</td>
</tr>
<tr>
<td>Racial Prejudice</td>
<td>73</td>
<td>2.12</td>
<td>.59</td>
<td>.86</td>
</tr>
<tr>
<td>IAT-Preference²</td>
<td>71</td>
<td>-5.78</td>
<td>.39</td>
<td>.70</td>
</tr>
<tr>
<td>IAT-Stereotype³</td>
<td>57</td>
<td>-1.96</td>
<td>.44</td>
<td>.80</td>
</tr>
</tbody>
</table>

¹ All implicit measures are IAT effects expressed as D measures (Greenwald et al., 2003).
² Larger negative values indicate a stronger association of Black+negative (and White+positive).
³ Larger negative values indicate a stronger association of Black+physical (and White+mental).
## Correlations

Table 3. Zero-order Correlations for Study Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pretest Measures</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Motivation to Control</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Racial Prejudice</td>
<td>-.53**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. IAT-Preference</td>
<td>-.15</td>
<td>-.15</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. IAT-Stereotype</td>
<td>-.19</td>
<td>-.05</td>
<td>.63**</td>
<td>-</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Posttest Measures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Motivation to Control</td>
<td>.69**</td>
<td>-.37*</td>
<td>-.04</td>
<td>-.15</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>6. Racial Prejudice</td>
<td>-.51**</td>
<td>.70**</td>
<td>-.11</td>
<td>-.07</td>
<td>-.42**</td>
<td>-</td>
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<td></td>
</tr>
<tr>
<td>7. IAT-Preference</td>
<td>-.07</td>
<td>-.14</td>
<td>.66**</td>
<td>.72**</td>
<td>-08</td>
<td>-.22</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>8. IAT-Stereotype</td>
<td>-.11</td>
<td>-.07</td>
<td>.39**</td>
<td>.39**</td>
<td>-.02</td>
<td>-.30*</td>
<td>.57**</td>
<td>-</td>
</tr>
</tbody>
</table>

*p < .05; **p < .01

N = 44 (all non-Black students with complete data)
Results (cont.)

• Univariate analyses of the four dependent measures produced significant within-subject main effects for pre-posttest differences on:

- The Motivation to Control measure \((F(1, 41) = 5.75, p < .05, \text{partial eta-squared} = .12)\)

- Racial Preference IAT \((F(1, 41) = 10.69, p < .01, \text{partial eta-square} = .21)\).
### Group Means for Study Variables

**Spring 2012**

<table>
<thead>
<tr>
<th>Course-Sec1</th>
<th>N2</th>
<th>RP3</th>
<th>MC3</th>
<th>IAT-P3</th>
<th>IAT-S3</th>
<th>RP4</th>
<th>MC4</th>
<th>IAT-P4</th>
<th>IAT-S4</th>
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<tr>
<td>PSY101-1</td>
<td>15</td>
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<td>4.34</td>
<td>-.536</td>
<td>-.052</td>
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<td>–</td>
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<td>PSY101-2</td>
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<td>PSY411-1</td>
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<td>-.447</td>
<td>-.182</td>
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<td>4.85</td>
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<td>-.180</td>
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<tr>
<td>PSY411-2</td>
<td>6</td>
<td>2.08</td>
<td>4.14</td>
<td>-.083</td>
<td>.182</td>
<td>2.08</td>
<td>4.33</td>
<td>-.231</td>
<td>.153</td>
</tr>
</tbody>
</table>

1 PSY101 = adjustment course; PSY411 = diversity course

2 Non-Black students with complete data

3 Pretest measures

4 Posttest measures
Discussion

A lack of sufficient research on the development and use of baseline measures exists.

– What are the benefits and drawbacks of using IATs as an evaluation of attitudinal interventions?
Practical Implications

Impact of implicit versus explicit measures:
- Education
- Business
- Personal Development
Take-Home Messages

• Implicit attitudes are not always congruent with explicit attitudes.
• Implicit attitudes are less likely to be impacted by efforts to impression management when compared to explicit attitudes.
• Implicit Attitude assessments provide an opportunity for awareness building and personal development.
Questions and Answers
THANKS FOR YOUR TIME.

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