Our Minds as Icebergs:

Understanding the Effects of Implicit Bias in Everyday Decisions

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Wanting to be Right, But Getting it Wrong

• The case of Amadou Diallo.

• Vividly highlights the interplay between automatic and controlled thinking.
What Went Wrong?

• Short time horizons.

• Insufficient and hazy information.

• But most importantly: implicit cognition.
  • All this transpired despite rigorous training.
Implicit Cognition: A Mental “Iceberg”

• A form of thinking that directs attitudes, beliefs, knowledge, stereotypes that are:
  
  • Automatically triggered
  
  • Hard to control
  
  • Non-verbalized
  
  • Can influence us without our awareness
# The Brain’s Architecture

<table>
<thead>
<tr>
<th>Implicit Cognition (track 1)</th>
<th>Explicit Cognition (track 2)</th>
</tr>
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<tbody>
<tr>
<td>• Rapid and involuntary</td>
<td>• Controlled and deliberative</td>
</tr>
<tr>
<td>• Rudimentary and highly affective</td>
<td>• More refined</td>
</tr>
<tr>
<td>• Effortless and unconscious</td>
<td>• Effortful and secondary</td>
</tr>
<tr>
<td>• In terms of content, source, and impact</td>
<td>• Within introspective reach</td>
</tr>
<tr>
<td>• Primary</td>
<td>• “I know I am doing it.”</td>
</tr>
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</table>
Manifestations of Implicit Cognition

• Attitudes toward groups (e.g., ethnic, racial, gender, body weight, disability, etc.)

• Preferences (e.g., political candidates, consumer products)

• Stereotypes and knowledge (e.g., African Americans and weapons)

  • Let’s all take one together. Follow me by tapping your hands on your lap:

  • https://implicit.harvard.edu/implicit/
The Logic of the Implicit Association Test (IAT)

<table>
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<tr>
<th>Degrees of Object-Evaluation</th>
<th>Other Measures Available</th>
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<tbody>
<tr>
<td>• Link between a category and how we judge it.</td>
<td>• Affect Misattribution Procedure (AMP)</td>
</tr>
<tr>
<td>• For example, Latino-Bad.</td>
<td>• Affective Priming (AP)</td>
</tr>
<tr>
<td>• That association varies person to person.</td>
<td>• All tap into different components of automaticity.</td>
</tr>
<tr>
<td>• Those individual differences predict individual differences in what people say and do (e.g., Pérez 2016; Ashburn-Nardo et al. 2003; Arcuri et al. 2008).</td>
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We All Possess Implicit Attitudes

• Yes, white people hold them, but they aren’t just a “white” thing.

• Not just a phenomenon that grips individuals who are “uncouth.”

• What is more, a person’s implicit attitude is just as real as their explicit one.
Whites and non-Whites Have Them

• Learned early (5 year olds already manifest them).

• Quite stable (little change from child to adult).

• Reflects internalization of status differences between groups.


Even the “Well-to-Do” Have Them

• Physicians at two medical centers exposed to a vignette of a patient in their emergency room with acute coronary syndrome.

• Race of patient (Black or White) is randomly assigned.

• Physicians complete self-reports and IAT measuring racial attitudes.

• Physicians report no explicit bias toward White patients. IAT reveals implicit bias toward White patients. Implicit (but not explicit) bias predicts physician differences in thrombolysis recommendations to White (+) and Black (-) patients.

People’s Implicit and Explicit Attitudes are Both Real

• Generally, modest explicit/implicit attitude correlations.

• Explicit/implicit attitudes predict variance in outcomes beyond the other one.

• Implicit attitudes are better predictors in socially sensitive domains.


How Do Implicit Attitudes Matter in Decision-Making?

Track 1 and Track 2 Thinking

• Are the tracks ever jumped?

• Primacy of implicit cognition.

Two models of implicit-explicit attitudes

• John Q. Public (JQP) model
  • Roots in political psychology.

• Associative-Propositional Evaluation (APE) model
  • Roots in social psychology.
When Do Implicit Attitudes Matter (Less)?

• MODE model (Motivation and Opportunity as Determinants of Evaluation).

• Roots in social psychology.
  


• Correspondence between track 1 and track 2 depends on motivation and opportunity.
Motivation and Opportunity as Levers

<table>
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<tr>
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<th>Low Opportunity</th>
<th>High Opportunity</th>
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<td><strong>Implicit overwhelms explicit</strong></td>
<td>Weaker, but still present implicit</td>
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<td>Weaker, but still present implicit</td>
<td><strong>Explicit overwhelms implicit</strong></td>
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Implications of Implicit Attitudes for Faculty Searches


- CV of a real applicant judged by psychologists (N=238):
  - One CV for tenure-track position
  - One CV for tenured position
  - Male or female name randomly assigned to CV
Implications of Implicit Attitudes for Faculty Searches


• For tenure-track CV: psychologists more likely to hire male applicants and rate higher their teaching, research, and service.

• For tenured CV: Equally likely to tenure male/female candidates, but more likely to include cautionary notes on female CVs.
Implications of Implicit Attitudes for Faculty Searches


- Resumes sent to employers advertising open positions in Chicago and Boston.
- Randomly assign “White” and “Black” names to resumes.
- “White” applicants more likely to be called back for an interview.
Implications of Implicit Attitudes for Faculty Searches


- Audit study of 6,500 professors at top American universities from 89 disciplines and 259 institutions.

- Professors contacted by fictional prospective students wanting to discuss research opportunities before applying to a PhD program.

- Identical message with student names signaling gender and race randomly assigned.

- Faculty were more responsive to White males than other students, especially in higher-paying disciplines and private institutions.
Minimizing Implicit Attitudes in Faculty Searches

• Who are “we”?
  • Identity and the committee as ingroup (motivation)

• What is the objective(s)?
  • Partisan versus accuracy goals (motivation)

• “Slowing down” the search
  • Quality of information that is available (opportunity)
    • Blinding information
  • Depth of information processing (opportunity)
Sources Consulted

General Overviews


Sources Consulted

What Are They?


What Makes Them Implicit?


Sources Consulted

Where Do Implicit Attitudes Come From?
Sources Consulted

Classic Articles on Measuring Implicit Attitudes and Related Cognitions


Project Implicit®, https://implicit.harvard.edu/implicit/index.jsp
Sources Consulted

Relationships Between Implicit and Explicit Attitudes


Sources Consulted

Neurological Insights into Implicit Attitudes


Sources Consulted

Are Implicit Attitudes Subconscious?


Sources Consulted

**Dual-Process Models of Implicit-Explicit Cognition**


Sources Consulted

Implicit Political Attitudes


Sources Consulted

Implicit Political Attitudes (cont’d)


Implicit Political Attitudes (cont’d)


Kinder, Donald R., and Timothy J. Ryan. “Prejudice and Politics Re-Examined: The Political Significance of Implicit Racial Bias.” *Political Science Research and Methods*, 2015 (DOI: [http://dx.doi.org/10.1017/prsm.2015.49](http://dx.doi.org/10.1017/prsm.2015.49))
