

Meta-Analyses and Predicting Behavior: In Defense of Implicit Attitude Measures

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Background

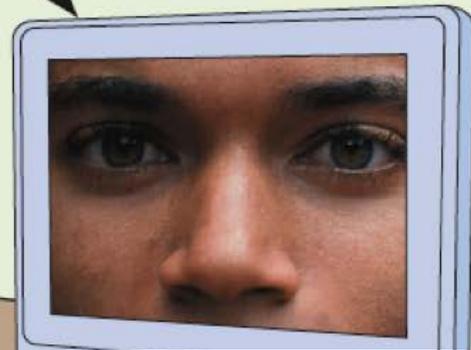
- Self-reported prejudice had declined steeply by the 1980s
- Intergroup conflict did not show corresponding decline
- By the 1990s, several indirect measures of attitudes emerged
- Most popular: the Implicit Association Test
 - A timed, computerized measure that assesses how quickly and accurately participants can group pairs of concepts

White
or
bad

Black
or
good

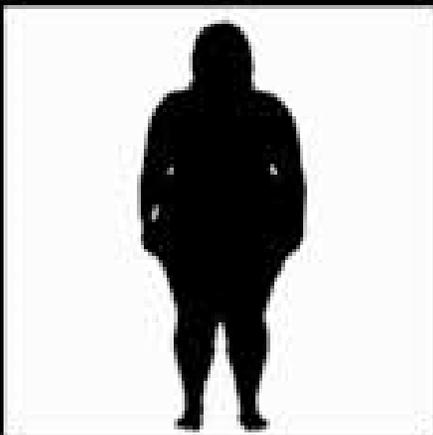
Black
or
bad

White
or
good



Thin People
or
Good

Fat People
or
Bad



Asian American
or
Foreign

European American
or
American



Recent Criticism

Psychology's Favorite Tool for Measuring Racism Isn't Up to the Job

Almost two decades after its introduction, the implicit association test has failed to deliver on its lofty promises.

By Jesse Singal

THE CHRONICLE REVIEW

Can We Really Measure Implicit Bias? Maybe Not

By Tom Bartlett | JANUARY 05, 2017



- Oswald et al. (2013): The IAT is a poor predictor of behavior
- Forscher, Lai, et al., (2017): Little evidence that changes in implicit attitudes are associated with changes in behavior
- The IAT is a “measure of attitude that is not reliable, does not predict behavior well, may not measure anything causally relevant, and does not give us access to the unconscious causes of human behavior. It would be irresponsible to put much stock in it and to build theoretical castles on such quicksand” (Machery, post on The Brains Blog)

Predicting behavior is difficult!



Acknowledging these sorts of factors is not ad hoc. They are part of the nature of "liking." The bridge between attitudes and behavior is complex.

- Homer's preference for beer predicts
 - that he'll tell you "I like beer"
 - that he'll associate beer with pleasant words on an IAT
 - that he drinks beer
- UNLESS
 - he's on a diet
 - has a stomach ache
 - is about to drive to work
 - is in the middle of a psychology lab study
 - is at a bar with more interesting drinks
- His preference for beer might not even predict a report of liking beer if
 - he's talking to Mr. Burns
 - has converted to Mormonism
 - is trying to impress a refined wine connoisseur
 - drank a gross beer yesterday

Lessons from research on reported attitudes

- Key question: not whether attitudes predict behavior, but when attitudes predict behavior
 - Example: self-reported generic attitudes toward the environment do not predict recycling behavior, but specific self-reported attitudes toward recycling do (Oskamp et al. 1991)
 - One lesson: reported attitudes predict behavior when there is correspondence between attitude object and behavior (Ajzen & Fishbein 1977)

Principled Predictions

- According to dual-process models, the predictive relations of self-reported and indirectly measured attitudes to behavior should depend on:
 - The type of behavior (e.g., spontaneous vs. deliberate)
 - The conditions under which the behavior is performed (e.g., situational resources)
 - The characteristics of the person who is performing the behavior (e.g., intuitive vs. deliberate thinking style)

Predicting Ethnic and Racial Discrimination: A Meta-Analysis of IAT Criterion Studies

Frederick L. Oswald
Rice University

Gregory Mitchell
University of Virginia

Hart Blanton
University of Connecticut

James Jaccard
New York University

Philip E. Tetlock
University of Pennsylvania

“ . . . the IAT provides little insight into who will discriminate against whom, and provides no more insight than explicit measures of bias. The IAT is an innovative contribution to the multidecade quest for subtle indicators of prejudice, but the results of the present meta-analysis indicate that social psychology’s long search for an unobtrusive measure of prejudice that reliably predicts discrimination must continue.”

- Agree that there is room for improvement in designing indirect measures
- Agree that attitudes (whether self-reported or indirectly measured) are poor predictors of behavior if person-, context, and behavior-specific variables are ignored
- Example: Amodio & Devine (2006)
 - Race-IAT predicts white participants' seating distance near a black student, but not how they expect a black student to perform on a sports trivia task
 - Stereotyping IAT (associations about athleticism vs. intelligence) predicts how they expect a black student to perform on a sports trivia task, but not seating distance
 - The average correlation between IATs and behavior here is weak, but this conceals the insight that specific measures should predict “matching” types of behavior

Constantly Consider Context

- Cesario et al. (2010), “The Ecology of Automaticity”
- Study 1: for participants who strongly associate “black” and “danger,” the booth semantically primes “fight”... and the field primes “flight”
- Study 2: does implicit bias predict seating distance? It depends!
 - Black-danger association + booth → sit closer
 - Black-danger association + no booth + confrontational personality → sit closer
 - Black-danger association + no booth + non-confrontational personality → sit farther



Coding for theoretically derived moderators

- No in-principle obstacle to incorporating these points into meta-analyses
- Cameron, Brown-Iannuzzi, & Payne (2012) analyzed 167 studies that used sequential priming measures of implicit attitudes
 - Small average correlation with behavior ($r = .28$)
 - But correlations substantially higher under theoretically expected conditions (spontaneous vs. deliberate behavior) and lower under conditions where no relation would be expected
- Key moderators derived from leading dual-process theories
 - Indirect measures will correspond with behavior when agents have low motivation or low opportunity to engage in deliberation or when implicit associations and deliberately considered propositions are consistent with each other

Same lessons

- Forscher, Lai, et al. (2017) find that interventions that change performance on indirect measures do not appear to lead to changes in behavior
 - No coding for conditions under which changes in behavior should be expected and should not be expected
- Low test-retest stability (e.g., Machery 2016)
 - High correlation between IAT scores at T1 and T2 when key contextual features are stable and salient (Gschwedner, Hofmann, & Schmitt 2008)

Improving indirect measurement

Using Groups to Measure Intergroup Prejudice

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Abstract

Implicit measures of racial attitudes often assess reactions to images of individuals to infer attitudes toward an entire social category. However, an increasing amount of research indicates that responses to individuals are highly dependent on context and idiosyncratic features of individual exemplars. Thus, using images of individuals to assess beliefs about a whole social category may not be ideal. Across three time points, we predicted that using images of groups would mitigate the influence of idiosyncratic features of individual targets and, thus, provide a better measurement tool to assess beliefs about a category to which all group members belong. Results revealed that an implicit measure that presented images of Black and White groups had greater construct validity, test–retest reliability, and predictive validity as compared with an implicit measure that presented the same exemplars individually. We conclude that groups provide a window into existing beliefs about social categories.

- Better measures
 - Consider construct validity (e.g., Cooley & Payne 2017)
 - Target specific associations: affect-laden and semantically meaningful (fight vs. flight)
 - Consider contexts: mood, environment, etc.
 - Focus on matching behaviors: predict specific behaviors with specific associations in specific contexts
 - Levinson, Smith, & Young (2014): mock jurors' associations of white faces with "merit" and "value," and black faces with "expendable" and "worthless," predicts death-penalty sentencing, whereas associations of black faces with "lazy" and "unemployed" does not
- More and better data
 - In Forscher, Lai, et al. (2017), only 15% of the analyzed studies included a behavioral outcome measure (and these included reported intentions to φ)
 - Meta-analyses should code for relevant moderators where possible
- Expand in areas where self-report measures are notably poor
 - Predictions of marital satisfaction (McNulty et al. 2013)
 - Regional race-IAT data predicts likelihood of police shootings of blacks ($r = .39$, controlling for demographic data; Hehman et al. in press)

Conclusions

- Research on implicit bias has been overhyped by some, and use of associative measures like the IAT should *not* be expected to capture all forms of bias in all contexts
 - Cf. Spaulding and del Pinal's next talk, on conceptual centrality
- Indirect measures should not be used to classify kinds of people (e.g., "implicit racists")
- Nevertheless, these tools are explanatory and valid scientific instruments which should continue to be used and improved upon

- Forgas (2011): manipulated participants' moods before reading a philosophy essay either written by 'a middle-aged bearded man in a suit with spectacles' or 'a young woman with frizzy hair wearing a t-shirt.'
- Good mood: relied on gut feelings & evaluated older man's essay and competence higher than young woman's.
- Bad mood: more vigilant, attentive thinking, reduced age/gender bias to statistical insignificance (cf. Chartrand et al. 2006, Holland et al. 2012).

