

IAT Studies Showing Validity with “Real-World” Subject Populations

VOTING BEHAVIOR

Among undecided voters assessed one month before a local Italian election IAT measures of implicit political attitudes successfully predicted subsequent voting behavior

Arcuri, L., Castelli, L., Galdi, S., Zogmaister, C. & Amadori, A. (2008). Predicting the vote: Implicit attitudes as predictors of the future behavior of the decided and undecided voters. *Political Psychology*, 29, 369–387.

An IAT measure predicted future shift in judgments about desirability of enlarging a U.S. military base in Vicenza, Italy, for 129 residents who initially reported themselves as undecided.

Galdi, S., Arcuri, L., & Gawronski, B. (2008). Automatic mental associations predict future choices of undecided decision-makers. *Science*, 321, 1100–1102.

Votes by self-reported undecided voters in a representative sample of Italian voters (the ITANES survey) were predicted by their IAT measures of liberal–conservative ideology.

Roccatò, M., & Zogmaister, C. (in press). Can we improve electoral forecasts using the IAT? A field research. *Political Psychology*.

IAT-measured White race preference, assessed in the last week before the U.S. 2008 Presidential Election, significantly predicted intention to vote for John McCain, and did so independently of political conservatism.

Greenwald, A. G., Smith, C. T., Sriram, N., Bar-Anan, Y., & Nosek, B. A. (in press). Race attitude measures predicted vote in the 2008 U. S. Presidential Election. *Analyses of Social Issues and Public Policy*.

MENTAL HEALTH

A suicide-ideation IAT differentiated among adolescents who were nonsuicidal, suicide ideators and suicide attempters.

Nock, M. K., & Banaji, M. R. (2007). Prediction of suicide ideation and attempts among adolescents using a brief performance-based test. *Journal of Consulting and Clinical Psychology*, 75, 707–715.

A self-injury IAT differentiated non-self-injuring from self-injuring adolescents and improved the prediction of self-injury beyond that achieved with demographic and psychiatric predictors.

Nock, M. K., & Banaji, M. R. (2007). Assessment of self-injurious thoughts using a behavioral test. *American Journal of Psychiatry*, 164, 820–823.

An IAT measure of phobic reactions to spiders differentiated spider-phobics from controls and showed reduction in phobic associations following exposure therapy.

Teachman, B., & Woody, S. (2003). Automatic processing in spider phobia: Implicit fear associations over the course of treatment. *Journal of Abnormal Psychology*, 112, 100–109.

In a sample of patients meeting DSM-IV criteria for panic disorder, an IAT measure of panic-related associations predicted severity of panic symptoms, agoraphobic avoidance, and distress in response to panic stressor

Teachman, B. A., Smith-Janik, S. B., & Saporito, J. (2007). Information processing biases and panic disorder: Relationships among cognitive and symptom measures. *Behaviour Research and Therapy*, *45*, 1791–1811.

In a sample of persons diagnosed with panic disorder, change in a panic IAT over the course of a 12-week treatment predicted subsequent change in panic symptoms.

Teachman, B. A., Marker, C. D., & Smith-Janik, S. B. (in press). Automatic associations and panic disorder: Trajectories of change over the course of treatment. *Journal of Consulting and Clinical Psychology*.

An IAT measure of self–shame association significantly distinguished the a sample of 60 women meeting disagnostic criteria for borderline personality disorder (BPD) from a comparison sample of healthy women (N = 60).

Rüsch, N., Lieb, K., Göttler, I., Hermann, C., Schramm, E., Richter, H., Jacob, G. A., Corrigan, P. W., & Bohus, M. (2007). Shame and implicit self-concept in women with borderline personality disorder. *American Journal of Psychiatry*, *164*, 500–508.

In a sample of women who met diagnostic criteria for borderline personality disorder (BPD), an IAT measure of self–anxiety association significantly distinguished 23 disagnosed with comorbid posttraumatic stress disorder (PTSD) from the comparison group (N=37) not diagnosed with comorbid PTSD.

Rüsch, N., Corrigan, P. W., Bohus, M., Kühler, T., Jacob, G. A., & Lieb, K. (2007). The impact of posttraumatic stress disorder on dysfunctional implicit and explicit emotions among women with borderline personality disorder. *Journal of Nervous and Mental Disease*, *195*, 537-539.

Among mental health professionals judging clinical vignettes, stronger IAT-measured negative associations with "mentally ill people" predicted over-pathologizing (diagnosing mental illness for which no symptoms were present).

Peris, T. S., Teachman, B. A., & Nosek, B. A. (2008). Implicit and explicit stigma of mental illness: Links to clinical care. *Journal of Nervous and Mental Disease*, *196*, 752-760.

MEDICAL

ER and general internal medicine resident physicians' implicit bias against Black patients predicted fewer recommendations for thrombolysis for Black than White myocardial infarction patients.

Green, A.R., Carney, D.R., Pallin, D.J., Ngo, L.H., Raymond, K.L., Iezzoni, L.I., & Banaji, M.R. (2007). The presence of implicit bias in physicians and its prediction of thrombolysis decisions for black and white patients. *Journal of General Internal Medicine*. *22*, 1231–1238.

The laboratory of Reinout Wiers in Netherlands has produced numerous results showing the use of IAT measures in understanding adolescents at risk to develop serious alcohol and other drug problems. Here are a few references to this large body of work.

Thush, C., Wiers, R. W., Ames, S. L., Grenard, J. L., Sussman, S., & Stacy, A. W. (2007). Apples and oranges? Comparing indirect measures of alcohol-related cognition predicting alcohol use in at-risk adolescents. *Psychology of Addictive Behaviors*, *21*, 587–591.

Wiers, R. W., Houben, K., & de Kraker, J. (2007). Implicit cocaine associations in active cocaine users and controls. *Addictive Behaviors*, *32*, 1284–1289.

Thush, C., & Wiers, R. W. (2007). Explicit and implicit alcohol-related cognitions and the prediction of future drinking in adolescents. *Addictive Behaviors, 32*, 1367–1383.

Wiers, R. W., Van Woerden, N., Smulders, F. T. Y., & De Jong, P. J. (2002). Implicit and explicit alcohol-related cognitions in heavy and light drinkers. *Journal of Abnormal Psychology, 111*, 648–658.

An IAT measure of attitudes of 5th-grade children toward smoking showed variations as a function of parental smoking, and was responsive to effects of tobacco-prevention activities.

Andrews, J. A., Hampson, S. E., Greenwald, A. G., Gordon, J., & Widdop, C. (in press). Using the Implicit Association Test to assess children’s implicit attitudes toward smoking. *Journal of Applied Social Psychology*.

EMPLOYMENT

IAT correlated with hiring managers’ ethnic bias in inviting Swedish vs. Arab–Muslim job applicants for hiring interviews.

Rooth, D-O. (2009). Automatic associations and discrimination in hiring: Real world evidence. *Labour Economics*, in press.

IAT measure implicit bias against injecting drug users (IDUs) predicted intention to change jobs of nurses working with IDUs.

von Hippel, W., Brener, L., & von Hippel, C. (2008). Implicit prejudice toward injecting drug users predicts intentions to change jobs among drug and alcohol nurses. *Psychological Science, 19*, 7–11.

EDUCATION

Nation-level aggregate IAT measures of a gender–science stereotype predicted nations’ sex differences in 8th-grade science and mathematics achievement, supporting the possibility of a causal role of the stereotypes in creating the sex differences.

Nosek, B. A., Smyth, F. L., Sriram, N., Lindner, N. M., Devos, T., Ayala, A., Bar-Anan, Y., Bergh, R., Cai, H., Gonsalkorale, K., Kesebir, S., Maliszewski, N., Neto, F., Olli, E., Park, J., Schnabel, K., Shiomura, K., Tulbure, B., Wiers, R. W., Somogyi, M., Akrami, N., Ekehammar, B., Vianello, M., Banaji, M. R., & Greenwald, A. G. (2009). National differences in gender-science stereotypes predict national sex differences in science and math achievement. *Proceedings of the National Academy of Sciences*, in press.

FORENSICS

An IAT measure revealed that pedophiles have an association between children and sex, whereas nonpedophilic offenders have an association between adults and sex

Gray, N.S., Brown, A.S., MacCulloch, M.J., Smith, J., Snowden, R.J. (2005). An implicit test of the associations between children and sex in pedophiles. *Journal of Abnormal Psychology, 114*, 304–308.

The IAT method successfully distinguished truth-tellers from criminal liars, including drug users, traffic offenders, and murderers.

Sartori, G., Agosta, S., Zogmaister, C., Ferrara, S. D., & Castiello, U. (2008). How to accurately assess autobiographical events. *Psychological Science, 19*, 781–788.