Political Psychology

Political Psychology, Vol. 39, No. 1, 2018
doi: 10.1111/pops.12398

Implicit Candidate-Trait Associations in Political Campaigns

Aleksander Ksiazkiewicz
University of Illinois at Urbana-Champaign

Joseph Vitriol
University of Minnesota

Christina Farhart
University of Minnesota

While the study of political attitudes has incorporated implicit processes in its theoretical models, the predominant approach to candidate-trait perception focuses exclusively on explicit processes. Our novel, dual-process approach to candidate perception sees voters as holding both conscious, explicit impressions of candidate traits and automatic, implicit candidate-trait associations that cannot be measured using traditional self-report techniques. We examine implicit candidate-trait associations for the first time using data from a three-wave online panel conducted in the last month of the 2012 U.S. presidential election. First, we demonstrate that implicit candidate-trait associations exist. Second, we show that implicit associations of warmth and competence with the candidates predict explicit candidate evaluations, economic evaluations, and vote choice, above and beyond conventional political science controls and explicit trait perceptions. Finally, we find that these effects are strongest among nonpartisans and partisans with conflicted feelings about their party's nominee. We suggest future directions for implicit political cognition research, including trait perception.

KEY WORDS: implicit, candidate traits, IAT, vote choice

In the United States, political campaigns have become personalized, with greater focus devoted to party leader traits (e.g., Garzia, 2011; McAllister, 2007). In this electoral environment, it is important to develop clear theories of candidate-trait perceptions.

Candidate-trait perceptions have long been a staple of political science research (e.g., Miller, Wattenberg, & Malanchuk, 1986). However, existing work focuses exclusively on the explicit, deliberate level of cognition. We extend political dual-process models (e.g., Lodge & Taber, 2013; Pérez, 2016) to consider whether, how, and with what consequences implicit, unconscious processes affect candidate-trait perception. In our dual-process approach, voters hold both conscious, explicit impressions of candidate traits and automatic, implicit candidate-trait associations. These implicit associations may not be introspectively accessible (and therefore cannot be measured using self-report) but can nonetheless influence voter behaviors (cf. Evans, 2008; Greenwald & Banaji, 1995; Wilson, Lindsey, & Schooler, 2000). Our model synthesizes implicit political-attitudes research (e.g., Friese,

Published by Wiley Periodicals, Inc., 350 Main Street, Malden, MA 02148, USA, 9600 Garsington Road, Oxford, OX4 2DQ, and PO Box 378 Carlton South, 3053 Victoria, Australia

Bluemke, & Wanke, 2007) and research on explicit candidate-trait perceptions (e.g., Bartels, 2002) to demonstrate the importance of implicit candidate-trait associations.

We apply this dual-process model to a three-wave online panel conducted during the 2012 U.S. presidential election and make four contributions to the literature on electoral decision-making. First, we show that implicit candidate-trait associations exist, and we thereby bring implicit person perception into the study of mass political behavior. Second, we demonstrate that implicit associations of warmth and competence with candidates predict explicit candidate assessments, economic perceptions, and voting preferences beyond conventional controls. Third, we show that implicit candidate-trait associations are particularly important for understanding independents and conflicted partisans, individuals for whom it is often difficult to predict electoral behavior using self-report strategies. Finally, we illustrate that the effect of implicit traits are stable over a month prior to Election Day. In sum, we demonstrate the utility of applying implicit person perception to the political context, provide evidence that these processes play an important role in political campaigns, and describe an agenda for future research on implicit candidate-trait associations.

Candidate-Trait Perceptions at the Explicit Level

Perceived candidate traits, including warmth and competence, are a common feature of presidential campaign coverage. In 2004, likeability presented a major hurdle for the Kerry campaign (Prysby, 2008). In 2008, Obama's inexperience raised concerns about competence (e.g., Pew Research Center, 2009), and the media's focus on Sarah Palin's physical appearance damaged perceptions of her competence (Heflick & Goldenberg, 2009). In 2012, Republicans targeted Obama's handling of the economy to undermine perceptions of his competence and shift attention away from Romney's perceived lack of warmth (Stanage, 2012).

Research in political psychology supports the importance of candidate-trait perceptions in electoral politics. Citizens incorporate personality traits into their cognitive representation of ideal candidates (Kinder, Peters, Abelson, & Fiske, 1980), which inform appraisals of actual candidates (e.g., Miller et al., 1986). Nonetheless, debate exists over whether voters simply ascribe positive traits to the candidates they support and negative traits to their opponents (e.g., Rahn, Krosnick, & Bruening, 1994; cf. Huber, 2015).[1] Endogeneity notwithstanding, citizens who form positive trait inferences about a political candidate are more likely to vote for that candidate (e.g., Bartels, 2002; Funk, 1997, 1999; Peterson, 2005), though not all perceived traits are equally impactful (e.g., Fridkin & Kenney, 2011).

We focus on perceptions of candidate warmth and competence for two reasons. First, these traits are influential in the political science literature (e.g., Funk, 1999). Second, social psychological research indicates that both are fundamental features of person perception (Cuddy, Fiske, & Glick, 2008). Across many contexts, warmth and competence perceptions operate orthogonally and correspond with beliefs about the targets' intentions and ability to execute those intentions, respectively (Fiske, Cuddy, & Glick, 2007). Indeed, candidates gain votes when they are perceived as likeable (e.g., Lewis-Beck & Stegmaier, 2000) and competent (e.g., Graefe, 2013).

Perceived competence also affects retrospective and prospective economic assessments. Economic voting theories treat elections as referenda on the government's performance and, presumably, competence (e.g., Duch & Stevenson, 2010; Tufte, 1978). The perceived health of the economy may signal the incumbent's competence. For incumbents and nonincumbents, perceived competence may also be important in anticipating future economic success. Although scholars debate whether candidate evaluations or economic perceptions arise first (e.g., Evans & Andersen, 2006; Lewis-Beck,

[1] For implicit associations, endogeneity may be less severe because voters lack introspective access to change them in a motivated way. In addition, our use of panel data eliminates some issues endogeneity presents in cross-sectional analyses (cf. Collingwood, Barreto, & Donovan, 2012, p. 248).

2006), the link between these two perceptions is nevertheless strong across multiple electoral contexts.

Applying Implicit Processes to Candidate-Trait Perceptions

Research on perceived candidate traits focuses on deliberative, explicit processes. Our dual-process model posits that in addition to explicit, conscious candidate-trait associations, voters also have implicit, unconscious candidate-trait associations. Research in social psychology shows automatic processes are consequential for person perception (e.g., Amodio & Mendoza, 2010) and, as noted above, warmth and competence are particularly important (Cuddy et al., 2008; Fiske et al., 2007). These general psychological processes should also apply to evaluations of political leaders.

In the political context, researchers have long studied how automatic processes relate to attitudes. Early research on online processing (e.g., Lodge, McGraw, & Stroh, 1989; Lodge, Steenbergen, & Brau, 1995) and, especially, on hot cognition (e.g., Morris, Squires, Taber, & Lodge, 2003; Lodge & Taber, 2005) is in this vein. In these frameworks, affective activation is automatic, but cognition is still largely directed by conscious processing (e.g., recalling the running tally). In contrast, some political-attitude researchers have argued that implicit attitudes may affect behavior outside of conscious awareness. Early demonstrations by social psychologists showed that implicit political attitudes predicted vote choice in Germany (Friese et al., 2007; but see Friese, Smith, Plischke, Bluemke, & Nosek, 2012) and Italy (Arcuri, Castelli, Galdi, Zogmaister, & Amadori, 2008). Others demonstrated that implicit racial attitudes affected Americans' voting decisions (e.g., Finn & Glaser, 2010; Greenwald, Smith, Sriram, Bar-Anan, & Nosek, 2009; Payne et al., 2010), as did implicit religious associations (e.g., Sheets, Domke, and Greenwald, 2011). This research aligns with a broader recognition of the importance of implicit processes in social cognition (see Jost et al., 2009 for a review).

Political scientists have also been involved in implicit political-cognition research. For example, Pérez (2010) demonstrated the relevance of implicit attitudes for immigration policy judgments and has argued that political scientists can enrich implicit research by using more representative samples and extending implicit research to applied domains (2013). Pérez's (2016) recent book outlines the challenges and opportunities of doing implicit political research and acts as a practical guide to using the implicit measurement strategies in the political domain. Political scientists have also considered implicit political associations that are not primarily valence-based, such as implicit political identity (Theodoridis, 2013), political knowledge (Ksiazkiewicz, 2013), and party-gender stereotypes (Winter, 2010). For implicit trait perceptions, which is the focus of this article, automatic competence perceptions have been studied only in the context of the facial features of unknown candidates (Olivola & Todorov, 2010; Todorov, Mandisodza, Goren, & Hall, 2005). For known candidates and for implicit warmth associations, implicit trait associations have gone unstudied.

Studying implicit candidate-trait associations contributes to our understanding of political cognition. First, implicit trait associations are likely to account for unexplained variance in traditional models of voter decision-making. Implicit processes have incremental predictive validity across a wide range of domains traditionally examined at the explicit level (see review by Greenwald, Poehlman, Uhlmann, & Banaji, 2009), including implicit attitudes in politics (see reviews by Gawronski, Galdi, & Arcuri, 2015; Ksiazkiewicz & Hedrick, 2013; Pérez, 2013, 2016).

Second, if it exists, this unexplained variance could not be accounted for by explicit measures. Implicit associations are not introspectively accessible and, therefore, cannot be measured directly by self-report (Nosek, Greenwald, & Banaji, 2007; but see Gawronski, Hofmann, & Wilbur, 2006). Across a variety of domains, implicit processes have been shown to be related, but not reducible, to explicit processes (Hofmann, Gawronski, Gschwendner, Le, & Schmitt, 2005; Nosek & Smyth, 2007). Indeed, as demonstrated by meta-analysis (Greenwald et al., 2009), both associations show incremental predictive validity across behavioral domains, suggesting that each captures distinct

psychological processes or cognitive structures that account for distinct portions of the variance in attitudinal and behavioral outcomes. This should apply to implicit candidate-trait associations, as well.

Third, because implicit measures are largely unaffected by social desirability bias (Banse, Seise, & Zerbes, 2001; Boysen, Vogel, & Madon, 2006), they are particularly useful when traditional survey techniques may not capture participants' true beliefs. For example, when one of the major party candidates is African American, like the 2012 U.S. presidential election, some voters may conceal their true candidate-trait perceptions to appear unprejudiced (cf. Redlawsk, Tolbert, & Franko, 2010). In general, evaluating personality characteristics of a political candidate may activate motivated reasoning processes (e.g., Kunda, 1990) and impression management strategies that alter the relationship between explicit judgments and candidate evaluations. Some personality characteristics (e.g., warmth) may be viewed as normatively less appropriate for judging political candidates (Conover & Searing, 2000; Funk, 1997; Kinder et al., 1980). Consequently, people may be less willing to communicate these "true" judgments (to researchers and others); citizens may also be less willing to report negative judgments regarding the personality characteristics of their preferred candidate (e.g., Goren, 2002, 2007). These problems can be at least partially circumvented by measuring implicit candidate-trait associations.

Fourth, implicit and explicit attitudes are not interchangeable, redundant constructs but instead represent psychologically independent, and sometimes divergent (see Nosek, Greenwald, & Banaji 2006), orientations that may have different evaluative and behavioral implications (e.g., Fazio, 1990), even when no clear motivation for impression-management is present (e.g., Teubel, Asendorpf, Banse, & Schnabel, 2011). Thus, automatic, unconscious associations may be incongruent with consciously accessible partisan or ideological loyalties and affinities (e.g., Lavine, Johnston, & Steenbergen, 2012) or bias the search and processing of decision-relevant information (e.g., Lodge & Taber, 2013). In sum, implicit associations, including the implicit candidate-trait associations examined here, are important for explaining the political behavior of a sizable portion of the electorate (see Gawronski et al., 2015) and provide us with a deeper understanding of the psychological underpinnings of political cognition and behavior.

Fifth, other implicit processes have been shown to be particularly adept at explaining the behavior of individuals whose behaviors are not well described by traditional political science theory (e.g., independents and undecided voters; Arcuri et al., 2008; Galdi, Arcuri, & Gawronski, 2008; Galdi, Gawronski, Arcuri, & Friese, 2012; Hawkins & Nosek, 2012; but see Friese et al., 2012). The preferences of voters who are unwilling or unable to accurately disclose, or who actively conceal, their candidate preferences on a survey can be predicted by indirect measures of implicit attitudes, which correlate with their true explicit attitude. In addition, and of greater importance, the subtle, unconscious influence that implicit associations, including implicit candidate-trait associations, exert on all voter decision-making may be most apparent among voters who lack strong, explicit candidate preferences that could overwhelm the implicit effect. For strong partisans, explicit measurement strategies may adequately capture information processing and predict political behavior, such that implicit constructs are less likely to produce incremental effects (Gawronski et al., 2015).

In short, our expectation that implicit candidate-trait associations have electoral consequences is based on research showing that perceptions of candidates' personality traits at the explicit level matter and that implicit attitudes matter. We hypothesize that implicit candidate-trait associations exist and influence outcomes like candidate evaluations, perceptions of the economy, and voting intentions, even when controlling for basic demographic characteristics, explicit trait judgments, symbolic racism, political ideology, and partisanship. Consistent with the importance of warmth and competence judgments at the explicit level, we expect both implicit competence and implicit warmth to predict vote choice. However, we expect implicit competence to matter more than implicit warmth in economic evaluations. In contrast, we expect implicit warmth to play a greater role than implicit competence in explicit ratings of candidate's likeability. Finally, we predict that implicit trait associations

will account for variation in political cognition especially where traditional theories are least informative (e.g., independents and conflicted partisans).

Methods

Data

Data were collected as part of a large, multi-investigator panel study of the 2012 U.S. presidential election, utilizing a three-wave panel design (baseline October 15–22; pre-election October 31–November 5; post-election November 14–24) of online surveys, with participants recruited from Amazon's Mechanical Turk (MTurk). A subset of participants completed implicit measures at each wave (for full description, see Table S1 in the online supporting information). Participants skew Democratic (45% excluding leaners, 57% including leaners; compare 47% with leaners on the 2012 ANES), White (86%), young (34 years old on average, ranging from 18 to 80), and college educated (60%). There were slightly more women than men (55%). Attrition was approximately 30% (concentrated between the first and second waves) and the demographic characteristics of participants at Wave 1 ($N = 316$), Wave 2 ($N = 205$), and Wave 3 ($N = 193$) did not differ substantially, nor did the subsample that completed the implicit measures differ from the overall sample.

Although MTurk samples are not nationally representative, they are more diverse than undergraduate convenience samples and more representative than typical internet samples (Berinsky, Huber, & Lenz, 2012; Buhrmester, Kwang, & Gosling, 2011; Mason & Suri, 2012). In general, MTurk data quality is similar to other convenience samples (Necka, Cacioppo, Norman, & Cacioppo, 2016). Although MTurk respondents differ demographically in some ways from population-based studies, they "do not appear to differ fundamentally from population-based respondents in unmeasurable ways" (Levay, Freese, & Druckman, 2016, p. 1). They "closely mirror the psychological divisions. . .in the mass public" (Clifford, Jewell, & Waggoner, 2015, p. 1) and demonstrate comparable effects in experimental treatments across different paradigms (Coppock, 2016).

Although a nationally representative sample would nevertheless be preferable to a diverse convenience sample, obtaining measures of implicit associations in a representative sample was not feasible due to the time demands involved in implicit association measurement (i.e., several minutes per implicit association test). This is especially true because implicit candidate-trait associations have not been previously studied. By utilizing MTurk, we were able to obtain a large, diverse panel of Americans with repeated implicit measures. Importantly, this sample is sufficient to test the hypotheses outlined above on the role of implicit processes in elections. Implicit cognition is a universal feature of human psychology, so there is no reason why, if the data show that implicit processes play a role in the electoral decision-making of MTurk participants, that implicit processes would not also play a role for the remaining electorate.

Measures: Overview

Our dependent variables include candidate evaluations, economic evaluations, and vote choice. The key independent variables are the implicit warmth and implicit competence of the presidential candidates. Implicit candidate-trait associations were measured at each wave. All models control for explicit perceptions of candidate warmth and competence for both Obama and Romney. Explicit candidate-trait perceptions were measured at each wave using a separate six-item scale for each trait (adapted from Cuddy et al., 2008); the scales all had excellent reliability at each wave (median Cronbach's alpha = 0.944, range from 0.915 to 0.962). Our models also control for relevant demographic and attitudinal variables measured at wave 1, such as age, education, ideology (7-point scale), income,

party identification, race (dichotomized White/non-White), symbolic racism (Henry & Sears, 2002), gender, and employment status (trichotomized employed/unemployed/other).

Measures: Dependent Variables

This study utilized three dependent variables. First, we constructed an additive scale of economic perceptions. This includes six items at Wave 1 and Wave 2: a one-year retrospective economic assessment, a four-year retrospective economic assessment, a prospective economic assessment without mentioning who wins the election, a prospective economic assessment if Obama or Romney wins the election, and an assessment of the economy today. The Wave 3 economic-perceptions scale, collected after the election, includes only three items from those present at Waves 1 and 2: the one-year retrospective assessment, a prospective assessment, and an assessment of the economy today. Items were coded so that higher values indicate better economic perceptions under Democratic government than Republican government. The scales are reliable (median Cronbach's alpha = 0.828, ranging from 0.813 to 0.836).

Second, we constructed an additive scale of explicit candidate valence. This includes four items at Wave 1, Wave 2, and Wave 3: an Obama feeling thermometer, a Romney feeling thermometer, Obama's likeability (7-point scale), and Romney's likeability (7-point scale). All items were coded so that higher values indicate more positive associations with Obama and more negative associations with Romney. The scales are reliable (median Cronbach's alpha = 0.865, ranging from 0.859 to 0.885; for descriptive statistics on the economic evaluations and candidate valence, see Table S2 in the online supporting information).

Finally, we measured vote intentions (Waves 1 and 2) and vote choice (Wave 3) with a single item at each wave. In these analyses, we focus on major-party vote choice: vote for Obama or vote for Romney. Other responses were excluded from analysis. The breakdown of voting behavior was generally similar to the 2012 American National Election Study (ANES) panel for independents and leaning Republicans. The MTurk participants are more likely to support their own party's nominee and are more likely to turn out to vote than the ANES participants (for comparison, see Table S3 in the online supporting information).

Measures: Independent Variables of Interest

The most commonly used method to measure implicit attitudes is a computer-administered categorization task, called the implicit association test (IAT; Greenwald, McGhee, & Schwartz, 1998). Individuals are repeatedly presented with pairs of concepts, and faster response latencies indicate stronger implicit associations between the concepts. Participants completed separate IATs at each wave for judgments of competence and warmth with a word-completion distractor task between the IATs. The order of the IATs was randomized for each respondent at the first wave and kept constant at subsequent waves. Each IAT paired adjectives categorized as warm or cold or as competent or incompetent with pictures of Obama and Romney.[2] These category labels were selected to reflect the underlying constructs of interest, as the choice of category labels on IATs has been found to affect measurement of implicit associations (Mitchell, Nosek, & Banaji, 2003). Higher scores on each of these indicators represent stronger associations of the positive trait with Obama, relative to Romney. IAT scores were computed using the most recent algorithm from Greenwald, Nosek, and Banaji (2003).

[2] The adjectives for each IAT were drawn from the stereotype content model (Cuddy et al., 2008; Fiske et al., 2007). Positive adjectives were the same sets used to measure explicit warmth and competence, respectively. Sets of negative adjectives were selected from the same pool defined by Cuddy, Fiske, and colleagues, except loading negatively on warmth and competence. The full list of items is available in the online supporting information.

Analysis Strategy

To examine whether implicit trait associations account for unique variance in political outcomes, we use a unified, time-series cross-sectional model for clustered data analysis, following the recommendations of Bartels (2015). This approach overcomes a number of challenges related to the analysis of panel data when pooling the data completely, using a fixed effects model, or using a random effects model. This framework allows us to overcome the problem of cluster confounding that arises when there are multiple possible relationships between X and Y that must be disentangled. For example, we examine whether stronger pro-Obama implicit competence associations, X, predict stronger pro-Obama explicit candidate preference, Y. In panel data, a relationship may exist between these variables cross-sectionally, such that individuals who implicitly associate competence more strongly with Obama than Romney at a given time point have, on average, more pro-Obama explicit attitudes. Independent of this cross-sectional relationship, another relationship may exist between these variables longitudinally, such that as an individual's implicit associations change from one panel wave to another their explicit attitudes also shift. Each of these types of relationships may exist independently and has different theoretical implications for how we understand the interplay of implicit and explicit associations. Cluster confounding occurs when an analysis technique cannot distinguish these two types of relationships, resulting in ambiguity in the interpretation of the results. By using the framework proposed by Bartels (2015), we are able to distinguish cross-sectional and longitudinal relationships between implicit candidate-trait associations and various explicit dependent variables.

To implement the analysis, we cluster the data points from the three panel waves by participant. This allows us to distinguish between-cluster effects of X on Y (i.e., cross-sectional effects that distinguish participants from each other) and within-cluster effects of X on Y (i.e., longitudinal effects over the course of the panel study that distinguish multiple responses from the same participant). To continue the example from above, suppose that we want to examine the relationship between a variable that varies at each panel wave, implicit candidate-competence associations (denoted X_{ij}, as the value of X for individual j and time i), and another variable that varies at each panel wave, explicit candidate preference (denoted Y_{ij}). In order to capture the cross-sectional effect of X on Y, we calculate the mean implicit candidate-competence association for each participant j (denoted $\bar{X}_j$); intuitively, the average of each participant's implicit measures captures how strongly differences between participants' implicit associations predict explicit candidate preferences. In order to capture the longitudinal effect of X on Y, we calculate the deviation from the mean implicit candidate-competence association for each participant j at each time point i (denoted X_{ij}^W and calculated as $X_{ij}^W = X_{ij} - \bar{X}_j$); intuitively, if deviations from the mean implicit association correspond to changes in explicit candidate preferences, then this implies changes in implicit associations during the final weeks of the campaign predict changes in explicit candidate preferences in the same period. The model may also control for time-invariant traits that differ across participants,[3] such as party identification (denoted as Z_j). Thus, the model (adapted from model (4) in Bartels, 2015) is:

$$Y_{ij} = \gamma_{00} + \beta_1 X_{ij}^W + \gamma_{01} Z_j + \gamma_{02} \bar{X}_j + u_{0j} + e_{ij}.$$

In this model, γ_{00} is the intercept, β_1 is the within-cluster or longitudinal effect of X, γ_{01} is the effect of a time-invariant variable like party identification, γ_{02} is the between-cluster or cross-sectional effect of X, u_{0j} is the between-cluster error component, and e_{ij} is the within-cluster error component. Below, we will present analyses which include multiple time-varying X variables simultaneously (partitioned into their respective cross-sectional and longitudinal effects) and will control for multiple time-

[3] These traits are assumed to be stable and time invariant over the course of our measurement period, but they may vary on longer timescales.

invariant Z variables simultaneously.[4] These are accomplished by simply following the data-preparation procedures described above for each X variable before including it in the model (see Bartels, 2015, for other multivariate examples).

If instead of this unified method we utilized a fixed effects model, we would be unable to obtain estimates of the between-cluster, cross-sectional effects. If instead we relied on a random effects model, our interpretations would be hindered by cluster confounding, and it would be unclear whether the coefficients are indicating a cross-sectional effect, a longitudinal effect, or both (see Bartels, 2015, for a detailed discussion). As discussed by Bartels (2015), this approach also has several other advantages that make it particularly suitable to our purposes. First, this approach accounts for unobserved heterogeneity or differences between clusters (individuals) on the dependent variable, which if unaddressed can induce omitted variable bias. Second, unlike fixed effects models, this approach allows us to estimate and control for additional, time-invariant variables, such as party identification, political ideology, race, and gender. This allows us to examine whether implicit trait associations have a cross-sectional, between-cluster relationship with our dependent variables, when controlling for these time-invariant individual traits. Finally, to reiterate the discussion on cluster confounding above, clustered data analysis for time-series cross-sectional models often confounds the distinct within-cluster and between-cluster effects on the dependent variable. The assumption that within-cluster and between-cluster effects are equal renders substantive interpretation of significant effects particularly difficult (Bartels, 2015). For the current study, addressing this confound allows us to estimate separately the effect on the dependent variable of (1) change in the implicit and explicit trait indicator across measurement points (within-cluster effects) and (2) variability between participants on the implicit and explicit trait indicator (between-cluster effects).

We utilize this random intercept model to analyze within-individual and between-individual effects on explicit candidate preferences, economic evaluations, and vote choice. We run three models for each dependent variable. First, we examine the effect of implicit competence associations on the dependent variable, controlling for explicit trait associations (as a second, time-varying X variable) and standard demographic variables (as a series of time-invariant Z variables, including age, education, employment status, ideology, income, party identification, race, symbolic racism, and sex). We include these controls in all models to ensure the robustness of our findings. Second, we run this analysis substituting implicit warmth for implicit competence. Third, we run a model that includes implicit competence, implicit warmth, and the controls.[5] All of these models distinguish within-cluster (longitudinal) and between-cluster (cross-sectional) effects for each implicit and explicit trait variable; the remaining controls are considered fixed. The total number of observations varied between 548 and 625, depending on the dependent variable used in the model.

Results

Implicit Trait Associations Exist and Can Be Reliably Measured

Consistent with the Democratic skew of MTurk samples, participants associated both warmth and competence more strongly with Obama than Romney at both the implicit and explicit levels at

[4] We do not incorporate a lagged dependent variable because of the limited number of panel waves (i.e., three). Including a lagged dependent variable would exclude the first panel wave from analysis, resulting in a large loss of statistical power.

[5] We also ran models averaging implicit warmth and implicit competence as a global positive trait association. However, as we view implicit warmth and implicit competence as theoretically separate associations, we report these joint models in the online supporting information only. The primary value of these models is to demonstrate there is considerable measurement error in implicit measures (reduced when averaged together), suggesting the results reported are a conservative estimate of the true effects.

each time point (see Table S4 in the online supporting information). The pro-Obama leanings are stronger on explicit warmth (by between 0.582 and 0.632 *SD* depending on the wave) and implicit warmth (0.263 to 0.369 *SD*) than on explicit competence (0.163 to 0.291 *SD*) and implicit competence (0.180 to 0.301 *SD*). Similarly, there is a somewhat pro-Obama skew in the dependent variables for likeability and feeling thermometers (0.561 to 0.611 *SD*), but a nonexistent or weak skew for economic evaluations (−0.011 to 0.223 *SD*; see Table S2 in the online supporting information). For traits, pro-Obama preference is greater for implicit and explicit warmth associations than for implicit and explicit competence associations, which is consistent with the observation that Romney's likeability was a problem during the campaign (Stanage, 2012). Correlations between implicit and explicit measures of each trait were high and relatively constant across waves; on average, the implicit-explicit competence correlation was 0.56 and the implicit-explicit warmth correlation was 0.66, with neither correlation dropping below 0.51 at any wave (see Table S5 in the online supporting information).

Implicit Candidate-Trait Associations Predict Evaluations of Candidates and the Economy

We begin by considering the relationship between each implicit measure and two dependent variables: candidate evaluations and economic evaluations. All of the models include conventional controls and explicit candidate-trait perceptions (full model estimates are available in Tables S6 and S7 in the online supporting information).

We find evidence of cross-sectional, between-participant effects for implicit competence associations for both dependent variables (see Fig. 1A). That is, individuals who implicitly associate competence more strongly with Obama than with Romney evaluate Obama and the economy more positively than individuals who implicitly associate competence more strongly with Romney than Obama. These effects are robust to controlling for demographics, explicit traits, and implicit warmth associations. The effect of implicit competence is also substantively significant. For

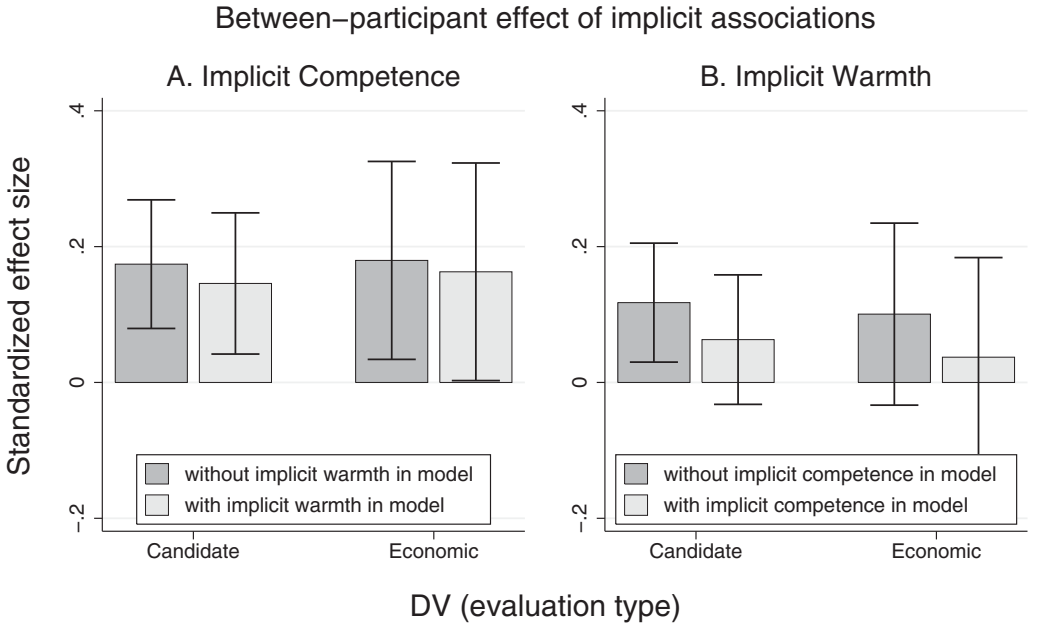


Figure 1. All models control for: age, education, employment status, explicit candidate traits, gender, ideology, income, party identification, race, and symbolic racism. Bars represent 95% confidence intervals.

example, moving across the observed range of implicit competence results in an 8.6% change in explicit candidate evaluations. For comparison, moving across the full range of party identification changes explicit candidate evaluations by 12.4%. For economic evaluations, the effect of implicit competence is 9.6% of the scale range, and the effect of party identification is 5.4%. These results suggest implicit competence associations play a substantively significant role in how candidates are evaluated explicitly.

With the demographic and explicit trait controls, implicit warmth has a significant cross-sectional effect on candidate evaluations (resulting in a 7.7% change in candidate evaluations across the observed range of implicit warmth associations), but it does not have a significant effect on economic evaluations (see Fig. 1B). However, when also controlling for implicit competence, the effect of implicit warmth on candidate evaluations is no longer significant ($p = 0.195$). These results suggest implicit candidate-warmth associations play a smaller role in candidate evaluations than implicit competence and no role in evaluations of the economy.[6]

We find no evidence for within-cluster, longitudinal effects for any of the implicit variables (see Tables S6 and S7). That is, within-subject changes in implicit associations in the last weeks of the campaign did not result in within-subject change in explicit candidate evaluations or assessments of the economy.[7]

In sum, the results demonstrate that implicit trait associations are meaningful, unique, and robust predictors of candidate evaluations and economic attitudes. Implicit competence has stronger effects than implicit warmth for both dependent variables. However, there was no evidence that change in implicit associations during the final month of the presidential campaign predicted change in explicit political attitudes. These results suggest the relationships between implicit trait associations and the dependent variables must originate earlier in the campaign.

The Effect of Implicit Candidate-Trait Associations Is Greater Among Independents

Thus far, we have not considered whether implicit processes exert a greater influence on attitudes and beliefs of some participants than others. Specifically, we hypothesize that implicit processes matter more for voters with weaker explicit commitments. We test this by examining whether the effect of implicit trait associations is strongest among participants without partisan attachments (i.e., independents).

We model the moderating effect of strength of partisanship on implicit competence and implicit warmth. Because we found no evidence of longitudinal, within-cluster effects of implicit warmth or implicit competence in the analyses addressing candidate and economic evaluations, the analyses in this section simplify the model by pooling the within- and between-subject effects for each variable in a random effects model. This pooling reduces the number of interactions in the model, thereby increasing power. We interpret significant interactions with the implicit variables as occurring with

[6] The models control for explicit candidate traits to provide a conservative test of the hypothesis that implicit candidate-trait associations affect explicit candidate and economic evaluations. Both explicit warmth and explicit competence are highly correlated with candidate valence (for Obama, 0.83 and 0.82 for warmth and competence, respectively; for Romney, −0.81 and −0.53, respectively) and economic perceptions (0.73, 0.73, −0.58, and −0.40, respectively). Although these results show explicit candidate traits are strongly related to these dependent variables, the dependent variables are still sufficiently distinct; controlling for explicit traits, we always find effects for implicit competence and usually for implicit warmth. Excluding explicit traits from the models (not shown), the results are clearer (e.g., implicit warmth is significant). Nevertheless, we believe it is appropriate to control for explicit traits in these models to ensure we capture the unique effect of implicit associations on candidate and economic assessments.

[7] Although within-subject changes in implicit associations did not produce within-subject change in explicit candidate evaluations or assessments of the economy, we find evidence that within-subject change in each type of implicit associations predicts change in the other (not shown). Thus, implicit warmth and competence associations move together in the final weeks of the campaign, even if these changes have insufficient time or are of insufficient magnitude to impact vote choice at this late stage.

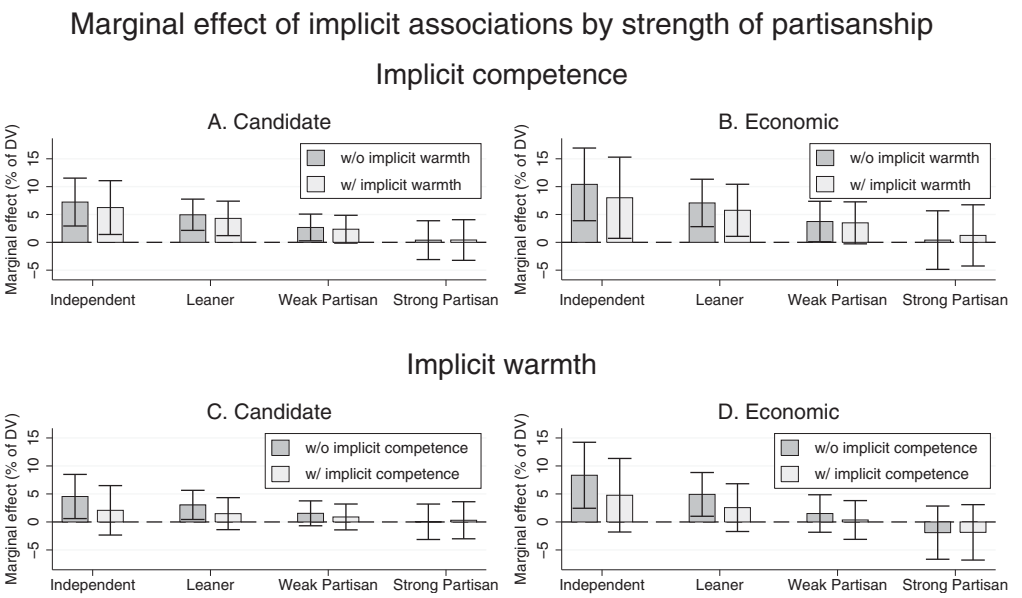


Figure 2. Marginal effect of moving from strong Obama associations to strong Romney associations. All models control for: age, education, employment status, explicit candidate traits, gender, ideology, income, party identification, race, and symbolic racism. Bars represent 95% confidence intervals.

the between-cluster, cross-sectional effects identified in the previous section. All models controlled for traditional demographic and political variables and explicit candidate-trait perceptions (full model estimates are available in Tables S8 and S9 in the online supporting information).

Above, we found a positive between-subject, cross-sectional effect of implicit competence on candidate and economic evaluations and a positive between-subject effect of implicit warmth on candidate evaluations (not significant controlling for implicit competence). When moderated by strength of partisanship, the effect of implicit traits decreases as strength of partisanship increases (see Fig. 2). For example, among independents, leaners, and weak partisans, moving across the observed range of implicit competence results in a significant change in explicit candidate evaluations (14.0%, 9.6%, and 5.2%, respectively), but not for strong partisans (0.8%). For implicit warmth, the effects on candidate evaluations are significant for independents (8.8%) and leaners (5.9%), but not weak or strong partisans (3.0% and 0.1%, respectively). The results for economic evaluations follow the same pattern. In sum, the effect size of implicit trait associations is inversely proportional to partisanship.

When we include both implicit variables in the model simultaneously, the effects of implicit warmth lose statistical significance at all levels of partisanship. For implicit competence, effects for independents and leaners remain significant for candidate evaluations and economic evaluations, but the effects for weak partisans drop to marginal significance in both cases ($p = 0.065$ and 0.069, respectively).

Implicit Candidate-Trait Associations Predict Vote Choice

As with candidate evaluations and economic assessments, our initial vote-choice model distinguishes between-subject (cross-sectional) and within-subject (longitudinal) effects. We utilize a random intercept probit model to examine major-party vote choice. Comparing this model to a complete

pooling approach using a likelihood ratio test, we find there is no significant improvement in fit by using the random intercept model.[8] Specifically, while there are significant between-cluster, cross-sectional effects in the random intercept probit models, there are no significant within-cluster, longitudinal effects. Thus, we report results from the more parsimonious pooled probit model below and interpret the results as indicating between-cluster, cross-sectional effects. We present the results as predicted probabilities to aid interpretation (full model estimates are available in Table S10 in the online supporting information).

We find evidence that implicit competence associations predict vote preferences, robust to controls and implicit warmth. The effects are also substantively significant. Holding all variables (including implicit warmth) at their subsample means, for true independents only, moving from strong pro-Obama implicit competence associations to strong pro-Romney implicit competence associations increased the predicted probability of voting for Romney by 95.9%. However, when we consider partisan subsamples (i.e., each category of leaners, weak partisans, and strong partisans) at their respective subsample means for other variables, the effect of implicit competence on vote choice is negligible. Taken together, these results suggest implicit competence associations may be a substantively significant determinant of vote choice for true independents but that their effects among typical leaners and partisans are overwhelmed by explicit evaluations.

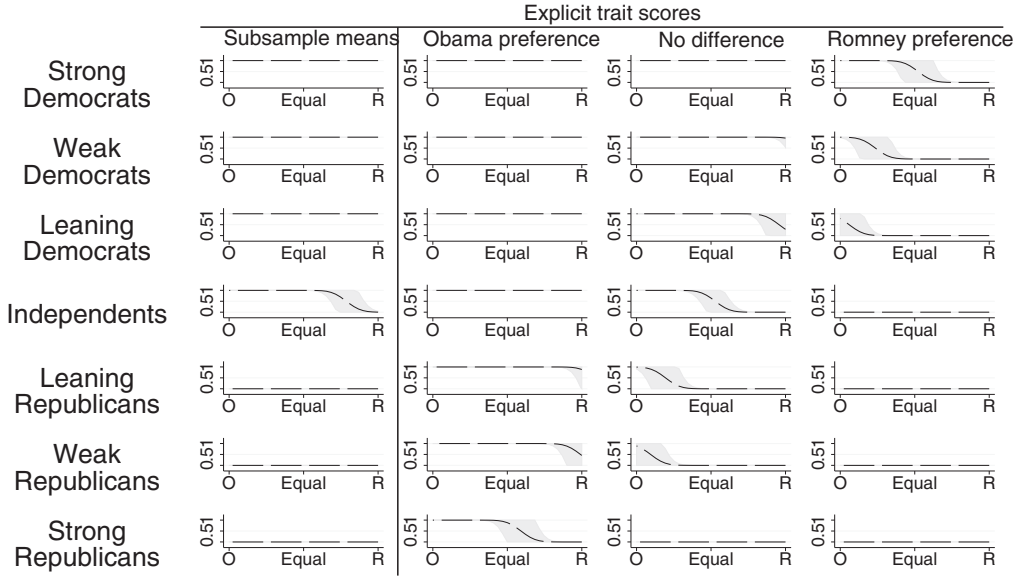
Next, we consider the effect of implicit warmth on major-party vote choice. We find that implicit warmth does not have a significant effect on major-party vote choice when controlling for explicit trait perceptions and standard demographics, regardless of controlling for implicit competence. These results suggest that, unlike implicit competence associations, both between-subject and within-subject differences in implicit warmth associations are not incrementally related to vote choice.

In general, while contributing independently to vote choice, the implicit trait results parallel the explicit level, where assessments of candidates' competence were statistically and substantively significant determinants of vote choice, unlike assessments of candidates' warmth.

Implicit Candidate-Trait Associations Are Predictive of Vote Choice Primarily Among Independents and Conflicted Partisans

As discussed above, when controlling for explicit assessments at the mean for each level of partisanship and for independents, implicit competence predicts vote choice among typical independents but not participants at other levels of partisanship. This difference may exist because implicit competence has a stronger effect on vote preference among independents than other voters. To test this possibility, we ran three models. First, we interacted the effect of implicit competence with strength of partisanship to test whether the effect of implicit competence is weaker as strength of partisanship increases. The interaction term was not significant. Second, we interacted the effect of implicit competence with a dummy variable for being a true independent to test whether implicit competence has particularly strong effects specifically among independents. Once again, the interaction was not significant. Finally, we ran the original implicit competence model but excluded independents from the analysis in order to test whether implicit competence is associated with vote choice among nonindependents. We found that the effect of implicit competence on vote choice remains significant even when independents are excluded from the analysis. These results suggest that implicit competence associations affect voting decisions of both nonindependents and independents.

[8] The likelihood ratio test is significant when we examine the effect of the warmth IAT without controlling for the competence IAT; however, the effect of the between-cluster effect of the warmth IAT is still not significant, and there are no significant within-cluster effects for any variable. Thus, we report the pooled models throughout this section.



Y–axis represents probability of voting for Obama.
X–axis represents implicit competence associations from strong Obama associations (O) to strong Romney associations (R).
Dashed lines are predicted probabilities. Shaded area is 95% confidence interval.
All other variables held at subsample means by party identification.

Figure 3. Probability of voting for Obama across implicit competence associations

Of critical importance, the effect of implicit competence on predicted probabilities of vote choice between the major candidates is *only* significant among independents *when holding the remaining variables at their subsample means* across levels of partisanship. For typical leaners and partisans, the effect of implicit competence is overwhelmed by explicit candidate evaluations. Thus, the impact of implicit competence on vote choice is significant for both independents and partisans, and the magnitude of this relationship does not necessarily vary across subsamples (as discussed in the preceding paragraph). However, at the same time, the incremental effect of implicit competence above and beyond explicit controls was only observed among independents, suggesting that the explicit preferences of nonindependents washed out the effect of their implicit preferences.

Supporting this interpretation, implicit competence is a strong predictor of vote choice among conflicted leaners and partisans who are ambivalent about the candidates (i.e., those who ascribe equal competence to the two candidates rather than ascribing more positive traits to their own party's candidate) or who ascribe relatively more positive traits to the other party's candidate (see Fig. 3). In other words, a stronger implicit association of competence with one candidate relative to the other predicts vote choice among independents and among *conflicted* leaners and partisans.

In sum, the absence of significant interactions between strength of partisanship and implicit competence indicates that implicit associations have effects on vote choice across the range of partisanship. However, the substantial differences in predicted probabilities between typical and conflicted partisans indicate that implicit associations only change voting decisions among this subset of the voting public (alongside independents) and are otherwise overwhelmed by explicit considerations. This result provides novel theoretical insight into the psychological processes underpinning voting behaviors, particularly among independents and conflicted partisans.

Discussion and Conclusion

We demonstrate the existence and importance of implicit candidate-trait associations. Our results indicate, at the latter stages of a political campaign, implicit trait associations predict a broad range of political outcomes, including candidate assessments, economic evaluations, and vote choice, above and beyond their explicit counterparts and conventional controls.[9] These findings, particularly regarding leaners' and conflicted partisans' vote choice, highlight how adopting a dual-process approach to candidate-trait perception produces a fuller picture of voter decision-making than focusing exclusively on self-report. Moreover, these findings demonstrate the value of studying implicit constructs beyond implicit candidate or racial attitudes.

Our findings indicate that between-individual, cross-sectional differences in implicit competence associations predict explicit candidate evaluations, economic evaluations, and vote intentions. Although evidence for the influence of implicit warmth associations is weaker, future research should determine whether the relative impact of implicit competence and implicit warmth associations varies across political campaigns and candidates (e.g., if one of the candidates is female, as women are subject to a complex double bind with regard to warmth and competence; see Fiske, Cuddy, Glick, & Xu, 2002). The office being contested may also affect the relative importance of these traits.

Despite the cross-sectional effects, we also find that within-individual, longitudinal change in implicit trait associations in the final month of the campaign was *not* associated with changes in our outcomes of interest. This result may be driven by the stability of implicit candidate-trait associations late in the campaign. It remains an open, and important, question how changes in implicit trait associations affect voter decision-making at earlier stages of attitude formation and whether these changes are larger in magnitude than those that we observed here. Taken together, these results raise questions for future research regarding the origins of implicit candidate-trait associations early in the campaign and the origins of their relationship with political attitudes and behaviors.

Longitudinal and experimental research early in the campaign would also be able to address the endogeneity of implicit candidate-trait associations with traits such as partisanship and media-consumption patterns. Such endogeneity may bias estimates of the effects of implicit associations or other political traits. Our panel data minimizes some of the endogeneity concerns by showing that implicit associations predict candidate evaluations, economic assessments, and vote choice above explicit candidate assessments, partisanship, and demographics, which may contribute to the formation of implicit candidate associations. Earlier measures would allow researchers to directly study endogeneity by examining how these implicit associations form during a campaign, whether implicit associations result from selective exposure to media and campaigns, and what mechanisms link them to citizens' partisan and ideological attachments.

Studying the formation of implicit candidate-trait associations may also provide other, indirect benefits. Such research may shed light on the formation of incongruent implicit and explicit trait associations. Understanding the origins and consequences of incongruence is an important area for additional investigation, as we find that incongruence affected the voting decisions of independents and conflicted partisans. Future research should examine whether incongruent implicit associations act as a form of cross-pressure making partisans less willing to act in ways consistent with their explicit preferences. In addition, incongruent implicit associations may make voters more persuadable by counter-attitudinal political communications. In this way, implicit-explicit incongruence may weaken partisan identification. One implication of this dynamic is that strength of partisan identification may emerge

[9] In all analyses, we control for the influence of explicit racial attitudes. However, it is possible that implicit racial attitudes contributed to implicit-explicit incongruence among weakly identified partisans and respondents with ambivalent attitudes. Future research should also consider implicit intergroup attitudes as a potential moderator for the incremental effects of implicit trait associations.

as a function of evaluative consistency between implicit and explicit associations. While it remains unlikely that such congruence is a primary determinant of partisan identification, examining the formation of implicit constructs earlier in presidential campaigns would allow for a more direct test of the ways in which implicit processes can lead to change in the strength or direction of partisan identification over the course of the campaign. In sum, future work must examine antecedents, pervasiveness, and consequences of implicit-explicit incongruence in its many forms.

One possible contributor to the existence of implicit-explicit incongruence is the absence of introspective access to implicit associations, which may prevent voters from easily adjusting implicit associations to match explicit preferences in a motivated way. Nonetheless, researchers should actively study the extent to which voters have introspective access to their implicit trait associations, perhaps in the form of "gut feelings" about the candidates, and whether individual differences in introspective awareness carry implications for political cognition and behavior.

In addressing all of these questions, researchers should consider using alternative measurement strategies to capture implicit associations. In this study, we relied on the IAT. One drawback of this methodology is that it only provides a measure of the relative strength with which a trait is associated with a candidate (i.e., how much competence or incompetence is associated with Obama relative to Romney). This approach is appropriate for some research questions, such as explaining vote choice between two candidates. However, it does not allow us to differentiate individuals who associate competence strongly with both candidates from individuals who associate incompetence strongly with both candidates, as the relative association in both cases would be zero. Thus, future research should consider utilizing single-target IATs (Bluemke & Friese, 2007) to obtain absolute measures for each candidate separately rather than relying exclusively on relative measures of implicit associations.

Examining moderators is also an important future direction. We evaluated strength of partisanship and found that implicit processes have greater effects on the attitudes and voting decisions of independents and leaners. Future research should seek to replicate and extend these findings and those of similar work showing stronger effect for implicit attitudes among undecided voters (e.g., Galdi et al., 2008). However, other variables, such as cognitive styles, may operate as moderators. Moreover, future research should consider how implicit processes affect features of voter preferences, like certainty and ambiguity, which have become increasingly important topics in understanding voter behavior (e.g., Peterson, 2005; Tomz & Van Houweling, 2009). For example, implicit-explicit incongruence may lead to greater uncertainty or ambiguity regarding candidate preferences and trait evaluations.

Finally, this research relies on a sample from Amazon Mechanical Turk, which presents its own challenges. Although this sample is considerably more diverse than a student sample, it is not nationally representative. Thus, future research should replicate and extend these findings using other types of convenience samples and, ideally, nationally representative samples. Moreover, some researchers have raised ethical concerns about the use of MTurk samples when respondents are insufficiently compensated for their time (e.g., Williamson, 2016). This is an important discussion in the academic community and is one that we encourage researchers who intend to use MTurk in the future to seriously consider in making research design decisions. Nevertheless, with regard to the hypotheses tested here, because implicit processes occur universally, we expect that the effects of implicit processes among MTurk participants will parallel the general population.

In sum, our results highlight the importance of adopting a dual-process approach to the study of candidate-trait perception and voter decision-making. In order to develop a full and accurate model of political decision-making, political scientists and social psychologists must grapple with the reality of implicit cognitive processes that often operate in tandem or at odds with explicit processes. This research lays groundwork for future interdisciplinary investigations into fundamental social cognitive processes of person perception by demonstrating that the persuasive and mobilizing environment

created by political campaigns provides an excellent testing ground to explore the interplay between implicit and explicit psychological processes.

ACKNOWLEDGMENTS

We would like to thank the Center for the Study of Political Psychology at the University of Minnesota for funding the 2012 Minnesota Multi-Investigator Panel Study from which the data for this project were drawn, as well as Eugene Borgida, Howard Lavine, and Philip Chen, who were instrumental in organizing this effort. We would also like to thank Christopher Federico and the participants of the Political Psychology pro-seminar at the University of Minnesota for their helpful comments and support throughout this process. A previous version of this article was presented at the 2014 annual meeting of the Midwest Political Science Association; our thanks to our discussants, Allison Dale-Riddle and Yanna Krupnikov, for their feedback. Thanks to Leonie Huddy, who also provided comments on an earlier version of this research. Finally, we thank the reviewers and editor for their helpful suggestions. Correspondence concerning this article should be addressed to Aleksander Ksiazkiewicz, University of Illinois at Urbana-Champaign, Department of Political Science, 420 David Kinley Hall MC-713, 1407 W Gregory Drive, Urbana, IL 61801. E-mail: aleksks@illinois.edu

REFERENCES

Amodio, D. M., & Mendoza, S. A. (2010). Implicit intergroup bias: Cognitive, affective, and motivational underpinnings. In B. Gawronski and B. K. Payne (Eds.), *Handbook of implicit social cognition* (pp. 353–374). New York, NY: Guilford.

Arcuri, L., Castelli, L., Galdi, S., Zogmaister, C., & Amadori, A. (2008). Predicting the vote: Implicit attitudes as predictors of the future behavior of decided and undecided voters. *Political Psychology*, *29*(3), 369–387.

Banse, R., Seise, J., & Zerbes, N. (2001). Implicit attitudes towards homosexuality: Reliability, validity, and controllability of the IAT. *Zeitschrift für Experimentelle Psychologie*, *48*, 145–160.

Bartels, L. M. (2002). Beyond the running tally: Partisan bias in political perceptions. *Political Behavior*, *24*(2), 117–150.

Bartels, B. L. (2015). Beyond "fixed versus random effects": A framework for improving substantive and statistical analysis of panel, time-series cross-sectional, and multilevel data. In R. J. Franzese (Ed.), *Quantitative research in political science*. London, United Kingdom: Sage. http://bbartels.weebly.com/publications.html

Berinsky, A. J., Huber, G. A. & Lenz, G. S. (2012). Evaluating online labor markets for experimental research: Amazon.com's Mechanical Turk. *Political Analysis*, *20*(3), 351–368.

Bluemke, M., & Friese, M. (2007). Reliability and validity of the Single-Target IAT (ST-IAT): Assessing automatic affect towards multiple attitude objects. *European Journal of Social Psychology*, *38*, 977–997.

Boysen, G. A., Vogel, D. L., & Madon, S. (2006). A public versus private administration of the Implicit Association Test. *European Journal of Social Psychology*, *36* (6), 845–856.

Buhrmester, M. D., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, *6*, 3–5.

Clifford, S., Jewell, R. M., & Waggoner P. D. (2015). Are samples drawn from Mechanical Turk valid for research on political ideology? *Research & Politics*. doi:10.1177/2053168015622072

Collingwood, L., Barreto, M. A., & Donovan, T. (2012). Early primaries, viability and changing preferences for presidential candidates. *Presidential Studies Quarterly*, *42*(2), 231–255.

Conover, P. J., & Searing, D. D. (2000). A political socialization perspective. In L. M. McDonnell, P. M. Timpane, & R. Benjamin (Eds.), *Rediscovering the democratic purposes of education* (pp. 91–124). Lawrence: University of Kansas Press.

Coppock, A. (2016). Generalizing from survey experiments conducted on Mechanical Turk: A replication approach. Presented at the annual meeting of the Midwest Political Science Association.

Cuddy, A. J. C., Fiske, S. T., & Glick, P. (2008). Warmth and competence as universal dimensions of social perception: The stereotype content model and the BIAS Map. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 40, pp. 61–149). New York, NY: Academic Press.

Duch, R. M., & Stevenson, R. (2010). The global economy, competency, and the economic vote. *Journal of Politics*, *72*, 105–123.

Evans, J. (2008). Dual-processing accounts of reasoning, judgment, and social cognition. *Annual Review of Psychology*, *59*, 255–278.

Evans, G., & Andersen, R. (2006). The political conditioning of economic perceptions. *Journal of Politics*, *68*, 194–207.

Fazio, R. H. (1990). Multiple processes by which attitudes guide behavior: The mode model as an integrative framework. *Advances in Experimental Social Psychology*, *23*, 75–109.

Finn, C., & Glaser, J. (2010). Voter affect and the 2008 U.S. presidential election: Hope and race mattered. *Analyses of Social Issues and Public Policy*, *10*, 262–275.

Fiske, S. T., Cuddy, A. J. C., & Glick, P. (2007). Universal dimensions of social cognition: Warmth, then competence. *Trends in Cognitive Sciences*, *11*, 77–83.

Fiske, S. T., Cuddy, A. J., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, *82*(6), 878.

Fridkin, K. L., & Kenney, P. J. (2011). The role of candidate traits in campaigns. *Journal of Politics*, *73*, 61–73.

Friese, M., Bluemke, M., & Wanke, M. (2007). Predicting voting behavior with implicit attitude measures: The 2002 German parliamentary election. *Experimental Psychology*, *54*(4), 247–255.

Friese, M., Smith, C. T., Plischke, T., Bluemke, M., & Nosek, B. A. (2012). Do implicit attitudes predict actual voting behavior particularly for undecided voters*? PLoS ONE*, *7*(8), e44130.

Funk, C. L. (1997). Implications of political expertise in candidate trait evaluations. *Political Research Quarterly*, *50*(3), 675–697.

Funk, C. L. (1999). Bringing the candidate into models of candidate evaluation. *Journal of Politics*, *61*(3), 700–720.

Galdi, S., Arcuri, L., & Gawronski, B. (2008). Automatic mental associations predict future choices of undecided decision-makers. *Science*, *321*(5892), 1100–1102.

Galdi, S., Gawronski, B., Arcuri, L., & Friese, M. (2012). Selective exposure in decided and undecided individuals: Differential relations to automatic associations and conscious beliefs. *Personality and Social Psychology Bulletin*, *38*(5), 559–569.

Garzia, D. (2011). The personalization of politics in Western democracies: Causes and consequences on leader–follower relationships. *Leadership Quarterly*, *22*(4), 697–709.

Gawronski, B., Galdi, S., & Arcuri, L. (2015). What can political psychology learn from implicit measures? Empirical evidence and new directions. *Political Psychology*, *36*(1), 1–17.

Gawronski, B., Hofmann, W., & Wilbur, C. J. (2006). Are "implicit" attitudes unconscious? *Consciousness and Cognition*, *15*, 485–499.

Goren, P. (2002). Character weakness, partisan bias, and presidential evaluation. *American Journal of Political Science*, *46*, 627–641.

Goren, P. (2007). Character weakness, partisan bias, and presidential evaluations: Modifications and extensions. *Political Behavior*, *29*(3), 305–325.

Graefe, A. (2013). Issue and leader voting in U.S. presidential elections. *Electoral Studies*, *32*(4), 644–657.

Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: Attitudes, self-esteem, and stereotypes. *Psychological Review*, *102*, 4–27.

Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The Implicit Association Test. *Journal of Personality and Social Psychology*, *74*(6), 1464–1480.

Greenwald, A. G., Poehlman, T. A., Uhlmann, E., & Banaji, M. R. (2009). Understanding and using the Implicit Association Test: III. Meta-analysis of predictive validity. *Journal of Personality and Social Psychology*, *97*, 17–41.

Greenwald, A. G., Smith, C. T., Sriram, N., Bar-Anan, Y., & Nosek, B. A. (2009). Implicit race attitudes predicted vote in the 2008 U.S. presidential election. *Analyses of Social Issues and Public Policy*, *9*(1), 241–253.

Greenwald, A. G., Nosek, B. A., & Banaji, M. R. (2003). Understanding and using the Implicit Association Test: I. An improved scoring algorithm. *Journal of Personality and Social Psychology*, *85*(2), 197–216.

Hawkins, C. B., & Nosek, B. A. (2012). Motivated independence? Implicit party identity predicts political judgments among self-proclaimed independents. *Personality and Social Psychology Bulletin*, *38*, 1441–1455.

Heflick, N. A., & Goldenberg, J. L. (2009). Objectifying Sarah Palin: Evidence that objectification causes women to be perceived as less competent and less fully human. *Journal of Experimental Social Psychology*, *45*(3), 598–601.

Henry, P. J. & Sears, D. O. (2002). The symbolic racism 2000 scale. *Political Psychology*, *23*(2), 253–283.

Hofmann, W., Gawronski, B., Gschwendner, T., Le, H., & Schmitt, M. (2005). A meta-analysis on the correlation between the Implicit Association Test and explicit self-report measures. *Personality and Social Psychology Bulletin*, *31*(10), 1369–1385.

Huber, S. (2015). What comes first, character traits or political assessments? An experimental study. In M. C. Lobo & J. Curtice (Eds.), *Personality politics? The role of leader evaluations in democratic elections* (pp. 38–62). New York, NY: Oxford University Press.

Jost, J. T., Rudman, L. A., Blair, I. V., Carney, D. R., Dasgupta, N., Glaser, J., & Hardin, C. D. (2009). The existence of implicit bias is beyond reasonable doubt: A refutation of ideological and methodological objections and executive summary of ten studies that no manager should ignore. *Research in Organizational Behavior*, *29*, 39–69.

Kinder, D. R., Peters, M. D., Abelson, R. P., & Fiske, S. T. (1980). Presidential prototypes. *Political Behavior*, *2*, 315–338.

Ksiazkiewicz, A. (2013). Implicit political knowledge. *PS: Political Science & Politics*, *46*(3), 553–555.

Ksiazkiewicz, A., & Hedrick, J. (2013). Symposium on implicit attitudes in political science research: An introduction. *PS: Political Science and Politics*, *46*(3), 525–531.

Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin*, *108*(3), 480–498.

Lavine, H. G., Johnston, C. D., & Steenbergen, M. R. (2012). *The ambivalent partisan: How critical loyalty promotes democracy*. New York, NY: Oxford University Press.

Levay, K. E., Freese, J., & Druckman, J. N. (2016). The demographic and political composition of Mechanical Turk samples. *Sage Open*. doi:10.1177/2158244016636433.

Lewis-Beck, M. S. (2006). Does economics still matter? Econometrics and the vote. *Journal of Politics*, *68*, 208–212.

Lewis-Beck, M. S., & Stegmaier, M. (2000). Economic determinants of economic outcomes. *Annual Review of Political Science*, *3*(1), 183–219.

Lodge, M., McGraw, K. M., & Stroh, P. (1989). An impression-driven model of candidate evaluation. *American Political Science Review*, *83*(2), 399–419.

Lodge, M., Steenbergen, M. R., & Brau, S. (1995). The responsive voter: Campaign information and the dynamics of candidate evaluation. *American Political Science Review*, *89*(2), 309–326.

Lodge, M., & Taber, C. S. (2005). The automaticity of affect for political leaders, groups, and issues: An experimental test of the hot cognition hypothesis. *Political Psychology*, *26*(3), 455–482.

Lodge, M., & Taber, C. S. (2013). *The rationalizing voter*. New York, NY: Cambridge University Press.

McAllister, A. (2007). The personalization of politics. In R. Dalton & H. Klingemann (Eds.), *The Oxford handbook of political behavior* (pp. 571–588). New York, NY: Oxford University Press.

Miller, A. H., Wattenberg, M. P., & Malanchuk, O. (1986). Schematic assessments of presidential candidates. *American Political Science Review*, *80*(2), 521–540.

Mitchell, J. A., Nosek, B. A., & Banaji, M. R. (2003). Contextual variations in implicit evaluation. *Journal of Experimental Psychology: General*, *132*(3), 455–469.

Morris, J. P., Squires, N. K., Taber, C. S., & Lodge, M. (2003). Activation of political attitudes: A psychophysiological examination of the hot cognition hypothesis. *Political Psychology*, *24*(4), 727–745.

Necka, E. A., Cacioppo, S., Norman, G. J., & Cacioppo J. T. (2016). Measuring the prevalence of problematic respondent behaviors among MTurk, campus, and community participants. *PLoS ONE*, *11*(6), e0157732.

Nosek, B. A., Greenwald, A. G., & Banaji, M. R. (2007). The Implicit Association Test at age 7: A methodological and conceptual review. In J. A. Bargh (Ed.), *Automatic processes in social thinking and behavior* (pp. 265–292). New York, NY: Psychology Press.

Nosek, B. A., & Smyth, F. L. (2007). A multitrait-multimethod validation of the Implicit Association Test: Implicit and explicit attitudes are related but distinct constructs. *Experimental Psychology*, *54*(1), 14–29.

Olivola, C. Y., & Todorov, A. (2010). Elected in 100 milliseconds: Appearance-based trait inferences and voting. *Journal of Nonverbal Behavior*, *34*(2), 83–110.

Payne, B. K., Krosnick, J. A., Pasek, J., Lelkes, Y., Akhtar, O., & Tompson, T. (2010). Implicit and explicit prejudice in the 2008 American presidential election. *Journal of Experimental Social Psychology*, *46*(2), 367–374.

Peterson, D. A. M. (2005). Heterogeneity and certainty in candidate evaluations. *Political Behavior*, *27*(1), 1–24.

Pérez, E. (2010). Explicit evidence on the import of implicit attitudes: The IAT and immigration policy judgments. *Political Behavior*, *32*(4), 517–545.

Pérez, E. (2013). Implicit attitudes: Meaning, measurement, and synergy with political science. *Politics, Groups, and Identities*, *1*(2), 275–297.

Pérez, E. (2016). *Unspoken politics: Implicit attitudes and political thinking*. New York, NY: Cambridge University Press.

Pew Research Center. (2009). From candidate to president. Retrieved from http://www.pewresearch.org/2009/02/09/from-candidate-to-president/

Prysby, C. (2008). Perceptions of candidate character traits and the presidential vote in 2004. *PS: Political Science and Politics*, *41*(01), 115–122.

Rahn, W. M., Krosnick, J. A., & Breuning, M. (1994). Rationalization and derivation processes in survey studies of political candidate evaluation. *American Journal of Political Science*, *38*(3), 582–600.

Redlawsk, D. P., Tolbert, C. J., & Franko, W. (2010). Voters, emotions, and race in 2008: Obama as the first Black president. *Political Research Quarterly*, *63*(4), 874–889.

Sheets, P., Domke, D., & Greenwald, A. G. (2011). God and country: The partisan psychology of the presidency, religion, and nation. *Political Psychology*, *32*, 459–484.

Stanage, N. (2012, April 23). Facing deep likability gap vs. Obama, Romney makes case for competence. The Hill. http://thehill.com/homenews/campaign/222969-likability-vs-competence-the-decision-between-romney-and-obama

Theodoridis, A. G. (2013). Implicit political identity. *PS: Political Science and Politics*, *46*(3), 545–549.

Todorov, A., Mandisodza, A. N., Goren, A., & Hall, C. C. (2005). Inferences of competence from faces predict election outcomes. *Science*, *308*, 1623–1626.

Tomz, M., & Van Houweling, R. P. (2009). The electoral implications of candidate ambiguity. *American Political Science Review*, *103*, 83–98.

Teubel, T., Asendorpf, J. B., Banse, R., & Schnabel, K. (2011). Implicit but not explicit aggressiveness predicts performance outcome in basketball players. *International Journal of Sport Psychology*, *42*, 390–400.

Tufte, E. R. (1978). *Political control of the economy*. Princeton, NJ: Princeton University Press.

Williamson, V. (2016). On the ethics of crowdsourced research. *PS: Political Science & Politics*, *49*, 77–81.

Wilson, T. D., Lindsey, S., & Schooler, T. Y. (2000). A model of dual attitudes. *Psychological Review*, *107*(1), 101–126.

Winter, N. J. G. (2010). Masculine Republicans and feminine Democrats: Gender and Americans' explicit and implicit images of the political parties. *Political Behavior*, *32*(4), 587–61.

Supporting Information

Additional supporting information may be found in the online version of this article at the publisher's website:

Table S1. Summary Statistics

Table S2. Dependent Variable Means and Standard Deviations

Table S3. 2012 Vote Choice by Party Identification

Table S4. Implicit-Explicit Means

Table S5. Implicit-Explicit Correlation

Table S6. Candidate Evaluations

Table S7. Economic Evaluations

Table S8. Candidate Evaluations Moderated by Strength of Partisanship

Table S9. Economic Evaluations Moderated by Strength of Partisanship

Table S10. Major-Party Vote Choice

List of Items Used to Measure Implicit and Explicit Traits