SYMPOSIUM

Implicit Attitudes in Political Science Research

An Introduction to Implicit Attitudes in Political Science Research

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During the past two decades, mounting evidence suggests that much of human social cognition occurs without deliberate effort and largely outside conscious awareness. Dual-process models, which distinguish explicit (conscious, slow, effortful) cognitive processes from implicit (often unconscious, fast, effortless) cognitive processes, "form the dominant paradigm [of social cognition research] for the past 20 years or more" (Evans 2008). Although these advances in social cognition research have begun to be integrated into models of political cognition over the past decade (e.g., Kim, Taber, and Lodge 2010; Lodge and Taber 2013; see Nosek, Graham, and Hawkins 2010 for a review), and are beginning to influence other disciplines like communication (see Hefner et al. 2011), the role of implicit processes in outcomes commonly studied by political scientists deserves more attention. This symposium aims to showcase the diverse set of subject areas within political science to which dual-process models have been and can be applied. We hope that this symposium is a springboard for those who are considering bringing a dual-process approach into their own research by providing an overview of relevant literatures and methods.

In this introduction, we define the construct of implicit associations and lay out the methods used to measure different types of implicit associations. We conclude by highlighting the contributions to the symposium, which cover a wide range of topics relevant to political scientists that could benefit from the further integration of dual-processing theories, including the study of voting, party identification, religion and politics, public opinion, political knowledge, and public policy.

WHAT IS AN IMPLICIT ASSOCIATION?

Many theorists have developed dual-process accounts of social cognition. A review of dual-process models by Evans (2008) lists more than a dozen different taxonomies of the implicit/explicit distinction. In light of this theoretical diversity, we focus on the core propositions that are shared among many dual-process theories of social cognition. Specifically, we focus on how implicit and explicit attitudes differ in introspective access, in the processes that affect their formation and change, and in their effects on behavior.[1]

Dual-process models propose that alongside explicit attitudes, individuals also have implicit attitudes. One of the key dimensions in which implicit attitudes and the implicit processes underlying them differ from their explicit counterparts is their automaticity, which is characterized by differences in their degree of awareness, efficiency, intentionality, and controllability (Bargh 1994; see also Moors and De Houwer 2006). From this perspective, implicit processes operate (relative to explicit processes) with less conscious accessibility, faster, with less or no volition or effort, and largely outside conscious control.

To elucidate the implicit/explicit distinction, consider explicit attitudes, or what political scientists most often refer to simply as attitudes. A defining, if often unstated, characteristic of explicit attitudes is that they are introspectively accessible. Individuals are capable of self-reporting their explicit attitudes, even if they may sometimes be motivated to conceal them and even though the reported attitudes may be subject to variation as a result of framing and priming effects. Although numerous debates about the nature of explicit attitudes appear in the political science literature (e.g., whether they are stable, see Ansolabehere, Rodden, and Snyder 2008; whether they are formed spontaneously from top-of-the-head considerations, see Zaller 1992; the role of ambivalence, see Lavine, Johnston, and Steenbergen 2012) and in psychology (see Bohner and Dickel 2011 for a review covering similar issues), introspective access is often taken for granted in theories of explicit attitudes.

Unlike explicit attitudes, implicit attitudes are either thought of as being entirely outside conscious awareness (e.g., Banaji, Lemm, and Carpenter 2001; Wilson, Lindsey, and Schooler 2000) or, if they are accessible to some degree, as affecting behavior by pathways which lack introspective access

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(e.g., Gawronski, Hofmann, and Wilbur 2006).[2] In either view, implicit attitudes are not simply explicit attitudes that one cannot recall in a given moment, or the considerations that are currently inaccessible during attitude construction in a memory-based model (e.g., Zaller 1992), or the forgotten events that feed into a consciously accessible running tally in an online model (e.g., Lodge, Steenbergen, and Brau 1995). Instead, implicit attitudes rely on automatic, associative systems in memory that differ from the deliberative, propositional systems that underlie explicit attitudes (Gawronski and Bodenhausen 2006a, see the text that follows). Perhaps in support of this point, some researchers suggest that implicit and explicit processes rely on fundamentally different neural pathways (Stanley, Phelps, and Banaji 2008).

Besides being at least partly outside conscious awareness, implicit processes are also faster than explicit processes, they operate with little or no volition or effort, and they are largely outside conscious control (Bargh 1994). In the political science literature, these implicit attitudes have sometimes been explored under the moniker of "hot cognition" with a number of studies suggesting that individuals have evaluative responses which are activated effortlessly within hundreds of milliseconds of exposure to a political target (e.g., Burdein, Lodge, and Taber 2006; Lodge and Taber 2005; Morris, Squires, Taber, and Lodge 2003).

The difference in the automaticity of implicit and explicit attitudes also plays out in the processes that lead to their formation and change. One prominent dual-process theory of attitudes, the associative-propositional evaluation model (APE; Gawronski and Bodenhausen 2006a), attributes implicit attitudes to an associative system of memory and explicit attitudes to a propositional one (but see Albarracín, Hart, and McCulloch 2006; Kruglanski and Dechesne 2006; Petty and Briñol 2006 for comments and critiques of this model and the authors' responses in Gawronski and Bodenhausen, 2006b and elaboration in Gawronski and Bodenhausen 2011). In their view, implicit associations between objects (including attitudes) are formed automatically through the mere co-occurrence of the objects, and these implicit associations are strengthened through repeated exposure. Note that this process occurs regardless of whether the individual considers the information he or she is exposed to be true or false. The implicit system is called "associative" because the individual is learning, largely outside of conscious awareness or control, to associate in memory the attitude object and the evaluation. By contrast, in this model, explicit attitudes are formed through a deliberative process that takes into account the perceived truth or falsity of statements and uses those to adjust prior beliefs. For explicit attitude change to occur, whether in a memory-based or online model, information must be processed consciously, even if it is later discarded.

These differing processes of formation and change, among other factors, result in considerable variability in the degree to which implicit attitudes correlate with explicit attitudes. In situations where the implicit-explicit correlation is low, some individuals may have discordant implicit and explicit attitudes toward the same object. A divergence between implicit and explicit attitudes can form, for example, through repeated exposure to evaluative statements that are deemed by the individual to be false. Aversive racism (Dovidio and Gaertner 2004; Pearson, Dovidio, and Gaertner 2009), which is characterized by racially progressive explicit attitudes and negative implicit attitudes toward racial outgroups, is a prototypical case of implicit-explicit discordance that may form because of repeated exposure to consciously rejected outgroup stereotypes (but see Blanton and Jaccard 2008 for caution about over-interpreting findings of "unconscious racism"). Moreover, recent research suggests that these negative implicit racial attitudes form early in childhood and persist to adulthood (Dunham, Chen, and Banaji 2013). Identifying areas where discordance exists and accounting for it is an important endeavor in understanding political behavior because implicit-explicit discordance has been found to be a predictor of behavior in other domains (e.g., narcissism is predicted by a combination of high explicit self-esteem and low implicit self-esteem, Zeigler-Hill 2006).

It can be difficult to know how to interpret a low implicit-explicit correlation, because many factors can contribute to its occurrence (see meta-analysis by Hofmann et al. 2005 for a review). Measurement error in both implicit and explicit attitudes can contribute to a lower correlation. The reliability of implicit attitude measures has been an often-discussed concern in the literature (Gawronski, Deutsch, and Banse 2011). However, whereas the measurement error in implicit attitudes is largely random and therefore of little theoretical interest, some types of systematic measurement error in explicit attitudes are of theoretical interest. Because of social desirability bias on explicit attitudes in socially sensitive research areas, like racial attitudes, the correlations with implicit attitudes tends to be lower in these areas than in areas where there is no social pressure to conceal one's true attitudes, such as evaluations of political candidates (see meta-analysis by Greenwald et al. 2009a for a review). The distortion of explicit attitudes in these cases is believed to lower the implicit-explicit correlation in these cases, because implicit attitude measurement is

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usually far less susceptible than explicit attitude measurement to social desirability bias and other self-presentational influences (but see Gawronski, LeBel, and Peters 2007). Other types of self-presentational concerns, like the desire to appear objective, can also lead to an implicit-explicit discordance, as among independents in the United States who nonetheless have an implicit preference between the major parties (Hawkins and Nosek 2012).

Implicit and explicit attitudes differ in the types of behaviors they most affect and in the circumstances under which they most affect behavior (for reviews of the effects of implicit attitudes, see Jost et al. 2009 and Petty, Fazio, and Briñol 2009). Partly due to social desirability bias in the measurement of explicit attitudes, implicit attitudes tend to predict behavior better than explicit attitudes in domains that are socially sensitive, whereas explicit attitudes tend to perform better in areas where self-presentation on surveys is less of a concern (Greenwald et al. 2009a). Besides social sensitivity, behaviors that are largely automatic rather than consciously controlled (e.g., body language) tend to be better predicted by implicit attitudes (e.g., Dovidio and Gaertner 2004). Even in deliberative behaviors, implicit attitudes can be important predictors, especially when cognitive resources are low and individuals fall back on automatic processes (Friese, Hofmann, and Schmitt 2009).

Although implicit processes frequently play an important role in behavior, individuals can have some control over the effects elicited by their implicit cognitive processes. Individuals can notice the behavioral effects of implicit processes, even if the implicit processes themselves are not introspectively accessible, and individuals who are aware of these effects can attempt to temper their impact. To exert control on the effects of implicit attitudes, cognitive and time resources are important, as described earlier, but motivation is also a crucial factor in exerting control over the effects of implicit processes for an extended period of time (Blair, 2002). Moreover, situational influences, like framing effects, can also increase or decrease the impact of implicit attitudes on behavior (e.g., Wittenbrink, Judd, and Park 2001b).

MEASURING IMPLICIT ASSOCIATIONS

Political scientists have long been familiar with the survey techniques used to measure explicit attitudes. These techniques can present challenging methodological problems, like self-presentational concerns (e.g., social desirability bias, experimenter demand) and question-order effects. However, because implicit attitudes exist at least partly outside conscious awareness, they cannot be measured with traditional survey methods. Even if respondents were motivated to answer a survey question about their implicit attitudes, they typically could not report them accurately because of their lack of introspective access. As a result, the measurement of implicit attitudes is accomplished through indirect methods (as opposed to the direct methods used in self-report, see De Houwer 2006). Indirect methods rely on the recording of subtle but systematic differences in reaction times in response to stimuli, through priming, or through a combination of these techniques.

Perhaps the most commonly used measure of implicit associations is the aptly named implicit association test (IAT; Greenwald, McGhee, and Schwartz 1998).[3] The basic IAT procedure[4] measures implicit associations between bipolar attributes (e.g., good and bad) and bipolar target categories (e.g., Democrats and Republicans). In the case of implicit attitudes, the resulting statistic, the D-score (Greenwald, Nosek, and Banaji 2003), is a measure of the *relative* preference between the target categories (e.g., a strong implicit preference for Republicans *relative to* Democrats, rather than a strong implicit preference in an absolute sense).[5] The magnitude of the D-score indicates the strength of the preference, and the sign indicates the direction. The IAT is analogous to an explicit measure that uses a Likert scale centered on indifference with the target categories at either end (e.g., "Which candidate do you like more, Barack Obama or Mitt Romney?").

The implicit association test has been extremely useful for researchers of implicit attitudes, with the Greenwald, McGhee, and Schwartz (1998) paper accruing more than 4,500 citations on Google Scholar to date. However, the IAT is only appropriate for cases in which researchers want to contrast two target categories using bipolar concepts, such as a relative preference between two targets. It cannot be used to measure implicit attitudes toward a single target (e.g., a single candidate) or more than two mutually exclusive targets (e.g., parties in a multiparty system). Other reaction-based procedures have been derived from the basic design of the IAT to supplement the researcher's toolkit and allow the measurement of implicit attitudes toward a range of targets.

Researchers who are interested in implicit attitudes toward a single target or in associations of a unipolar concept with two targets should consider the Go/No-Go Association Task (GNAT; Nosek and Banaji 2001), the single-target IAT (ST-IAT; Bluemke and Friese 2008), the single-attribute IAT (SA-IAT; Penke, Eichstaedt, and Asendorpf 2006), the single-category IAT (SC-IAT; Karpinski and Steinman 2006), or the extrinsic affective Simon task (EAST[6]; De Houwer 2003). If the IAT is an implicit analogue to an explicit Likert scale with each target at either end, these derivative tasks are more analogous to a feeling thermometer because they measure the relationship between a single target (e.g., a party) and a pair of concepts (e.g., positive and negative).

At other times researchers may want to measure implicit attitudes toward multipolar targets or multipolar attributes simultaneously. As researchers might string together a series of feeling thermometers at the explicit level to assess attitudes toward a group of target sequentially, several single-target IATs can be arranged serially (as Bluemke and Friese 2008 did to measure implicit preferences among parties in Germany). More parsimoniously, one could use a single procedure, such as a multifactor IAT (Greenwald 2005), which is analogous to ordering parties in terms of preference on a single continuum.[7]

In addition to the IAT and its cousins, an alternative approach to the measurement of implicit attitudes relies on various forms of priming. These tasks vary in the length and complexity of the prime, from subliminal cues that are not consciously perceived to vignettes that the participant is asked to read before completing some other task. Researchers interested in implicit attitudes may want to consider an affective

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priming task (Fazio et al. 1995), a semantic sequential priming task (Wittenbrink, Judd, and Park 1997; for a comparison of affective and semantic priming, see Wittenbrink, Judd, and Park 2001a), Stroop task (Stroop 1935) with priming (see MacLeod 1991 section on semantic variations of the Stroop task), an approach-avoidance task (e.g., Chen and Bargh 1999; Eder and Rothermund 2008), or the affective misattribution procedure[8] (AMP; Payne et al. 2005). One advantage of the priming approach to measuring implicit attitudes is that some of these paradigms, like the word completion task (e.g., Spencer et al. 1998), can be administered on pencil-and-paper surveys (see Vargas, Sekaquaptewa, and von Hippel 2007 for a review). Implicit measures can also be obtained using psychophysiology (see Ito and Cacioppo 2007 for a review). For further reviews of the methods used to measure implicit attitudes, see the edited volume by Wittenbrink and Schwarz (2007) and chapters by Gawronski, Deutsch, and Banse (2011) and De Houwer and Moors (2010).

IMPLICIT PROCESSES AND POLITICAL SCIENCE

Implicit processes have already begun to play a role in political science theorizing. Next, we highlight some areas that have begun to use dual-process approaches, those which could benefit from this development, and the particular symposium articles that address each substantive area more thoroughly.

The area of political science that has most thoroughly integrated implicit measures is the study of vote choice. Implicit partisan preferences are predictive of vote choice (Friese, Bluemke, and Wänke 2007; Roccato and Zogmaister 2010), with some scholars arguing that implicit measures are particularly useful for predicting the votes of undecided voters (Arcuri et al. 2008; Galdi, Arcuri, and Gawronski 2008; but see Friese et al. 2012). In addition, implicit racial bias has been shown to have played a role in US presidential vote choice in 2008 (Greenwald et al. 2009b; Pasek et al. 2009; Payne et al. 2010). Glaser and Finn (2013, this issue) expand on these topics in addressing how and when implicit attitudes play a role in vote choice.

The study of implicit self-concepts (i.e., associations between the self and traits or groups) has become an important field in psychology (see Devos, Huynh, and Banaji 2012 for a review). This approach has yet to be adopted among political scientists, despite long-standing interest in social identities like party identification (Campbell et al. 1960; Green, Palmquist, and Schickler 2002). Theodoridis (2013, this issue) brings these two literatures together to show the strong link that exists between traditional measures of party identification and the implicit association of the self with a political party.

Of course, partisan social identities are not the only ones studied by political scientists. Racial identities, class identities, and religious identities, among others, have been extensively measured at the explicit level and shown to play a role in voter decision making. Albertson (2011) considers how implicit religious identities play an independent role from explicit religious identities in the political process while Orey, Craemer, and Rice (this issue) discuss the differences in implicit racial attitudes among blacks and whites.

One of the key differences between implicit and explicit attitudes, as outlined earlier, is that they differ in their processes of formation and change. Attitude change has been an area of major study among dual-process theorists. The elaboration likelihood model (ELM; Petty and Cacioppo 1986) and heuristic-systematic model (HSM; Chaiken 1980) have been among the most influential theoretical frameworks of attitude change in social psychology in the past two decades and both fall within the broad category of dual-process models. It is natural, then, to apply a dual-process approach to political attitude change.

Citizens hold not only attitudes about the parties, but they also have beliefs about their policy stances and other traits. These beliefs may be reflected in, or incongruent with, the implicit associations that individuals have with the parties. Ksiazkiewicz (2013, this issue) examines how a dual-process approach can be applied to the study of political knowledge.

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Finally, while the previous entries have focused primarily on mass attitudes and behaviors, a dual-process approach is also valuable to scholars with an interest in designing effective public policy (see Nosek and Riskind 2012 for a general discussion). Borgida and Miller (2013, this issue) discuss how dual-process models can shed new light on challenges in public policy implementation by using the issue of racial disparities in criminal justice as a running example.

As the above review demonstrates, many areas of relevance to political science have already benefited from integrating implicit processes into their theorizing, including some that fall beyond the scope of this symposium, such as immigration preferences (Pérez 2010), personality (see articles in the special issue including Banse and Greenwald 2007), and nationalism (Ferguson, Carter, and Hassin 2009). We encourage readers to consult contributions that touch on topic areas related to their own research and to consider how adopting a dual-process approach may enrich their own theorizing and predictive power.

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NOTES

1. Later in the text, we focus on implicit attitudes (associations between a construct and positive or negative valence) rather than the broader category of implicit associations. However, the discussion is equally applicable to other types of widely studied implicit associations, like implicit self-concepts (associations between the self and some trait or group) and implicit stereotypes (associations between a group and some trait or object) (see Greenwald and Banaji 1995).
2. Others have suggested that the conscious-unconscious distinction is too rigid, and that implicit attitudes should be thought of as existing somewhere between consciousness and unconsciousness (Norman 2010).
3. The IAT is a computerized procedure that measures response latencies to simple stimuli. In an IAT trial, the participant is presented with an item on the screen, such as a single word or picture (e.g., great, awful, rose, beetle), which he or she must categorize by pushing one of two response keys. Words or images belong exclusively to one of two target categories (e.g., flowers, insects) or one of two attribute categories (e.g., good, bad). In the test blocks, each response key is assigned two categories (e.g., flowers and good, insects and bad). If a participant is able to sort items more quickly when the flower and good are paired than when insect and good are paired, this suggests that the participant has an implicit preference for flowers over insects.
4. There is also a brief version of the IAT (B-IAT; Sriram and Greenwald 2009)
5. IATs can also be used to measure implicit self-concepts and implicit stereotypes.
6. The EAST task has some problems with low internal consistency (Teige et al. 2004; De Houwer and De Bruycker 2007), but it may be possible to overcome these through careful study design (De Houwer 2009).
7. However, caution should be exercised before selecting the multifactor IAT. This procedure has few citations and the original manuscript has yet to be published.
8. The 2008 ANES time-series contains an AMP to measure implicit racial attitudes which has resulted in some publications (e.g., Finn & Glaser 2010).

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