Abstract

While evidence of explicit prejudice may have declined in the general population as norms against overt bias have taken hold, knowledge of negative stereotypes has been shown to persist in the minds of most citizens. Previous research has shown that political elites can exploit these latent considerations, influencing opinion and shaping candidate evaluations. Many citizens are alarmingly sensitive to subtle stereotypical appeals in campaign rhetoric. This project seeks to build upon this theoretical framework by expanding the consideration of the subtle application of stereotypes to the formation of issue opinions more generally, while also considering the interactive effects of cues and prior predispositions. To do so I use a series of experiments, in which subjects are exposed to implicit verbal and visual cues. The results suggest that contextually neutral visual primes also have powerful effects on opinion, but that these effects may be moderated by explicitly endorsed stereotypes.
Citizens’ lax attitudes toward politics and their general ignorance of most things political have become a key component of the elite-mass relationship. Elites, beholden to citizens for their electoral mandate must focus their appeals to maximize their resonance with citizens. As a result, political rhetoric (and its subsequent reflection in the media) often times takes on a very group-centric tone (Nelson and Kinder 1996). In policy debates, elites shine the spotlight on groups in society, creating ‘target populations’ for policies (Schneider and Ingram 1993). This group-oriented thrust to political discourse leads perceptions of social groups to serve as key components to political cognition by providing context to political objects (Zinni et al. 1997b).

The utility of groups as heuristic devices is thought to derive from individuals’ sentiment toward the highlighted groups. As humans, we have a natural inclination to categorize the world and recognize existing social differences; to sharpen our thinking about the world around us, we think about it in terms of groups and inter-group relations. We recognize groups and have meaningful sentiment about them. Ordinarily, this would seem to be a boon for democracy, not only to citizens, but for doomsayers fearing for the survival of democratic politics. The perception of connections between issues and social groups provides individuals with a level of familiarity with politics they otherwise would lack, as these links allow even the uninformed the opportunity to understand politics like the politically sophisticated (Zinni et al. 1997a).

However, deriving directly from this inclination to organize and categorize the world based upon differences, individuals possess stereotypical considerations about group members as well (Hilton and von Hippel 1996). Such stereotypes are learned and reinforced by interactions with group members (Le Pelley et al. 2010), and are perpetuated by the media (Lasorsa and Dai 2007) and interpersonal communication (Lyons and Kashima 2003). In this project I look at the darker side of group-centric appeals: the process through which issue-group linkages may be exploited through
the priming of social stereotypes. Using three experiments, I examine the effect of verbal and visual
group-stereotype appeals on opinion. The results suggest that subtle group-stereotype primes
significantly affect opinion by virtue of the relationship between the group primed and the issue
being evaluated. The impact of those appeals is however moderated by the strength and extremity
of individuals’ pre-existing stereotypical considerations.

The Omnipresence of Stereotypes

A plethora of stereotypes exist in the minds of citizens. These oversimplifying classifications
and categorizations, and the associated traits develop automatically through everyday interactions.
Facing a complicated social environment, individuals seek to simplify social life and ‘lighten their
cognitive load’ (Hamilton 1981). The end result is that citizens possess a library of characteristics
about groups which become all-too-easy to use in social interactions and judgment tasks (Taylor
1981), all driven by this process of categorization (Fiske and Taylor 2007). In many cases, citizens
are unable to restrain themselves from relying on stereotypes, as such broad-brush generalizations
are activated automatically (Bargh 1999).

Of greater concern is the following: whether or not individuals endorse stereotypical beliefs
about groups, they have knowledge of those stereotypes (Devine 1989). This knowledge makes even
the most stalwartly unbiased capable of stereotyping and prejudice (Arkes and Tetlock 2004). While
stereotypes are an important component of individuals’ perceptions of groups, the role stereotypes
play in public opinion has been given limited attention. Work looking at the effects of stereotypes
on opinion focus on largely on the effects of explicitly stereotypical views on issues with learned
associations, predominantly in the domain of race such as welfare and crime (Gilens 1996; Hurwitz
and Peffley 2005, 1997; Kinder and Sanders 1996) or their implications for candidate choice
(Berinsky and Mendelberg 2005; Mendelberg 2001; Valentino et al. 2002).
Given the proliferation of groups in society and the predominance of stereotypical considerations in the minds of citizens, the domain of applicability of stereotypical considerations is much broader. Stereotypes need not operate only through the choice to explicitly base an opinion on recalled stereotypical considerations. Stereotypical considerations may be activated and applied to political judgments without conscious awareness in response to certain stimuli through priming.

**Priming as Process**

Priming changes the salience of considerations, making them more accessible. As a result, primed considerations are more likely to come to mind and influence perceptions (Higgins 1996). Priming occurs in response to exposure to some environmental stimulus; individuals may be primed by rhetorical elements, imagery, and even subconscious stimuli. The consequence for opinion is simple – primed considerations become more likely to shape opinions as they are being formed. However, their effectiveness is not limitless; primes must fit closely with the outcome they are meant to influence for priming effects to be observed (Iyengar and Kinder 1987; Moskowitz et al. 1999; Bodenhausen and Wyer 1985).

Priming can occur consciously or unconsciously. Individuals' cognitive responses to each of these types of primes are consistent – in both cases, primed considerations become more salient. The difference lies in behavioral outcomes. When appeals are overt, such as an explicit reference to a social group, the effects of the prime are consciously transferred from long-term to working memory. As a consequence, individuals are aware of the considerations which have been primed when appeals are explicit. Awareness is one of the key components to the inhibition of automatic stereotyping effects (Banaji and Hardin 1996; Blair and Banaji 1996). Explicitly primed considerations may come to mind, but their impact may be ‘headed off at the pass’ so to speak, as individuals are able to consciously decide whether to accept the primed stereotypes and integrate
them into a judgment, or reject them and search memory for different, less-objectionable considerations.

Implicit primes conversely are less overt. While they also prime considerations, they do so ‘under the radar,’ below the level of conscious processing. Subconscious activation prevents individuals from inhibiting the application of activated cues, leading to evaluations, decisions, and opinions which could be considered biased (Banaji and Greenwald 1994; Hess et al. 2004).

*Priming and Politics*

Previous work on priming in the domain of political science has demonstrated varied effects for primes on citizen opinion and action. Issue primes alter the importance of considerations individuals use when forming evaluations of candidates and government officials (Druckman 2004; Krosnick and Kinder 1990; Iyengar and Kinder 1987). Additionally, stereotypical group considerations embedded in the campaign context have also been shown to significantly shape individuals’ views of candidates (Berinsky and Mendelberg 2005; Mendelberg 2001; Valentino et al. 2002; Valentino 1999).

Building from these findings, this project examines the breadth of the impact group stereotype primes have on public opinion. The focus is on evaluating whether the effects of stereotype primes on opinion vary as a function of fit between prime and judgment, and the extent to which the nature of the appeal and prior predispositions moderate priming effects. When issues become tied to social groups, primed group stereotypes should in turn become the basis for the decision process, unless the recipient is able and willing to counteract them (Blair and Banaji 1996).

Priming effects should not be observed for issues without existing linkages; group evaluations and the effects of group identification are less likely to be brought to bear on issue opinion under conditions no overt tie between issue and group exists (Taber 2003). The effects of stereotype
primes on opinion should be affected by the nature and strength of their previously existing stereotypical predispositions (Valentino et al. 2002).

Research Design and Expectations

To test the effects of group stereotype primes on issue opinions, I conduct three experimental studies. In Study 1, the effects of implicit rhetorical primes are tested across opinion for a battery of issues. Study 2 compares the effects of implicit and explicit rhetorical primes on issue opinion, while also measuring the degree to which priming effects are moderated by prior attitudes. Finally, Study 3 examines the effects of implicit visual primes on issue opinion in addition to measuring the moderating effect of prior beliefs.

Study 1 – Implicit Stereotype Priming

In this study, participants were 254 undergraduates, recruited from political science courses at a Western research university in exchange for course credit. Subjects were randomly assigned to one of four conditions: partisan stereotype prime, racial stereotype prime, negative prime (to be discussed in greater detail below), or no prime condition (control). As subjects arrived for the study, they were greeted and seated in the experimental lab at a computer terminal, and asked to follow the on-screen instructions. Subjects were initially asked to complete a political awareness battery before being randomly assigned to one of the four conditions described above. In all conditions, subjects were asked to complete what was described as a ‘language proficiency task,’ in which the experimental primes were embedded. Following the priming task, subjects were asked to evaluate a series of issues which will compose the key dependent variables for the analysis. Afterward, subjects completed a series of unrelated items and a demographic battery before being thanked and dismissed.
**Treatment Manipulation**

The experimental manipulation consists of a scrambled sentence task (Bargh et al. 1996; Srull and Wyer Jr. 1979; Stapel and Koomen 2005), commonly used in psychology to prime stereotypes. In the task, subjects are presented with a series of sentence components in random order and are asked to form them into the most grammatically correct sentence possible before proceeding. Embedded within these sentence components are the experimental primes designed to evoke group stereotypes. The novelty of this design is that it allows for the priming of group stereotypes without additional context. Subjects should be focused on the task at hand without being exposed to additional stimuli which could potentially contaminate priming effects.

The scrambled sentence task, as stated above, asked subjects to assemble randomly ordered words into as grammatically correct sentence as possible. To reinforce priming effects, subjects were asked to complete five unique trials, in each of which was embedded a stereotype prime relevant to the group for that experimental condition. A screenshot of one of these trials is presented in the Appendix. In the partisan prime treatment, the cues were designed to invoke common stereotypical tendencies underwriting criticisms of members of the Democratic Party.¹ In the racial priming treatment, the trait cues were meant to invoke stereotypical traits of racial minorities.² The third manipulation, the negative priming treatment, contains negatively valenced words without particular group connotations.³ The negative prime condition was included in the study in order to act as something of a secondary control. If each of the conditions simply primed

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¹ These partisan adjectives were as follows: liberal, peaceful, wasteful, soft, and careless. These traits were derived from a study comparing the characteristics of Democrats and Republicans respectively, evaluating the use of stereotyping in perceiving candidates (Carter 1962). The traits listed above were not derived directly from the study, as it involved paired positive, rather than negative ideological considerations.

² These racial adjectives were as follows: violent, lazy, dishonest, hostile, and stupid. These terms were derived based upon a study of the strength of association between groups and associated traits, whose results suggested a stronger association between the above characteristics and African Americans, as compared to Whites (Gaertner and McLaughlin 1983).

³ These negative adjectives were as follows: mad, ill, weak, filthy, and bitter, taken from a study examining positive and negative affective reactions to word pairs (Rogers and Revelle 1998). The terms used for the study were selected from those evaluated to be unpleasant that did not have possible group associations.
negative affect rather than stereotypical considerations, we should observe similar patterns of effects across experimental treatments. Subjects in the control group also completed 5 trials of the scrambled sentence task. In the place of the trait adjectives meant to invoke group stereotypes, the sentence task contained carefully selected words without group or affective connotations.\textsuperscript{4} Having all subjects complete identical tasks, rather than having those in the control receive no trials is meant to minimize any differences in fatigue across all subjects by ensuring all participants complete the same number of trials.\textsuperscript{5}

**Dependent Variables**

To estimate the impact of group stereotype primes on issue opinions, subjects were asked to evaluate three issues with varied groups associations: the Iraq War, Social Security reform, and immigration reform\textsuperscript{6}. Questions were coded to run from most conservative to most liberal, such that the stereotype primes should decrease support across issues. This leads to the following general expectation:

*H1 (Applicability Hypothesis):* As the strength of the link between an issue and group increases, group stereotypes should be more likely to influence opinion.

I expect that the stereotype primes should only influence issue opinions for issues where there exist associations between issue and group. For all other issues lacking connections to the primed group I would expect no effect. From this general expectation, more specific expectations will be discussed for each issue.

\textsuperscript{4} These neutral adjectives were as follows: even, close, wide, flat, and plain.
\textsuperscript{5} 11 subjects were dropped from the analysis because the average time for the experimental treatment trials were greater than two standard deviations from the average priming time. These subjects were excluded based on the belief that such large response times indicate either difficulty with the task, or distraction, both of which could inhibit priming effects.
\textsuperscript{6} Question wording is as follows: Iraq War: ‘Do you favor or oppose continued US involvement in Iraq?’ Social Security reform: ‘Do you favor or oppose reforming Social Security?’ Immigration: ‘Would you favor or oppose the implementation of tighter controls over illegal immigration?’
Social Groups and the Iraq War

While the War in Iraq began with largely bipartisan support, it has evolved into one of the most hotly contested issues facing voters. At that point, the conflict had become perhaps the most partisan use of military force in history (Jacobson 2008). Consider opinion toward war and military action more generally, Republicans are typically given ownership of foreign policy issues, and are perceived as more credible in handling such (Petrocik 1996). Both the temporally proximate conditions and the general linkage between partisanship and war suggest a situation ripe for partisan priming. As such, I expect the partisan prime to significantly decrease opposition to the War (H2).

Comparatively, the issue of race and the War in Iraq is much less clear-cut. While research has found a connection between an individuals’ race and their support for conflict (Gartner and Segura 2000; Nincic and Nincic 2002), the Iraq War has not been debated as an issue of race. This suggests that the race prime should have no effect on opinion toward the War (H3).

Social Groups and Social Security

While Social Security originated as a Democratic policy, emerging from FDR’s New Deal, it has enjoyed largely bipartisan support from that point. Politicians from both sides of the aisle have generally treated Social Security as a political ‘third rail,’ maintaining a hands-off attitude and preserving the status quo (Béland 2005). However, at the time of the study, President Bush had, based upon his electoral mandate, launched a full-scale effort attempting to push forth privatization of the Social Security system (Eshbaugh-Soha and Peake 2006), linking reform with considerations of Bush and the Republican Party. I argue that this visible linkage should lead the negative partisan prime to decrease opposition to reform (H4).

Over time, Social Security has also acquired another association. Visibly, Social Security is considered the opposite of welfare, as it is based on payroll contributions, rather than getting
‘something for nothing.’ Social Security has been shown to have become racialized through the use of political rhetoric stressing hard work, with the availability of social security upon retirement as its reward (Winter 2006). In work examining the frames elites use and their influence on opinion, Winter finds that the above frames lead both positive affect toward whites and resentment toward African Americans (as measured by explicit stereotypes) to significantly predict support for social security (Winter 2008). This attachment, in combination with the association between nonwhites and welfare would also give reason to believe priming racial stereotypes should decreasing opposition to reform (H5).

Social Groups and Immigration

Immigration as a partisan issue is another difficult case to pinpoint. When considering issue ownership, neither party has a strong claim, although both have carved out distinct positions. Republicans arguably have the most prominent position, in the extremes calling not only for the deportation of illegal immigrants, but also the erection of a wall or fence to cover the United States’ borders. In the past however, immigration has lead to ideological splintering among liberals as well as conservatives (Tichenor 1994). Studies using partisanship and ideological orientation to predict immigration opinion have in fact struggled to find relationships between the two (Citrin et al. 1997). In this sense, priming partisan stereotypes should have little consistent impact on immigration opinion, because of the lack of strong associations (H6).

The same would seem to be true, at first glance, for the ties between immigration opinion and racial stereotypes as conceived by this study. However, scholarship suggests that dismissing such associations out of hand may be taking a limited perspective of the issue. This position is

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7 At their face, the primes in the race priming condition were designed to activate stereotypes of Blacks. However, there is a good deal of overlap between these stereotypical traits and traits of Latinos, which would have a clear relationship to opinion on immigration.
suggested by findings of previous research showing that racial context influenced individual attitudes on immigration initiatives. Individuals living in areas with moderately large African American populations were more likely to support California’s anti-immigrant ballot proposition (Tolbert and Hero 1996). Additionally, stereotypes of African Americans have been shown to predict opposition to immigration, as part of what has been characterized as ‘primitive racism’ in which opposition to one out-group predicts opposition to others (Burns and Gimpel 2000). This suggests a potential link between negative racial stereotypes (as conceived by this study) and attitudes toward immigration. As a consequence, I expect that priming racial stereotypes should decrease opposition to tougher restrictions on illegal immigration (H7).

Each of the three dependent variables is measured on five-point scales, from strongly favor to strongly oppose. For the purpose of these analyses, each measure is rescaled so 1 represents the most conservative response and 5 the most liberal. To estimate the effects of the priming treatments on issue opinion, I regress each of the three measures separately on dummy variables for the treatments, as well as control variables.8

Explanatory Variables

In the model I include dummy variables for the partisan, race, and negative prime treatments (the no prime condition serves as the reference category). In addition to these measures, I include measures of political knowledge and political attention (days per week watching television about politics and days per week spent watching discussing politics with others)9 due to concerns about

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8 While one of the virtues of experimental design is the random assignment of subjects to treatment conditions (which theoretically eliminates the need to include control variables – see McDermott 2002), randomization sometimes breaks down through random chance. This leads to an unequal distribution of characteristics across cells, necessitating the inclusion of control variables (Ansolabehere and Iyengar 1995). Results from a multinomial logit testing for the equal distribution of individual characteristics across conditions suggested that two covariates (political knowledge and political attention) were not evenly distributed across conditions. These results are not shown.

9 Political knowledge is based on an additive index of eight items, combining standard civics items relating to government procedure with questions asking subjects to identify current political figures. Political attention is measured
their unequal distribution across conditions. The results of these analyses are presented as three separate ordered probit regressions in Table 1.

**Table 1 about here**

Table 1 presents strong support for the Applicability hypothesis. Of the six specific expectations for priming effects across the three issues, significant priming effects are observed for four. Partisan priming effects are found for both Iraq War and Social Security opinion, but not for Immigration. Additionally, significant negative effects are observed for the racial prime for Social Security and Immigration, but not the Iraq War, again as expected.

While these results are quite telling with respect to the ways in which coded rhetoric can shape opinion, there is more that can be taken from this analysis. Using these estimates, we can observe the extent of the impact such primes have on opinion by generating predicted probabilities and comparing those likelihoods to the control. I generate predicted probabilities for the likelihood of favoring and opposing each issue for each treatment condition. From these probabilities, I then calculate the difference between the probabilities for the treatment and control groups to demonstrate the effect sizes of the primes; these differences are plotted in Figure 1.

**Figure 1 about here**

Figure 1 shows the probability of supporting and opposing each issue, by treatment condition. For the significant treatment effects, we see modest shifts in opinion relative to the control group across each of the three issues of interest.

The Iraq War, at the time of the study, was a distinctly unpopular conflict. Because of this, the observed effects are particularly interesting. The partisan stereotype cues were designed to evoke negative beliefs linked to liberals, increasing support for the war. The Iraq War probability plot, using two separate measures: the number of days per week individuals report watching a television program about politics and the number of days spent discussing politics per week. Both measures are collapsed into dummy variables to capture the effects of high levels of knowledge and attention on opinion; for each measure those above the median are coded as ‘1,’ and ‘0’ otherwise.
which appears in the upper-left quadrant in Figure 1 shows the partisan stereotype prime increases the probability of supporting the war by 5 percentage points, relative to the control group. The treatment also decreases opposition to the war by over 15 percentage points relative to the control.

The substantive effects of the treatments on Social Security opinion appear in the upper-right quadrant of Figure 1. As noted in Table 1, each of the experimental treatments has a significant impact on opinion toward Social Security reform. The partisan priming treatment increases support by nearly 12 percentage points, while decreasing opposition by slightly less than 3 percentage points, relative to the control. The race priming treatment has a slightly larger impact, increasing support by nearly 14 percentage points, while decreasing opposition by 3 percentage points versus the control. Most interesting however is that the largest effects on opinion are observed for the negative priming treatment, which was not expected to influence any of the outcomes.

The lower left quadrant of Figure 1 unpacks the substantive impact of the treatments on support for immigration restrictions. While the effects of the partisan prime are negligible, as expected, shifting opinion only three percentage points in each direction, both the race and negative priming treatment have modest impacts. Individuals primed with negative racial stereotypes become much more likely to favor tougher restrictions on immigration (a nearly 11 percentage point increase relative to the control), while also being 6 percentage points less likely to oppose such restrictions.

Considering these findings generally, these results show us the influence that simple rhetorical cues can have on issue opinions. In all cases but one, by priming negative considerations using stereotypical traits attributed to a particular social group led individuals to be less supportive of issues benefiting those groups, and more willing to support issues which punish associated group members. Additionally, the priming effects persisted in the short-term. The issue battery was presented in random order; the fact that priming effects are observable after respondents were asked
a series of questions for which primed considerations may or may not have been directly applicable suggests a certain resilience of priming, at least in the short term. Activating additional considerations (as would likely occur when subjects were asked a question for which primed considerations were irrelevant, forcing them to search for alternative considerations in memory) does not appear to deactivate priming. Poor fit between issue and primed stereotype does not appear to deactivate primed considerations, at least not in the short term.

Furthermore, the results also suggest that it is possible that group stereotypes influence issue opinion independent of prior group orientations. Insufficient evidence exists from the initial study to determine to what degree these negative priming effects are moderated by the effects of group predispositions on associated issue opinion, something which is addressed in Studies 2 and 3. In the current study, one must rely on the random assignment of subjects to experimental conditions, which should ensure an equivalent distribution of beliefs across treatments.

Discussion

These patterns indicate the power that subtle group cues can have on issue opinions. In a similar fashion to previous work looking at the effects of implicit stereotype cues, these subtle cues can and do have real effects on issue opinions. Looking more broadly, we see that these implicit cues, which are meant to build from established issue-group linkages, are not broadly applicable. These primes can in fact have limitations on their applicability based upon the relevance of the prime to the judgment at hand. I show that simple exposure to particular rhetorical cues evokes biases in behavior, regardless of prior predispositions.10 These effects also persist in the short term; after receiving the cue, subjects were presented with the issue battery in random order, which would

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10 I make this assertion based upon the fact that these effects persist after controlling for partisanship and ideology, which should act as moderating factors of the primes on opinion. Additionally, because of the nature of random assignment across conditions, group predispositions should also be evenly distributed across cells, meaning the emergence of priming effects are observed regardless of prior predispositions.
force them to call up additional cues in instances for which the stereotype primes were not immediately relevant.

Additionally, the results add a new twist to the implications of issue-group associations for political behavior. For issues that have been successfully framed as benefiting or targeting a particular group (a process which may be done explicitly, or through a more subtle implication process), group predispositions shape behavior for associated issues by serving as useful heuristics in evaluating even unfamiliar issues (Nelson 1999; Nelson and Kinder 1996). What we take from this study is that these ties not only allow individuals to understand and evaluate issues, they make individuals susceptible to bias, and persisting bias at that. Whether these responses lead to stronger ties between groups and social stereotypes, which would have larger implications for behavior and the nature of public opinion is less clear. These analyses suggest this may occur for very salient issues, but strong conclusions may not be drawn.

The findings from Study 1 are highly suggestive of the power of subtle group appeals to shape opinion. What goes unconsidered in these analyses the extent to which priming effects may be moderated by both conscious considerations of the groups being primed, and the strength of those beliefs. I test these interactive relationships in Studies 2 and 3.

**Study 2 – Implicit versus Explicit Stereotype Priming**

Participants in Study 2 were 199 undergraduates recruited from political science courses in exchange for course credit. The procedures for Study 2 were similar to Study 1, with the addition of a group stereotype battery which was completed prior to subjects’ completion of the treatment

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11 Of these, 197 completed all components of the study. Five subjects were excluded from the analysis due to difficulty completing the priming task (three from the implicit condition and two from the explicit condition).
battery. In the stereotype battery subjects were asked to evaluate a series of groups on multiple stereotype dimensions before being randomly assigned to one of the three experimental conditions: the implicit priming task, the explicit priming task, or the control. Following the treatment conditions all subjects responded to an issue battery.

As in Study 1, the implicit priming task consisted of repeated trials of a scrambled sentence task in which were embedded the stereotypical traits designed to prime considerations of homosexuals. The explicit priming task consisted of repeated trials in which subjects were explicitly asked to list their thoughts about homosexuals. Subjects in the control proceeded immediately from the stereotype battery to the issue battery.

Dependent variables

To examine the effects of group stereotype priming on opinion I examine two issues with plausible linkages to homosexuals: protection from job discrimination, and freedom to marry. These issues also allow for a nice test of how the strength of issue-group linkages affects stereotype priming. While both issues are plausibly linked to the gay community, freedom of marriage could be considered almost exclusively a homosexual issue; such variation in linkages allows for a comparative test the effect of primes and group dispositions on opinion. Both measures are coded to run from most conservative response to most liberal response.

12 The battery contained a variety of groups, presented in random order from categories of race (Blacks, Whites, Asian, and Hispanics), religion (Muslims and Christian Fundamentalists), and Homosexuals.
13 For purposes of this analysis I focus on whether group members are considered to be moral or immoral, and easy or hard to get along with. Subjects were also asked to evaluate group members on the following dimensions: hardworking-lazy, trustworthy-untrustworthy, and intelligent-unintelligent.
14 The words embedded in the treatments are as follows: fashionable, feminine, creative, emotional, friendly, unathletic, queer, weak, sensitive, and clean, taken from previous research on homosexual stereotyping (Biernat and Ma 2005; Golebiowska 1996; Simmons 1965).
15 Question wording is as follows: Job discrimination: ‘Do you favor or oppose laws that protect individuals against job discrimination?’ Freedom of marriage: ‘Should all couples be allowed to marry, or do you think they should not be allowed to marry?’
Explanatory variables

The initial focus of the analysis is on the effects of the experimental manipulations. For these treatments, I have the following expectations:

\textit{H1 (Implicit Priming Hypothesis):} Subjects in the implicit priming treatment should be less supportive than those in the control.

\textit{H2 (Explicit Priming Hypothesis):} Subjects in the explicit priming treatment should be no different from those in the control.

These expectations derive from the discussion of priming effects above. Implicit primes are thought to shape attitudes below the level of conscious awareness, leading individuals to apply those primed stereotypes to relevant judgments uncontrollably. Conversely, explicit primes make those considerations salient \textit{consciously}, allowing for individuals to prevent their application to relevant judgments.

In addition to dummy variables for the experimental manipulations (for which the control serves as the reference) I include a measure of explicitly endorsed stereotypes toward homosexuals. This measure consists of an additive index of two measures from the stereotype battery; the moral-immoral measure and the easy-hard to get along with measure.\textsuperscript{16} This measure is then rescaled to run from -1 (positive stereotypes) to 1 (negative stereotypes). It is included to test the following expectations:

\textit{H3 (Stereotyping Hypothesis):} Subjects should be less supportive of issues linked to homosexuals as their stereotypes of homosexuals become more negative.

Explicitly endorsed stereotypes toward homosexuals should have an independent effect on opinion to the extent to which the subject perceives a link between the stereotyped group and the judgment task, and is willing to apply those stereotypes to their judgment. I would expect that subjects who possess negative stereotypes toward homosexuals should be less supportive of issues they view as being linked to homosexuals.

\textsuperscript{16} These items are modestly related, with an alpha measure of 0.50.
In addition to these independent effects, I also expect there to be an interactive effect between the implicit priming treatment and an individuals’ preexisting stereotypical group considerations:

$H_4$ (Moderating Hypotheses): Subjects in the implicit priming treatment should be less supportive of issues linked to homosexuals as their stereotypes become more negative

The implicit priming treatment is meant to invoke subjects’ negative stereotypes of homosexuals, decreasing support for issues linked to the group. Individuals who explicitly endorse negative stereotypes of homosexuals in essence find those beliefs to be ‘amplified’ by the experimental manipulation, while those who explicitly endorse positive considerations should find their positive beliefs offset by the prime.

To estimate the joint effects of explicit stereotypical considerations and the priming treatments I estimate a series of ordered probit regressions in Table 2. Columns 1 and 2 consider the effects of priming and stereotypes on opinion toward protection from job discrimination, while columns 3 and 4 present the results from regressing support for marriage rights on the treatment variables and stereotype considerations.

Table 2 about here

The first column of Table 2 presents the simple main effects of the priming manipulations and explicit stereotypes on support for protection against job discrimination. As expected, the Implicit priming treatment is negative and significant, while the Explicit prime has no discernible effect on opinion relative to the control. Independent of the treatment effects, the stereotype measure also significantly influences behavior – as subjects’ stereotypes toward homosexuals become more negative, support for job discrimination protections decreases. These findings provide initial support for the three independent hypotheses. Column 2 expands upon these analyses by examining the extent to which the treatment effects are conditioned by existing predispositions, a test of $H_4$. 
In the model we see significant effects for the explicit measure of stereotypes, and their interaction with the implicit treatment. Based on the coding of these variables, the significant negative effect for the stereotype measure suggests that as subjects in the control become more negatively disposed to homosexuals, they are less supportive of job discrimination protections. Conversely, for subjects in the implicit condition with more negative stereotypes, the treatment increases support. When we consider the net effect of the treatment and stereotypes, it would suggest that the implicit priming treatment offsets the effects of personal stereotypical predispositions, but in the opposite manner one would expect.

Due to the highly conditional nature of the models the interpretation of these effects is more easily done by examining predicted probabilities. To generate the probabilities I allow individuals’ stereotypical predispositions to vary as I generate the differential probability of supporting job discrimination protections for the Implicit and Explicit priming treatments, as compared to the Control. These probabilities are plotted in Figure 2.

**Figure 2 about here**

The results plotted in the panels of Figure 2 add some clarity to the results from Table 2. The effects of stereotypes toward homosexuals are in essence no different for subjects in the Explicit priming treatment as in the Control, in line with expectations. By making stereotypical considerations explicitly conscious, subjects could make a conscious choice as to whether to apply the primed stereotypical considerations. Subjects in the control instead simply applied their stereotypical considerations toward homosexuals as they perceived a fit between those considerations and the judgment at hand.

The effect of the interaction between stereotypes and the Implicit priming treatment on the likelihood of support presents a much different picture. Rather than *amplifying* the effects of stereotypes on opinion, it would appear that the Implicit treatment *replaces* the effects of stereotypes.
Subjects who ordinarily would be positively disposed toward homosexuals are much less supportive of job discrimination protections than subjects in both the Control and Explicit conditions with similar stereotypical dispositions (a difference of more than 40 percentage points). This gap reverses as stereotypes toward homosexuals become more negative, as those in both the Explicit treatment and Control become less supportive of job discrimination protections than those in the Implicit condition (again, a difference of more than 20 percentage points).

This suggests that, regardless of individuals’ stereotypical predispositions, the Implicit prime had a powerful effect on opinion. While a reliance on one’s own personal stereotypical predispositions produced a more dramatic shift in the probability of support as a function of the valence of those stereotypes as seen in the Explicit condition and Control, the powerful and persisting effect of the Implicit treatment in spite of one’s own predispositions is normatively troubling. By preventing the ordinarily positively disposed from making use of those considerations when forming opinions, the Implicit treatment suggests further the possibility of biased perceptions and prejudicial judgments at the hands of simple rhetorical cues.

The analyses in the third and fourth columns of Table 2 examine the effects of priming and preexisting stereotypical considerations on an issue which could be argued to be explicitly connected to homosexuals – the right to freely marry. In Model 1, neither of the experimental manipulations produced effects on the probability of support for marital freedoms. Instead, only subjects’ stereotypical considerations had a significant influence on opinion, in the expected direction. I may only speculate as to the failure of the Implicit treatment to obtain significant priming effects; it is possible that because the issue is almost certainly explicitly a concern regarding homosexuals that this somehow produced offsetting priming effects across individuals as a function of their preexisting stereotypical considerations. To ascertain whether stereotypes condition the priming
treatment, I generate interactions among the treatments and the stereotype index, as in the earlier models in Table 2. These estimates appear in the fourth column of Table 2.

The findings from Model 2 are much more in line with the expectations of H4. As with Model 1, the stereotype index is negative and significant, indicating that stereotypes significantly affect opinion for subjects in the control, decreasing support for marital freedom. The interaction between the stereotype index and the Implicit priming treatment is also negative and significant, resulting in a very large negative net effect for the prime and stereotypical considerations on opinion, supporting the Moderation hypothesis.

To illustrate the substantive impact of the findings from Table 2, I generate predicted probabilities in the same manner as those presented in Figure 2. Again, I plot the probability of support for subjects by experimental condition, allowing their stereotypical predispositions to vary. These plots appear in Figure 3.

**Figure 3 about here**

As with the plots in Figure 2, the probabilities in Figure 3 paint an interesting picture, albeit a much more dramatic one. Rather than serving as a replacement for stereotypes, as the findings from Table 2 would suggest, the Implicit prime *amplifies* the effect of stereotypes on opinion. Perhaps of greater interest is that this effect appears to occur as a function of individuals preexisting considerations, whether positive or negative. Subjects in the Implicit treatment with positive stereotypes toward homosexuals are much more supportive than subjects in the control (a difference of about 20 percentage points at the most positive end of the stereotype scale). As stereotypes become more negative, support declines; at the negative extreme of the stereotype index, subjects in the Implicit treatment are the least supportive of marital freedom, although the gap is somewhat smaller (around 10 percentage points). Subjects in the Explicit condition differ little from the control.
Study 3 – Implicit Priming and Explicit Stereotypes

Participants in Study 3 were 348 undergraduates, recruited from political science courses in exchange for course credit. Experimental procedures were identical to the previous two studies. Subjects were randomly assigned to the race prime treatment condition or the no prime condition (control).

Treatment Manipulation

The treatment manipulation consists of a mock newspaper article with an accompanying image, which is provided in the Appendix. In the treatment conditions, subjects were presented with an image of African Americans which accompanied the article described above. Image based primes such as these are argued to implicitly prime stereotypes (Mendelberg 2001; Valentino et al. 2002). More importantly for this study, the article and image together resembles common media that citizens could expect to encounter in their every-day lives. The operative mechanism here suggests that contact with an exemplar of a category is sufficient to prime group-related stereotypes automatically (Hilton and von Hippel 1996). Following this, subjects were asked to evaluate an issue battery, in which questions were presented to subjects in random order.

Dependent Variables

To examine the effects of group stereotype priming and explicitly measured stereotypes on opinion I examine subject responses to an issue with an existing linkage to African Americans as a group (welfare spending) and an issue for which explicit stereotypes may influence opinion, as seen in Study 1 (immigration restrictions).\(^{17}\) These issues also allow for a nice test of how the strength of

\(^{17}\) Question wording is as follows: Welfare spending: Would you favor or oppose an increase in federal spending on welfare programs? Immigration restrictions: Would you favor or oppose increasing federal spending on tightening border security to prevent illegal immigration?
issue-group linkages affects stereotype priming. While welfare is linked, for better or for worse, to the African Americans community, immigration (and immigration reform) is not. However, as noted above, associations exist between stereotypes of African Americans and opinion on immigration, making it an interesting test of the effects of priming and stereotype fit on opinion. Both measures are coded to run from most conservative response to most liberal response.

**Explanatory Variables**

The initial focus of the analysis is on the effects of the experimental manipulation on opinion. To test these effects I include a dummy variable for both the implicit race prime treatments (the control is the reference category). This will be used to test the following initial expectation:

**H1 (Implicit Priming Hypothesis):** Subjects in the implicit priming treatment should be less supportive than those in the control on issues linked to African Americans.

This expectation derives from the discussion of priming effects above. Subconscious primes are thought to shape attitudes below the level of conscious awareness, leading individuals to apply those primed stereotypes to relevant judgments.

In addition to dummy variables for the African American stereotype prime condition, I account for individuals’ stereotypical considerations toward African Americans using a series of measures taken from subjects’ response to a stereotype battery. Here, subjects were asked to rate African Americans (in addition to Whites, the Elderly, and Young people) on three stereotype dimensions (hardworking-lazy, trustworthy-untrustworthy, and intelligent-unintelligent). For each dimension, the groups were presented in random order. These measures result in three seven-point scales, ranging from 1 (most positive stereotypes) to 7 (most negative stereotypes). These measures are summed to form a stereotype index, which is then rescaled to run from -1 (most positive
stereotypes) to 1 (most negative stereotypes). This measure will be used to test the following expectation:

\[ H2 (Stereotyping Hypothesis): \text{Subjects should be less supportive of issues linked to African Americans as their stereotypes of African Americans become more negative.} \]

Explicitly endorsed stereotypes toward African Americans should have an independent effect on opinion to the extent to which the subject both perceives a link between the stereotyped group and the judgment task, and is willing to apply those stereotypes to their judgment. As such, I would expect that subjects who possess negative stereotypes toward African Americans should then be less supportive of issues they view as being linked to or benefiting African Americans in any way.

In addition to these independent effects, I also expect there to be an interactive effect between the implicit priming treatment and existing stereotypical predispositions:

\[ H3 (Moderating Hypotheses): \text{Subjects in the implicit priming treatment should be less supportive of issues linked to African Americans as their stereotypes become more negative.} \]

The implicit priming treatment is meant to invoke subjects’ negative stereotypes of African Americans, decreasing support for issues linked to the group. Individuals who explicitly endorse negative stereotypes of African Americans should in essence find those beliefs to be ‘amplified’ by the experimental manipulation.

To estimate the joint effects of explicit stereotypical considerations and the priming treatments I estimate a series of ordered probit regressions in Table 3. Columns 1 and 2 consider the effects of priming and stereotypes on opinion toward welfare spending, while columns 3 and 4 presents the results from regressing support for immigration restrictions on the treatment variables and stereotype considerations.

\[ \text{Table 3 about here} \]

---

\[ ^{18} \text{The alpha reliability measure for the scale is 0.66.} \]
The first column of Table 3 presents the simple main effects of the priming manipulation and explicit stereotypes on support for Welfare spending. Contrary to expectations, the Implicit priming treatment is insignificant, failing to support H1. However, independent of the treatment effects, the stereotype battery does significantly influence behavior, supporting H2. As subjects’ stereotypes toward African Americans become more negative, support for welfare spending decreases. Column 2 expands upon these analyses by examining the extent to which the treatment effects are conditioned by existing predispositions, a test of H3.

Model 2 considers the conditional relationship between priming treatment and stereotypical predispositions. In the model we see significant effects for the Implicit treatment, the explicit measure of stereotypes, and their interaction. Based on the coding of these variables, the significant negative effect for the implicit priming treatment suggests subjects in the Implicit treatment who are positively disposed to African Americans become less supportive of welfare spending relative to the control, as are negatively disposed individuals in the control condition respectively. Conversely, for subjects in the Implicit condition with more negative stereotypes, the treatment increases support. When we consider the net effect of the treatment and stereotypes, it would suggest that the Implicit priming treatment offsets the effects of personal stereotypical predispositions.

As with the results from Study 2, I generate predicted probabilities allowing individuals’ stereotypical predispositions to vary as I generate the probability of supporting welfare spending. As in the previous studies, the plot depicts the differential likelihood of supporting welfare spending between subjects in the treatment and control groups. These probabilities are plotted in Figure 4.

**Figure 4 about here**

The effect of the interaction between stereotypes and the Implicit priming treatment on the likelihood of support presents a much different picture. As with Study 2, the Implicit treatment would appear to replace the effects of stereotypes on opinion. Subjects who ordinarily would be
positively disposed toward African Americans are much less supportive of welfare spending than subjects in the Control condition with similar stereotypical dispositions (a difference of nearly 20 percentage points). This gap reverses as stereotypes toward African Americans become more negative, as subjects in the treatment condition become more supportive of welfare spending (a difference of slightly more than 5 percentage points).

The secondary analyses in columns 3 and 4 of Table 3 examine the effects of priming and preexisting stereotypical considerations on an issue without direct linkages to African Americans: immigration reform. In Model 1, the experimental manipulation does not produce an effect on the probability of support for immigration. Instead, only subjects’ stereotypical considerations had a significant influence on opinion, in the expected direction. To ascertain whether stereotypes condition the priming treatment, I generate interactions among the treatments and the stereotype index, as in the previous models. These estimates appear in the fourth column of Table 3.

The findings from Model 2 also diverge from the expectations of H3. As with Model 1, the stereotype index is negative and significant, indicating that stereotypes significantly affect opinion for subjects in the control, decreasing support for immigration. The interaction between the stereotype index and the Implicit priming treatment is positive but insignificant, demonstrating the breadth of applicability of stereotypes, but also limitations in the influence of implicit stereotypical appeals.

To further illustrate the substantive impact of the findings from Table 3, I generate predicted probabilities by experimental condition in the same manner as those presented in Figure 4; these appear in Figure 5.

**Figure 5 about here**
As with Figure 4, Figure 5 paints an interesting picture, albeit a somewhat less dramatic one. The Implicit prime does not appear to amplify or replace the effect of stereotypes on opinion, as subjects are not discernibly different from those in the control.

Discussion

Building from the initial findings, Studies 2 and 3 suggests additional food for thought. While rhetorical cues invoking group stereotypes would appear to shape opinion independently of preexisting considerations, as evidenced in Study 1, these effects are not absolute. Rather, when existing, explicitly avowed stereotypes are taken into account, priming effects become much more variable. The same manner of implicit appeals as used in Study 1, designed to prime negative stereotypes produced a different pattern of effects after accounting for those preexisting considerations. The same occurred when using images rather than rhetorical cues: for issues with prominent connections to the primed group, the Implicit treatment replaced the effects of stereotypical considerations. This produced a consistent effect on opinion; positive stereotypes were overwhelmed, as were negative stereotypes.

Under circumstances when the issue subjects were asked to evaluate had a more tenuous connection to the primed group, individual stereotypes dominated the equation. The more tenuous connection between issue and primed group inhibited the application of primed considerations to opinion, instead leading individuals to rely on stereotypes when forming opinion regardless of the treatment condition.

The findings from the latter studies suggest an important role for individual characteristics in response to stereotype primes, even when those appeals are designed to activate stereotypes subconsciously. Under certain conditions, stereotypes amplify the effects of those stereotypical appeals, while in others the treatment effects overwhelm existing stereotypical considerations. It
should however be noted that the findings from Studies 2 and 3 come from examinations of a single group rather than multiple treatments, and opinion was evaluated on issues with a varying degree of explicit attachment to the primed group.

Conclusions

The results have intriguing normative implications for studies of political behavior. While these findings cannot be taken to be an absolute generality, they do suggest a strong and persisting responsiveness on the part of citizens to simple (and subtle) cues. More interestingly, the activation of these stereotypes has implications for political decision-making across a number of politically-relevant dimensions beyond race. Given the group-centric nature of politics, which encompasses a plethora of social organizations and categorizations beyond simply that of race, demonstrating significant priming effects outside of the racial domain makes an important (albeit normatively concerning) contribution. These results indicate that stereotypical cues have implications for a broader range of groups and issues than those traditionally considered. The one caveat to these results is that, at least for some issues and groups, the effects of subtle stereotypical appeals are moderated by preexisting considerations.

Does this mean that the average citizen is in fact helpless to make up their own minds about politics? Clearly such an implication would be going too far, in particular as we observe that, while the applicability of these cues is perhaps broader than previously thought, there are clear limitations as well. For these cues to take hold, individuals must have considered the issue previously and perceive linkages between issue and group primed by the cue. However, it can be said that these effects should not be absolutely widespread; that is, the cues should not have the same effect for everyone in shaping issue opinions, in that, for the stereotypical cues to take hold, one must perceive the tie between the group evoked by the cue and the issue itself. Irrelevant cues are quickly
discarded in exchange for more appropriate heuristics. In addition, one’s existing considerations of the group implicated in the cue (and the accessibility of those considerations in memory) serve as important moderating factors of implicit rhetorical appeals.

This is suggestive of interesting issues for public opinion. As we know well, issues in American politics have a long history of acquiring ties to particular social groups. These findings suggest that opinion on such issues can be quite easily swayed by very subtle appeals. This also raises a number of further questions which future research would do well to expand upon. Most importantly, one should consider how strong these associations must be in order for such appeals to take hold. The issues in this study were chosen for their long-standing ties to particular social groups, albeit with varying strength of associations. However, part of politics revolves around the framing and reframing of political issues. With such instability in the state of political communication, one could conceive of new associations being developed over time. Would these same ties also lead opinion to become susceptible to bias in a similar manner? These and many other issues should be explored, to continue unraveling the implications of issue-group ties for the structure of public opinion.
Table 1. Verbal Stereotype Prime Models, Study 1

<table>
<thead>
<tr>
<th></th>
<th>Iraq War</th>
<th>Social Security</th>
<th>Immigration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partisan Prime</td>
<td>-0.40*</td>
<td>-0.41*</td>
<td>-0.14</td>
</tr>
<tr>
<td></td>
<td>(0.20)</td>
<td>(0.20)</td>
<td>(0.20)</td>
</tr>
<tr>
<td>Race Prime</td>
<td>-0.08</td>
<td>-0.45*</td>
<td>-0.34+</td>
</tr>
<tr>
<td></td>
<td>(0.22)</td>
<td>(0.19)</td>
<td>(0.20)</td>
</tr>
<tr>
<td>Negative Prime</td>
<td>-0.02</td>
<td>-0.46**</td>
<td>0.24</td>
</tr>
<tr>
<td></td>
<td>(0.20)</td>
<td>(0.19)</td>
<td>(0.20)</td>
</tr>
<tr>
<td>Political Knowledge</td>
<td>-0.45**</td>
<td>-0.32*</td>
<td>-0.03</td>
</tr>
<tr>
<td></td>
<td>(0.15)</td>
<td>(0.15)</td>
<td>(0.14)</td>
</tr>
<tr>
<td>Political Attention</td>
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<td>-0.12</td>
<td>-0.11</td>
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<td>(0.15)</td>
<td>(0.14)</td>
<td>(0.14)</td>
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<tr>
<td>Cut 1</td>
<td>-1.78</td>
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<td>-0.95</td>
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<td></td>
<td>(0.18)</td>
<td>(0.18)</td>
<td>(0.18)</td>
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<tr>
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<td>-0.07</td>
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<tr>
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<td>(0.16)</td>
<td>(0.17)</td>
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<td>(0.17)</td>
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<tr>
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<td>1.51</td>
<td>0.98</td>
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<td>(0.17)</td>
<td>(0.21)</td>
<td>(0.19)</td>
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<tr>
<td>Wald χ²</td>
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<td>13.10</td>
<td>10.65</td>
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<td>234</td>
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</table>

Estimates from an ordered probit regression, with robust standard errors in parentheses; + significant at 10%; * significant at 5%; ** significant at 1% in a two-tailed test. DV measures run from 1 (most conservative response) to 5 (most liberal response).
Table 2. Conditional Effects of Priming and Explicit Beliefs on Opinion, Study 2

<table>
<thead>
<tr>
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<th>Job Protections</th>
<th>Marital Freedom</th>
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<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
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<tr>
<td>Implicit Prime</td>
<td>-0.45*</td>
<td>-0.28</td>
</tr>
<tr>
<td></td>
<td>(0.21)</td>
<td>(0.21)</td>
</tr>
<tr>
<td>Explicit Prime</td>
<td>-0.29</td>
<td>-0.28</td>
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<tr>
<td></td>
<td>(0.19)</td>
<td>(0.19)</td>
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<tr>
<td>Stereotypes</td>
<td>-0.65**</td>
<td>-0.95**</td>
</tr>
<tr>
<td></td>
<td>(0.19)</td>
<td>(0.32)</td>
</tr>
<tr>
<td>Implicit Prime x Stereotypes</td>
<td>0.96*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.47)</td>
<td></td>
</tr>
<tr>
<td>Explicit Prime x Stereotypes</td>
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</tr>
<tr>
<td></td>
<td>(0.41)</td>
<td></td>
</tr>
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<td>-1.75</td>
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<tr>
<td></td>
<td>(0.18)</td>
<td>(0.18)</td>
</tr>
<tr>
<td>Cut 2</td>
<td>-1.29</td>
<td>-1.26</td>
</tr>
<tr>
<td></td>
<td>(0.17)</td>
<td>(0.17)</td>
</tr>
<tr>
<td>Cut 3</td>
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<td>-0.66</td>
</tr>
<tr>
<td></td>
<td>(0.16)</td>
<td>(0.15)</td>
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<td>Cut 4</td>
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<td>-0.11</td>
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<tr>
<td></td>
<td>(0.15)</td>
<td>(0.14)</td>
</tr>
<tr>
<td>Wald χ²</td>
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Estimates from an ordered probit regression, with robust standard errors in parentheses; + significant at 10%; * significant at 5%; ** significant at 1% in a two-tailed test. Job protection DV measures run from 1 (strongly oppose) to 5 (strongly favor); Marital freedom DV runs from 1 (strongly oppose) to 4 (strongly favor).
Table 3. Conditional Effects of Priming and Explicit Beliefs on Opinion, Study 3

<table>
<thead>
<tr>
<th></th>
<th>Welfare</th>
<th>Immigration</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td>Visual Prime</td>
<td>0.12</td>
<td>0.13</td>
<td>-0.09</td>
<td>-0.09</td>
</tr>
<tr>
<td></td>
<td>(0.11)</td>
<td>(0.11)</td>
<td>(0.11)</td>
<td>(0.11)</td>
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<tr>
<td>African American Stereotype Index</td>
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<td>-1.00**</td>
<td>-0.67**</td>
<td>-0.65*</td>
</tr>
<tr>
<td></td>
<td>(0.19)</td>
<td>(0.30)</td>
<td>(0.17)</td>
<td>(0.40)</td>
</tr>
<tr>
<td>Visual Prime x Stereotypes</td>
<td>0.67+</td>
<td>0.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.38)</td>
<td></td>
<td></td>
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<td>Cut 1</td>
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<tr>
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<td>(0.11)</td>
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<tr>
<td>Cut 2</td>
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<td>-0.54</td>
<td>-0.33</td>
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<td>Cut 4</td>
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</tr>
<tr>
<td>Wald</td>
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<td>14.16</td>
<td>15.21</td>
<td>15.24</td>
</tr>
<tr>
<td>N</td>
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<td>345</td>
<td>342</td>
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</table>

Estimates from an ordered probit regression, with robust standard errors in parentheses; + significant at 10%; * significant at 5%; ** significant at 1% in a two-tailed test. DV measures run from 1 (most conservative response) to 5 (most liberal response).
Figure 1. Differential Probability of Support, Treatment versus Control
Figure 2. Differential Probability of Support for Job Discrimination Protections
Figure 3. Differential Probability of Support for Marital Freedom

Implicit Prime versus Control

Explicit Prime versus Control

Pr(Supporting Marital Freedom) vs. Stereotypes of Homosexuals

- Positive Stereotypes
- Negative Stereotypes

-1 - .5 0 .5 1

-1 - .5 0 .5 1

Pr(Support, Treatment - Control)

95% CI
Figure 4. Differential Probability of Supporting Welfare Spending, Treatment versus Control
Figure 5. Differential Probability of Supporting Immigration Expansion, Treatment versus Control
References


Appendix

Scrambled Sentence Task

Please make a sentence using ONLY the following words, and enter it into the text box below (Please use each word ONLY once):

AN WAS BAG VIOLENT IT

Please type in the sentence and press Ctrl+Enter
Voter registration both up and down

By Dan Walters

Secretary of State Debra Bowen has issued a statement crowing that “voter registration continues to increase,” which is technically true but nevertheless misleading, as a closer examination of her department’s data reveals.

Registration for the Nov. 4 presidential election was 17.1 million, a gain of just over 600,000 from the 16.5 million recorded four years earlier for the 2004 election, and when all the votes are tallied, it’s likely that about 13 million of those 17.1 million will have cast ballots.

Those 17.1 million registered voters, however, represented 74.4 percent of the state’s nearly 23 million eligible voters – i.e. Californians over the age of 18 and citizens – while the 2004 registration was 75.3 percent of the 21.9 eligible that year.

In that sense, therefore, voter registration has been going down, not up, continuing a decades-long pattern of declining political participation.

More than 75 percent of eligible Californians were registered for the 1996 presidential election, for instance.