



## Going along versus getting it right: The role of self-integrity in political conformity



Kevin R. Binning<sup>a,\*</sup>, Cameron Brick<sup>b</sup>, Geoffrey L. Cohen<sup>c</sup>, David K. Sherman<sup>b</sup>

<sup>a</sup> University of Pittsburgh, USA

<sup>b</sup> University of California, Santa Barbara, USA

<sup>c</sup> Stanford University, USA

### HIGHLIGHTS

- Participants who affirmed their self-integrity were not swayed by political norms.
- Participants who affirmed their self-integrity were swayed by evidentiary data.
- The effects persisted over time and transferred to novel political stimuli.
- The effects were moderated by participants' identification with America.

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### ABSTRACT

People often conform to the opinions of ingroup members, even when available evidence suggests that the group is misinformed. Following insights from the social identity approach and self-affirmation theory, it was hypothesized that people conform to salient opinions in an effort to maintain global self-integrity. In a series of experiments examining Americans' approval of President Obama and his policies, approval was consistently swayed by normative information (national polling data) but not by evidentiary information (indicators of national economic health), except under theory-predicted conditions. When participants had satisfied their sense of self-integrity with a self-affirmation exercise (Democrats in Study 1, Republicans in Study 2), or when they had low levels of American identification and thus were less concerned with national norms (Democrats and Republicans in Study 3), they showed the opposite pattern and were swayed by evidence in spite of contradicting normative information. The extent to which people are influenced by norms versus evidence in political judgment is shaped by social identity, one aspect of self-integrity. The results highlight a social psychological means to attenuate and potentially reverse conformity in the face of contradicting evidence, a finding with both practical and theoretical implications.

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*We are no longer led by men. We are led around by the polls.*

[Edward Bernays (1945)]

Opinion polls reflect public opinion and, through processes of social influence, can also shape it. The observation that polls can “wag the dog” and causally affect opinion was made by Edward Bernays (1891–1995), a pioneer in the field of public relations and the science of political spin (Tye, 1998; see also Ceci & Kain, 1982; Marsh, 1985; Simon, 1954).

\* Corresponding author at: Department of Psychology, University of Pittsburgh, 3103 Sennott Square, Pittsburgh, PA 15260, USA. Fax: +1 412 624 9149.

E-mail address: [kbinning@pitt.edu](mailto:kbinning@pitt.edu) (K.R. Binning).

Social psychological research has found that descriptive norms – that is, norms that describe how typical group members think, feel, or behave (Grube, Morgan, & McGree, 1986; Terry & Hogg, 1996) – can powerfully affect individual behavior (e.g., Schultz, Nolan, Cialdini, Goldstein, & Griskevicius, 2007), particularly when norms are regarded as neutral and authoritative (Petty & Cacioppo, 1986), as polls often are (Bernays, 1945). People's susceptibility to normative social influence has implications for democratic decision-making and speaks to long-standing concerns about psychology of conformity and independence in judgment (see Asch, 1951; Cohen, 2003; Kahan, Jenkins-Smith, & Braman, 2011; Sherif, 1936). People who make evidence-based decisions that diverge from the group can play an essential role in preventing destructive group processes such as groupthink (Janis, 1982) and can halt social inertia toward what John Adams called “the tyranny of the majority” (Adams, 1794, p. 261). This paper explores

conditions that foster independence in political judgment and resistance from the sway of normative information.

We offer a self-integrity approach (Steele, 1988; see also Sherman & Cohen, 2006) to understand when people are likely to conform to salient ingroup norms (normative information, such as opinion polls about the state of the economy), and when they are likely to engage in independent judgment based on probative indicators of fact (evidentiary information, such as concrete economic indicators like unemployment or housing sales). The division between normative and evidentiary information has roots in theory suggesting that people process these two types of information in qualitatively different ways (see Deutsch & Gerard, 1955), and that, depending on how people construe the psychological environment, either type of information may carry judgment (e.g., Campbell & Fairey, 1989; Chen, Shechter, & Chaiken, 1996).

We argue that normative and evidentiary information are likely to produce different effects on judgment because each type of information serves unique psychological functions (e.g., Katz, 1960; Snyder & DeBono, 1985). People may use normative information for collective-level goals (to get along, to fit in), whereas they may use evidentiary information in pursuit of individual-level goals (accuracy or neutrality in judgment). Our central thesis is that people's concerns with their self-integrity in the social context will determine the type of information that they use. Integrating insights from the social identity approach (Tajfel & Turner, 1986; Terry & Hogg, 1996; Turner & Reynolds, 2011) and self-affirmation theory (Cohen & Sherman, 2014; Sherman & Cohen, 2006; Steele, 1988), we explain when and why people are likely to follow the crowd at the expense of evidence-based decision-making. We suggest that knowledge of the role of self-integrity in information processing highlights a means to halt conformity and foster independent evaluations based on salient evidentiary data.

### **Normative information and collective identity**

People's perceptions of descriptive group norms are powerful predictors of a range of diverse outcomes, such as exercise behavior (Terry & Hogg, 1996), environmental conservation (Schultz et al., 2007), judgments of prejudice (Binning & Sherman, 2011), and likelihood of voting (Coleman, 2007). Such conformity is pervasive, in part, because conformity can be socially and evolutionarily adaptive (Coultras, 2004). Normative information helps specify how to behave in ambiguous situations, informing people about what is seen as the right way to act for "people like us" (e.g., Abrams, Wetherell, Cochrane, Hogg, & Turner, 1994; Binning, 2007; Hogg & Reid, 2006). Group norms provide information about how to maintain acceptance in the group and, by extension, how to avoid becoming a "black sheep" (Marques, Yzerbyt, & Leyens, 1988). People are especially likely to conform to groups they find attractive (Jackson & Saltzstein, 1958) and to groups that have a high level of cohesion or interdependence (Deutsch & Gerard, 1955). Notably, people are generally unaware of the powerful impact of normative information on their own attitudes and behavior (Cialdini & Goldstein, 2004; Cohen, 2003; Latané & Darley, 1970; Nolan, Schultz, Cialdini, Goldstein, & Giskevicius, 2008; Ross & Ward, 1996).

Social identity theory (Tajfel & Turner, 1979) and the related self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987; Turner & Reynolds, 2011) help explain how group norms get their power. A core assumption of the social identity approach is that the self-concept is constructed along an individual–social continuum (Tajfel & Turner, 1986), such that people pursue individual goals and behaviors (e.g., accuracy and individual performance) when self-categorized at the individual level, but they pursue group goals and behaviors (e.g., to maintain a positive social identity) when self-categorized on the social level. Definitions of the self shift fluidly along this continuum, as people define themselves as an individual in one

context and as a member of a social group in the next, depending on what aspect of identity is salient in that context (Tajfel & Turner, 1986; Turner & Reynolds, 2011).

Another core assumption of the social identity approach is that regardless of which aspect of the self-concept is salient, people have a basic motivation to maintain a positive self-concept. When collective identity is made salient, people may be compelled to go along with group norms in order to be a good group member and maintain their positive standing. When individual identity is made salient, people may instead ignore group normative information and strive to maintain a positive individual identity. In a study on group norms for physical exercise behavior, for example, people's own exercise behavior varied in line with group norms, but only among individuals who strongly identified with the group (Terry & Hogg, 1996). People with low identification, by contrast, were not affected by group norms but rather by perceptions of behavioral control, an individual-level factor. The information people attended to was determined by the immediate relevance of each type of information to the self-concept.

### *When norms conflict with evidence: a self-integrity approach*

In many cases, average group beliefs and norms converge with available evidentiary information (see Hardin & Higgins, 1996; Insko, Drenan, Solomon, Smith, & Wade, 1983; Surowiecki, 2004). In political contexts, when norms align with evidence, normative information simply provides a reflection or barometer of reality, which is the presumptive purpose of most opinion polling. However, a critical question for both democratic decision-making and the present research is what happens when the group ignores or disregards emerging facts and evidence (e.g., Fast, Heath, & Wu, 2009). In such cases, resistance to group norms and attention to evidence could be advantageous — at least from the standpoint of people's desire to be accurate and independent decision-makers (Chaiken, Liberman, & Eagly, 1989). Imagine, for example, that the public tends to believe that the economy is in decline when major indicators suggest that the economy is on the rebound. If someone is asked for their opinion about the state of the economy, they would be more accurate if they followed the economic evidence and ignored the bubble created by popular consensus. However, as scholars have noted for well over a century (Asch, 1951; Le Bon, 1897), it is often difficult to go against the group. When categorized at the collective level, going against group norms requires going against a part of one's self (e.g., Tajfel & Turner, 1986).

Self-affirmation theory (Sherman & Cohen, 2006; Steele, 1988) offers a perspective to understand how people may transcend the pressure of collective identities on judgment. The theory suggests that although concerns with individual and collective identity may fluctuate from context to context, an overarching psychological goal is to maintain a global sense of self-integrity: a general feeling of being efficacious, adequate, and "good enough" (Cohen & Sherman, 2014; Sherman, 2013; Sherman & Cohen, 2006; Steele, 1988). We argue in the present research that this general goal guides what people attend to in their environment. In some situations, people are concerned more with collective goals and are therefore likely to rely on group norms in judgment. In other situations, people may feel less attached to the group norms and instead have an interest in being accurate or independent (e.g., a neutral judge or referee). However, common to both of these situations is people's concern with self-integrity. We hypothesize that regardless of whether people rely on normative or evidentiary information, they do so in an effort to maintain global self-integrity. Following this reasoning, by manipulating global self-integrity it should be possible to shift the manner in which people process information. Under certain circumstances, manipulating self-integrity should halt conformity and orient people toward independent, evidence-based decision-making.

To illustrate how global self-integrity concerns might shape conformity and independence, we use the experimental paradigm developed

in self-affirmation research. Typically, to examine the role of self-integrity motivations in a social psychological process, two experimental conditions are compared (for a review see [McQueen & Klein, 2006](#)). In the control condition, participants are exposed to information that threatens their sense of self-integrity (e.g., information indicating they engage in risky health behaviors) and their psychological responses are observed. People generally respond defensively and resist or downplay the implications of such evidentiary information ([Dunning, 2003](#); [Kunda, 1987](#); [Lieberman & Chaiken, 1992](#)). The other experimental condition involves a self-affirmation exercise. Prior to being exposed to the threatening information, participants write about an important personal value (e.g., their sense of humor, love of family) unrelated to the threatened domain. They typically express why this value is important to them and a time in their life when it was particularly important. Because values are central to people's self-definition ([Rokeach, 1973](#)), this exercise affirms people's self-integrity ([Steele, 1988](#)). In this condition, people tend to be more open to the threatening information, as if the assurance they got from the affirmation exercise allowed them to evaluate the subsequent information more openly and candidly. The theory holds that by satisfying global self-integrity, affirmations psychologically equip people to tolerate threats to self-integrity and respond less defensively ([Cohen & Sherman, 2014](#); [Sherman & Hartson, 2011](#)).

In political contexts where integrity is maintained by conforming to group norms and resisting evidentiary data, the act of securing self-integrity prior to judgment should attenuate conformity. Conversely, in contexts where self-integrity is maintained by being neutral, accurate, and even-handed (e.g., being a neutral judge or referee), affirmation may attenuate such accuracy motivation (see [Cohen et al., 2007](#)). Thus, self-affirmation should attenuate conformity in contexts where people conform out of a desire to maintain self-integrity.

Previous work supports the idea that self-affirmation attenuates identity-defensive processes. For example, people who self-affirmed prior to group activity were more willing to acknowledge wrongdoing by an ingroup ([Adams, Tormala, & O'Brien, 2006](#); [Čehajić-Clancy, Effron, Halperin, Liberman, & Ross, 2011](#)); they showed lower partisan bias in the days prior to a presidential election ([Binning, Sherman, Cohen, & Heitland, 2010](#)); and they displayed fewer group-serving attributions for group success and failure ([Sherman & Kim, 2005](#)). When Americans were presented with a report that was critical of U.S. foreign policy, affirmed participants were less partisan in their evaluations of the report ([Cohen et al., 2007](#)). By satisfying global self-integrity prior to engaging in judgment, self-affirmation appeared to relieve pressure associated with the collective self and salient social identities. Notably, such research has typically focused on how affirmations can increase receptiveness to threatening information. Research has yet to examine whether affirming self-integrity can actually increase *resistance* to normative pressure.

We suggest that affirmations of self-integrity should not only make group members resistant to normative political information, they should also simultaneously increase accuracy motivation and openness to facts and evidence. Prior research supports this argument. For example, in several studies affirmed participants were more likely to engage deliberative, systematic thinking. Affirmed participants were more sensitive to the strength (versus weakness) of arguments when responding to questions about capital punishment ([Correll, Spencer, & Zanna, 2004](#); see also [Klein, Harris, Ferrer, & Zajac, 2011](#)) and were more persuaded by evidence challenging their views toward capital punishment ([Cohen, Aronson, & Steele, 2000](#)). In the health domain, affirmed participants became better calibrated to their personal risk levels after evaluating threatening health messages, as affirmed individuals saw themselves at high risk when they were at high risk and at low risk when they were at low risk ([Griffin & Harris, 2011](#); also see [Harris & Epton, 2009, 2010](#); [Harris & Napper, 2005](#)). These findings suggest that affirmed participants are less likely to over-rely on heuristic cues like group norms and more likely to be persuaded by factual evidence.

In summary, affirmations have been shown to reduce both identity defense and to increase accuracy motivation. The present research attempts to integrate and test both research outcomes simultaneously. People's judgment may be guided by either norms or evidence, depending on which type of information is relevant to maintaining self-integrity. Following the continuum metaphor of the self-concept from social identity theory, normative and evidentiary information may each be relevant to different aspects of the self-concept. Normative information should guide judgment when social identity is made salient because such information informs group members how to maintain self-integrity by responding like good or typical group members. Evidentiary information should guide judgment, by contrast, when self-integrity has been affirmed and group members are therefore freed from the need to maintain the integrity of their social identity. Rather than being swayed by group norms, affirmed group members may be more concerned with individual-level goals of accuracy and independence in judgment.

### Overview and predictions

Conformity is a ubiquitous social phenomenon, and political contexts provide rich and consequential forums to study it. In the present research we focus on how Americans go about the task of evaluating a sitting United States president, Barack Obama. The standards for judging presidents are ambiguous (e.g., with regard to who or what they are compared), and research suggests that people actually seek out opinion polls when faced with difficult or ambiguous political decisions ([Boudreau & McCubbins, 2010](#)). Exposure to such group normative information may directly shape public opinion, a possibility that has led a number of countries to restrict or ban the reporting of pre-election opinion polls ([Chung, 2012](#)).

The scope of the hypotheses that we test broadens with each of the three studies presented below. Study 1 is an initial demonstration that self-affirmation can untether group members from the influence of salient ingroup norms. For this study we draw on actual news reports that made American identity salient while spinning the president's poll numbers in opposite ways (favorably or unfavorably), and we examine how control and affirmed participants respond to the polls. Study 2 examines the hypothesis that while affirmations can increase group members' resistance to salient norms, affirmations should simultaneously increase reliance on evidentiary information. Thus we examine not only how self-affirmation affects responses to normative information (i.e., approval of Obama's handling of the economy), but also how it affects responses to evidentiary information regarding the president's performance (i.e., actual economic activity during Obama's tenure as president). Based on findings that affirmation effects can persist over time (see [Cohen & Sherman, 2014](#) for a review), Study 2 included a four-month follow-up to test for the effects of the original affirmation.

Both Study 2 follow-up and Study 3 further tested key theoretical predictions. If, as suggested by our interpretation of social identity theory, normative and evidentiary information are processed with respect to different psychological goals, then simultaneously contrasting normative and evidentiary information should yield predictable responses. We theorized that control participants would be responsive to norms but not to evidence, whereas affirmed participants would be responsive to evidence but not to norms. To test this, norms and evidence were contrasted within a single persuasive message about the president (e.g., people think President Obama is doing great on the economy, but the economic data suggest otherwise vs. people think President Obama is doing poorly on the economy, but the economic data suggest otherwise).

These predictions are motivated by insights from the social identity approach and self-affirmation theory. Study 3 seeks to illustrate the theoretical integration of these approaches. First, the social identity

approach suggests that people who identify with a social category tend to pursue social identity goals more so than individual-level goals when that identity is salient (e.g., Terry & Hogg, 1996; see also Cohen et al., 2007). Study 3 sought to test this idea by examining how individual differences in social identification influence attention to normative and evidentiary information. We predicted that higher identification with America is predictive of conformity to normative but not evidentiary information, but critically, this should not hold among individuals with low levels of identification, as those norms are not relevant to the self-concept in low-identified individuals. Instead, these individuals may remain categorized at the individual level and, as a result, be more likely to pursue individual-level goals of accuracy and independence in judgment (cf. Terry & Hogg, 1996). Self-affirmation should, in turn, attenuate the style of processing people engaged in to maintain self-integrity in a given situation.

## Study 1

This study was conducted in mid-2009, when President Obama had an approval rating of roughly 56% (Gallup, 2014) and was attempting to rally support for health care reform legislation. Although overall approval for President Obama was strong, his approval ratings had declined from their initial highs during the early part of his presidency. As such, it was possible to spin the president's poll numbers in different ways: by focusing on the objective strength of the poll numbers, a favorable picture could be painted; by focusing on the relative decline in poll numbers, a more negative picture could be painted. After researching the current news coverage of the president's poll numbers, we located two news articles, one framing the president's poll numbers positively (Anderson, 2009) and another framing them negatively (Schoen & Rasmussen, 2009). Using actual content from these articles, we then manipulated popular opinion by giving half the participants the favorable content that Obama was soaring in the polls and the other half the unfavorable content that Obama was sinking in the polls. Thus, the articles were intended to manipulate normative information in an ecologically valid fashion (whereas in Study 2 and Study 3 we constructed fictitious articles to rigorously control for content and strength of message).

Prior to reading a news article, participants were randomly assigned to either a control condition or a self-affirmation condition. Our primary question was whether this self-affirmation manipulation would affect how participants responded to the articles. In the control condition, we used the social identity approach as a basis for our predictions. Based on the idea that people tend to conform to salient ingroup norms, in the control condition approval should conform to the national polling data: participants who receive the positive spin should be more favorable toward Obama than participants who receive the negative spin.

In the self-affirmation condition, we predicted that bolstering self-integrity prior to reading the polling articles would untether the self-concept from the implications of the norms. Thus, we expected that unlike control participants, affirmed participants would not be swayed by the article spin. To help rule out the possibility that participants simply responded favorably (or unfavorably) to all targets when they received positive (or negative) news about Obama, we examined participants' evaluations of a non-salient group, Congressional Republicans, whom we predicted would not be swayed by the polling articles. Finally, as exploratory measures, we predicted that control (Democratic supporting) participants would donate more money to the Democratic Party in a hypothetical allocation task and that their self-feelings would be more positive in the favorable spin than in the unfavorable spin condition. The allocations and self-feelings of affirmed participants, by contrast, should be affected less by the article spin in favor or against Obama and his policies.

## Method

### Participants and design

One hundred fifteen adults (70% women; 70% White, 19% Asian or Asian American, 9% African American, 4% Latino/a;  $M_{\text{Age}} = 34.50$  years) were recruited from a university-maintained listserv of US residents and were compensated with a \$5 US gift card to an online retailer. To help limit noise created by variance in political persuasion, participants were recruited if they indicated an affiliation with the Democratic Party during pre-screening and were randomly assigned to one of four cells in a 2 (Affirmation status: Affirmation vs. Control)  $\times$  2 (Normative information: Soaring in polls vs. Sinking in polls) factorial design. Participants were not made aware that they were pre-selected based on their political party preference.

### Procedure

After providing consent, participants completed a standard affirmation manipulation (see McQueen & Klein, 2006). All participants were presented with a list of 11 nonpolitical values.<sup>1</sup> Participants in the self-affirmation condition were instructed to "pick the one value that is most important to you" and to type that value in a text box. Next, participants were instructed to "think about a time when your #1 value or characteristic was important to you" and to "write a few sentences about a time when this value was important." Consistent with previous research, participants in the control condition received the same list but indicated their least important value and described why someone else might think the value is important (see Binning et al., 2010; Cohen et al., 2007). A great deal of research has employed a similar approach to self-affirmation and supports the idea that the affirmation condition reduces defensiveness and increases self-security, whereas the control condition produces reactions that are orthogonal to participants' sense of self-integrity (McQueen & Klein, 2006; Sherman & Hartson, 2011).

All participants were then randomly assigned to receive one of two news articles, which were formatted to resemble an authentic online article from a high-profile, international newspaper. Each article included factual content from news articles circulating 1–2 months prior to the study, but each had a very different political spin (i.e., Anderson, 2009; Schoen & Rasmussen, 2009). Participants randomly assigned to the *Obama Soaring* condition read an article titled, "Obama Soaring in the Polls," which described how Obama was performing well in the polls (e.g., "56% of Americans gave Obama an excellent or good job rating"), together with a picture of Obama smiling and waving toward the camera. Participants assigned to the *Obama Sinking* condition read an article matched for length and level of detail titled, "Obama's Poll Numbers are Falling to Earth," which described how the American people were showing increasing doubts about Obama's presidency (e.g., "33% of Americans now strongly disapprove of the president's performance"). This article featured a picture of Obama with his hand on his forehead while looking down at the ground.

After reading their respective news articles, all participants watched two one-minute YouTube videos. In the first video, President Obama described three pillars of his health care reform agenda, which was being debated by Congress at the time of the study. In the second video, Republican congressional leaders presented a rebuttal to the president's position. Immediately after the videos, participants were asked to complete the measures below.

<sup>1</sup> The 11 values listed for the manipulation were Artistic skills/esthetic appreciation, Sense of humor, Relations with friends/family, Spontaneity/living life in the moment, Social Skills, Athletics, Musical ability/appreciation, Physical attractiveness, Creativity, Business/managerial skills, and Romantic values.

## Measures<sup>2</sup>

### Approval of Obama

Participants evaluated Obama and his approach to health care using the following items: “How balanced and objective is Obama’s health care outline?” (1 = *Not balanced or objective at all*; 9 = *Very balanced and objective*), “In general, how knowledgeable about health care issues is Barack Obama?” (1 = *Not knowledgeable at all*; 9 = *Very knowledgeable*). Two additional items measured general approval using wording from a recent Gallup Poll (Saad, 2009): “Do you approve or disapprove of the way Barack Obama is handling his job as president?” (1 = *Strongly disapprove*; 9 = *Strongly approve*), and “How would you rate the job Barack Obama has been doing as president so far?” (1 = *Excellent*, 2 = *Good*, 3 = *Just Okay*, 4 = *Poor*, 5 = *Terrible*). This item was reverse-scored and transformed to a 9-point scale. The four items loaded on a single factor and the mean composite of all four items displayed good reliability ( $\alpha = .89$ ,  $M = 7.00$ ,  $SD = 1.41$ ).

### Evaluations of Republicans

Although no polling data about Republicans were presented to participants, we examined if evaluations of Republicans were affected by the presidential polling data, the affirmation manipulation, or both together. Participants completed four items that paralleled the four Obama-evaluation items above: “How balanced and objective is the Republicans’ health care outline?” “In general, how knowledgeable about health care issues is the Republican leadership?” “Do you approve or disapprove of the way Republicans are handling their job in Congress?” and, “How would you rate the job Republicans in Congress have been doing?” The composite also showed unidimensionality and good reliability ( $\alpha = .85$ ,  $M = 3.96$ ,  $SD = 1.59$ ). Three participants did not complete this measure and their data were treated as missing.

### Hypothetical allocation

Having seen the arguments from both sides of the health care debate, participants were provided a scenario in which they considered having a fixed sum of \$10,000 to distribute between the Democratic and Republican Parties to help work toward health care reform. They were presented with five options for allocating the money, with higher scores representing higher sums of money given to the Democratic Party relative to the Republican Party (1 = *\$0 for Democrats and \$10,000 for Republicans*; 2 = *\$2500 for Democrats and \$7500 for Republicans*; 3 = *\$5000 for each party*, 4 = *\$7500 for Democrats and \$2500 for Republicans*; 5 = *\$10,000 for Democrats and \$0 for Republicans*) ( $M = 3.83$ ,  $SD = 0.84$ ). One participant did not complete this measure and is treated as missing.

<sup>2</sup> In all studies, the focal outcome variable was a composite of participants’ approval for President Obama, and we measured it in a consistent manner across replications of the key findings (i.e., the focal measure in Study 2 is analogous to that used in Study 1, and the focal measure in Study 3 is analogous to that used in the Study 2 follow-up). In addition, we report analyses of data on participants’ self-feelings and assessments of Republicans (Studies 1 and 2), and we report results from a theoretically relevant allocation task used in Study 1. In the interest of full transparency (Simmons, Nelson, & Simonsohn, 2011), we note that data from several exploratory variables are not reported here. These assessed participants’ beliefs about the appropriate role of government in daily life (in Study 1), their attitudes about Sarah Palin, a measure of Republicans’ collective self-esteem, and perceptions of American opinion about Obama (in Study 2), their feelings of self-certainty, life satisfaction, and construal levels (in the Study 2 four-month follow-up), and a behavioral measure of media preferences (in the Study 2 follow-up and Study 3). Across all studies, an item that tapped perceptions that President Obama was ideologically biased was also assessed but not analyzed because it consistently did not load together with the main approval items. The former measures were exploratory because they were tangential to the key dependent measure assessing participants’ conformity to the normative political information. Additionally, an exploratory manipulation was introduced following participants’ completion of the main dependent measure in Study 3. Some participants were randomly assigned to read an article that attempted to threaten them in the health domain because we were interested in potential spill-over effects of the affirmation beyond the first domain of judgments. Additional data relevant to this hypothesis and obtained after this manipulation are not reported here but may be the subject of a forthcoming report.

### Self-feelings

Near the end of the study they were asked to respond to a single item “How are you feeling about yourself right now?” on a nine-point scale, with end points labeled 1 (*Very negatively*) and 9 (*Very positively*). This one-item measure of self-feelings has been used in prior research to assess momentary feelings after completing affirmation manipulations (Cohen et al., 2000; Sherman, Nelson, & Steele, 2000). Two participants did not complete this measure and their data were treated as missing.

### Results and discussion

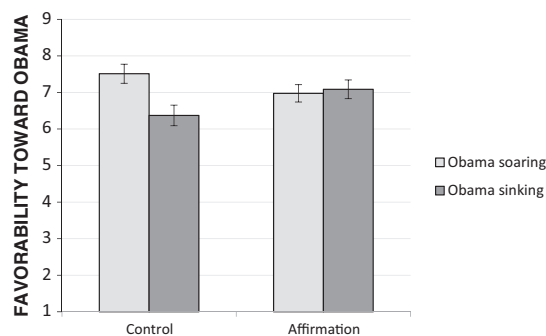
The composite of evaluations of President Obama were subjected to a 2 (Affirmation Status: Affirmation vs. Control)  $\times$  2 (Normative information: Soaring vs. Sinking) between-subjects analysis of variance (ANOVA). Results revealed a main effect of normative information, such that favorability toward Obama was higher when he was soaring in the polls ( $M = 7.24$ ,  $SE = .18$ ) than when he was sinking in the polls ( $M = 6.73$ ,  $SE = .19$ ),  $F(1, 111) = 3.93$ ,  $p = .050$ ,  $\eta_p^2 = .03$ . The main effect for affirmation status was not significant,  $F(1, 111) = 0.12$ ,  $p = .732$ . However, as hypothesized, there was a significant two-way interaction,  $F(1, 111) = 5.80$ ,  $p = .018$ ,  $\eta_p^2 = .05$ , depicted in Fig. 1. Simple effects tests revealed that in the control condition, participants were significantly swayed by group norms, as they were more favorable toward Obama when he was soaring in the polls ( $M = 7.51$ ,  $SE = .26$ ) than when he was sinking the polls ( $M = 6.37$ ,  $SE = .28$ ),  $F(1, 111) = 8.80$ ,  $p = .004$ ,  $\eta_p^2 = .07$ . Also as hypothesized, affirmed participants resisted the pressure of group norms, as there was no difference in favorability toward President Obama when he was up in the polls ( $M = 6.98$ ,  $SE = .24$ ) than when he was down in the polls ( $M = 7.09$ ,  $SE = .26$ ),  $F(1, 111) = 0.10$ ,  $p = .752$ .

### Evaluations of Republicans

In contrast to evaluations of President Obama, there were no main effects,  $F_s < 1.0$ ,  $p_s > .875$ , nor a two-way interaction,  $F(1, 108) = .01$ ,  $p = .934$ , in participants’ evaluations of the Republican leadership, consistent with predictions.

### Hypothetical allocation

Participants’ ingroup allocation scores were subjected to a 2 (Affirmation status)  $\times$  2 (Normative information) ANOVA. Results revealed a marginal main effect for affirmation status,  $F(1, 110) = 3.30$ ,  $p = .072$ ,  $\eta_p^2 = .03$ , suggesting that participants in the self-affirmation condition were marginally less biased in their allocations to the ingroup ( $M = 3.71$  or \$6775 of the \$10,000 allocated for Democrats,  $SE = .10$ ) than were participants in the control condition ( $M = 3.98$  or \$7450 for Democrats,  $SE = .11$ ). Notably, this main effect suggests that self-affirmation slightly attenuated partisan identity bias, perhaps because



**Fig. 1.** Democrats’ mean favorability toward President Barack Obama ( $\pm 1$  standard error) as a function of affirmation status and normative data regarding Obama’s status in the current polls in Study 1.

participants' identity as Democrats may have been active and affecting their overall responses. The effect was qualified by a significant two-way interaction,  $F(1, 110) = 12.24, p < .001, \eta_p^2 = .10$ . Simple effects tests showed that in the control condition, participants' allocation decisions followed the national norms, as they allocated marginally more money to the Democrats when President Obama was soaring in the polls ( $M = 4.18$  or \$7950,  $SE = .15$ ) than when he was falling in the polls ( $M = 3.78$  or \$6950,  $SE = .17$ ),  $F(1, 110) = 3.16, p = .078, \eta_p^2 = .03$ . By contrast, affirmation participants showed the opposite pattern, as they actually gave significantly more to the Democrats when Obama was falling in the polls ( $M = 4.03$  or \$7575,  $SE = .15$ ) than when he was soaring in the polls ( $M = 3.38$  or \$5950,  $SE = .14$ ),  $F(1, 110) = 10.61, p = .001, \eta_p^2 = .09$ . We return to this finding in the discussion.

### Self-feelings

Participants' self-feelings were analyzed with a 2 (Affirmation status)  $\times$  2 (Normative information) ANOVA. The analysis revealed a significant main effect of normative information,  $F(1, 109) = 4.07, p = .046, \eta_p^2 = .04$ , such that the Democratic participants felt significantly more positive about themselves when President Obama was soaring in the polls ( $M = 6.80, SE = .20$ ) than when he was falling in the polls ( $M = 6.20, SE = .22$ ). There was no main effect for affirmation status  $F(1, 109) = 0.18, p = .677$ . However, the two-way interaction term approached significance,  $F(1, 109) = 3.89, p = .051, \eta_p^2 = .03$ . Simple effects tests revealed that the self-feelings of participants in the control condition were strongly influenced by the polling data, as the (Democratic) participants reported significantly more positive feelings about themselves when Obama was soaring in the polls ( $M = 7.03, SE = .30$ ) than when he was falling in the polls ( $M = 5.84, SE = .33$ ),  $F(1, 109) = 7.23, p = .008, \eta_p^2 = .06$ . By contrast, the self-feelings of participants in the affirmation condition exhibited no difference when Obama was soaring ( $M = 6.57$ ) versus falling in the polls ( $M = 6.55$ ),  $F(1, 109) = 0.001, p = .973$ . Affirmed participants' self-feelings appeared to be untethered from their political party's success or failure, as it did not fluctuate in response to the polling information.

### Summary and next steps

Study 1 provided the first direct evidence that affirmations of self-integrity affect responsiveness to normative social influence. The attitudes of control participants, all of whom were self-identified Democrats, were swayed by the salient American polling norms. In line with predictions from the social identity approach to group norms, participants were more favorable toward President Obama and his approach to health care, they allocated more hypothetical dollars toward Obama's party, and they may have felt better about themselves when Obama was soaring in the polls than when he was sinking in the polls. By contrast, affirmation appeared to free participants from the implications of the group norms, as their evaluations of Obama were not swayed by the group norms, they actually gave more dollars to Republicans, and their self-feelings were unmoved by whether Obama was soaring or sinking in the polls. The national norms did not appear to affect participants' evaluations of Republicans, a non-salient but relevant social group (cf. Binning et al., 2010). Also consistent with expectations of the social identity approach, this latter finding suggests that participants' evaluations of Obama were responding to the national norms but not to other, non-salient partisan norms.

One potential limitation of Study 1 is that all participants were Democrats and therefore shared both their Democratic and national identity with the president. For instance, from participants' self-feelings, it is unclear if control participants were responding as Americans or as Democrats. Participants felt better when Obama was soaring than when he was sinking in the polls, which could be expected both among self-identified Americans and among self-identified Democrats. The main

effect on the allocation task suggested that Democratic identity may have been active. We reasoned that although Obama is a Democrat, only the national norms were manipulated while Democratic norms were not. Thus, we expected exposure to national norms to tap American, not Democratic identity. Following this logic, an equivalent pattern of results should emerge for Republican participants, a prediction we examine in the next study.

Study 2 aims to replicate the core finding of Study 1 with a sample of self-identified Republicans. If normative pressure sways participants' evaluations of Obama as a function of salient American norms as reflected in polls, then these salient American norms should exert their influence among Republicans as they did with Democrats. Although counter-intuitive on the surface, this prediction rests on the theoretical assumption that participants' social identity concerns are driven by whatever identity is most salient in the social context. Because we aim to highlight American national norms (and not Republican or Democratic norms), we expected that Republicans would be swayed in the direction of national norms, even when such norms ran counter to their interests as Republicans (i.e., to see Obama perform poorly). This study therefore presents a strong test of the idea that it truly is salient national norms and not partisan norms to which participants are responding (cf. Bolsen, Druckman, & Cook, 2014; Leeper & Slothuus, 2014).

In addition, Study 2 compares and contrasts how affirmation affected participants' responses to normative (polling) information versus evidentiary (factual) information. Half the participants received polling information regarding how Americans view President Obama's handling of the economy, and the other half received evidentiary information regarding how the economy was actually doing under Obama's economic stewardship (e.g., unemployment rate). The distinction between these two types of information maps onto the distinction between normative versus informational forms of social influence (e.g., Chaiken, Giner-Sorolla, & Chen, 1996; Deustch & Gerard, 1955; Petty & Cacioppo, 1986). Thus we manipulated affirmation status (Affirmation vs. Control) and orthogonally manipulated both the favorability of the information (favorable vs. unfavorable to Obama), as in Study 1, and also the type of information participants received (normative vs. evidentiary), yielding a 3-factor design. We predicted a three-way interaction: whereas control participants should tend to be swayed by normative but not evidentiary information, affirmation participants should tend to be swayed by evidentiary but not normative information. Our dependent measures consisted of participants' approval of President Obama, their approval of Republicans, and their feelings of self-worth in response to the manipulations.

### Study 2

When this study was conducted in early 2010, Obama's approval among the American people hovered around 50% (Gallup, 2014). Although the economic recession had technically ended in 2009, national unemployment remained high (just under 10%) and was seen as among the top problems facing the country (Jones, 2010). At the same time, the U.S. stock market had recorded big gains over the previous year, with the S&P 500 rising 24%. As such, the economic picture was uncertain, and the mix of favorable and unfavorable data made it possible to spin the public's perceptions of the economy under Obama (normative information) as well as the actual state of the economy under Obama (evidentiary information) in either negative or positive directions. Actual reports at the time of this research indicated that favorable public opinion about Obama had been slipping (see Condon, 2010). Meanwhile, the Federal Reserve Bank of Philadelphia's (2010) first quarter Survey of Professional Forecasters projected a low but upwardly revised projection of a 2.7% annual rate of growth for the US economy in 2010 after contracting  $-2.8\%$  in 2009 (The World Bank, 2014). As such, both Obama's popularity and the state of the economy could be plausibly described as weak/declining or strong/growing.

## Method

### Participants and design

Participants were 159 adults (62% female; 88% White, 6% Asian or Asian American, 4% Latino/a, 2% from other categories;  $M_{\text{Age}} = 35.69$  years) recruited from the same listserv used in Study 1, but this time emails were sent only to self-identified Republicans. Participants received a \$7 gift card to an online retailer. Participants were randomly assigned to one of the eight cells of the 2 (Affirmation status: Affirmation vs. Control)  $\times$  2 (Direction of data: Favorable toward Obama vs. Unfavorable toward Obama)  $\times$  2 (Type of data: Normative vs. Evidentiary) between-subjects factorial design. Four months after the completion of the study, participants were invited to take part in another study in exchange for a \$5 gift card, and 124 (78%) completed the follow-up study.

### Procedure

After providing consent, participants received the same affirmation manipulation used in Study 1 and then read a news article written and formatted to appear to be from a prominent global news agency (a different agency than in Study 1). Half the participants completed a similar procedure as participants in Study 1. Participants assigned to this study's normative conditions read one of two articles that featured a picture of a large crowd. Those in the favorable normative data condition read an article titled, "Poll: More Americans Have Faith in Obama's Policies," which reported four pieces of data describing Obama's rise in the national polls with respect to his handling of the economy (e.g., approval of Obama's handling of the economy "had steadily improved more than 6%"). Participants in the unfavorable normative data condition read a parallel article titled, "Poll: More Americans Doubt Obama's Policies," which cited four pieces of data on the president's declining approval with parallel wording (e.g., approval of Obama's handling of the economy "had steadily declined more than 6%").

The remaining participants were assigned to one of two evidentiary conditions that did not contain normative information and instead manipulated factual economic indicators. The evidentiary articles were matched for length and level of detail with the normative articles and featured a close-up photo of a stock ticker board with reporting on four pieces of economic data gathered during Obama's tenure. Participants who received favorable evidentiary data read an article titled, "Experts: Economic Data Lend Support to Obama's Policies," which reported on four signals of improving economic strength under Obama's leadership (e.g., gross domestic spending had "steadily increased by 6%" during the current year). Participants assigned to receive unfavorable evidentiary data read an article titled, "Experts: Economic Data Cast Doubt on Obama's Policies," which reported four signals of declining economic strength under Obama's leadership (e.g., domestic spending had "steadily decreased by 6%").

Notably, both the normative and evidentiary information articles were fabricated for the purposes of this research and constructed to use identical numbers and comparable levels of detail and complexity. A pilot test<sup>3</sup> on a bipartisan sample of 60 participants using the news materials suggested there was a marginal tendency for participants to regard information unfavorable to Obama as more "reliable" than favorable information ( $F[1, 57] = 2.89, p = .096$ ), perhaps reflecting the public's declining opinion of Obama noted above (Condon, 2010). However, there was no difference in the perceived reliability of the normative versus evidentiary information ( $F[1, 57] = 0.08, p = .776$ ), nor was there a two-way interaction on perceived reliability between

direction and type of data ( $F[1, 57] = 0.05, p = .826$ ). As such, we went forward with the materials but aimed to follow up with participants four months after the initial manipulation to examine whether the effects of the manipulations held over time.

### Approval of Obama

Participants responded to four items that paralleled the four items used in Study 1, but which substituted "economic issues" where Study 1 had used "health care issues." The composite ranged from 1 (unfavorable toward Obama) to 9 (favorable toward Obama;  $\alpha = .81; M = 3.74, SD = 1.80$ ).

### Evaluations of Republicans

Although participants did not receive any Republican-specific articles or stimuli, we assessed their perceptions of Republicans with two items: "How balanced and objective is the Republicans' approach to economic issues?" (1 = *Not balanced or objective at all*; 9 = *Very balanced and objective*) "In general, how knowledgeable about economic issues is the Republican leadership?" (1 = *Not knowledgeable at all*; 9 = *Very knowledgeable*;  $\alpha = .73; M = 5.68, SD = 1.50$ ).

### Feelings of self-worth

Participants completed the feelings of self-worth scale (Brown & Dutton, 1995), which we used to expand our measure of self-feelings beyond the single-item measure used in Study 1. Participants indicated how well each of eight items described how they were feeling "right now" on a scale from 1 (*Not at all*) to 7 (*Very much*). Reflecting the scale's conceptual structure, four items assessed feelings that directly implicate the self: humiliated\*, proud, ashamed\*, pleased with myself (\*reverse-scored;  $\alpha = .62; M = 5.35, SD = 0.97$ ). Four more items assessed more general mood and were not directly related to the self: glad, unhappy\*, sad\*, happy ( $\alpha = .83; M = 5.20, SD = 1.31$ ).

### Results and discussion

Study 2 was designed to examine two potential effects of self-affirmation. First, it tested the Study 1 findings with Republicans, examining whether self-affirmation can untether people from salient normative group pressure, as previously observed with Democrats; and second, it examined whether self-affirmation would simultaneously make people more attuned to evidentiary data. Evaluations of President Obama were subjected to a 2 (Affirmation status: Affirmation vs. Control)  $\times$  2 (Direction of data: Favorable toward Obama vs. Unfavorable toward Obama)  $\times$  2 (Type of data: Normative vs. Evidentiary) between-subjects ANOVA. The analysis yielded a main effect of direction of data,  $F(1, 151) = 4.01, p = .047, \eta_p^2 = .03$ , indicating that favorability toward Obama was higher when the data were favorable ( $M = 3.88, SE = .19$ ) than when they were unfavorable ( $M = 3.35, SE = .18$ ). However, this effect was moderated by the predicted three-way interaction,  $F(1, 151) = 3.99, p = .047, \eta_p^2 = .03$  (see Fig. 2, top panel). We decomposed the three-way interaction by examining the effects within the normative condition (two way effect:  $F[1, 151] = 1.93, p = .167$ ) and evidentiary condition (two way effect:  $F[1, 151] = 2.02, p = .154$ ). The pattern of responses in the normative conditions replicated Study 1: participants in the control condition were significantly more favorable toward President Obama when he was up in the polls ( $M = 4.19, SE = .40$ ) than when he was down ( $M = 3.08, SE = .37$ ),  $F(1, 151) = 4.24, p = .041, \eta_p^2 = .03$ . By contrast, as in Study 1 affirmed participants were untethered from the group norms, as there was no difference in their approval when Obama was up ( $M = 3.67, SE = .37$ ) versus down ( $M = 3.60, SE = .37$ ) in the polls,  $F(1, 151) = 0.02, p = .890$ .

The pattern further suggested that control participants were unaffected by the (favorable vs. unfavorable) economic evidence. Participants in the control condition were not responsive to the data, as their favorability toward Obama was low overall and did not differ when

<sup>3</sup> Participants in the pilot test were randomly assigned to cells of a 2 (Direction of data: Favorable toward Obama vs. Unfavorable toward Obama)  $\times$  2 (Type of data: Normative vs. Evidentiary) between-subjects factorial design and asked to indicate "how reliable was the data presented in the article" with endpoints labeled 1 (*Not at all reliable*) and 7 (*Very reliable*) ( $M_s = 3.72$  and  $4.35$ ;  $SE_s = .26$  and  $.27$ , for favorable and unfavorable data, respectively).

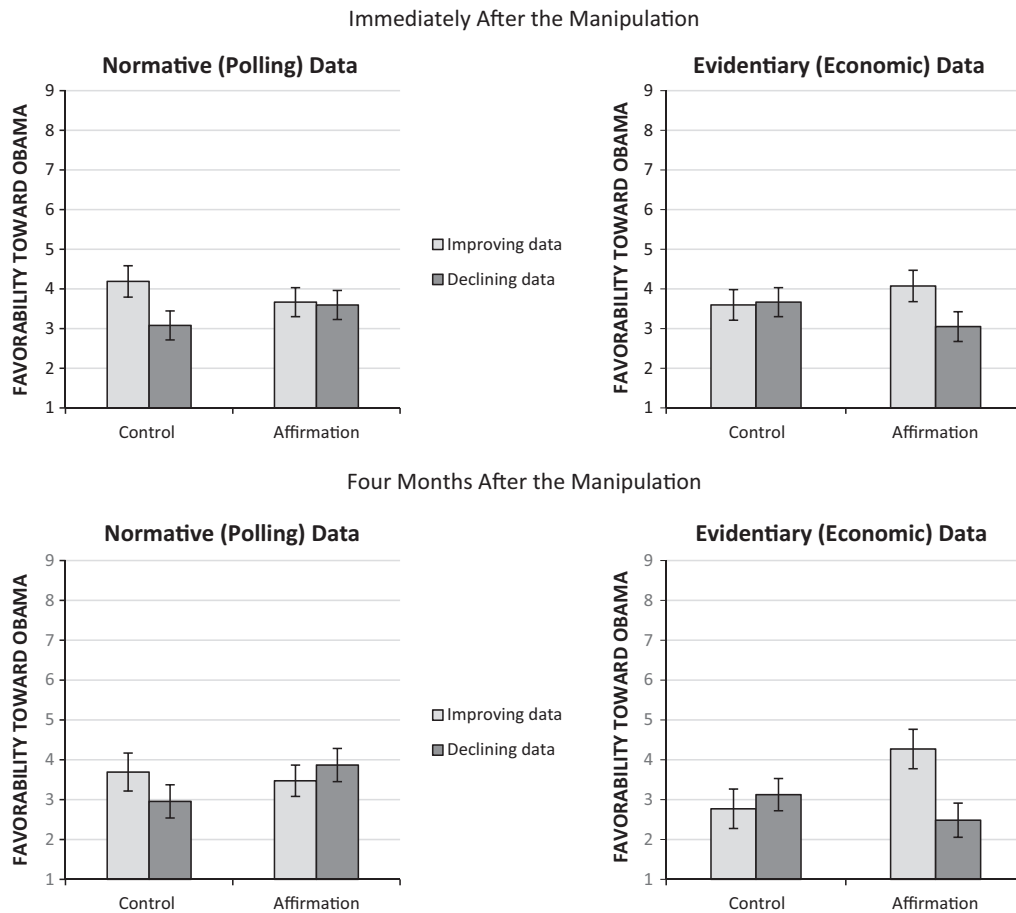


Fig. 2. Republicans' mean favorability toward Obama ( $\pm 1$  standard error) as functions of affirmation status, direction of data, and type of data immediately after the manipulation (top) and at four-month follow-up (bottom) for Study 2.

the economy was improving ( $M = 3.60$ ,  $SE = .39$ ) versus declining ( $M = 3.67$ ,  $SE = .37$ ),  $F(1, 151) = 0.02$ ,  $p = .895$ . By contrast, among affirmed participants, favorability toward Obama was marginally higher when the economy was improving ( $M = 4.07$ ,  $SE = .40$ ) versus declining ( $M = 3.05$ ,  $SE = .38$ ),  $F(1, 151) = 3.53$ ,  $p = .062$ ,  $\eta_p^2 = .02$ . The overall pattern therefore suggested that affirmation attenuated conformity to polls but increased openness to economic data.

#### Evaluations of Republicans

Evaluations of Republicans were tested with a 2 (Affirmation status)  $\times$  2 (Direction of data)  $\times$  2 (type of data) ANOVA. The analysis did not yield any significant main effects,  $F_s < 1.34$ ,  $ps > .247$ , or interactions,  $F_s < 1.0$ ,  $ps > .398$ .

#### Feelings of self-worth (FOSW)

Separate analyses were conducted on the two facets of the FOSW scale (self-feelings and general feelings; cf. Brown & Dutton, 1995). First, a 2 (Affirmation status)  $\times$  2 (Direction of data)  $\times$  2 (type of data) ANOVA was conducted on self-feelings. The analysis did not yield any significant main effects,  $F_s < 1.0$ ,  $ps > .497$ . There was, however, a significant Affirmation status  $\times$  Direction of data (two-way) interaction,  $F(1, 151) = 4.41$ ,  $p = .037$ ,  $\eta_p^2 = .03$ . Although the simple effects comparisons were not significant, they were in the direction (symmetrical to Study 1) that control (Republican) participants felt worse about themselves when Obama faced improving data ( $M = 5.24$ ,  $SE = .16$ ), than when he faced declining data ( $M = 5.53$ ,  $SE = .15$ ),  $F(1, 151) = 1.71$ ,  $p = .193$ . Affirmed participants, by contrast, felt marginally better about themselves when Obama faced improving data ( $M = 5.46$ ,  $SE = .16$ ) than when he faced declining data ( $M = 5.10$ ,  $SE = .15$ ),  $F(1, 151) =$

2.77,  $p = .098$ ,  $\eta_p^2 = .02$ . There were no other two-way interactions,  $F_s < 1.77$ ,  $ps > .185$ , nor a three-way interaction,  $F(1, 151) = 0.06$ ,  $p = .809$ . These results are consistent with the idea that the affirmation changed the way participants felt in response to identity-relevant political information. They are also suggestive of a complex relationship between social identities and responsiveness to political information: it seems that participants may go along with salient national norms (as seen in the normative information conditions), even when those norms threaten the self. Although such inferences are tentative given the partial and marginal nature of these findings, the overall pattern suggests, consistent with Study 1, that the affirmation can reduce and even reverse the impact of positive and negative identity-relevant information on immediate feelings about the self (see Sherman & Kim, 2005).

A 2 (Affirmation status)  $\times$  2 (Direction of data)  $\times$  2 (Type of data) ANOVA on the general mood dimension of the FOSW scale did not reveal any main effects  $F_s < 2.39$ ,  $ps > .124$ , or interactions  $F_s < 1.75$ ,  $ps > .187$ . Such a finding is consistent with other research suggesting that self-affirmations affect the way people feel about themselves but tend not to change general positive mood (Cohen et al., 2000; Fein & Spencer, 1997; Schmeichel & Martens, 2005; Sherman & Kim, 2005; Sherman et al., 2000; for an exception see Koole, Smeets, Van Knippenberg, & Dijksterhuis, 1999).

#### Four-month follow-up

Study 2 provided evidence suggesting that self-affirmation can reverse the tendency for people to follow their group at the expense of following evidence. Based on theorizing that affirmation might have



changed participants' motivational goals when processing political information, we sought to examine if this effect held up over time.

The 124 participants who completed the follow-up were given the identical measure of Obama support at the very beginning of the follow-up study.<sup>4</sup> They were given this measure without reminding them of their previous condition assignment (or the nature of the prior study). The critical three-way interaction replicated,  $F(1, 116) = 6.84, p = .010, \eta_p^2 = .06$ , indicating that the original manipulations continued to affect participants' attitudes over time (see Fig. 2 bottom panel).

Next, participants in the four-month follow-up received a new manipulation. Specifically, we sought to address what would happen when normative and evidentiary information directly conflicted. To take a recent example, the *New York Times* recently published an article with the headline, "Obama's Puzzle: Economy Rarely Better, Approval Rarely Worse" (Calmes, 2014). That is, sometimes public norms suggest that the president is unpopular, but the factual data indicate that his economic policies are effective. How would participants respond to such conflicting information? We predicted that control participants would be swayed by the normative information contained in the article (and not by the evidentiary information), whereas affirmation participants would be swayed by the evidentiary information (and not by the normative information).

To get at this idea, we randomly assigned all participants to read a new article about President Obama. They either received an article headlined, "Americans Have Doubts About Obama, But Economy is Growing" or an article with the opposite headline, "Americans Continue to Support Obama, But Economy is Weakening." Each article contained one paragraph describing how Obama was faring in the polls (either soaring or sinking) and one conflicting paragraph describing how the economy under Obama was actually doing (either declining or rising). To control for order effects, the order of presentation of normative and evidentiary information was counterbalanced for each subject. We then assessed evaluations of Obama's economic policies with three new items that used nine-point scales. These questioned the likelihood that "Obama's economic policies will help the economy," whether Obama had "the economy on the right track," and if Obama has "the right leadership qualities to lead the country out of the recession." The three items formed a reliable composite ( $\alpha = .91; M = 3.12, SD = 1.85$ ).

The hypotheses were supported. Keeping in mind that the new article represented a fourth factor in our experimental design, we used a statistical model that included all prior manipulated factors, the new manipulation, and all two- and three-way interactions terms among these variables. Given the lack of power in the design, we omitted the four-way interaction term from this model, although the effects reported below hold when it was included. There was a significant two-way interaction (Affirmation status  $\times$  New article content),  $F(1, 109) = 5.59, p = .020, \eta_p^2 = .05$  (see Fig. 3), and this effect was not moderated by the two other factors,  $F_s < 1.0, p_s > .679$ . Consistent with the findings thus far, simple effects tests suggested that evaluations by control participants were swayed by the normative information, as they trended toward being more favorable toward Obama when the poll information was favorable ( $M = 3.41, SE = .45$ ) than when it was unfavorable ( $M = 2.48, SE = .31$ ),  $F(1, 109) = 2.64, p = .107, \eta_p^2 = .02$ . By contrast, evaluations by affirmation participants were swayed by evidentiary information, as they were marginally more favorable toward Obama when the economy was doing well ( $M = 3.50, SE = .32$ ) than when the economy was doing poorly ( $M = 2.68, SE = .32$ ),  $F(1, 109) =$

<sup>4</sup> A chi-squared test A chi-squared test revealed that the sample at Time 2 did not differ from the sample at Time 1 in their assignment to conditions  $\chi^2(7) = 1.19, p = .991$ ; nor were their differences in gender,  $\chi^2(1) = 1.06, p = .303$ , or age,  $t(275) = 1.08, p = .282$ . There was, however, a marginal decline in approval for Obama at Time 2 ( $M = 3.31, SE = .16$ ) compared to Time 1 ( $M = 3.60, SE = .13$ ),  $t(281) = 1.84, p = .067$ . This may be partly attributable to a decline in Obama approval also seen in the general population over this time period (Gallup, 2014).

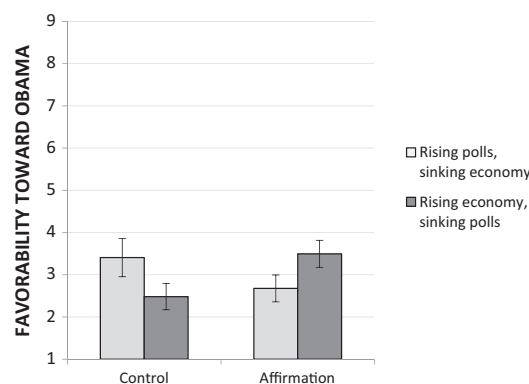


Fig. 3. Republicans' mean favorable evaluations of President Obama's economic policies ( $\pm 1$  standard error) in response to a news article that contained conflicting normative and evidentiary information at Study 2 four-month follow-up (net of the effects of the prior manipulated factors).

$3.31, p = .072, \eta_p^2 = .03$ . In summary, the affirmation had lasting effects on the type of information that participants were responsive to, decreasing their responsiveness to normative information and increasing their responsiveness to evidentiary information.<sup>5</sup> We return to this experimental design, in which normative and evidentiary information simultaneously conflict, in Study 3.

#### Summary and next steps

Study 2 provides more evidence that adhering to normative and evidentiary information is moderated by concerns about self-integrity. Participants were exposed to either normative information, evidentiary information, or (in the Study 2 follow-up) both types of information simultaneously. Participants' American identity was potentially relevant to both types of information: whereas normative information conveyed how group members were evaluating Obama's economic policies, evidentiary information conveyed how Obama's economic policies were actually performing. But consistent with our expectations, participants in the control condition were only responsive to the normative information. Only the normative information – which was conveyed via (fictitious) polling data on how most Americans felt about Obama and his handling of the economy – provided information about how to behave and respond like a typical group member. Evidentiary information, we argue, was useful not for gleaning how to behave like a typical group member, but for pursuing individual level goals of accuracy and independence in judgment. If the experimental manipulation successfully activated collective identity goals of conformity but not individual level-goals of accuracy, participants in the control condition should be expected to conform to collective norms but to ignore or resist the implications of evidentiary data. This was the case immediately after exposure to the stimulus and four months later when participants were re-contacted and presented with new stimuli.

<sup>5</sup> The original three factors (but not the new article) also interacted to affect participants' evaluations following the new article (3-way interaction),  $F(1, 109) = 6.43, p = .013, \eta_p^2 = .06$ . This pattern of results suggested that the manipulations from four-months earlier continued to affect participants' judgments after exposure to the new article in the predicted fashion. That is, independent of the new manipulation, no-affirmation participants were significantly more favorable toward Obama if they had been previously exposed to favorable normative data ( $M = 4.24, SE = .77$ ) rather than unfavorable normative data ( $M = 2.37, SE = .42$ ),  $F(1, 109) = 4.51, p = .036, \eta_p^2 = .04$ . Affirmed participants resisted the sway of normative influence ( $M_s = 3.26$  and  $3.37, SE_s = .39$  and  $.45$ , for favorable and unfavorable normative data, respectively),  $F(1, 109) = 0.04, p = .853$ . The pattern reversed for evidentiary information: no-affirmation participants were not influenced by the evidentiary data about Obama they had seen four months earlier ( $M_s = 2.42$  and  $2.75, SE_s = .52$  and  $.43$ , for favorable and unfavorable evidentiary data, respectively),  $F(1, 109) = 0.24, p = .624$ . By contrast, affirmation participants were more favorable toward Obama when they had been exposed to favorable evidentiary data ( $M = 3.52, SE = .52$ ) than when they had been exposed to unfavorable evidentiary data ( $M = 2.19, SE = .43$ ),  $F(1, 109) = 3.94, p < .050, \eta_p^2 = .04$ .

The role of self-integrity in driving the above results can be inferred from participants' responses after self-affirmation. We predicted that affirmations of self-integrity in a domain unrelated to the experimental context would effectively lead self-evaluation to be less tightly linked to focal social identities. When relieved from pressures to behave like a typical group member, participants in the affirmation condition may be more prone to pursue individual goals of accuracy and independence in judgment. The results bore this reasoning out. Affirmation appeared to produce an enduring shift in people's situational goals away from "going along" and toward "getting it right." This effect persisted over time for the domain of evaluating Obama's performance, and it continued to affect participants' evaluations of new information about Obama and the economy.

Our explanation for these effects rests on several theoretical arguments. In particular, we argue that in the control condition, the experimental context induced participants to self-categorize at the collective level and to thereby pursue collective identity goals of conformity and not individual identity goals of accuracy. The above results support this view, but they do not directly examine the role of social identification. For example, following this logic, participants with a low level of identification as American should be less likely to conform than participants with a high level of American identification. Such individuals might not self-categorize as Americans and, as such, would tend not to conform to the American norms as expressed in the polling data. Low-identified individuals may instead be concerned with individual goals of accuracy (Terry & Hogg, 1996). Research suggests that the individual-level self tends to be the most primary or default dimension of self-definition (Gaertner, Sedikides, Vevea, & Iuzzini, 2002), and thus when identification with a salient identity is low, participants should remain categorized at the individual level. In Study 3, we seek to directly test our predictions about the role of social identification in shaping the type of information that matters to self-integrity and the tendency for people to follow norms, even in the face of conflicting evidence.

First, we hypothesized that among highly-identified Americans, self-integrity concerns should be especially likely to come online in the face of salient American group norms. As such, in these situations it is among the highly identified for which affirmation can untether the self-concept from social identity and thereby open people up to evidentiary information.

Second, we predict that in these situations, control participants who do not identify with America should tend to follow the evidentiary but not the normative polling information. Since people with low American identification should not be compelled to follow the salient American group norms, they should be more open to evidentiary data and willing to neglect the salient normative data. As such, there are two general conditions under which people may be inclined to follow evidentiary data and neglect group normative data. The first is when people who identify with the group self-affirm prior to judgment, thereby alleviating the need to protect the integrity of salient social identity. The second is when low-identified individuals are exposed to the same information. Their low level of identification means that they are not invested in the salient group norms in the first place. As such, we theorize that affirmation should have contrasting effects among the high and low identified. Specifically, affirmation should attenuate conformity and enhance accuracy in judgment among people who identify strongly with Americans, but it should have the opposite effect and attenuate accuracy while enhancing conformity among people with low American identification. Thus, affirmed and low-identified individuals may process information in similar ways, showing a stronger proclivity toward "getting it right" than with "going along." Study 3 tests these possibilities by measuring participants' American identification and testing whether it moderates the effects of affirmation.

Study 3 also sought to expand the generalizability of the findings by recruiting participants from a new subject pool including both Republicans and Democrats. In examining only Democrats (Study 1) or only Republicans (Study 2), both previous studies held partisan identity

constant, which helped to reduce variability in partisan identity. However, doing so also made it difficult to investigate the role of political orientation. Thus, Study 3 sampled participants across the political continuum to model its effects. We expected that American identification would moderate the effects of affirmation, and that this should occur both prior to and after controlling for the influence of political orientation.

### Study 3

The final study was conducted in the summer of 2012, during the Republican presidential primary season and at the end of President Obama's first term. We modeled the stimulus materials on the Study 2 follow-up, and we sampled participants across the political spectrum – both Republicans and Democrats. The main purpose of this study was to test whether the tendency for affirmation to lead to greater receptivity of evidentiary over normative information (the pattern observed in the Study 2 follow-up) would be further moderated by American identification. Because this study sampled participants across the political spectrum, we also modeled the effects of political identification and compared it with the effects of American identification using multiple regression. We predicted that because American norms but not partisan norms were made salient by the polling stimuli, only American identification should moderate the proposed effects.

#### Method

##### Participants, procedure, and design

Two hundred forty-nine Americans were recruited from Amazon Mechanical Turk and each was paid \$0.55 to participate. We restricted the sample to participants with IP addresses located within the United States. Twenty-four participants had a significant amount of missing data (including the key dependent measures), and one participant experienced a technical problem. The analyses reported below are based on the remaining 224 participants (54% women; 73% White, 10% Asian or Asian-American, 8.4% African-American, 6.2% Latino/a). The sample had a median age of 30 years ( $M = 34.76$ ) and a median education level of college graduate (1 = *Some high school*; 6 = *Graduate degree*;  $M = 3.58$ ,  $SD = 1.14$ ). After indicating their American identification and political orientation, participants were randomly assigned to one of four cells in a 2 (Affirmation status: Affirmation vs. Control)  $\times$  2 (Article type: Favorable normative data and unfavorable evidentiary data vs. Unfavorable normative data and favorable evidentiary data) factorial design.

##### American identity and political orientation

Participants first completed several scales related to identity. They indicated their level of identification with America with three questions modeled from previous measures of group identification (e.g. Huo, Binning, & Molina, 2010): "Being an American is an important part of who I am", "I am proud to be an American", and "When someone praises the accomplishments of the United States, I feel it is a personal compliment to me" (1 = *Strongly disagree*; 7 = *Strongly agree*). These three items were combined into a mean composite that displayed excellent reliability ( $\alpha = .93$ ,  $M = 4.94$ ,  $SD = 1.59$ ). Participants also reported their political orientation: "Which political party do you support the most?" (1 = *Green*; 2 = *Democratic*; 3 = *Independent*; 4 = *Republican*; 5 = *Libertarian*; 6 = *None* [recoded as *Independent*]), "Would you say your political beliefs are closer to the Democrats or the Republicans?" (1 = *Much closer to the Democrats*; 4 = *In the middle*; 7 = *Much closer to the Republicans*), and "When it comes to politics, do you consider yourself to be liberal, moderate, or conservative?" (1 = *Very liberal*; 2 = *Liberal*; 3 = *Somewhat liberal*; 4 = *Moderate*; 5 = *Somewhat conservative*; 6 = *Conservative*; 7 = *Very conservative*). The three items were all coded on a 7-point scale and then averaged into a mean composite with higher scores indicating a more right-leaning orientation. The

measure displayed good reliability ( $\alpha = .88$ ,  $M = 3.34$ ,  $SD = 1.52$ ). The composite of political orientation revealed the sample leaned to the left, as 62% of participants scored below the midpoint of the scale, 10% were on the midpoint, and 28% scored above the mid-point of the scale. The liberal skew of the data is a common feature of samples of from Amazon M-Turk (Berinsky, Huber, & Lenz, 2012). Although liberally skewed data can be problematic when trying to make general claims across the political spectrum, we believed that there was enough variability in political orientation to allow us to test our key hypotheses.

#### News article

The two news articles were very similar to the articles introduced in the Study 2 follow-up. The article appeared to be from a reputable national newspaper. Half the participants were randomly assigned to an article reporting that 55% of Americans approved of President Obama's handling of the economy despite evidence that the economy was flagging ("Americans Continue to Support Obama, But Economy is Weakening"). The other half of participants received the opposite information, which indicated that 55% of Americans disapproved of Obama's handling of the economy despite evidence that the economy was improving ("Americans Have Doubts About Obama, But Economy is Growing").

#### Approval of Obama

Immediately after reading the article, participants evaluated Obama with the same three items reported at the end of the Study 2 follow-up (participants indicated if they thought "the economy on the right track," the likelihood that "Obama's economic policies will help the economy," and if Obama has "the right leadership qualities to lead the country out of the recession"). As above, participants answered the questions using a 9-point scale with end points labeled 1 (*Strongly disagree*) and 9 (*Strongly agree*). The composite displayed excellent reliability ( $\alpha = .95$ ,  $M = 4.99$ ,  $SD = 2.07$ ).<sup>6</sup>

#### Results and discussion

##### Analytic approach

To test the study hypotheses, we used a multiple regression approach with the methods recommended by Aiken and West (1991). Because we did not have full experimental control over all the independent variables, we controlled for participant age, gender, ethnicity (White = 0; non-White = 1), and educational achievement (1 = *Some high school*; 6 = *Post-graduate degree*), to help isolate the unique contribution of American identification on approval. The correlations among the measured variables used in the regression models are displayed in Table 1.

We tested our hypotheses using two different multi-step regression models, the first controlling for political orientation and the second not controlling for political orientation. In the first model, we tested all control variables on Step 1, the three focal main effects on Step 2 (mean-centered American identification, affirmation status, and article type), the three two-way interaction terms on Step 3 (American ID  $\times$  Affirmation status; American ID  $\times$  Article type; Affirmation status  $\times$  Article type) and the critical three-way interaction term on Step 4 (American ID  $\times$  Affirmation status  $\times$  Article type). Model 2 included all of these terms and also the main and interactive effects of political orientation. That is, the second model also included political orientation on Step 2, three additional two-way terms on Step 3 (American ID  $\times$  Political orientation; Affirmation status  $\times$  Political orientation; Article type  $\times$  Political orientation), three additional three-way terms on Step 4

(American ID  $\times$  Affirmation status  $\times$  Political orientation; American ID  $\times$  Article type  $\times$  Political orientation; Affirmation status  $\times$  Article type  $\times$  Political orientation), and the four-way interaction term on Step 5 (American ID  $\times$  Affirmation status  $\times$  Article type  $\times$  Political orientation). This four-way term did not explain a significant amount of variance and is not discussed further.

#### Approval of Obama's economic policies

Did American identification moderate the impact of the experimental variables on approval of Obama's economic policies? In both models (with and without political orientation), the central hypotheses pertained to a three-way effect in Step 4 involving American ID, affirmation status, and article type. In short, we expected the patterns seen in the prior studies to hold only among those with high American ID. In both models the three-way effect was significant on Step 4 (Model 1:  $B = -.76$ ,  $SE = .37$ ,  $\beta = -.25$ ,  $p = .043$ ; Model 2:  $B = -.84$ ,  $SE = .31$ ,  $\beta = -.27$ ,  $p = .007$ ) and revealed patterns in line with our hypotheses. Table 2 displays all regression coefficients from Step 4 from each analysis. Fig. 4 displays the estimated means for each condition at high (+1 SD) and low (-1 SD) American identification. Controlling for the influence of political orientation (Model 2) appeared to help to isolate the unique contribution of American identification on the dependent measure.<sup>7</sup>

Focusing on Model 2, we decomposed the three-way interaction by first examining the simple two-way interactions between the manipulated variables (affirmation status  $\times$  article type) at high (+1 SD) and low (-1 SD) American identification. Among highly identified Americans, the two-way interaction approached significance,  $B = -1.16$ ,  $SE = .68$ ,  $\beta = -.23$ ,  $p = .088$ . As hypothesized, simple effects tests found that affirmed participants' evaluations of Obama were lower when the economy was sinking (*Estimated M* = 5.22,  $SE = .33$ ) than when the economy was rising (*Estimated M* = 6.05,  $SE = .32$ ),  $B = -.82$ ,  $SE = .46$ ,  $\beta = -.18$ ,  $p = .076$ . This did not hold among control participants, as highly identified control participants were not responsive to the different articles (*Estimated Ms* = 5.23 and 5.57,  $SEs = .34$  and  $.36$ , for sinking and rising economy, respectively),  $B = .34$ ,  $SE = .50$ ,  $\beta = .08$ ,  $p = .498$ .

Among low identified Americans, the two-way (affirmation status  $\times$  article type) interaction was significant,  $B = 1.52$ ,  $SE = .66$ ,  $\beta = .30$ ,  $p = .023$ , and the pattern of means conformed to predictions. Control participants based their evaluations on the evidentiary data, as their evaluations of Obama were significantly higher when the economy (evidentiary information) was rising (*Estimated M* = 5.46,  $SE = .39$ ) than when it was sinking (*Estimated M* = 4.50,  $SE = .29$ ),  $B = -.96$ ,  $SE = .47$ ,  $\beta = -.21$ ,  $p = .045$ . This pattern was eliminated among

<sup>6</sup> Participants also answered two questions asked in Study 2, "How balanced and objective is Obama's health care outline?" (1 = *Not balanced or objective at all*; 9 = *Very balanced and objective*), and "In general, how knowledgeable about health care issues is Barack Obama?" (1 = *Not knowledgeable at all*; 9 = *Very knowledgeable*). Including these two items in the composite did not affect the reliability or significance of the focal three-way effect reported below, however, they were excluded from the analyses to keep the primary measure for this study the same as was used in the Study 2 follow-up.

<sup>7</sup> Speaking to the interplay between American identification and political orientation, Step 3 of the analysis also revealed a two-way interaction between political orientation and American identification ( $B = -13$ ,  $SE = .06$ ,  $\beta = -.13$ ,  $p = .022$ ). Simple effects tests showed that among more politically conservative participants (+1 SD on political orientation), there was no relationship between American identification and approval of Obama ( $B = -.02$ ,  $SE = .17$ ,  $\beta = -.01$ ,  $p = .913$ ), but among more liberal participants (-1 SD on political orientation), higher American identification predicted higher approval of Obama ( $B = .40$ ,  $SE = .16$ ,  $\beta = .28$ ,  $p = .014$ ). This finding hints that the three-way effect in Model 1 may have been muddied by the uncontrolled influence of political orientation. When political orientation was examined on its own as a moderator of the experimental manipulations, it was not a significant moderator. However, as seen in Table 2, when political orientation was included in the four-way model that also included (and thereby controlled for) American identification, its effect on the manipulations strengthened to reveal a marginal three-way interaction (political orientation  $\times$  affirmation status  $\times$  article type),  $B = .57$ ,  $SE = .32$ ,  $\beta = .20$ ,  $p = .078$ . Although no simple slopes approached significance, the overall pattern suggested that left-leaning participants - participants who shared a political identity with the president - responded like highly identified Americans, while right-leaning participants responded like low identified Americans. That is, when American identity was controlled, political orientation behaved similarly to it. It is notable that this effect only emerged in the model in which American identification was included, as it suggests that controlling the effects of a salient (American) identity might reveal the workings of less salient identities in the social context.

**Table 1**  
Bivariate correlations among measured variables included in Study 3 regression models.

	Non-White	Age	Female	Education	American ID	Political orientation	Obama eval.
Non-White	1.00						
Age	-.26***	1.00					
Female	-.09	.28***	1.00				
Education	-.10	.20**	.00	1.00			
American ID	-.03	.25***	.03	.01	1.00		
Political orientation	-.09	.02	-.17*	.18**	.30***	1.00	
Obama eval.	.21**	-.03	.18**	-.15*	-.04	-.62***	1.00

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

affirmed participants with low American identification (*Estimated Ms* = 4.79 and 5.35, *SEs* = .37 and .35, for rising and sinking economy, respectively),  $B = .56$ ,  $SE = .50$ ,  $\beta = .12$ ,  $p = .263$ , suggesting that among low-identified participants, affirmation actually reduced the processing of evidentiary information.

Consistent with hypotheses, the affirmed participants with high American identification and the control participants with low American identification processed the article information in similar ways—as they were both more swayed by evidence than normative information. We argue that this is because for both groups, people's self-concept was less linked to salient American group norms, and thus both groups of participants were free to evaluate Obama based on the merits of the country's economic performance rather than on salient ingroup norms.

## General discussion

Three studies support a self-integrity explanation for why people conform to political group norms, even when evidence suggests that

**Table 2**  
Unstandardized coefficients (B), standard errors (SE), standardized coefficients ( $\beta$ ) and significance levels for regression models in Study 3. Model 1 does not control for political orientation; Model 2 does.

	Model 1				Model 2			
	B	SE	$\beta$	$p$	B	SE	$\beta$	$p$
(Constant)	5.12	.29			5.35	.24		
White vs. Non-White	1.18	.34	.23	***	.74	.28	.15	**
Age	.00	.01	.01		-.01	.01	-.06	
Male vs. Female	.88	.30	.19	**	.35	.25	.08	
Education	-.22	.13	-.11		-.01	.11	.00	
American identification	-.31	.20	-.22		-.07	.17	-.05	
Affirmation status	.43	.41	.10		.08	.33	.02	
Article type	-.31	.42	-.07		-.31	.34	-.07	
Political orientation	-	-	-		-.56	.17	-.38	**
American ID $\times$ Affirmation status	.31	.27	.15		.47	.23	.23	*
American ID $\times$ Article type	.47	.26	.23		.41	.22	.20	
Affirmation status $\times$ Article Type	-.10	.58	-.02		.18	.46	.03	
Article type $\times$ Political orientation					-.24	.23	-.12	
Affirmation status $\times$ Political orientation					-.68	.24	-.33	**
American ID $\times$ Political orientation					-.24	.10	-.25	*
American ID $\times$ Affirmation status $\times$ Article type	-.76	.37	-.25	*	-.84	.31	-.27	**
Article type $\times$ Affirmation status $\times$ Political orientation					.57	.32	.20	
American ID $\times$ Article type $\times$ Political orientation					.05	.11	.04	
American ID $\times$ Affirmation status $\times$ Political orientation					.21	.11	.15	

\*  $p < .05$ .

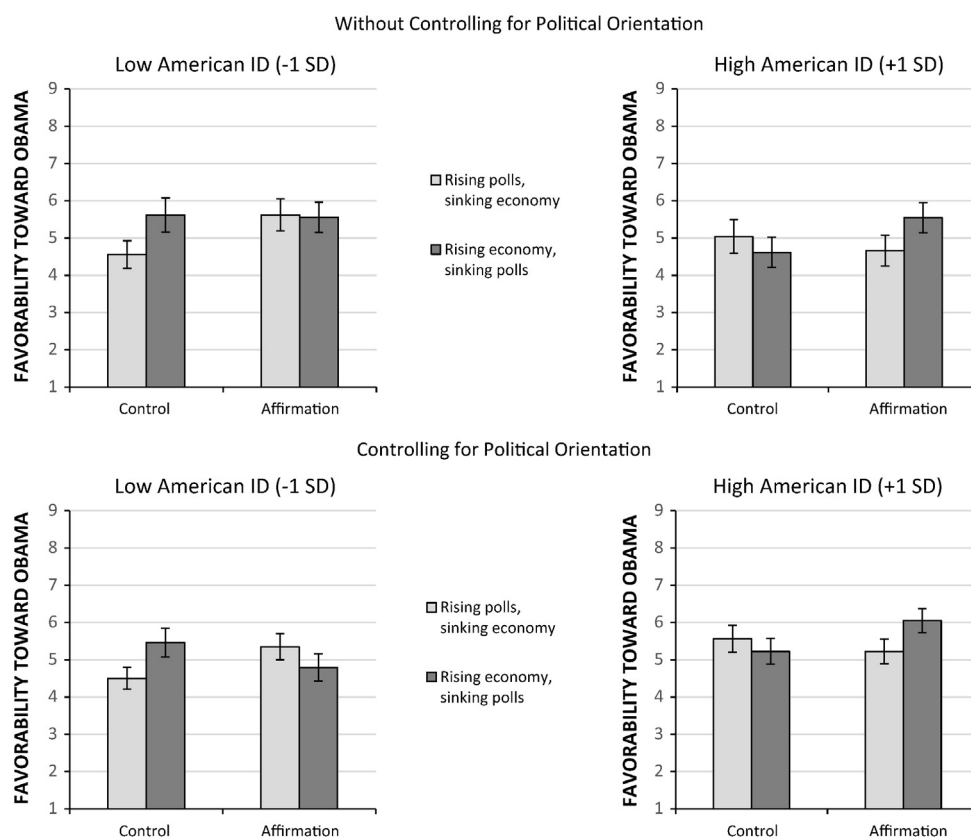
\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

the group norms are wrong. This research proceeded from the assumption that people respond differently to normative and evidentiary information because each type of information serves different psychological functions. Whereas normative information is often used for belonging and acceptance in social groups, evidentiary information is often used for accuracy and independence in judgment. In service of the desire to maintain a global sense of self-integrity, people should respond to which ever type of information aligns with the most salient aspect of their identity. When collective identity is salient, people conform to group norms and tend to ignore evidentiary information because only the normative information is relevant to maintaining self-integrity. But when a valued collective identity is not salient, concerns about individual-level identity may be more likely to guide judgment. In such circumstances, self-integrity may be maintained not by following group norms, but by attending to evidentiary information that could lead to an accurate, evidence-based judgment. Support for this reasoning was obtained in two primary ways.

First, following the social identity approach, when a relevant collective identity was made salient, participants in the control condition responded to normative information describing the ingroup's beliefs about President Obama (Studies 1 and 2) but not to evidentiary information describing how the economy was performing under his policies (Study 2). By contrast, participants in the affirmation condition were consistently untethered from the norms of the ingroup, as neither their self-feelings nor their approval of Obama were swayed in the direction of the polls. Affirming global self-integrity prior to judgment produced a qualitative shift in the types of information people found self-relevant: affirmed participants judged the president based on evidentiary information (Study 2) and were inattentive to ingroup-normative information (Studies 1 and 2). This effect persisted over four months and continued to affect attention to novel political information (Study 2 follow-up), suggesting the effects of the affirmation persisted and propagated to produce a general change in the identity relevance of normative information.

Second, participants' level of identification with America moderated the self-relevance of normative and evidentiary information. Following the idea that people attend to different types of information to maintain their self-integrity, participants who do not strongly identify with the group should be relatively inattentive to its norms. Instead, low identifiers may be attentive to information serving individual-level goals, such as goals of accuracy and independence in judgment. In Study 3, individual differences in social identification with America did indeed moderate participants' responses to normative and evidentiary information in the predicted fashion. Control participants with low American identification were inattentive to national polls about President Obama but were responsive to evidentiary information regarding Obama's economic performance. Together these results suggest that social identity processes help determine which types of information are relevant to the self-concept, findings consistent with prior research showing that social identification moderates responsiveness to salient ingroup norms (Terry & Hogg, 1996).



**Fig. 4.** Estimated means and standard errors for evaluations of President Obama's economic policies as functions of affirmation status and article type, plotted at low ( $-1$  SD) and high ( $+1$  SD) American identification from Study 3 without controls for political orientation (top), and with controls for political orientation (bottom).

These findings provide the first direct evidence that affirmations of self-integrity are a means to attenuate conformity and encourage independent, evidence-based decision-making. However, the findings also suggest affirmations of global self-integrity should not always lead to reductions in conformity and increases in evidence-based processing. That is, affirmations do not attenuate conformity *per se*. They do so only when people's immediate sense of self-integrity is tied to their collective identity, since it is these situations where people may be more concerned with "going along" than with "getting it right." This reasoning is suggested by the results of Study 3. There, affirmation appeared to shift attention to either normative or evidentiary information, depending on the type of information people were attending to in order to maintain global self-integrity. For example, Americans in the control condition who were weakly identified with America appeared to resist the group norms and follow the evidence (Study 3). For low-identified Americans, a lack of investment in the group should correspond with a lack of reliance on ingroup norms and, perhaps, an increased concern with individual level goals of accuracy. Indeed, affirmation appeared to attenuate evidence-based processing among the low-identified participants. Although preliminary, this finding is informative. For example, the finding that affirmation can actually reduce the use of evidentiary information means that affirmation does not *necessarily* reduce heuristic processing and increase deliberative processing of evidence (see Jacobson, Mortensen, & Cialdini, 2011): it does so primarily when the norms of a valued group are salient. Likewise, research suggests that feelings of love and social connectedness may underpin the effects of affirmation on the processing of threatening information (e.g., Burson, Crocker, & Mischkowski, 2012; Crocker, Niiya, & Mischkowski, 2008). The Study 3 findings suggest that if this is the case, such feelings do not necessarily make people less concerned with normative information, since affirmation appeared to make low identified Americans *more* concerned with normative information.

More generally, we suggest that among people whose sense of self-integrity depends on being independent, accurate, or neutral (e.g., a judge or referee), an affirmation of self-integrity prior to judgment could actually attenuate accuracy concerns. Consistent with this idea, Cohen et al. (2007) found that when participants were instructed to be even-handed in their judgment, control participants heeded the instructions whereas affirmation participants were actually more biased. Self-affirmation prior to judgment is not simply a de-biasing strategy that should always make people more likely to make evidence-based decisions. Rather, when self-integrity depends on making evidence-based decisions, affirmation could actually make people less likely to rely on evidence. In short, affirmation is a tool to free people from self-evaluative concerns, for good or for ill (Cohen & Sherman, 2014).

#### Effects over time

The long-term effects observed in Study 2 showed that brief affirmations propagated their impact over the surprisingly long period of four months (cf. Cohen, Garcia, Purdie-Vaughns, Apfel, & Brzustoski, 2009; Cohen & Sherman, 2014; Sherman et al., 2013). Evidence from the follow-up study suggests that this perseverance occurred through two processes. First, the newly acquired attitude persisted, such that the attitude change seen at Time 1 continued with no additional manipulations at Time 2. Affirmed participants resisted normative information and attended to evidentiary information at Time 1, and they continued to show these effects at Time 2. This finding is consistent with research showing that attitude change persists when it emerges from systematic processing of the central merits of the attitude object (Correll et al., 2004; Petty & Cacioppo, 1986). Second, the affirmation continued to exert effects on the processing of new political information. When participants were randomly assigned to read a new article about Obama

and the economy, participants who had been affirmed four months earlier were still less likely to respond to polling information and more likely to respond to evidentiary economic data when evaluating Obama. This finding suggests that affirmation may have produced a general shift in the self-concept's relationship to political information. When American norms were salient, affirmation seemed to turn down the relevance of normative information and turn up the relevance of evidentiary information.

Although speculative, one explanation for these findings is that the affirmation – timed to immediately precede the presentation of self-relevant political information (Critcher, Dunning, & Armor, 2010) – produced a subtle shift in participants' self-narratives in the political realm (Wilson, 2011). Perhaps when affirmed subjects became untethered from group norms, they came to see themselves as more open-minded or rational. Subsequent information may have been viewed through this shifted lens, with people giving more attention to evidentiary information when making political judgments. In one study, affirmed participants in a politically charged context rated themselves as more open-minded immediately after responding to persuasive political appeals (Binning et al., 2010). Research also suggests that the cumulative impact of a relatively small change in the nature of information processing can compound significantly over time (Cohen et al., 2009; Garcia & Cohen, 2012; McGuire, 1960; Sherman et al., 2013). The effect of affirmation may not end after the encoding of the original message. When timed appropriately, affirmation may trigger new processes (a change in self-narratives, perhaps) that carry the effect forward over time (Cohen & Sherman, 2014).

#### *Untethering threats from the self*

In a review, Sherman and Hartson (2011) and Sherman (2013) proposed a general model for understanding the effects of values affirmations. According to one facet of the model, affirmation enables people to untether threats from the self by promoting self-evaluations that are independent of the potential threat (Cook, Purdie-Vaughns, Garcia, & Cohen, 2012; Sherman & Kim, 2005; Sherman et al., 2013). The present studies found support for this aspect of the model in the analysis of self-feelings (Study 1) and feelings of self-worth (Study 2). In Study 1, Democrats felt better about themselves when Obama was rising in the polls than when he was falling, but the affirmation made people psychologically immune to this information, as affirmed participants resisted the influence from the polls. In Study 2, the overall pattern of results on self-feelings indicated that Republicans in the control condition felt better when Obama was doing poorly, and this pattern was marginally reversed in the affirmation condition.

Taken together, along with other research showing how affirmation buffers the rise and fall of self-feelings in response to collective events (e.g., Adams et al., 2006; Čehajić-Clancy et al., 2011; Sherman & Kim, 2005), the studies suggest that affirmation can reduce the negative impact of collective events on the self. Whereas previous research has tended to infer the presence of group norms based on characteristics of the situation, in the present research group norms were directly manipulated. In doing so, this research provides the first experimental evidence that self-affirmation affects the way the people respond to salient group norms.

#### *Implications for the psychology of political approval*

The present findings shed light on a variety of research illustrating conformity in political contexts. As seen among control participants, research suggests that presidential approval is influenced by salient social norms (Ceci & Kain, 1982; Hayes, Matthes, Hively, & Eveland, 2008; Marsh, 1985). In an experimental study on how people evaluate political debate performances, exposure to the opinion “worm” on the bottom of the television screen – which ostensibly reflected the real time opinion of undecided voters – strongly predicted who was deemed to

win the debate (Davis, Bowers, & Memon, 2011). More broadly, the post-election glow in approval that US presidents experience after assuming office (Stimson, 1976 id=“cf95) and the rally-around-the-president effect that presidents experience in times of conflict (see Kam & Ramos, 2008), might partly feed off conformity to group norms in times of uncertainty and fear (also see Landau et al., 2004; Schmeichel & Martens, 2005).

Political science research has also found that approval can be influenced by evidentiary information, albeit with some notable qualifications. In an analysis of US presidential approval data from 1955 to 2005, a president's economic performance was related to their approval levels, but only among participants for whom the president was in the political outgroup (Democrat or Republican), and thus, when social identity was not shared with the president (Lebo & Cassino, 2007). When social identity was shared with the president, information about the economy's performance was unrelated to approval of the president. Such findings are supportive of the present theorizing that people tend to be more receptive to evidentiary information and less responsive to group norms when social identity concerns are attenuated.

#### *Limitations*

An important limitation of the present work is that much of the theoretical rationale was tested indirectly. For example, across all studies the role of self-integrity on political conformity was assessed by affirming participants (or not), presenting them with normative information, and then observing the effects of this manipulation on opinions of President Obama. From the results we inferred that the affirmation manipulation untethered participants from normative pressure, but participants' perceptions of the national norms was not consistently measured across studies or, when it was measured (in Study 2), it did not mediate the observed effects. This recommends caution in drawing conclusions about the impact of affirmation on group norms because the mediating role of perceived norms was not observed directly.

Similarly, in Study 3 social identification with America was measured and then used as a moderator of the experimental manipulations. Although social identification moderated the effects as expected, we did not directly test if social identification changed the perceived significance of social norms or evidentiary information. The present findings therefore make a novel theoretical contribution but also point to directions for new research. One important direction is to directly test for the processes theorized to mediate the effects of the affirmation manipulation on participants' attitudes.

#### *On and off the political bandwagon*

When a candidate or position is perceived to be popular in the polls, the salient group norms can increase the target's popularity among the masses, which can increase others' perceptions of the target's popularity, and so on in a continuing cascade (Bikhchandani, Hirshleifer, & Welch, 1992; Salganik & Watts, 2008). The present studies suggest that such recursive processes may depend not, as some scholars have suggested, on intellectual or moral shortcomings of the public (e.g. Le Bon, 1897; see Ewen, 1996, for a review). Rather, the effects of political messages on the public appear to depend critically on perceivers' identification with the group and their immediate sense of self-integrity in the social context.

After completing a brief affirmation exercise and being exposed to a political message, perceivers' judgments of political information changed in predictable and significant ways. The results suggest that theory-driven interventions in the political domain can attenuate the power of public pressure on political beliefs. Being detached from group norms, either via self-affirmation or low identification, may make people more concerned with independent and evidence-based decision-making. During situations where unchecked conformity can lead to groupthink, unjust social policies, or ill-conceived wars, a well-

timed reminder of self-integrity may be one means to break the spell of the group and promote independent decision-making.

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## References

- Abrams, D., Wetherell, M., Cochrane, S., Hogg, M.A., & Turner, J. C. (1994). Knowing what to think by knowing who you are: Self-categorization and the nature of norm formation, conformity and group polarization. *British Journal of Social Psychology*, 29(2), 97–119.
- Adams, J. (1794). *A defence of the Constitutions of Government of the United States of America*, Vol. 3. London: John Stockdale, Piccadilly.
- Adams, G., Tormala, T. T., & O'Brien, L. T. (2006). The effect of self-affirmation on perception of racism. *Journal of Experimental Social Psychology*, 42, 616–626.
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage Publications.
- Anderson, J. W. (2009, April 27). Polls: Obama scores high marks. *Politico*. Retrieved from <http://www.politico.com/news/stories/0409/21740.html>.
- Asch, S. E. (1951). *Effects of group pressure upon the modification and distortion of judgments*. Groups, leadership, and men, 222–236.
- Bem, D. J. (1972). *Self-perception theory*. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (pp. 222–236). New York: Academic Press.
- Berinsky, A. J., Huber, G. A., & Lenz, G. S. (2012). Evaluating online labor markets for experimental research: Amazon.com's Mechanical Turk. *Political Analysis*, 20(3), 351–368.
- Bernays, E. L. (1945). Attitude polls — Servants or masters? *Public Opinion Quarterly*, 9, 264–268.
- Bikhchandani, S., Hirshleifer, D., & Welch, I. (1992). A theory of fads, fashion, custom, and cultural change as informational cascades. *Journal of Political Economy*, 100, 992–1026.
- Binning, K. R. (2007). "It's us against the world": How distrust in Americans versus people-in-general shapes competitive foreign policy preferences. *Political Psychology*, 28, 777–799.
- Binning, K. R., & Sherman, D. K. (2011). Categorization and communication in the face of prejudice: When describing perceptions changes what is perceived. *Journal of Personality and Social Psychology*, 101, 321–336.
- Binning, K. R., Sherman, D. K., Cohen, G. L., & Heitland, K. (2010). Seeing the other side: Reducing political partisanship via self-affirmation in the 2008 presidential election. *Analyses of Social Issues and Public Policy*, 10, 276–292.
- Bolsen, T., Druckman, J. N., & Cook, F. L. (2014). The influence of partisan motivated reasoning on public opinion. *Political Behavior*, 36, 1–28.
- Boudreau, C., & McCubbins, M.D. (2010). The blind leading the blind: Who gets polling information and does it improve decisions? *Journal of Politics*, 72(2), 513–527.
- Brown, J.D., & Dutton, K. A. (1995). The thrill of victory, the complexity of defeat: Self-esteem and people's emotional reactions to success and failure. *Journal of Personality and Social Psychology*, 68(4), 712.
- Burson, A., Crocker, J., & Mischkowski, D. (2012). Two types of value-affirmation: Implications for self-control following social exclusion. *Social Psychological and Personality Science*, 3, 510–516.
- Calmes, J. (2014, January 27). Obama's puzzle: Economy rarely better, approval rarely worse. Retrieved from: [www.nytimes.com/2014/01/28/us/politics/obamas-puzzle-economy-rarely-better-approval-rarely-worse.html](http://www.nytimes.com/2014/01/28/us/politics/obamas-puzzle-economy-rarely-better-approval-rarely-worse.html)
- Campbell, J.D., & Fairey, P. J. (1989). Informational and normative routes to conformity: The effect of faction size as a function of norm extremity and attention to the stimulus. *Journal of Personality and Social Psychology*, 57(3), 457.
- Ceci, S. J., & Kahn, E. L. (1982). Jumping on the bandwagon with the underdog: The impact of attitude polls on polling behavior. *Public Opinion Quarterly*, 46, 228–242.
- Čehajić-Clancy, S., Effron, D. A., Halperin, E., Liberman, V., & Ross, L. D. (2011). Affirmation, acknowledgment of in-group responsibility, group-based guilt, and support for reparative measures. *Journal of Personality and Social Psychology*, 101, 256–270.
- Chaiken, S., Giner-Sorolla, R., & Chen, S. (1996). Beyond accuracy: Defense and impression motives in heuristic and systematic information processing. In P.M. Gollwitzer, & J.A. Bargh (Eds.), *The psychology of action: Linking cognition and motivation to behavior* (pp. 553–578). New York: Guilford Press.
- Chaiken, S., Liberman, A., & Eagly, A. H. (1989). Heuristic and systematic processing within and beyond the persuasion context. In J. S. Uleman, & J. A. Bargh (Eds.), *Unintended thought* (pp. 212–252). New York: Guilford Press.
- Chen, S., Shechter, D., & Chaiken, S. (1996). Getting at the truth or getting along: Accuracy- versus impression-motivated heuristic and systematic processing. *Journal of Personality and Social Psychology*, 71, 262–275.
- Chung, R. (2012). The freedom to publish opinion poll results: A worldwide update of 2012. Downloaded from: [http://wapor.org/wp-content/uploads/2012/12/WAPOR\\_FTP\\_2012.pdf](http://wapor.org/wp-content/uploads/2012/12/WAPOR_FTP_2012.pdf)
- Cialdini, R. B., & Goldstein, N. J. (2004). Social influence: Compliance and conformity. *Annual Review of Psychology*, 55, 591–621.
- Cohen, G. L. (2003). Party over policy: The dominating impact of group influence on political beliefs. *Journal of Personality and Social Psychology*, 85, 808–822.
- Cohen, G. L., Aronson, J., & Steele, C. M. (2000). When beliefs yield to evidence: Reducing biased evaluation by affirming the self. *Personality and Social Psychology Bulletin*, 26, 1151–1164.
- Cohen, G. L., Garcia, J., Purdie-Vaughns, V., Apfel, N., & Brzustoski, P. (2009). Recursive processes in self-affirmation: Intervening to close the minority achievement gap. *Science*, 324, 400–403.
- Cohen, G. L., & Sherman, D. K. (2014). The psychology of change: Self-affirmation and social psychological intervention. *Annual Review of Psychology*, 65, 333–371.
- Cohen, G. L., Sherman, D. K., Bastardi, A., McGoey, M., Hsu, A., & Ross, L. (2007). Bridging the partisan divide: Self-affirmation reduces ideological closed-mindedness and inflexibility in negotiation. *Journal of Personality and Social Psychology*, 93, 415–430.
- Coleman, S. (2007). *Popular delusions: How social conformity molds society and politics*. Youngstown, NY: Cambria.
- Condon, S. (2010, February 11). Poll: Economy brings down Obama's job approval rating. *CBS News*. Downloaded from: <http://www.cbsnews.com/news/poll-economy-brings-down-obamas-job-approval-rating/>.
- Cook, J. E., Purdie-Vaughns, V., Garcia, J., & Cohen, G. L. (2012). Chronic threat and contingent belonging: Protective benefits of values affirmation on identity development. *Journal of Personality and Social Psychology*, 102, 479–496.
- Correll, J., Spencer, S. J., & Zanna, M. P. (2004). An affirmed self and an open mind: Self-affirmation and sensitivity to argument strength. *Journal of Experimental Social Psychology*, 40, 350–356.
- Coultras, J. C. (2004). When in Rome... An evolutionary perspective on conformity. *Group Processes & Intergroup Relations*, 7, 317–331.
- Critcher, C. R., Dunning, D., & Armor, D. A. (2010). When self-affirmations reduce defensiveness: Timing is key. *Personality and Social Psychology Bulletin*, 36, 947–959.
- Crocker, J., Niiya, Y., & Mischkowski, D. (2008). Why does writing about important values reduce defensiveness? Self-affirmation and the role of positive other-directed feelings. *Psychological Science*, 19, 740–747.
- Davis, C. J., Bowers, J. S., & Memon, A. (2011). Social influence in televised election debates: A potential distortion of democracy. *PLoS One*, 6(3), e18154.
- Deustch, M., & Gerard, H. (1955). A study of normative and informational social influences upon individual judgment. *Journal of Abnormal and Social Psychology*, 51, 629–636.
- Dunning, D. (2003). The zealous self-affirmer: How and why the self lurks so pervasively behind social judgment. In S. J. Spencer, S. Fein, M. P. Zanna, & J. M. Olson (Eds.), *Motivated social perception: Ontario symposium on personality and social psychology*, Vol. 9. (pp. 45–72). Mahwah, NJ: Lawrence Erlbaum.
- Ewen, S. (1996). *PR! A social history of spin*. New York: Basic Books.
- Fast, N. J., Heath, C., & Wu, G. (2009). Common Ground and Cultural Prominence How Conversation Reinforces Culture. *Psychological Science*, 20, 904–911.
- Federal Reserve Bank of Philadelphia (2010, February 12). Survey of professional forecasters: First quarter 2010. Downloaded from: <http://www.phil.frb.org/research-and-data/real-time-center/survey-of-professional-forecasters/2010/spfq110.pdf>
- Fein, S., & Spencer, S. J. (1997). Prejudice as self-image maintenance: Affirming the self through derogating others. *Journal of Personality and Social Psychology*, 73, 31–44.
- Gaertner, L., Sedikides, C., Vevea, J. L., & Iuzzini, J. (2002). The "I," the "we," and the "when": A meta-analysis of motivational primacy in self-definition. *Journal of Personality and Social Psychology*, 83, 574–591.
- Gallup (2014). Gallup daily: Obama job approval. Retrieved from: <http://www.gallup.com/poll/113980/gallup-daily-obama-job-approval.aspx>
- Garcia, J., & Cohen, G. L. (2012). A social psychological perspective on educational intervention. In E. Shafir (Ed.), *The behavioral foundations of policy*. (pp. 329–350) Princeton, NJ: Princeton University Press.
- Griffin, D. W., & Harris, P. R. (2011). Calibrating the response to health warnings: Limiting both overreaction and underreaction with self-affirmation. *Psychological Science*, 22, 572–578.
- Grube, J. W., Morgan, M., & McGree, S. T. (1986). Attitudes and normative beliefs as predictors of smoking intentions and behaviours: A test of three models. *British Journal of Social Psychology*, 25(2), 81–93.
- Hardin, C. D., & Higgins, E. T. (1996). Shared reality: How social verification makes the subjective objective. In R. M. Sorrentino, & E. T. Higgins (Eds.), *Handbook of motivation and cognition* (pp. 28–84). New York: Guilford Press.
- Harris, P. R., & Epton, T. (2009). The impact of self-affirmation on health cognition, health behaviour, and other health-related responses: A narrative review. *Social and Personality Psychology Compass*, 3, 932–978.
- Harris, P. R., & Epton, T. (2010). The impact of self-affirmation on health-related cognition and health behaviour: Issues and prospects. *Social and Personality Psychology Compass*, 4, 439–454.
- Harris, P. R., & Napper, L. (2005). Self-affirmation and the biased processing of threatening health-risk information. *Personality and Social Psychology Bulletin*, 32, 1250–1263.
- Hayes, A. F., Matthes, J., Hively, M. H., & Eveland, W. P., Jr. (2008). In search of the opinion climate: A new (and novel) test of the spiral of silence theory. *Unpublished manuscript*.
- Hogg, M.A., & Reid, S. A. (2006). Social identity, self-categorization, and the communication of group norms. *Communication Theory*, 16(1), 7–30.
- Huo, Y. J., Binning, K. R., & Molina, L. E. (2010). Testing an integrative model of respect: Implications for social engagement and well-being. *Personality and Social Psychology Bulletin*, 36, 200–212.

- Insko, C. A., Drenan, S., Solomon, M. R., Smith, R., & Wade, T. J. (1983). Conformity as a function of the consistency of positive self-evaluation with being like and being right. *Journal of Experimental Social Psychology*, *19*, 341–358.
- Jackson, J. M., & Saltzstein, H. D. (1958). The effect of person-group relationships on conformity processes. *Journal of Abnormal and Social Psychology*, *57*(1), 17.
- Jacobson, R. P., Mortensen, C. R., & Cialdini, R. B. (2011). Bodies obliged and unbound: Differentiated response tendencies for injunctive and descriptive social norms. *Journal of Personality and Social Psychology*, *100*, 433–448.
- Janis, I. L. (1982). *Groupthink: Psychological studies of policy decisions and fiascos*. Boston: Houghton-Mifflin.
- Jones, J. M. (2010, February 2). In U.S., unemployment jumps to top problem status. *Gallup Politics*. Retrieved from <http://www.gallup.com/poll/125846/Unemployment-Jumps-Top-Problem-Status.aspx>.
- Kahan, D.M., Jenkins-Smith, H., & Braman, D. (2011). Cultural cognition of scientific consensus. *Journal of Risk Research*, *14*, 147–174.
- Kam, C. D., & Ramos, J. M. (2008). Joining and leaving the rally: Understanding the surge and decline in presidential approval following 9/11. *Public Opinion Quarterly*, *72*, 619–650.
- Katz, D. (1960). The functional approach to the study of attitudes. *Public Opinion Quarterly*, *24*, 163–204.
- Klein, W. M. P., Harris, P. R., Ferrer, R. A., & Zajac, L. E. (2011). Feelings of vulnerability in response to threatening messages: Effects of self-affirmation. *Journal of Experimental Social Psychology*, *47*, 1237–1241. <http://dx.doi.org/10.1016/j.jesp.2011.05.005>.
- Koole, S. L., Smeets, K., Van Knippenberg, A., & Dijksterhuis, A. (1999). The cessation of rumination through self-affirmation. *Journal of Personality and Social Psychology*, *77*, 111–125.
- Kunda, Z. (1987). Motivated inference: Self-serving generation and evaluation of causal theories. *Journal of Personality and Social Psychology*, *53*(4), 636.
- Landau, M., Soloman, S., Greenberg, J., Cohen, F., Pyszczynski, T., & Arndt, J. (2004). Deliver us from evil: The effects of mortality salience and reminders of 9/11 on support for George W. Bush. *Personality and Social Psychology Bulletin*, *30*, 1136–1150.
- Latané, B., & Darley, J. M. (1970). *The unresponsive bystander: Why doesn't he help?* New York: Appleton-Century Crofts.
- Le Bon, G. (1897). *The crowd: A study of the popular mind* (2nd ed.). New York: Macmillan.
- Lebo, M. J., & Cassino, D. (2007). The aggregated consequences of motivated reasoning and the dynamics of partisan presidential approval. *Political Psychology*, *28*(6), 719–746.
- Leeper, T. J., & Slothuus, R. (2014). Political parties, motivated reasoning, and public opinion formation. *Political Psychology*, *35*, 129–156.
- Liberman, A., & Chaiken, S. (1992). Defensive processing of personally relevant health messages. *Personality and Social Psychology Bulletin*, *18*, 669–679.
- Marques, J. M., Yzerbyt, V. Y., & Leyens, J. P. (1988). The black sheep effect: Judgmental extremity towards ingroup members as a function of group identification. *European Journal of Social Psychology*, *18*, 1–16.
- Marsh, C. (1985). Back on the bandwagon: The effect of opinion polls on public opinion. *British Journal of Political Science*, *15*, 51–74.
- McGuire, W. J. (1960). Cognitive consistency and attitude change. *Journal of Abnormal and Social Psychology*, *60*, 345.
- McQueen, A., & Klein, W. M. P. (2006). Experimental manipulations of self-affirmation: A systematic review. *Self and Identity*, *5*, 289–354.
- Nolan, J. M., Schultz, P. W., Cialdini, R. B., Goldstein, N. J., & Griskevicius, V. (2008). Normative social influence is underdetected. *Personality and Social Psychology Bulletin*, *34*, 913–923.
- Petty, R. E., & Cacioppo, J. T. (1986). *Communication and persuasion: Central and peripheral routes to attitude change*. New York: Springer-Verlag.
- Rokeach, M. (1973). *The nature of human values*. New York: Free press.
- Rokeach, M. (1973). The nature of human values. New York: Free press. Ross, L., & Ward, A. (1996). Naïve realism in everyday life: Implications for social conflict and misunderstanding. In T. Brown, E. Reed, & E. Turiel (Eds.), *Values and knowledge* (pp. 103–135). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Saad, L. (2009, May 11). Obama Approval Picks Up in May. *Gallup Politics*. Retrieved from <http://www.gallup.com/poll/118306/Obama-Approval-Picks-Up-May.aspx>.
- Salganik, M. J., & Watts, D. J. (2008). Leading the herd astray: An experimental study of self-fulfilling prophecies in an artificial cultural market. *Social Psychology Quarterly*, *71*, 338–355.
- Schmeichel, B. J., & Martens, A. (2005). Self-affirmation and mortality salience: Affirming values reduces worldview defense and death-thought accessibility. *Personality and Social Psychology Bulletin*, *31*, 658–667.
- Schoen, D. E., & Rasmussen, S. (2009, March 13). Obama's poll numbers are falling to earth. *The Wall Street Journal*. Retrieved from <http://online.wsj.com/article/SB123690358175013837.html>.
- Schultz, P. W., Nolan, J. M., Cialdini, R. B., Goldstein, N. J., & Griskevicius, V. (2007). The constructive, destructive, and reconstructive power of social norms. *Psychological Science*, *18*(5), 429–434.
- Sherif, M. (1936). *The psychology of social norms*.
- Sherman, D. K. (2013). Self-affirmation: Understanding the effects. *Social Psychology and Personality Compass*, *7*, 834–845.
- Sherman, D. K., & Cohen, G. L. (2006). The psychology of self-defense: Self-affirmation theory. In M. P. Zanna (Ed.), *Advances in experimental social psychology*, Vol. 38. (pp. 183–242). San Diego, CA: Academic Press.
- Sherman, D. K., & Hartson, K. (2011). Reconciling self-defense with self-criticism: Self-affirmation theory. In M. Alicke, & C. Sedikides (Eds.), *The handbook of self-enhancement and self-protection* (pp. 128–151). New York: Guilford Press.
- Sherman, D. K., Hartson, K. A., Binning, K. R., Purdie-Vaughns, V., Garcia, J., Taborsky-Barba, S., et al. (2013). Deflecting the trajectory and changing the narrative: How self-affirmation affects academic performance and motivation under identity threat. *Journal of Personality and Social Psychology*, *104*, 591–618. <http://dx.doi.org/10.1037/a0031495>.
- Sherman, D. K., & Kim, H. S. (2005). Is there an "I" in "team"? The role of the self in group-serving judgments. *Journal of Personality and Social Psychology*, *88*, 108–120.
- Sherman, D. A. K., Nelson, L. D., & Steele, C. M. (2000). Do messages about health risks threaten the self? Increasing the acceptance of threatening health messages via self-affirmation. *Personality and Social Psychology Bulletin*, *26*, 1046–1058.
- Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2011). False-positive psychology undisclosed flexibility in data collection and analysis allows presenting anything as significant. *Psychological Science*, *22*(11), 1359–1366.
- Simon, H. A. (1954). Bandwagon and underdog effects and the possibility of election predictions. *Public Opinion Quarterly*, *18*, 245–253.
- Snyder, M., & DeBono, K. G. (1985). Appeals to image and claims about quality: Understanding the psychology of advertising. *Journal of Personality and Social Psychology*, *49*, 586–597.
- Steele, C. M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology*, Vol. 21. (pp. 261–302). New York: Academic Press.
- Stimson, J. A. (1976). Public Support for American Presidents A Cyclical Model. *Public Opinion Quarterly*, *40*(1), 1–21.
- Surowiecki, J. (2004). *The wisdom of crowds*. New York: Doubleday.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. *The Social Psychology of Intergroup Relations*, *33*, 47.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel, & W. Austin (Eds.), *The psychology of intergroup relations* (pp. 7–24). Chicago, IL: Nelson Hall.
- Terry, D. J., & Hogg, M.A. (1996). Group norms and the attitude-behavior relationship: A role for group identification. *Personality and Social Psychology Bulletin*, *22*(8), 776–793.
- The World Bank (2014). GDP growth (annual %). Downloaded from: <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>
- Turner, J. C., Hogg, M.A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Basil Blackwell.
- Turner, J. C., & Reynolds, K. J. (2011). Self-categorization theory. In A. W. Kruglanski, E. T. Higgins, & P. A.M. van Lange (Eds.), *Handbook of theories of social psychology: Volume two* (pp. 399–417). London: Sage.
- Tye, L. (1998). *The father of spin: Edward Bernays and the birth of public relations*. New York: Holt.
- Wilson, T. D. (2011). *Redirect: The surprising new science of psychological change*. New York: Little, Brown, and Company.