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An Experimental Study of Prejudice Toward Drivers With Political Bumper Stickers

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ABSTRACT. In this experiment, we tested whether a political sticker would affect prejudice toward a hypothetical driver. An online survey was made available to MTurk workers and a small convenience sample in October 2016. Participants were shown 1 of 3 randomly assigned pictures of a car with 5 nonpolitical bumper stickers or the same car with a Trump or Clinton campaign sticker added. Participants were asked: (a) how likely they would be to vandalize the car (*1 = extremely likely to 5 = extremely unlikely*), (b) how much money they would put in a timed out parking meter (*$0.00 to $1.00*), and (c) whether they could be friends with the driver (3 = *yes*, 1 = *no*, 2 = *maybe*). Although 214 people completed the study, only those with plans to vote for 1 of the 2 major parties were included for analysis. Thus, results were based on 180 participants (106 Clinton/Kaine voters and 74 Trump/Pence voters). As expected, Trump and Clinton supporters were significantly more generous, $F(2, 174) = 9.57$, $p < .001$, $\eta_p^2 = .099$, and friendly, $F(2, 174) = 9.6$, $p < .001$, $\eta_p^2 = .10$, toward the hypothetical owner of the car with a sticker supporting their candidate of choice and were more likely to say they would vandalize the car promoting a candidate they did not support, $F(2, 174) = 4.4$, $p < .001$, $\eta_p^2 = .048$. The results confirm what was expected based on previous research on impression formation, group identity bias, and prejudice.

Keywords: bumper sticker, impression formation, prejudice, group identity

In May 2016, a tow truck driver refused to tow a woman's car because she had a Bernie Sanders bumper sticker. The man explained his prejudice against supporters of Bernie Sanders, "And I said, you know, I'm not going to associate with them, and I'm not going to do any business with them," (Surles, 2016). A more recent incident involved a man who caused a woman to wreck her car after he brandished a gun in response to her political bumper stickers. Fortunately, there were no injuries. The man acknowledged that he made a bad choice but said the woman's bumper stickers were "stupid" (Londberg, 2017). Such prejudice is not altogether surprising given what social psychologists have uncovered about prejudice and group identity. It is even less surprising considering the current political polarization. However, these examples are just anecdotal. Without experimental evidence that bumper stickers affect attitudes and behavior toward other drivers, researchers are left to merely speculate about their impact on drivers. In the present study, we took advantage of one of the most contentious presidential elections in recent history to see if political campaign stickers could affect people's attitudes toward a hypothetical driver.

Existing Research on Bumper Stickers

Surprisingly little empirical research has been conducted on bumper stickers. Despite an extensive search of major databases, such as PsycINFO and Google Scholar, a relatively small number of

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published studies were identified. Some were simple content analyses of the most common sticker themes or their semantics (Al-Momani, Ahmad Jaradat, Bani-Khair, Mohammad, & Alshaboul, 2017; Case, 1992; Endersby, & Towle, 1996; Jaradat, 2016; Stern & Solomon, 1992). Other studies went beyond simple classification and included speculation about the symbolic meaning of stickers for issues such as gender (Noble & Baldwin, 2001), religion (Chiluwa, 2008), family identity (Doyle & Tranter, 2015), law (Doyle & Tranter, 2016), consumer perceptions (Belk, 1988), national identity (Kriznar, 1993), and political discourse (Bloch, 2000a, 2000b; Salamon, 2005). The studies were of limited value to the present study because empirical support for the interpretations was very limited or even nonexistent in some cases (e.g., Doyle & Tranter, 2015; Noble & Baldwin, 2001). In addition, many of these studies were conducted outside of the United States, notably in Australia (Doyle & Tranter, 2015; Doyle & Tranter, 2016; Noble & Baldwin, 2001), Israel (Bloch, 2000a, 2000b; Salamon, 2005), Jordan (Al-Momani et al., 2017; Jaradat, 2016), Nigeria (Chiluwa, 2008), and Slovenia (Kriznar, 1993).

The number of discourse and semiotic studies on bumper stickers far exceeded those on the psychological effects. In fact, only three published social psychological investigations involving bumper stickers were identified. First, Turner, Layton, and Simons (1975) used bumper stickers as a priming stimulus to explore aggressive driving and helping. Findings from their field experiment indicated that drivers were more likely to become aggressive when the car in front of them had a sticker with the word "vengeance," particularly if there were other aggressive stimuli (e.g., a rifle hanging in the rear window) and when the driver was not visible. Bumper stickers were not the primary focus of the study, however. A second study by Newhagen and Ancell (1995) investigated the emotional tone of more than 5,000 bumper stickers in Washington, D.C. in 1992. They attempted to determine if the use of bumper stickers varied by race and tested the hypothesis that increased income would be associated with more intense and positive stickers. Their hypothesis was supported. Finally, a more recent study by Morrison and Miller (2008) examined the relative proportion of Republican and Democratic campaign stickers on vehicles in both predominantly blue and red counties in California in order to test a theory about descriptive and prescriptive deviants. They also surveyed the owners of the cars to confirm a hypothesis that those who display political stickers would be more partisan than the average voter. Their findings supported their theory that people with more extreme attitudes were more likely to express those attitudes in the form of bumper stickers, especially when those opinions were shared by the majority of people in a county (descriptive deviant) than when they were in the minority (prescriptive deviant).

Despite their ubiquitous presence, the available literature on bumper stickers is quite thin. The scarcity of empirical studies on the psychological effects of bumper stickers was especially surprising given the obvious ways they are likely to affect perceptions of other drivers, especially when they pertain to polarizing issues or political candidates. Several social psychological processes seem particularly relevant such as impression formations, stereotyping, and numerous ingroup-outgroup biases.

Impression Formation and Stereotyping

Impressions of other people are formed automatically and easily. According to Anderson's (1981) Information Integration Theory, impressions are formed by considering the weighted average of information about a target person in conjunction with one's own personality and current state. Anderson's theory was influenced by the now classic study on impression formation conducted by Solomon Asch (1946), which showed that not all information is weighted equally when forming impressions. His study showed that some traits (e.g., warmth, competence) have more effect on the overall impression than others. Subsequent research has shown that negative information influences perceptions more than positive information (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). In addition to this negativity bias, the first information about another individual tends to have a greater impact than information acquired later (Anderson, 1965). Thus, bumper stickers, which often convey simple, single-trait associations, are likely to affect impressions, especially if they convey negative information about a driver and there is no other information available to mitigate the judgment. This is likely to be true for people who may be able to see divisive messages on a tailgate but are unable to determine anything else about the driver such as gender, age, or race.

People are able to form impressions automatically with only the barest amount of information, but knowing someone's race, gender, age, or membership in a familiar social group expands the impression to include a broad array of stereotypes (Carlston & Schneid, 2015). Thus, bumper stickers may lead to a general impression about another

driver's disposition (e.g., funny, jerk), but they can also lead to stereotypes based on presumed or confirmed membership within a specific group (e.g., race, political party, religion). The stereotypes held about members of a group can lead to hostile prejudice such as intentionally harming another person, but they are even more likely to lead to ingroup favoritism toward people who share the same group identity. Thus, seeing a bumper sticker that provides a clue about group membership (e.g., Christians) may activate stereotypes held about members of that group, which could lead to hostility or favoritism depending on the viewer.

Group Identity and Ingroup-Outgroup Biases

A fundamental principle of social psychology is that people categorize themselves and others in terms of social groups. According to Social Identity Theory (Tajfel & Turner, 2004), people strive to enhance their self-esteem through the social identities of groups to which they belong. However, one's identity as a member of a particular social group is made more salient by the situation according to self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Therefore, when someone is reminded of their membership within a social group, they are more likely to act in ways that support other members of that social group including complete strangers. In one naturalistic experiment of this phenomenon, participants were much more likely to help an injured jogger when the jogger wore a shirt showing support for a football team favored by the participants than someone with a neutral or rival shirt (Levine, Prosser, Evans, & Reicher, 2005). The participants did not especially dislike the jogger wearing a rival T-shirt; they just really favored him more when he was a fan of their favorite team. The pervasive nature of this kind of ingroup favoritism was summarized in a meta-analysis of more than 200 studies, which showed that most prejudice comes in the form of ingroup favoritism rather than hostility toward outgroups (Greenwald & Pettigrew, 2014).

Favoritism toward one's ingroup and hostility toward those outside may be moderated by a number of factors such as the degree of identification with a group and biased perceptions of outgroups, particularly when in conflict or under threat. According to Swann and Buhrmester (2015), identity fusion is the "oneness" felt toward a group. The more someone's identity is fused with a social group, the more motivated they are to help other members of that group and to guard against possible threats to the group's identity. Prejudicial treatment toward others is further justified by biased perceptions of group members such as the outgroup homogeneity effect (Linville & Jones, 1980) and the fundamental attribution error (Ross, 1977). Finally, prejudice is more likely as the threats to one's mortality or even just the survival of cultural values or norms goes up, according to terror management theory (Greenberg, Landau, Kosloff, Soenke, & Solomon, 2016).

In summary, bumper stickers should provide cues about other drivers that shape perceptions and activate stereotypes, especially when little else is known about the driver to mitigate these first impressions. To the extent that bumper stickers indicate membership or identification with particular social groups, they may serve as justification for prejudice in the form of ingroup favoritism or outgroup hostility toward the driver, particularly if the viewer identifies strongly with those social groups. In addition, the presence of some bumper stickers may be more salient than others if they signify a threat against favored social groups. So, for example, the presence of a political campaign sticker should pose considerable threat to partisans around the time of an election, and thus be particularly noticeable. Furthermore, prejudice toward the owner of the vehicle with the campaign sticker should be moderated by the viewer's own political preference.

Present Study

The highly polarized U.S. presidential election of 2016 was an opportunity to test some of these predictions about bumper stickers. The Democrats and Republicans both framed the election as a battle for control of government and thus, the very survival or expansion of policies and values central to each party. Therefore, we expected that the presence of a political campaign sticker for the two major party nominees would be especially salient near the end of the election, and that prejudice toward the hypothetical driver would be moderated by the partisanship of the viewer. We tested this prediction by showing participants photos of a car with five neutral bumper stickers or the same car with either a Donald Trump or Hillary Clinton campaign sticker added. This was followed by measures of the respondents' willingness to help, harm, or befriend the hypothetical driver.

The following hypotheses were tested in this experiment. First, we predicted that participants would show ingroup favoritism by offering significantly more help to a hypothetical driver if they both identified with the same political candidate than

those shown a car with a rival candidate. Helping was operationalized as a monetary pledge toward a timed-out parking meter, presumably to prevent the hypothetical driver from getting a ticket. We also predicted that respondents would show more willingness to be friends with the driver if they were planning to vote the same way. Finally, we predicted that participants would display more outgroup hostility toward hypothetical drivers with a rival sticker than those shown a campaign sticker for the preferred candidate. Hostility was operationalized as the likelihood of vandalizing the hypothetical car with another bumper sticker.

Method

Participants and Procedure

After following IRB protocol, a Qualtrics survey was posted as a job paying $0.35 for adults working through Amazon's Mechanical Turk (MTurk; see Paolacci & Chandler, 2014). It took participants less than 5 minutes to complete the study after reading the informed consent and accepting the invitation to participate. The survey was first launched on October 3, 2016 and received 154 responses. Because there were more participants who identified themselves as Democrats than Republicans, a second survey link was sent to a convenience sample of associates of the authors who were known to be politically conservative. This added only 25 more participants between October 4–9, and due to an error in our survey delivery settings, these participants only received the control condition. The survey was redeployed in Mechanical Turk on October 11 to a targeted sample of MTurk workers who had self-identified as politically conservative. This time, 35 more participants randomly received the Trump or the Clinton condition.

FIGURE 1

Figure 1. Image of the car showing both neutral bumper stickers and the Trump sticker. The same image was used in all three conditions with the only difference being the presence or absence of a political campaign sticker in the upper right corner. The Clinton condition featured a Hillary for President 2016 sticker of similar size and color.

The final sample included 214 respondents (111 women, 103 men) representing 42 states and Washington DC. The sample was predominantly White (87.9%), followed by African American (3.7%), Asian (3.3%), mixed race/other (2.8%), American Indian or Alaska Native (1.9%), and Native Hawaiian (0.5%). Participants ranged in age from 19 to 69 with a mean age of 37.8 (*SD* = 12.1). The sample was well-educated: no high school diploma (0.9%), high school diploma or GED (8.9%), some college (21%), associate degree (13.1%), bachelor's degree (38.8%), and graduate degree (17.3%). When asked how they generally thought of themselves, 32.7% identified as Republican, 34.1% as Democrat, 27.6% as Independent, 3.3% as Libertarian, and 2.3% as other.

Experimental Manipulation

Participants were shown a picture of a car with one of the following sticker assortments: (a) five neutral bumper stickers only, (b) five neutral stickers plus a Donald Trump campaign sticker, or (c) five neutral stickers plus a Hillary Clinton campaign sticker. In every picture, the bumper stickers were placed on the back of a silver Honda civic owned by an associate of one of the authors. This make, model, and color of the car was selected because it was in the top five most common cars on the road in 2016 (www.motortrend.com). Figure 1 shows a photo of the Trump condition. The Clinton condition was identical except that the Trump sticker was replaced with a "Hillary for President 2016" sticker. The control condition did not include a campaign sticker in the upper corner and was included to see if the political sticker conditions would evoke more prejudice as a result of shared or nonshared group identity. The five neutral stickers were also added to all three conditions because a political sticker by itself would likely have made our expected findings too easy to guess and could have produced a response bias to avoid looking prejudiced. Furthermore, the neutral stickers would presumably give participants additional information about the driver upon which to justify any prejudicial behavior.

Although the five control condition stickers were not value-free or neutral in a strict sense, they were selected because they were deemed to be mostly apolitical, diverse in theme and fairly subjective in terms of the stereotypes they might activate concerning the race, gender, age, or socioeconomic status of the driver. The "Sorry I'm driving so closely in front of you!" sticker was selected because of the ambiguous attributions that could be ascribed to

it by other drivers. Thus, if someone were inclined to like the other stickers, they might interpret this one as witty, harmless humor, but it could just as easily be viewed by someone else as sarcastic and confrontational.

Each participant was unaware that there was another form of the survey other than the one they received. We included three questions to ensure participants attended to the stickers. First, they were asked to click on the stickers they liked and disliked using Qualtric's "hotspot" survey tool. This step was taken to ensure that participants looked at each sticker on the car. Second, they were asked how many bumper stickers were on the car to ensure they were paying attention and not just rushing through the survey. Participants who entered an incorrect number were prompted to try again. Finally, participants were asked to think about the owner of the car who freely chose to display this set of bumper stickers and to describe the owner of the car using a single word or phrase.

Measures

Demographics. Prior to seeing the photos, participants were asked to state their identified race and gender. They were also asked age, level of education, and political party affiliation. The final demographic question asked participants if they had any bumper stickers on their car and if so, to describe one of them.

Helping and harming. Three questions were used to measure prejudice for or against the hypothetical driver. First, participants were asked, "Imagine that you saw this car parked next to a parking meter with no time left. How much money, if any, would you put in the timed out meter to save this person from a possible ticket (you can give between $0.00 and $1.00)?" The question was framed this way because putting money in a timed out meter would likely be viewed as a safe and realistic means of helping out another person without having to imagine interacting or seeing the driver. In other words, if this were a real situation, the information available to a passerby would be similar to that of the respondent looking at the picture. Second, they were asked, "How likely would you be to put a conflicting bumper sticker on this vehicle if you could be sure you would not get caught?" Respondents selected from a 5-point Likert-type scale (*extremely likely* to *extremely unlikely*) and were asked what sticker they would put on the car if they indicated "extremely likely." Given that we wanted to know how likely they were to harm a hypothetical driver, we selected an act that did not require imagining interactions with a driver or unsafe and unrealistic acts of violence. In a pilot test for a separate study on bumper stickers, we learned that asking about vandalism resulted in more response variability, whereas almost no one would admit to a willingness to engage in more extreme forms of aggression (e.g., slashing tires, tailgating). Finally, participants were asked if they thought that they would be friends with the person (3 = *yes*, 1 = *no*, 2 = *maybe*).

Voter condition. The last page of the survey asked participants, "If the 2016 presidential election were being held TODAY, who would you vote for?" This question was purposely left until the end of the survey in order to prevent response bias, but it was necessary to accurately group respondents for data analysis as described below. After this question, participants were thanked for their time and invited to make any final comments before exiting the survey.

Results

Manipulation Check

One way to assess the degree to which participants noticed and responded to the campaign stickers above and beyond the others, was to see what one-word label they assigned to the hypothetical driver. Results of this manipulation check indicated that the two campaign conditions produced strong partisan responses that were not found in the control condition. In the control condition, only 4 participants (5%) described the driver in terms of political party affiliation (3 liberal and 1 conservative labels) and just 12.3% of the descriptions could be classified as obviously negative (e.g., loser, obnoxious). The majority of descriptions (87.7%) were benign or positive in tone (e.g., funny, nerd). Within the campaign sticker conditions, the percentages of positive, negative, and neutral labels were very similar and many of the same labels were found across all three conditions (e.g., sarcastic, outspoken, responsible). However, partisan labels were far more common. In the Clinton condition, 30% labeled the driver either a liberal or a Democrat, whereas in the Trump condition, 22.5% labeled the driver either a conservative, Republican, or a Trump supporter.

Data Analysis

Although 214 people responded to the survey, only those who indicated plans to vote for one of the two major parties in the 2016 election were

included for analysis in order to create two groups likely to respond more strongly to the campaign stickers. Party affiliation would not have been an accurate indicator of candidate preference, in part, because 33% of the sample identified with neither the Republican nor Democratic Party. In addition, 24% of the self-identified Republicans in the sample said they planned to vote for someone other than Trump and 12% of Democrats were planning to vote for someone other than Clinton. Therefore, only respondents who said they were planning to vote for either Clinton or Trump were included.

Table 1

Amount of Money Given (*$0.00* to *$1.00*)

Sticker Condition	Voter Plans	*n*	*M (SD)*	95% CI
Neutral Stickers	Trump	25	0.41 (0.32)	[.30, .52]
	Clinton	37	0.24 (0.21)	[.15, .33]
Trump Sticker	Trump	24	0.38 (0.38)	[.26, .49]
	Clinton	34	0.13 (0.26)	[.03, .22]
Clinton Sticker	Trump	25	0.13 (0.21)	[.02, .24]
	Clinton	35	0.31 (0.28)	[.21, .40]

Table 2

Likelihood of Putting a Conflicting Bumper Sticker (1 = *Extremely Unlikely,* 5 = *Extremely Likely*)

Sticker Condition	Voter Plans	*n*	*M (SD)*	95% CI
Neutral Stickers	Trump	25	1.64 (0.95)	[1.21, 2.07]
	Clinton	37	1.81 (1.24)	[1.46, 2.17]
Trump Sticker	Trump	24	1.33 (0.82)	[.89, 1.77]
	Clinton	34	1.94 (0.82)	[1.57, 2.3]
Clinton Sticker	Trump	25	2.16 (1.25)	[1.72, 2.59]
	Clinton	35	1.57 (1.01)	[1.21, 1.94]

Table 3

Would You Be Friends With This Person (1 = *No*, 2 = *Maybe*, 3 = *Yes*)

Sticker Condition	Voter Plans	*n*	*M (SD)*	95% CI
Neutral Stickers	Trump	25	2.08 (0.64)	[1.84, 2.32]
	Clinton	37	2.11 (0.57)	[1.91, 2.30]
Trump Sticker	Trump	24	2.12 (0.54)	[1.88, 2.37]
	Clinton	34	1.59 (0.56)	[1.38, 1.79]
Clinton Sticker	Trump	25	1.64 (0.70)	[1.40, 1.88]
	Clinton	35	2.09 (1.01)	[1.88, 2.29]

Participants who indicated they were voting for the Green party ($n = 4$), Libertarian party ($n = 18$), or a write-in candidate ($n = 12$) were excluded from further analysis. Thus, the following results were based on 180 participants (106 Clinton/Kaine voters and 74 Trump/Pence voters). A 2 x 3 factorial analysis was conducted on each of the three dependent variables to compare the voter conditions (Trump x Clinton) and sticker conditions (control, Trump, Clinton).

Helping

Results from the two-way factorial Analysis of Variance (ANOVA) showed no effect of the sticker condition, $F(2, 174) = 2.36$, $p = .098$, $\eta_p^2 = .026$, on the amount of money donated. The main effect for voter group was also not significant, $F(1,174) = 3.58$, $p = .06$, $\eta_p^2 = .020$. There was, however, a significant sticker condition by voter interaction $F(2, 174) = 9.57$, $p < .001$, $\eta_p^2 = .099$. This interaction shows that both Trump and Clinton supporters were more generous when the driver had a sticker showing support for the same candidate. Means, standard deviations, and confidence intervals for the amount of money offered to each group are shown in Table 1.

Harming

Results from the two-way factorial ANOVA showed no effect of the sticker condition on vandalism, $F(2, 174) = 0.64$, $p = .53$, $\eta_p^2 = .007$. The main effect for voter group was also not significant, $F(1,174) = 0.15$, $p = .70$, $\eta_p^2 = .001$. There was, however, a significant group by voter interaction $F(2, 174) = 4.4$, $p < .001$, $\eta_p^2 = .048$. This interaction shows that both Trump and Clinton supporters were less likely to vandalize when the driver had a sticker showing support for the same candidate. Means for each group are shown in Table 2.

Friendship

Results from the two-way factorial ANOVA showed that the main effect for voter group was not significant, $F(1,174) = 0.05$, $p = .82$, $\eta_p^2 = .000$. There was a significant main effect for sticker condition, $F(2, 174) = 2.99$, $p = .053$, $\eta_p^2 = .033$. This main effect, however, was qualified by a significant sticker by voter interaction $F(2, 174) = 9.6$, $p < .001$, $\eta_p^2 = .10$. This interaction shows that both Trump and Clinton supporters were more likely to be friends with the driver when the driver had a sticker showing support for the same candidate, whereas those in the control group were equally likely to be friends with the driver regardless of their own political

group. Means for each group are shown in Table 3.

Discussion

More than 15 million political bumper stickers are printed every year ("Bumper stickers," 2016) and there is evidence that their presence affects other drivers, including increased risk of road rage (Szlemko, Benfield, Bell, Deffenbacher, & Troup, 2008). The purpose of the present study was to test the effect of a political bumper sticker on prejudice through a randomized experiment. Specifically, we expected to find differences in someone's intentions to help, harm, or befriend a hypothetical driver based on the presence of a political campaign sticker and its relevance to the social identity of the viewer. The results of the study showed that interactions between the political sticker and the participants' partisan views were significant for all three dependent variables. Not surprisingly, participants who said they were voting for Clinton and were shown the car with the Trump sticker were less likely to help the driver, more likely to say they might vandalize the car, and less likely to indicate they could be friends with that person. The same partisan effect was found in participants who said they were voting for Trump but were shown the car with the Clinton sticker. However, responses from participants in the control group (no partisan stickers) were unaffected. These results support assumptions that the presence of a political sticker can affect attitudes toward other drivers. Of course, *thinking* about harming or helping another driver is not tantamount to *acting* on such impulses, and these findings are not altogether surprising. Nevertheless, this study offers a new approach to investigating social psychological processes such as impression formation, social identity, group conflict, and ingroup favoritism.

First, these results support research on impression formation and Anderson's information integration theory (Anderson, 1981), in particular. According to this theory, impressions formed by participants would be a combination of their partisan views and the weighted average of the information about the hypothetical driver. Participants in our study had no information about the driver, other than the car and its assorted stickers, and they had to rely on that information to make their judgments. We intentionally used a combination of nonpartisan and varied stickers in all three conditions so that participants would have plenty of "material" to support a variety of opinions about the driver including some socially responsible (Don't text and drive), whimsical (Wookies need love), and one slightly hostile (Sorry I'm driving so closely in front of you). We hypothesized that the presence of a single political sticker would significantly shift perceptions of the driver in much the same way that the presence of one trait altered impressions formed by participants in Asch's now-classic study (1946). The results did support this conclusion. The striking similarity of attitudes toward the driver in the control condition indicates that the nonpartisan stickers had very little impact, at least when comparing participants by their politics. The addition of the political sticker seems to be the factor that pushed partisans to behave differently toward the hypothetical driver. This also supports the negative trait bias (Baumeister et al., 2001) because the negativity from just the single political sticker outweighed any potential positive traits the driver might have possessed (e.g., caring about animals or the safety of others).

Second, these results support what is already known about social identity and group conflict. Identifying with a group increases people's sense of belonging, control, meaningfulness, and self-esteem (Tajfel & Turner, 2004). Political identity is an important social group for many people, and the presence of political stickers indicates strong partisan identification or identity fusion (Morrison & Miller, 2008; Swann & Buhrmester, 2015). Moreover, if the viewers of such stickers also identify strongly with a political party, they should be more motivated to help or harm the driver, especially when there is a threat to that identity (Greenberg et al., 2016). In an election as contentious as 2016, the threat of losing control of the White House and/or Congress would be the ultimate threat against one's political party, thus justifying prejudice.

Although outgroup hostility is one way of confirming commitment to important social groups (Knapton, Bäck, & Bäck, 2015), most prejudice comes in the form of preferential treatment toward members of an ingroup rather than from hostility toward an outgroup (Greenwald & Pettigrew, 2014). This phenomenon was demonstrated in the present study. In terms of helping, the amount of money increased substantially from that of the control condition when the hypothetical driver shared the political views of the participant and dropped off sharply when the driver did not. Harm for the driver was measured as the likelihood of vandalizing the car, and although the results were statistically significant, the number of people who said they would be *extremely likely* to do so was very small. The

effect sizes for helping ($\eta_p^2 = .099$) and befriending the driver ($\eta_p^2 = .10$) were also larger than the effect size for harming ($\eta_p^2 = .048$). Thus, ingroup favoritism may be the most likely consequence of seeing bumper stickers, especially because it is also easier to imagine being a friend toward those with a shared identity.

Strengths and Limitations

The present study appears to be one of the first attempts to study the social psychological effects of bumper stickers. The results indicate that bumper stickers do have the ability to shape perceptions and behaviors toward other drivers, although the study is not without limitations. The sample size was relatively small and homogenous. In addition, a more representative sample of Trump and Clinton supporters would have been ideal. Although the use of Amazon's Mechanical Turk as a source of participants is preferable to college samples, it is not a representative sample of eligible voters in the United States (Paolacci & Chandler, 2014). Our sample was highly educated, relatively young, and more liberal, which are all characteristics that have been noted about this sampling source (Paolacci & Chandler, 2014). Arguably, different samples could lead to different results, especially if factors like age, education, and race are predictive of different levels of partisanship. Failing to control for these factors was a limitation in the present study. Moreover, because this was a first-of-its-kind study, it was designed without the benefit of prior research protocols to follow, so the methodology could certainly be improved upon. For example, there was room to include more questions in the survey, which could have provided more information such as the stereotypes held about the driver. It would also be helpful to test assumptions made concerning the need for additional stickers, as well as the content, number, and valence of the ideal assortment of stickers.

Future Research

In many ways, this study raised more questions than it answered, both about political stickers in particular and bumper stickers in general. For example, how does additional information about the driver (e.g., gender, race, age) moderate the effect of stickers on stereotypes and prejudice? What effect might the make, model, and condition of the vehicle have on those effects? What makes some bumper stickers more salient than others and how does the combination of stickers work together to shape impressions? Furthermore, what characteristics of viewers will predict their attention to stickers or their understanding and interpretation of what they see?

The focus of this study was on political stickers, and a number of additional questions seem worth investigating along those lines. For example, would campaign stickers have a similar or reduced effect after an election is over? Presumably, group conflict is reduced and the immediate threat is over (the preferred party either won or lost), but there may still be lingering effects, especially among those with strong partisan views. Replicating this study after an election would be useful, especially because people often keep campaign stickers long after an election. It would also be helpful to replicate the study in the next presidential election to see if the same pattern of results would be obtained regardless of who is running in that election.

In the present study, we excluded those who were not voting for one of the two major party candidates in order to maximize the effect of social identity on reactions to the hypothetical driver. It would be worth investigating further how identity fusion among drivers affects their reaction to stickers. In other words, do drivers with stronger political views react more to political bumper stickers? Furthermore, does ownership of the same political bumper sticker or number and valence of political bumper stickers matter? Evidence has suggested that the more stickers one has on a car, the more susceptible that person may be to road rage (Szlemko et al., 2008), so it stands to reason that seeing someone with an equally large number of stickers for the same or opposite values would produce an even stronger ingroup or outgroup response. In addition, it would be worthwhile to investigate differential effects of highly partisan stickers versus more inclusive stickers or their absence. In one study, Democrats and Republicans both experienced less threat and more positive outgroup attitudes when their shared identity as Americans was made salient compared to when their partisan identities were accentuated (Riek, Mania, Gaertner, McDonald, & Lamoreaux, 2010). Therefore, it stands to reason that stickers that appeal to a wider social group (e.g., Americans) may be a safer alternative if the goal is to garner favoritism from fellow drivers.

This study was a first step toward understanding the conditions that give rise to prejudice toward other drivers based on political identity. Given that many other types of stickers convey social identity and communicate shared and nonshared values,

there is much left to explore. In addition, there is no empirical research, to date, on what motivates people to display stickers in the first place or what factors may predict that decision process. Nevertheless, the choice of whether to display bumper stickers and what kinds to include can have real consequences. Although some drivers may benefit from the occasional gesture of goodwill from fellow drivers who share their worldview, they also face the risk of discrimination or even death if the stickers offend the wrong person (Londberg, 2017). For this reason, more research is needed on all aspects of bumper stickers.

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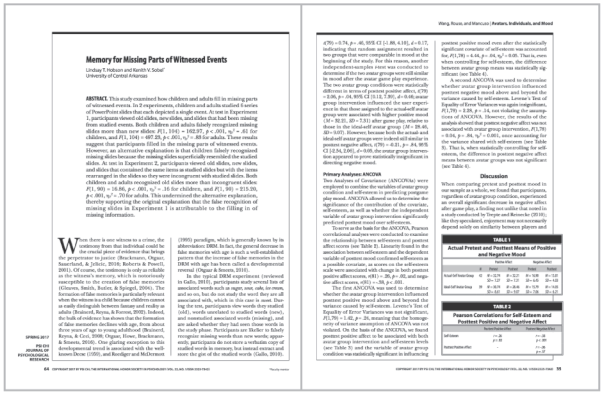

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