Your Mind on Politics:
Exploring a Theory of Identity Fusion
during the 2016 Presidential Election

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Abstract

Humans are predominantly social creatures. We form friend groups and families. We join social networks and professional networks. We group into religions, nationalities, and political parties. In extreme cases, we even abuse others (Zimbardo, 1973) and conform to false conclusions (Asch, 1951) in order to maintain group membership. In other words, our group memberships influence our behavior every day—even in ways that we do not perceive consciously (see Baumeister & Leary, 1995; Haidt, 2001).

Much research has explored the influence that these groups have on our behavior; much less has explored the mechanisms that determine changes in group membership. Identity fusion, defined as a “visceral feeling of oneness with a group,” (see Swann et al., 2012) offers new insight into how these group memberships form, change, and unravel. However, identity fusion has only been studied in a few extreme cases (Besta, Gomez, & Vasquez, 2014; Swann et al., 2009; Vezzali et al., 2016). To test the effect of identity fusion on group membership in less extreme contexts, the present research analyzed the results of a national survey designed to test Americans’ political identity fusion before and after the 2016 presidential election on November 8, 2016. Results suggest that, compared to verbal measures of group identification, measures of identity fusion were more sensitive to group-salient events and more predictive of prosocial giving. However, results differed both between political groups and within groups over the course of the election cycle. These findings suggest that identity fusion plays a more nuanced role in influencing group membership and prosocial behavior than previously thought.
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1 Introduction

On November 8, 2016, Donald Trump was elected President of the United States. His election went against the predictions of top pollsters and news organizations alike (see Bialik & Enten, 2016), causing both politicos and analysts to question the accuracy of predictive measures meant to track voter behavior (see Osnos, 2016). Some have suggested that the methods used to gather data are obsolete. For example, telephone polls are skewed against those with no publicly listed phone number—or no phone at all—while online surveys tend to select for younger, more left-leaning samples than the national average (see Lepore, 2015). Others have suggested that the publication and coverage of national opinion polls by news media act as self-fulfilling prophecies, amplifying both bandwagon and underdog effects in national elections (Gartner, 1976; McAllister & Studlar, 1991; Rothschild & Malhotra, 2014; Simon, 1954).

This debate over sociopolitical behavior has wide-reaching implications for our daily lives. What food we consume, what schools we attend, who we can marry, and even where we can live are all results of policy decisions made by elected representatives or direct referenda (see Food Safety Modernization Act, 2011; Elementary and Secondary Education Act, 1965; Defense of Marriage Act, struck down 2013; Fair Housing Act, 1968). Understanding how citizens interact with their political environments is integral to understanding how democratic societies operate; it can enable politicians and advocates alike to more accurately improve the policies and institutions that dominate our daily lives.

Modern research into the mechanisms of sociopolitical behavior primarily fall into two camps: rational self-interest and motivated social cognition. However, neither camp has comprehensively explained self-sacrificing behavior (e.g. voting against one’s self-interest—and health, see Case & Deaton, 2015; Newkirk, 2016). This study seeks to advance a theory of identity
fusion in sociopolitical behavior in which self-sacrificing actions can be pursued in one’s self-interest.

1.1 Rational self-interest

Classically, political behavior has been viewed through a lens of rational self-interest. As far back as the seventeenth century, Thomas Hobbes viewed human beings as naturally mechanistic creatures, acting always in their own self-interest (Hobbes & Gaskin, 1998; Mansbridge, 1990a). Although Hobbes’ theory went against contemporary notions of humans as being motivated by civic virtues like honor, honesty, and loyalty, the Hobbesian model inspired several sociopolitical theories of the following century (Mansbridge, 1990a; Sears & Funk, 1991). Hobbes’ theory can even be seen in the founding of the United States: the framers of the Constitution designed institutions that would channel individual interests into the public good (Mansbridge, 1990b; Sears & Funk, 1991).

Starting in the 1950s, modern political theorists have applied the rational self-interest model to the study of democratic politics. Using formal economic models, these theorists assume rationality and self-interested behavior in their models of public and political life: voters behave rationally in their self-interest, voting for the candidates and policies that appeal to their private interests; appeals to public interest and civic virtue are only post-hoc rationalizations (Ansolabehere, De Figueiredo, & Snyder, 2003; Frohlich, 1974; Gerber & Lupia, 1995; Mansbridge, 1990a; Mueller, 1979; Sears & Funk, 1991; but see also Haidt, 2012). More recently, these economic models have expanded into the study of even apolitical human interaction. For example, social exchange theory posits that all social change and stability are explained by self-interested motives during negotiations and exchanges (Emerson, 1976; Homans, 1961; Thibaut & Kelley, 1959). Further, several studies of moral and prosocial behavior have approached both experimental design and data analysis with an
assumption of self-interest—even when results can be plausibly explained by non-egoistic motives (Campbell, 1975; Lynn & Oldenquist, 1986; Wallach & Wallach, 1983).

1.2 Social identity theory

Despite this historical skew toward rational self-interest, much psychological research has emphasized irrational and subconscious motivations for social behavior. For example, research into embodied cognition has found that physical disgust cues—from a dirty chair to a pungent odor to a bitter taste—can affect the direction and severity of moral and political judgments (Borg, Lieberman, & Kiehl, 2008; Eskine, Kacinik, & Prinz, 2011; Haidt, 2003; Rozin, Haidt, & McCauley, 2009; Schnall, Benton, & Harvey, 2008a; Schnall et al., 2008b). Behaviorism, which highlights the role of reflexive habits and subconscious, operant conditioning in decision-making, has an impressive body of research going back to the late nineteenth century (Thorndike, 1927; Skinner, 1938; Sears & Funk, 1991; see also System 1 versus System 2 in Kahneman, 2011). And a recent neuroimaging study by Kaplan, Gimbel, & Harris (2016) found neural correlates to support the broader notion that emotions play a role in political belief-change resistance.

Social identity theory, first proposed by Tafjel and Turner in the 1970s to describe the portion of one’s self-concept derived in relation to perceived memberships in social groups, has shown particular promise in explaining patterns of sociopolitical behavior (Tafjel, 1974; Tajfel & Turner, 1979; Turner & Oakes, 1986). Under this theory, one’s relevant social groups can serve both informational and motivational roles. For example, social groups are a reliable reference point for defining one’s personal values (Bettencourt & Hume, 1999; Cohen, 2003; Conover & Feldman, 1984; Heaven, 1999; Hogg & Abrams, 1988; Newcomb, 1943; Sherif, Sherif, & Nebergall, 1965; Turner 1991); they frame how members evaluate factual information (Asch, 1948; Asch, 1952; Cohen, 2003; Ichheiser, 1970; Robinson, Keltner, Ward, & Ross, 1995); and they transmit
sociopolitical meaning to individual members through assumed expertise and group consensus (Baumeister & Leary, 1995; Cohen, 2003; Haidt, 2001).

Ultimately, though, social identity theory is a relational model. Individuals are motivated to conform to their relevant social groups in order to improve their individual self-esteem (Lemyre & Smith, 1985; Oakes & Turner, 1980; Tajfel & Turner, 1979; but see Abrams, 1982; Abrams, 1983; Vickers, Abrams, & Hogg, 1988) or the coherence of their beliefs (Markus & Zajonc, 1985; Tajfel, 1969; see balance theory, Abelson et al., 1968). By presenting a relational model, social identity theorists are able to advance their research without contesting models of rational self-interest. Rather, social interactions and group memberships are maintained in the pursuit of individual interests such as self-esteem, status, and belief coherence. Sociopolitical behavior like voting, volunteering, and donating can occur without full knowledge of every politician’s platform or policy in question, as long as individuals see a benefit in maintaining group memberships and perceive their beliefs to align with those of their relevant social groups.

1.3 Identity fusion

Because social identity theory dictates that social group membership serves to advance one’s individual interests, individuals whose groups are threatened by negative events face a dilemma: either break from the group to preserve a positive social self-concept or double-down to advance the group in the face of social threats (Tajfel & Turner, 1979). Either option can result in protecting one’s social self-concept. However, such a theory of prosocial behavior fails to adequately explain extreme behaviors, like martyrdom and murder, which tend to involve far greater costs than benefits for the individual (Swann et al., 2010a; Swann et al., 2012).

While certain instances of extreme, prosocial behavior can be explained by an individual’s failure to correctly weight social cues and calculate an action’s costs and benefits (Cohen, 2003;
Epley & Dunning, 2000; Nisbett & Wilson, 1977), the frequency with which individuals pursue costly, prosocial actions suggests that both rational self-interest and social identity models are imperfect tools to characterize sociopolitical behavior. In order to explain these apparent inconsistencies, Swann et al. (2009) proposed the notion of identity fusion, defined as the visceral sense of oneness with a group. Under a theory of identity fusion, individuals fused to a group view their personal and relevant social self-concepts as functionally equivalent; breaking from a fused group following a social threat is no longer possible without completely restructuring one’s self-concept (Swann et al., 2012). In effect, challenges to relevant social groups will lead fused individuals to bolster their relevant self-concepts in an attempt to band together against a threat, even when doing so will incur large individual costs (see Swann & Hill, 1982; Swann et al., 1992; Swann & Read, 1981, Study 2). Further, identity fusion predicts that fused individuals will use their personal and social self-concepts as mutual support structures to not only resist challenges to either, but spark increased prosocial activity.

Central to the theory of identity fusion is the understanding that a fused individual’s social self-concept is not characterized relationally, like in social identity theory, but as functionally equivalent to one’s personal self-concept. Fused individuals do not maintain membership in a group because of how that group treats them or what role that group serves in validating the coherence of their beliefs (see self-verification theory, Swann, Chang-Schneider, & Angulo, 2008). Rather, they view group membership as an intrinsic part of their personal self-concept. Fused individuals are therefore far more likely than non-fused individuals to act in extreme, prosocial ways because they weight the interests of the group as equal to their own self-interests.

In order to measure identity fusion, Swann et al. (2009) adopted a pictorial measure (Fig. 1) first developed to measure attachment in close relationships (Aron, Aron, & Smollan, 1992) and group identification (Coats, Smith, Claypool, & Banner, 2000).
Fig. 1. The identity fusion scale used by Swann et al. (2009). Participants were asked to indicate which picture best represented their relationship with the group. The scale includes a normally distributed range of overlap: 0%, 25%, 50%, 75%, and 100%.

The measure adopted by Swann et al. (2009) was modified from an earlier scale by Schubert and Otten (2002) that correlated with verbal measures of group identification perceived similarity of beliefs to those of one’s group (Smith & Henry, 1996; Tropp & Wright, 2001). This modified scale (Fig. 1) was tested in five preliminary studies, the results of which suggested that identity fusion was a unique state of group membership, categorically distinct but correlated to measures of group identification (Swann et al. 2009). Further, results from this scale have proven to be highly predictive of extreme pro-group behavior, including one’s willingness to fight and die for a group and one’s willingness to self-sacrifice to save other group members (Gomez et al., 2011a; Gomez et al., 2011b; Besta, Gomez, & Vasquez, 2014; Swann et al., 2010b; Swann et al. 2012; Swann et al., 2014).

Despite promising findings, research into identity fusion is relatively new. As a result, the body of research supporting these findings comes from a limited number of cases (child victims of two earthquakes in Italy, Vezzali et al. 2016; Spanish nationalism, Swann et al., 2009; and polish nationalism, Besta, Gómez, & Vasquez, 2014), often with limited sample sizes. Further, the pictorial measure developed by Swann et al. (2009) is imprecise, allowing participants to select from only five options along a 100-point scale. As a result, the applicability of identity fusion to the broader study of sociopolitical and interpersonal behavior has yet to be shown.
In an attempt to improve the precision of identity fusion metrics, Jiménez et al. (2015) developed a Dynamic Identity Fusion Index (DIFI; see Appendix C) for use in modern, online questionnaires. The main strength of the DIFI is its sliding scale. Rather than select from five distinct options, participants are able to drag the personal and group circles into the position that most accurately represents their relationship with the relevant group. Further, the DIFI has demonstrated higher predictive fidelity and more reliability than the original pictorial measure (Jiménez et al., 2015). Despite this increased precision and predictive merit, however, measures of identity fusion have yet to be applied to a broader range of social settings. Therefore, the generalizability of earlier findings is still debated.

1.4 Present study

The present study seeks to test the applicability of identity fusion to a broader range of social contexts. Specifically, it examines whether identity fusion may be predictive of in-group donations, volunteering, and voting during the American presidential election of 2016. In so doing, this study had three goals. First, the study tests the validity of identity fusion measures on a broader sociopolitical context. Although modern American politics are highly polarized, this polarization impacts partisan elites more than the average American (Fiorina & Abrams, 2008; Prior, 2013). Still, around 90% of Americans report a party preference (Pew Research Center, 2016). And while American political parties maintain large group memberships, American elections are candidate-centered (see Aldrich, 1995). Therefore, the 2016 presidential election, with broad participation and two relevant group affiliations (party membership and candidate support), proved to be a prime context through which to test the generalizability of identity fusion.

Second, the study examined how aggregate trends of identity fusion may change over time as a result of positive or negative events that impact relevant social groups. (For more information on
this study’s cross-sectional design, see Sections 2.1, 2.2, and 4.2.) This line of research seeks to test the finding by Vezzali et al. (2016) that a major negative event may increase rather than decrease identity fusion in highly fused individuals. The main event to be tested in this study was the election outcome on November 8, 2016, but daily opinion polls were also tracked for ten weeks prior to the election in order to examine the effects of any smaller events.

Finally, the present study explores whether identity fusion predicts less extreme prosocial behavior than the life-or-death results of previous research (Gomez et al., 2011a; Gomez et al., 2011b; Besta, Gomez, & Vasquez, 2014; Swann et al., 2010b; Swann et al. 2012; Swann et al., 2014). Namely, this research examines whether identity fusion is predictive of in-group giving, volunteering, and voting.

Accordingly, the present study tested four hypotheses: (1) identity fusion as measured by the DIFI (Jiménez et al., 2015) will be distinct from verbal measures of group identification in the American political setting, as posited by Swann et al. (2009). (2) Given the polarized nature of American politics and the individual costs of donating, volunteering, and voting, fusion among self-reported members of political groups will skew high. (3) Assuming that fusion within political groups is skewed high, events that negatively impact a relevant political group will lead to increased levels of identity fusion within that group. (4) Fused individuals will exhibit higher rates and amounts of giving, higher rates of volunteering, and higher rates of in-group voting than non-fused individuals.

2 Method

2.1 Subjects

3072 subjects were recruited from Amazon Mechanical Turk (MTurk) to participate in one of ten trials of a cross-sectional survey occurring from October 12, 2016 to December 5, 2016
(approval rating ≥ 95%). Each trial involved a distinct pool of survey respondents (N = 300). After removing cross-party voters from analysis (N = 373), 2699 subjects remained, ranging from 18 years to 87 years (N_{female} = 1407, N_{male} = 1216, N_{other} = 76; M_{age} = 36.83 years, SD_{age} = 12.18 years; N_{republican} = 967, N_{democrat} = 1732). The MTurk population has been shown to be representative of the American population for a variety of relevant variables, such as race, education, income, age, and religion (Berinsky et al., 2012; see also Arceneaux, 2012; Huber et al., 2012). The subjects in this study generally corroborate this finding, although their mean education level (M = college degree) was higher and mean income (M = $35,000/year) lower than the most recent national average (M_{education} = some college, M_{income} = $56,516/year; United States Census Bureau, 2015a; United States Census Bureau, 2015b).

2.2 Design

Political group affiliation was measured using three metrics: self-reported identification, the Dynamic Identity Fusion Index (DIFI; Jiménez et al., 2015), and an in-group dictator game (see Kahneman, Knetsch, & Thaler, 1986; Forsythe et al., 1994). These metrics were manipulated across political groups (both political party and candidate support) and time (5 trials before the 2016 presidential election and 5 trials after) using a cross-sectional design. Analysis involved survey responses and presidential polling data (Appendix E).

2.3 Procedure

Each subject participated in a ten-minute survey tracking political identity and group membership (see Appendix A & B). The survey, altered slightly for pre- and post-election conditions, included 7 sections: validation; preference selection; campaign support; political party support; a dictator game; event evaluation; and demographic questions. Trials of 300 participants ran
every six days from October 12 to December 5, 2016, for a total of ten trials: five pre-election and five post-election.

After indicating which major party and major party candidate they preferred, subjects indicated their strength of support of identification along a 7-point Likert scale (1 = very weakly; 7 = very strongly). Subjects were also asked whether they had donated or volunteered for their party and/or campaign of choice, as well as which candidate they had voted for in the primary, if any.

To track identity fusion, subjects were twice shown a screen with two circles: one large circle indicating their chosen group (“Group Circle”—campaign supporters in the first instance; political party in the second) and one small circle indicating their personal identity (“Me Circle”). Subjects were then asked to indicate their relationship with the group by dragging the Me Circle horizontally to a position that best captures their relationship with the Group Circle. Distance and overlap were tracked for each instance (Jiménez et al., 2015; see Appendix C).

The dictator game paired each subject with another subject who shared his or her preferred presidential candidate and the party of that candidate. Subjects were informed that they would choose how many of 40 cents to keep or transfer to the other subject along 5 cent intervals. Subjects were then asked to explain their choice. After each trial, transferred bonuses were randomly assigned to participants in that trial who fit the necessary criteria (Democrat/Clinton supporter or Republican/Trump supporter).

Subjects automatically received 70 cents for completing the survey. Following bonus distribution, subjects were then sent an extra amount equal to the amount of money they chose to keep during the dictator game, as well as any randomly assigned bonus given to them by another respondent or respondents. Bonuses were received no later than 48 hours after completion of the survey.
3 Results

3.1 Identity fusion as a distinct measure

A Pearson correlation matrix revealed a moderate positive relationship between both DIFI measures and their corresponding verbal measures for both party identification and candidate support (Fig. 2). The imperfect correlation between DIFI and verbal measures suggest that identity fusion does exhibit some distinct characteristics in the American sociopolitical context, confirming the study’s first hypothesis. Further, the two DIFI measures, distance and overlap, were highly correlated. Given the high correlation between DIFI measures, the present analysis will consider the two measures as functionally equivalent and only report on the distance measure, which included a wider range of responses (see Appendix C).

Fig. 2. Correlation table reporting all Pearson coefficients (ρ) for fusion and identification measures. Overlap is measured as the overlapping area of both circles (see Appendix C).
3.2  Levels of identity fusion within political groups

Because the present study had a cross-sectional rather than longitudinal design, shifts in identity fusion were analyzed as aggregate changes to the membership of political groups over time. Further, in order to analyze the effects of group-salient events on identity fusion, it is first necessary to determine whether political group members are generally fused to their groups. If political groups do not generally have fused memberships, then analyses that presuppose identity fusion among group members will not offer any meaningful results.

Histograms of candidate and party fusion among all participants revealed marginal to moderate levels of identity fusion across party lines (Figs. 3.1 & 3.2). Democrats tended to exhibit more party fusion ($M = 43.99$) than candidate fusion ($M = 34.97$), while Republicans tended to exhibit marginally more candidate fusion ($M = 43.40$) than party fusion ($M = 41.15$). This result suggests that members of political groups do tend be fused with their groups during national elections. However, levels of identity fusion within this sample tended to be lower, on average, than those of groups studied in prior research. Therefore, prosocial behavior within political groups may be less influenced by identity fusion—and less impacted by group-salient events—than prior research indicates.

![Fig. 3.1. Histogram of candidate fusion responses by preferred candidate.](image)

Fig. 3.1. Histogram of candidate fusion responses by preferred candidate.
3.3 Impact of events on identity fusion

Of particular interest to this study was the impact of election results on identity fusion. Because the American presidential election involves two competing political groups, the election result would act as a major positive event for the winning political group and as a major negative event for the losing political group. Whether or not aggregate levels of identity fusion changed because of these events—and if those effects persisted over time—will impact the resilience and predictive value of identity fusion in the American political setting. In this study, two election results were analyzed: (1) the general election on November 8, 2016; and (2) the party primaries during the spring of 2016.

A multiple regression was conducted to analyze the impact of the general election result on prosocial giving, as well as the interaction between identity fusion and the general election result (F(3,2652) = 34.87, p < 0.001, adjusted $R^2 = 0.037$). Results suggest that there was more prosocial, in-group giving following the election ($r = 2.866, p < 0.001$). However, the influence of identity fusion on giving was significantly reduced following the election as well ($r = -0.021, p = 0.001$; Fig 4). This may be an effect of group salience. Prior research suggests that prosocial, in-group behavior
varies as a result of group salience in one’s social self-concept; behavior toward highly salient in-groups tends to be more tribalistic (Espinoza & Garza, 1985; Reicher, 1984). Therefore, it is possible that one’s political identity and threats to one’s political groups become more salient during national elections, and that this group salience mediates the relationship between identity fusion and prosocial behavior. Despite the decreased influence of identity fusion, prosocial giving still increased following the election. Such a result suggests that factors other than identity fusion may mediate how group-salient events influence prosocial behavior (see Section 4.3).

To examine the effect of smaller events on identity fusion, national opinion polls were analyzed alongside fusion data (see Appendix D). Accordingly, shifts in national polling numbers were correlated with changes in identity fusion and in-group giving (Fig. 5). As the projected chances of one candidate winning increased, supporters of that candidate became less fused while supporters of that candidate’s opponent became more fused. However, Clinton supporters were more sensitive to polling shifts than Trump supporters. Further, in-group giving correlated
marginally with the perceived closeness of the presidential race via polling (Fig. 6). This effect was similar across party lines, challenging prior findings that identity fusion increases in fused members when faced with a social threat like lower polling numbers. Such a finding suggests that, at least for minor social threats, the relationship between identity fusion and prosocial behavior in the American political setting may not be direct, but rather moderated by other factors like the perceived efficacy of prosocial actions (see Caprara & Steca, 2005/2007), limitations to the underdog effect (see Goldschmied, 2005), or differences in how and what polling information was presented to each political group (see Iyengar, 1990).

An analysis of primary versus general election support found that the effects of events on levels of identity fusion persisted over time. All respondents were asked to select their preferred candidates during the party primaries. Several respondents preferred non-winning candidates during the party primaries (Democrats: $N_{\text{Clinton}} = 565, N_{\text{Sanders}} = 1166$; Republicans: $N_{\text{Trump}} = 515, N_{\text{Other}} = 452$). Respondents who preferred Bernie Sanders in the primaries were significantly less fused with Clinton in the general election ($t(1690) = -4.914, p < 0.001$). Similar results occurred for respondents

*Fig. 5. Correlations between fusion and in-group giving for Clinton supporters (left) and Trump supporters (right). For definitions of variable differences, see Appendix E.*
who preferred a Republican candidate other than Trump in the primaries ($t(937) = -4.862, p < 0.001$). These results persisted over the course of the general election (Fig. 6).

There were also several primary effects of time on measures of candidate support ($t(2697) = 3.125, p = 0.002$), candidate fusion ($t(2697) = 3.111, p = 0.002$), party identification ($t(2697) = 2.253, p = 0.024$), party fusion ($t(2697) = 3.741, p < 0.001$), and in-group giving ($t(2697) = 3.849, p < 0.001$). All of these effects were small in size but positive in direction, suggesting that both party and candidate groups became slightly more salient over the course of the study (Figs. 7.1 & 7.2).

**Fig. 5.** Predictions of Clinton’s chances of winning the election (%), based on national opinion polls, influenced in-group giving.

**Fig. 6.** Candidate fusion over time (left: Democrats; right: Republicans) by primary candidate support.
Further, this effect was stronger for Trump supporters than Clinton supporters on measures of candidate support ($t(2696) = 1.833, p = 0.067$) and candidate fusion (distance: $t(2696) = 3.925, p < 0.001$; overlap: $t(2696) = 4.332, p < 0.001$). On the other hand, this effect was marginally stronger for Democrats on measures of party identification ($t(2693) = -1.743, p = 0.081$). There was no significant difference between Republicans and Democrats on measures of party fusion ($p = 0.121$). In-group giving via the dictator game also increased over time ($t(2654) = 3.849, p < 0.001$).

**Fig. 7.1.** Candidate support (left) and party identification (right) over time.

**Fig. 7.2.** Left: candidate fusion (distance) over time. Right: party fusion (distance) over time.
3.4 Effect of identity fusion on prosocial behavior

Next, a multiple linear regression analysis was conducted to examine the independent effects of candidate fusion, party fusion, candidate support, and party identification on prosocial, in-group giving (F(4,2648) = 21.26, p < 0.001, adjusted R² = 0.0297). Of these variables, only party fusion (r = 0.017, p = 0.024) and candidate fusion (r = 0.014, p = 0.063) were significantly predictive of increased prosocial giving (Fig. 8). Similar regressions were also conducted for two other measures of prosocial behavior, measured as the aggregate of past volunteering and donation behavior: previous candidate support (F(4,2691) = 21.99, p < 0.001, adjusted R² = 0.0302) and previous party support (F(4,2691) = 34.62, p < 0.001, adjusted R² = 0.0475). As anticipated, past volunteering and donation behavior toward a candidate’s campaign was significantly predicted by both candidate fusion (r = 0.001, p = 0.001) and self-reported candidate support (r = 0.021, p = 0.001). However, past volunteering and donation behavior toward one’s political party was only significantly predicted by self-reported party identification (r = 0.053, p < 0.001). These results suggest that identity fusion is predictive of prosocial behavior. However, this relationship may be

![Graph showing the effect of identity fusion on in-group giving via dictator game, sorted by preferred candidate](image)

*Fig. 8. The effect of identity fusion on in-group giving via dictator game, sorted by preferred candidate*
moderated by the perceived concreteness of the behavior’s recipient; a political party is less concrete than a political candidate’s campaign, and a campaign is less concrete than another survey respondent. In addition, the effect of identity fusion on prosocial giving was marginally stronger in Clinton supporters than Trump supporters ($r = 0.023, p = 0.018$).

3.5 Summary of results

Fused individuals were far more likely than non-fused individuals to exhibit prosocial in-group behavior in both political party and candidate supporter groups. This effect was true for previous support via donations and volunteerism as well as present in-group giving via an anonymized dictator game. Further, both group identification and identity fusion increased marginally over the course of the general election, suggesting that both party and candidate groups became more salient to respondents over the course of the election. However, identity fusion became less predictive of in-group giving after the election on November 8, 2016; group salience may therefore play a role in translating identity fusion into prosocial in-group behavior.

Although the results of the general election did not provide clear evidence to support or refute the claim that major positive and negative events that affect a relevant social group would lead to a shift in identity fusion, examinations of polling data suggest that respondents were sensitive to small threats to their relevant social groups, increasing identity fusion when the general election was perceived to be closer. However, data of respondents’ primary candidate support suggest that when respondents preferred a different candidate than the one their party selected during the primaries, their fusion with the winning candidate remained persistently lower than their candidate-supporting peers throughout the general election. The results of this study were statistically significant, but often small in effect size.
4 Discussion

4.1 General discussion

The results of this study suggest that identity fusion distinctly predicts prosocial behavior in a broader context. Consistent with previous research on ways of measuring identity fusion (Swann et al., 2009; Jiménez et al., 2016), the DIFI not only exhibited distinct characteristics not found in verbal measures of group identification, but also offered more granularity than earlier pictorial measures. This supports the first hypothesis proposed in this study.

Extending prior research on the behavioral analogs of identity fusion, results indicate that identity fusion is not only predictive of extreme prosocial behavior like killing and self-sacrifice, but also low-commitment behaviors like the giving of small amounts of money and volunteering one’s time (Gomez et al., 2011a; Gomez et al., 2011b; Besta, Gomez, & Vasquez, 2014; Swann et al., 2010b; Swann et al. 2012; Swann et al., 2014). While earlier research using the five-point pictorial measure assumed a dichotomous vision of identity fusion in which fused individuals are highly committed and non-fused individuals are not, the present study’s results using the DIFI suggest that identity fusion exists as a spectrum. The degree to which someone is willing to sacrifice their time and resources for prosocial reasons may vary widely, with highly fused individuals willing to behave in extreme ways while marginally or moderately fused individuals may only sacrifice a small to moderate amount of their time and resources to their relevant social groups.

The relationship between identity fusion and prosocial behavior may also be mediated by other factors, such as social group salience (see Espinoza & Garza, 1985; Reicher, 1984) and political ideology (see Brooks, 2006; Brooks & Lewis, 2001; but also Vaidyanathan, Hill, & Smith, 2011). The existence of mediating factors would help to explain the decreased effect of identity fusion on prosocial giving after the general election, as well as the disparities in prosocial giving between the political groups throughout the study.
The results of this study are inconclusive in explaining how events influence identity fusion. Prior research indicated that threats to relevant social groups would correspond to an increase in fusion among group members (Vezzali et al., 2016). Evidence surrounding public opinion polls within the present study suggest a correlation between identity fusion and shifts in perceived group strength. Namely, both Trump and Clinton supporters showed slightly higher levels of identity fusion and in-group giving when the general election was perceived to be closer, suggesting that fusion may increase for (1) members of relatively strong and stable social groups when those groups are threatened, and (2) members of “underdog” social groups when those groups gain social standing. These findings support a model similar to social identity theory, whereby individuals become more or less fused with groups as a way of maximizing the strength and standing of their social self-concepts (Lemyre & Smith, 1985; Oakes & Turner, 1980; Tajfel & Turner, 1979). However, the present study’s finding that Trump supporters tended to decrease, rather than increase, prosocial giving when Trump’s chances of winning decreased runs contrary to prior findings. Accordingly, the relationship between identity fusion and prosocial behavior may be mediated by other factors like the perceived efficacy of prosocial behavior (see Caprara & Steca, 2005/2007) or the accessibility of group-relevant information to different groups (see Iyengar, 1990).

Examination of the general election and party primary results supports a mediated account of identity fusion as well. Although the correlation between identity fusion and in-group giving decreased following the general election outcome, there were no significant primary effects of the election outcome on measures identity fusion. This suggests that the election result, hypothesized to be a large positive or negative event for fused individuals, did not influence identity fusion. An alternative hypothesis suggests that the salience of relevant social groups—that is, how prominent the groups tested were in respondents’ social self-concepts—decreased following the election,
reducing the centrality of fused groups in individuals’ self-concepts without changing their identity fusion (see Espinoza & Garza, 1985; Reicher, 1984).

Analysis of respondents’ primary candidate preferences further suggests that events may impact the identity fusion of members in more varied ways than initially suggested by Vezzali et al. (2016). In the present study, respondents who preferred a losing candidate during their party’s primary had persistently lower levels of identity fusion with the winning candidate throughout the general election. In other words, individuals who believed their political party chose the wrong candidate in the 2016 primaries were resistant to later attempts by their political party to increase identity fusion with the winning candidate. This result suggests that events may have lasting effects on identity fusion, but that those effects are not always positive. One possible explanation for these conflicting results is that earlier research involved a negative event that affected all in-group members equally (Vezzali et al., 2016), while this study’s primary results involved a negative event that resulted from a schism within an in-group, affecting certain members positively and others negatively.

4.2 Limitations

Although the present study expanded the scope of identity fusion research into a broader context, the American presidential election of 2016 did, in retrospect, elicit unusually passionate responses in the American electorate, including appeals to previously unrepresented populist ideologies (see Oliver & Rahn, 2016). The present body of identity fusion research is not sufficiently substantive to discount the possibility that the 2016 election was an exceptional case of sociopolitical behavior and tribalism. Therefore, despite this study’s large sample size, its results must be viewed within its unusual context when attempting to generalize to the broader study of identity fusion.
Further, this study began on October 12, 2016, long after the beginning of the 2016 presidential election. As a result, the present study was unable to analyze the impact of several major events—including the presidential primaries and several media controversies—in real-time. It is possible that these events may have influenced identity fusion in different ways than those analyzed within this study. In addition, Swann et al. (2009/2014) posits that identity fusion is a mechanism by which fused group members band together against a social threat. Because presidential elections occur four years apart, the conditions following the presidential election on November 8, 2016, may not have provided an immediate outlet for threatened group members to pursue, thus impeding their ability to double-down against the social threat of an opposing political group. If this motivational impediment did, in fact, influence levels of identity fusion after the election, then the election results may not be an accurate characterization of how negative events influence identity fusion.

It is also possible that the dictator game used in the present study, which asked respondents to divide 40 cents, may not have used a sufficient monetary sum to induce feelings of self-sacrifice in respondents. If respondents did not feel as if they were giving something up for the benefit of an ingroup member, then the dictator game would not have accurately measured truly prosocial behavior. Although prior research suggests that MTurk participants of trust games like the dictator game tend to perform similarly regardless of the stake size, the possibility remains that larger stake sizes would more directly target feelings of self-sacrifice and prosociality (Amir & Rand, 2012).

More generally, results from the dictator game used in the present study may have been mediated by factors other than identity fusion. Research by Schulz, Fischbacher, Thöni, and Utikal (2014) found that players of dictator games were more generous when under high cognitive load. This finding was corroborated by Rand and Kraft-Todd (2014), who found that intuitive decisions tended to be more prosocial. Given the potential for heightened cognitive load when evaluating
group-salient events—and one’s social self-concept more generally—it is likely that the results of the dictator game may have been artificially bolstered for participants facing social threats. Current research into identity fusion is not yet robust enough to determine whether the influences of cognitive load on prosocial decision-making are distinct from, related to, or central to the mechanisms behind identity fusion.

4.3 Future directions

The tools used to measure identity fusion in this study are recent additions to the literature (Jiménez et al., 2016). Therefore, many questions still remain regarding its applicability to different fields. Of particular note is the difference between the two DIFI measures, distance and overlap. Although the two measures include different scales—distance is linear and includes individuals with no overlap, while overlap is exponential but only includes individuals that report some fusion—little research has teased out the predictive differences between the two measures. The present study did not find a meaningful difference between distance and overlap, but results may vary for studies requiring increased precision. Future research could examine these two measures in detail to determine their relative strengths and weaknesses.

One main goal of the present research was to expand the literature on identity fusion to include the study of identity fusion over time. If identity fusion was resilient and stable over time, then it could be highly predictive of future prosocial behavior. Alternatively, if fusion was consistently sensitive to outside influences, then controlling for these influences would enable experimenters to predict how identity fusion and its correlated behaviors would change over time. Given this study’s timescale and the inconclusive results regarding the effect of events, future
research may need to include a far longer timescale to conclusively analyze the effect of events and time on identity fusion.

Additionally, the present study’s use of political groups introduces a new line of research into how identity fusion changes during internal group conflicts and schisms. While the present study did not set out to test for the influence of internal conflicts on identity fusion, prior research has shown that social group membership often involves a homogenization of member values, morals, and goals (Bettencourt & Hume, 1991; Cohen, 2003; Conover & Feldman 1984; Heaven, 1999; Hogg & Abrams, 1988; Newcomb, 1943; Sherif, Sherif, & Nebergall, 1965; Turner, 1991). However, political coalitions can include several distinct subgroups, all of which may hold independent sets of values and priorities. Further, findings from the present study suggest that intra-group conflicts like those during the political primaries may lead to persistent shifts in levels of identity fusion. Future research could examine the impact of intragroup disputes and schisms on identity fusion.

4.4 Concluding remarks

The introduction of identity fusion into the literature of sociopolitical behavior has sparked new debates into how people interact with others. And, at a time when several global powers, stoked on by fears of terrorist activity, are becoming increasingly tribal and populist, understanding the impact of social groups on individual behavior is more important than ever. This study expanded the emerging body of research surrounding identity fusion to the broader sociopolitical context of modern American politics. The results demonstrate a clear effect of identity fusion on even low-commitment, prosocial behavior. However, there is still much work to be done to understand how identity fusion changes over time. This line of research will be important in the future study of
prosocial behavior as the literature expands from a model of rational self-interest toward a theory of integrated social self-concepts and self-sacrificing behavior.

Acknowledgements

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Appendix A – Pre-Election Survey

1. Initial Validation
   a. Please enter your Amazon Mechanical Turk WorkerID.
   b. Please copy this handwritten text into the blow below: “Speak in rhythms now you’re three / Watch your new years evening wash / Alvin raw tangled in your kite.”

2. Preference Selection
   a. Do you prefer the Democratic or the Republican Party?
   b. Which candidate do you prefer in the general election?

3. Campaign Support Metrics
   a. How strongly do you support your candidate? (1-7)
   b. Which candidate did you prefer in the primary election?
   c. Did you vote for this candidate in the primary election?
   d. Have you ever donated to your preferred candidate’s campaign?
   e. Have you ever volunteered for your preferred candidate’s campaign?
   f. Dynamic Identity Fusion Index: Candidate Supporters (see Appendix C)

4. Political Party Support Metrics
   a. How strongly do you identify with your preferred political party? (1-7)
   b. Are you registered to vote?
      i. If yes, which party are you registered for?
      ii. If no, do you plan to register?
   c. Have you ever donated to your preferred political party?
   d. Have you ever volunteered for your preferred political party?
   e. Dynamic Identity Fusion Index: Political Party (see Appendix C)

5. Dictator Game
   a. Random assignment (see Appendix D)
   b. Transfer checks
      i. What transfer maximizes the other person’s bonus? (0-40 cents)
      ii. What transfer maximizes your bonus? (0-40 cents)
      iii. What transfer results in both of you earning the same bonus? (0-40 cents)
   c. Please choose how many cents you will transfer to the other person. (0-40 cents)
   d. Please describe how you made your decision.
6. Event Evaluation (randomized)
   a. How would you feel if Donald Trump won the general election? (1 = very unhappy, 7 = very happy)
   b. How would you feel if Hillary Clinton won the general election? (1 = very unhappy, 7 = very happy)

7. Demographics
   a. Have you already voted in the general election, either by early voting or absentee ballot?
   b. Gender
   c. Age
   d. Highest level of education completed
   e. Income
   f. Are you a United States citizen?
   g. In about how many surveys/studies have you participated on MTurk before?
   h. To what extent have you previously participated in other studies like this one (i.e. that involve the dividing up of money)?
   i. To what extent did you believe that the other person was real when making your decision?
Appendix B – Post-Election Survey

1. Initial Validation
   a. Please enter your Amazon Mechanical Turk WorkerID.
   b. Please copy this handwritten text into the blow below: “Speak in rhythms now you’re three / Watch your new years evening wash / Alvin raw tangled in your kite.”

2. Preference Selection
   a. Do you prefer the Democratic or the Republican Party?
   b. Which candidate did you prefer in the general election?

3. Campaign Support Metrics
   a. How strongly did you support your candidate? (1-7)
   b. Which candidate did you prefer in the primary election?
   c. Did you vote for this candidate in the primary election?
   d. Have you ever donated to your preferred candidate's campaign?
   e. Have you ever volunteered for your preferred candidate’s campaign?
   f. Dynamic Identity Fusion Index: Candidate Supporters (see Appendix C)

4. Political Party Support Metrics
   a. How strongly do you identify with your preferred political party? (1-7)
   b. Are you registered to vote?
      i. If yes, which party are you registered for?
   c. Have you ever donated to your preferred political party?
   d. Have you ever volunteered for your preferred political party?
   e. Dynamic Identity Fusion Index: Political Party (see Appendix C)

5. Dictator Game
   a. Random assignment (see Appendix D)
   b. Transfer checks
      i. What transfer maximizes the other person’s bonus? (0-40 cents)
      ii. What transfer maximizes your bonus? (0-40 cents)
      iii. What transfer results in both of you earning the same bonus? (0-40 cents)
   c. Please choose how many cents you will transfer to the other person. (0-40 cents)
   d. Please describe how you made your decision.

6. Event Evaluation
a. How do you feel now that your candidate won/lost the general election? (1 = very unhappy, 7 = very happy)
b. Did you vote in the general election?
   i. If yes, which candidate did you vote for?
c. In your opinion how do other supporters of your preferred candidate feel now that your candidate won/lost the general election? (1 = very unhappy, 7 = very happy)

7. Demographics
   a. Gender
   b. Age
   c. Highest level of education completed
   d. Income
   e. Are you a United States citizen?
   f. In about how many surveys/studies have you participated on MTurk before?
   g. To what extent have you previously participated in other studies like this one (i.e. that involve the dividing up of money)?
   h. To what extent did you believe that the other person was real when making your decision?
Appendix C – Dynamic Identity Fusion Index (DIFI)

The diagram below is designed to represent your relationship with Clinton Supporters. Please indicate your relationship by clicking and dragging the smaller “Me” circle to the position that best captures your relationship with Clinton Supporters.

<table>
<thead>
<tr>
<th>Distance</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overlap</td>
<td>30</td>
</tr>
</tbody>
</table>

Fig. 9. The image above depicts the DIFI tool, as developed by Jiménez et al. (2015). This screen was presented to respondents who selected Hillary Clinton as their preferred candidate in the general election.

Respondents are able to freely move the “Me” circle along the horizontal axis until the distance and overlap between their “Me” circle and the group in question fits their desired relationship. The groups measured were candidate supporters (Trump or Clinton supporters) and political parties (Republican or Democratic parties). The DIFI records both distance (the distance between the centers of the two circles) and overlap (the percent of intersection between the areas of the two circles) (Jiménez et al., 2015). Distance is computed directly from the participants’ movements. With the radius of the small circle, $r = 50$ pixels (see Fig. 9), the overlapping area is computed indirectly using the following formula:

$$\text{Overlap} = \frac{100a}{\pi r^2}$$
Fig. 10. The formula for computing the area of overlap between two circles of different sizes, as described in Jiménez et al. (2016).
Appendix D – Dictator Game: Random Assignment

You have been randomly assigned to interact with another MTurk worker. You cannot participate in this study more than once.

The only thing you know about this person is that they affiliate with the Democratic party. They have indicated that they supported Hillary Clinton in the general election.

![Image](image_url)

You start with 40 cents and the other person starts with 0.

*This interaction has one single decision:*

You choose how many of the 40 cents to transfer to the other person.

*Fig. 11.* The screen shown to a respondent who selected Hillary Clinton as their preferred candidate. The order between party and candidate was randomized. To control for in-group behavior, the party of the randomly assigned partner always corresponded to the party of candidate. Bonuses were randomly spread to respondents that fit the in-party demographics (i.e. those who preferred the same party as their preferred candidate) following each trial.
Appendix E – Presidential Polling Data

<table>
<thead>
<tr>
<th>Date</th>
<th>Trial</th>
<th>Aggregate (%)</th>
<th>538 (%)</th>
<th>538 Chance of Winning (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/12</td>
<td>1</td>
<td>45.3</td>
<td>40.4</td>
<td>49.4, 42.7</td>
</tr>
<tr>
<td>10/18</td>
<td>2</td>
<td>45.1</td>
<td>41.0</td>
<td>49.8, 42.8</td>
</tr>
<tr>
<td>10/24</td>
<td>3</td>
<td>45.2</td>
<td>41.1</td>
<td>49.5, 43.2</td>
</tr>
<tr>
<td>10/30</td>
<td>4</td>
<td>45.9</td>
<td>42.7</td>
<td>49.4, 44.2</td>
</tr>
<tr>
<td>11/05</td>
<td>5</td>
<td>46.1</td>
<td>43.4</td>
<td>48.4, 45.5</td>
</tr>
</tbody>
</table>

*Fig. 12.* The polling data used for pre-election polling analysis. The aggregate polling includes all polls currently listed in the Huffington Post’s polling database, used by most news agencies as the standard for daily polling aggregates. The percentages in blue (left) represent the percentage favoring Hillary Clinton; percentages in red (right) represent the percentage favoring Donald Trump. Excluded from this study were any polls that weren’t updated more frequently than every twelve days (two trials). The aggregate polling numbers (ClintonUW and TrumpUW) are unweighted after reporting. 538’s aggregate polling (ClintonW and TrumpW) is weighted by 538, and 538’s Chance of Winning metric (ClintonWin) is both weighted and applied to Electoral College votes via state district demographics.