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Tori Herren April 11, 2017

The Effect of Politically Focused Internet Memes on Partisanship and Partisan Interaction

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Abstract

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Internet memes are a growing method of political participation and commentary online. However, the primary function of a meme lends itself to entertainment, rather than critical thinking and developed political discourse. In an era of increasing political polarization, we question whether the growth of political memes helps or hinders partisan relations. Thus, we utilize the public goods game and the trust game to measure social cooperation and trust in partisans after exposure to politically focused Internet memes. While we find some evidence to support that co-partisan pairings facilitate trust, the ultimate effect of politically focused Internet memes is inconclusive.

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I. Introduction

Internet memes are a phenomenon of growing importance in American politics. Commentary in the form of image macros, reminiscent of political cartoons, has flourished within Internet culture. Memes, however, and their power to sweep through social media seem unlikely to be restricted to the online world. In the 2016 election alone, Internet memes became a hot topic even among traditional news organizations and political insiders.

"The Great Meme War," a compelling, if exaggerated term used to describe the online efforts of a select sect of Donald Trump supporters on the Internet site 4Chan, is only one example of the role memes have come to play in American politics. Participants of the Great Meme War utilized Internet memes as their primary weapon in an effort to bombard the Internet with pro-Trump propaganda. While little evidence exists to support the conclusion that these memes were a deciding factor in the 2016 election, as many of those involved believe, they did influence political coverage in the election (Schreckinger, 2017).

Moreover, in light of such projects as The Observatory on Social Media (OSoMe), denying the significance of Internet memes is difficult. OSoMe, a project based at Indiana University, was founded for the express purpose of studying the dissemination of information online, particularly the proliferation of Internet memes. The project has covered a variety of

topics, many of which center on the political connection between memes and social media (OSoMe, 2017).

The rise of Internet memes is occurring at the same time as growing political polarization in the American public. In a report published by the Pew Research Center (2014), the percentage of Americans that held either consistently liberal or consistently conservative views shifted from 10% in 1994 to 21% in 2014. Furthermore, in 1994 the median Democrat was to the left of 64% of Republicans. In 2014, this percentage numbered 92%. The same is true for Republicans. In 1994, the median Republican was to the right of 70% of Democrats, while that number stood at 94% in 2014.

An additional report by the Pew Research Center (2016) shows that rising polarization concerns not only the ideological positions held by American partisans, but is accompanied by increasing levels of animosity between the two parties and their members as well. Both parties now report “very unfavorable” views of their political counterparts. This level of animosity is unprecedented in the history of Pew Research surveys. Additionally, large percentages of each party consider the opposing party a threat to the nation, state that the opposing parties’ policies make them afraid, find political discussions with the other side stressful, and state that a person’s political affiliation is a good indicator of a person’s character (Pew Research Center, 2016). The survey indicates that party affiliation colors political perceptions on both sides of the isle.

Internet memes may be a burgeoning method of political participation and influence on American politics, but amidst rising polarization and animosity between opposing partisans, should we pay closer attention to this seemingly trivial phenomenon? Internet memes tend to express political opinions or statements in very few words, relying on their ability to entertain above all else. Nuance and depth fail to be their primary attributes. Thus, the primary purpose of this research is to study the effect political Internet memes have on partisan identity and behavior towards co- and opposing partisans. We posit that political Internet memes, as gross simplifications of political issues, serve to reinforce partisan identity, therefore increasing favorability towards one's own political party, while increasing discrimination against the opposing party.

We studied the effect of political memes and partisan identity on behavior in the public goods game and trust game, as a method to measure intergroup cooperation and trust. We do not find conclusive evidence that either partisan information or Internet memes influence partisanship or partisan relations. Cooperation and trust, as measured by the public goods game and the trust game respectively, did not significantly change following the introduction of partisan information or meme exposure. However, we recommend further research into the area.

II. Literature Review

Memes

Among the foremost difficulties in analyzing Internet memes is deciding on their exact definition. After all, Internet memes may take the form of a hashtag, video, picture, phrase, and so on. In the face of such variety, agreeing upon a universal definition poses an interesting challenge. For our purposes, Limor Shifman provides a useful and comprehensive definition:

> (a) a group of digital items sharing common characteristics of content, form, and/or stance, which
> (b) were created with awareness of each other, and (c) were circulated, imitated, and/or transformed via the Internet by many users. (2014, 41).

Shifman's definition acknowledges the principle characteristics of Internet memes, their ability to be replicated or imitated as they are disseminated throughout the Internet. However, in recognizing that the specific method of imitation itself may vary throughout a meme's various iterations, Shifman provides unique nuance.

Meme function varies as widely as its form. Surprisingly, Internet memes have become a legitimate method of political participation and contribution to political discourse (Shifman, 2014; Graeff, 2015; Milner, 2013; Plevriti, 2013). In an analysis of digital participation in the Occupy Wall Street Movement, memes functioned as a form of participatory media by which Internet users could contribute their own ideas and opinions towards the protest. An example of

such behavior is the 99% meme, in which individuals shared their stories in the form of a picture of themselves holding up a piece of paper with their personal story followed by the words “I am the 99%” (Shifman, 2014). Internet memes were also found to function as a form of political commentary towards the Occupy Wall Street Movement (Milner, 2013). The contribution of digital culture in the Occupy Wall Street Movement suggests that memes can allow for direct participation in a political event, even if one is not physically present. From a broader perspective, involvement in the creation of user-generated content is linked positively with democratic engagement (Östman, 2012).

Moreover, political memes have the power to directly shape politics. In the 2012 election, political memes reached a new height after they caught the attention of official campaigns, party establishment, and traditional news media. The Big Bird TV advertisement put forth by the Obama Campaign is an example of such mainstream adoption. After the republican nominee, Mitt Romney, stated his intended cuts for the Public Broadcasting Station (PBS), mentioning Big Bird by name, Internet users began to create memes of the *Sesame Street* character to mock Romney’s proposal. This garnered much attention in the media and was eventually picked up by the Obama campaign, resulting in an official campaign ad based on the meme (Graeff, 2015).

Filippo Menczer, Director of the Center for Complex Networks and Systems Research at Indiana University and co-founder of The Observatory on Social Media, even went as far as to

say that memes may be able to predict the winner of the 2016 election. Menczer stated that in past analysis, the number of tweets about a politician was positively correlated with the number of votes received by that politician. Thus, if a candidate were to be the subject of a popular meme (we assume this meme to reflect positively on the politician) then that candidate may be more likely to win (Lewis, 2016).

However, these political memes may represent shallow and incomplete manifestations of political discourse. Troy R.E. Paddock explores the role memes play in the modern day political sphere (2015). Paddock argues that democracy hinges upon rational discussion. Intuitively, this makes sense; the freedom of thought and ideas, and a free market to discuss such ideas, lends itself to understanding and compromise. However, the current discourse has "been replaced by talking points that often take the form of political memes" (Paddock, 2015). Paddock reasons that the underlying problem is that often these memes are not open to question, and thus not able to spark meaningful discussion.

In an analysis of two political memes, one geared towards conservatives and the other towards liberals, Paddock explains that the images are based upon a host of assumptions, each supporting their own individual ideologies. These assumptions were either accepted or rejected by the audience, most likely along neat political lines. Thus, if the viewer agreed with the assumption, then no further analysis was needed and the viewer proceeded on. If the viewer did

not agree with the assumption, then the meme was rejected and the viewer most likely outraged, but no further conversation was necessary. Each party left the image more entrenched in their political beliefs. In this way, memes stunt political discourse and development because inherently, they are simplified, biased misrepresentations of the actual issue.

This conclusion would seem to be supported by the empirical analysis of meme diffusion and social media networks. A study conducted by Mazambani et al. (2015) found that memes that adhered to group norms in four different online communities were more likely to spread within the group. In other words, group-consistent memes were more likely to be accepted. This supports the conjecture that memes that adhere to the viewer's existing beliefs will be more successful, while those that do not will be rejected or ignored. An analysis of Twitter users also found that users existed in highly partisan Twitter networks. Thus, users were more likely to share and receive content from members of their own party (Conover et al, 2012). Evidence shows that memes are more likely to be shared and spread among people with similar attitudes and perspectives, suggesting that memes would only serve to reinforce existing beliefs.

It should be noted, however, that memes may spark counter-memes, aiding in actual discourse between opposing sides (Shifman, 2014; Milner, 2015). However, the discourse occurs from the action of recreating and sharing a response to a meme. This study seeks to contribute to the existing literature by determining the isolated effect of viewing a meme, with no further

interaction. Rather than analyzing the life of a meme in the context in which it is diffused, we hope to determine the effect that merely consuming a meme's content may have on the political behavior of an individual.

Framework for Partisan Discrimination

Before we attempt to introduce the methods by which we will study this political behavior, we require a framework by which partisanship can be expressed as group identity, and therefore, affect social trust and cooperation. Social identity theory explains the processes by which individuals classify themselves in social groups and how these classifications affect attitudes and behavior. Social identity, defined as "those aspects of an individual's self-image that derive from the social categories which he perceives himself as belonging," establishes an identity based upon an individual's in-groups (Tajfel & Turner, 1979, 40). The theory states that individuals seek to perceive this in-group positively compared to some out-group. The perpetual comparison between in-groups and out-groups leads to group differentiation, the goal of which is to establish superiority of one's own in-group. This process causes individuals to perceive members of the in-group favorably and discriminate against those in the out-group (Tajfel & Turner, 1979).

Social categorization, the process by which individuals classify themselves into in-groups and out-groups can occur from even minimal group paradigms (Tajfel, 1970; Tajfel, 1971). In a series of studies, participants were assigned to different social groups based on weak or arbitrary reasoning, such as if participants preferred one painter to another. Despite the trivial method of categorization, participants sought to enhance the benefits of their own group and derogate those of the corresponding out-group. Applied to partisanship, the ease with which social categorization was achieved in Tajfel's experiments suggests that the mere presence of two distinct political parties is enough to trigger group bias, regardless of the implied ideological differences. Social Identity Theory has been shown to apply explicitly to partisan identities as well (Greene, 2004). Greene concisely summarizes the logical extension of the theory to partisanship, "following from the group-differentiation aspect of social identity theory, the group nature of partisanship should naturally create a bipolar partisanship where individuals characterize the political parties into us and them and exaggerate perceived differences to favor their own group" (2004, 138). Partisanship, therefore, acts as a social identity that may condition behavior.

Moreover, an accentuation of group attributes and similarity may lead to further group identification (Brewer and Brown, 1998). Applied to partisan behavior and political affiliation, an increased emphasis on group identification could lead individuals to increase the intensity by

which they adhere to partisan lines (Greene, 2004). An emphasis that increases the social distance between opposing partisans will further disrupt intergroup interaction (Akerlof, 1999). Following previous research, activities or events that serve to re-enforce social categorization and group identification can effectively result in stronger ties to the group. Therefore, highlighting similarities between co-partisans, while underscoring differences between rival partisans (perhaps through the use of memes), should increase the propensity by which individuals will identify with their own party.

Phenomena of social capital, specifically trust and cooperation, have been shown to reflect intergroup relations. In-group membership does facilitate trust between strangers (Foddy et al., 2009). This relationship has been shown to hold in the specific context of partisan identity as well (Carlin & Love, 2013; Martini & Torcal, 2016). Furthermore, a common in-group identity has also been shown to increase cooperation in situations involving social dilemmas, instances in which individuals must choose between their own self-interest and the collective welfare (Brewer & Kramer, 1986; Kramer & Brewer, 1984; Messick & Brewer, 1983, Brewer & Brown, 1998). Taken collectively, situations that serve to increase in-group identification should result in corresponding increases in social trust and cooperation. Existing literature supports that this same phenomenon will occur in the context of increased partisanship as well.

Trust Game

The trust game utilized in this experiment is based on the standard trust game (Berg et al., 1995), used to examine the role of trust in a group setting. Also known as the investment game, the trust game begins with two players, each assigned the role of either Player A or Player B. Player A and Player B are each given an endowment of ten dollars. Player A must then decide to send some, all, or none of their endowment to Player B. All players are informed that the amount transferred by Player A will be tripled as it is sent to Player B. After Player B receives the tripled amount, Player B then decides to send some, all, or none of the tripled amount back to Player A. The game ends once Player B's decision has been made.

While the Nash equilibrium for the trust game predicts that no money will be sent, Berg et al.'s study results did not conform to this expectation. 30 of the 32 participants assigned the role of Player A sent money in the first phase of the experiment, averaging $5.16. The amount of money sent back by participants designated Player B averaged $4.66. Therefore, the data implies that trust did play a role in the transfer amounts made by the players.

Evidence supports the conclusion of Berg et al. (1995) that trust is the primary motivation within the trust game. In a study examining the role of altruism in the game, the initial endowment of the second movers (or Players B) varied. First movers (or Players A) were shown to send no more to second movers with lower endowments than higher endowments (Brülhart

and Usunier, 2012). The study also confirmed the tendency for only a small portion of participants to uphold the expectations of Nash equilibrium. Only 11% of first movers and 20% of second movers chose to send nothing to their game counterparts.

Many versions of the trust game have come to pass since its standardization in 1995. The Johnson and Mislin (2011) meta-analysis seeks to confirm the generalizability of the trust game, given its many variations. Results conclude that the use of a double-blind procedure (as used in the Berg et al. (1995) version) as well as the level of stakes do not have a significant effect on the amount sent by first movers. Yet, second-mover endowment, ensured anonymity, and the use of real people (as opposed to computers) as second-movers do share a relationship with the amount sent by first movers. While second-mover endowments and ensured anonymity are shown to negatively impact first movers' decisions, these effects were small and remain popular implementations in the trust game.

Research performed with the trust game has shown that partisanship can be a conditional factor in the decisions of first movers, bolstering trust between co-partisans while hindering that between rival partisans (Carlin & Love, 2013; Martini & Torcal, 2016). In a study of 138 students at the University of Mississippi, 34% more tickets (the method of contribution) were sent to co-partisans than to opposition partisans, one of the largest differences in existing literature at the time. However, reciprocity of the "trustees" did not depend on the presence of

partisan information, but rather on the behavior of the experiment's first-movers or "trustors" (Carlin and Love, 2013).

The same was found to be true in a study involving political parties in both Spain and Portugal. In both countries, participants exhibited higher levels of trust towards co-partisans than those from another party. Furthermore, partisanship seemed to have the effect of increasing trust among co-partisans while decreasing trust among participants from alternate parties, a significant finding considering literature which theorizes that in-group cohesion and outgroup discrimination are separate processes. However, perhaps more significant was the finding that partisanship cues triggered greater differences in trust than the study's minimal group treatment, suggesting that the effect of partisan information differed significantly from that of mere in-group/out-group categorizations (Martini & Torcal, 2016).

Public Goods Game

The public goods game chosen for this experiment was based on the game design described in a study conducted by James Andreoni (1988). In the Andreoni public goods game, subjects are divided into groups of five and each given 50 tokens. Subjects are then presented with two investment options, the public good or the private good. The private good yields a return of one-cent, while the public good returns half a cent. However, subjects are informed that

tokens paced into the public good will be added to the final payoff of every player in the group. Choices are made simultaneously and communication is not allowed. Economic theory holds that participants will not contribute any number of tokens to the public good, though participants do not typically adhere to this prediction (Marwell & Ames, 1981).

A meta-analysis conducted for liner public goods games finds that group-size, gender of participants, and economics training (though most participants in this category were undergraduate economics students) do not have significant relationships with the amount contributed to the public good. Mean contributions to the public good are positively related to heterogeneous endowments, communication, and a higher return rate, while subjects with more experience in the game were likely to contribute lower amounts. Surprisingly, prior friendships did not exhibit a significant relationship with contribution amounts, but consistent group membership did (Zelmer, 2003).

Though Zelmer's meta-analysis did not report significant findings in regards to prior friendship among participants, previous studies of the public goods game have shown a positive relationship between in-group identity and public good contribution (Brewer & Kramer, 1986; Lankau, Bicskei, & Bizer, 2012). However, though research may suggest greater cooperation between members of the same in-group, and consequently less intergroup cooperation, reality may be more complicated. Group identity, particularly within situations of competing social

identities, may not play a predicable role in cooperation (Charness, Cobo-Reyes, & Jimenez, 2014). If group identity does in-fact affect cooperation within the public goods game, we expect that co-partisanship will increase contributions to the public good, while rival partisanship will decrease the level of public good contribution.

In review of the literature, we expect that groups with same party identity will have a positive effect on contributions to the public good in the public goods game and the amounts sent by Player A in the trust game. In contrast, we expect that opposing party identity will result in lower contributions to the public good in the public goods game and lower amounts sent by Player A in the trust game.

III. Methods

Experimental Overview

The study consisted of ten sessions of varying capacity conducted over the course of five days. 110 students from Emory University participated in the research study. Participants were primarily recruited from economic classes within Emory College, during which the experimenter made a verbal announcement. Afterwards, interested students were contacted via email with the sign-up link and an additional link to an optional political affiliation quiz. One randomly selected student was chosen to receive their earnings from one randomly chosen round of the experiment

in each session, in addition to the two-dollar participation compensation that each participant received.

The study consisted of eight parts: two surveys, three rounds of the public goods game, and three rounds of the trust game. Prior to the experiment, subjects were also provided the option of taking a political affiliation quiz created by the Pew Research Center. The optional quiz provided students unfamiliar with the American political system or unaware of their preferred political affiliation with more information as to which party best suited their political beliefs. The Pew Research Center's Political Party Quiz was chosen specifically because it provided party affiliations along the liberal-conservative spectrum. Thus, subjects would not only be provided with the political party which most accurately reflected their beliefs, but would also be able to know where they fell along the broader ideological spectrum. This knowledge could also better inform subjects' answers to the study's exit survey, in which subjects were able to more accurately describe their political beliefs. The link to access the Political Party Quiz was embedded within the informational email sent to all students who expressed interest in participating in the study.

Each experimental session took place on the Emory University campus in room 301 of the Rich Building. Consent was obtained from all subjects before the experiment commenced in each experimental session. If subjects consented to participating in the study, they were

instructed to complete the verbal consent form after the experimenter read the document aloud. Participants were also assigned an identification number corresponding to their individual seats. ID numbers allowed for subject anonymity while also providing a simple method to assign player roles and track participant responses during each phase of the experiment. Participant names were not connected to the participant's ID number, responses, or decisions at any time during the study.

Initial Survey

The experiment began with an initial survey concerning basic demographic information as well as three short behavioral questions. The question of immediate interest required the subjects to choose the political party that most accurately reflected their political affiliation. Participant responses were used to catalog each subject's political affiliation for the later phases of the experiment. However, subjects were only given a choice between the Democratic Party and the Republican Party. Clearly, the binary decision presented by the survey question does not represent the full breadth of possible participant political affiliations. Due to the nature of this study and the limited sample size of participants, participants were required to choose one of the given options to make functional groupings for the economic games utilized. Moreover, the Democratic and Republican parties are the two most predominant parties within the United

States, and thus are the most pertinent parties to this study. However, this issue is addressed once more in the exit survey.

Control Rounds and Game Summary

After the initial survey, participants played a one-shot public goods game in randomly assigned, nonpartisan groups. The nonpartisan, randomly assigned public goods game acted as the baseline to which the following public goods games were compared. All treatments within the study utilized a one-shot game design. Using the one-shot design ensured that participant behavior was the result of the given treatments, rather than the behavior of other participants. Moreover, participants were not told the contribution amounts of their fellow group members or the amounts sent back by Player Y in the experiment. In addition, participants were not explicitly told the number of rounds to be played to avoid strategic playing. While the Andreoni public goods game requires five participants, this study utilized a three-person public goods game to create smaller groups and allow for a greater number of completely opposite or completely same party groupings.

Within each group, participants were assigned the role of either Player A, Player B, or Player C. Each player began the game with an initial endowment of 15 tokens. Players then had the opportunity to invest in either the private good (X) or the public good (Z, where $Z=15-X$).

The private good yielded a return of one dollar per each token invested (*1X*), while tokens invested in the public good received a return of 66 cents (*.66Z*). However, tokens invested in the public good were placed into the "public pot." At the end of the round, the public pot held all the tokens invested in the public good ($Z_a + Z_b + Z_c$, where subscripts denote the investment choices of the corresponding players). Final payoffs were calculated based upon the number of tokens each player invested in the private good, plus the number of tokens placed into the public pot. The final payoff equation for each player can be modeled by the general equation:

$$\textit{Final Payoff: } 1X_i + .66(Z_i + Z_u + Z_v)$$

The given return levels for the private and public good are based upon those of the Andreoni public goods game. In the situation of full cooperation, participants can nearly double to the guaranteed maximum payoff of the private good for themselves and their group members. The payoff of full cooperation is double that of zero cooperation, which calls into question why a player would defect. Players would undoubtedly receive a higher payoff if everyone decided to invest fully in the public good. One reason for defection lies in the uncertainty of the actions of other group members. Players cannot be sure that their counterparts will invest in the public good at all. Moreover, players will receive the return of the public pot regardless of whether they choose to invest in the public good or not. When this is taken into consideration, players can receive a higher return if one invests all their tokens into the private good, but the other players

invest in only the public good. Therefore, each player has an incentive to defect and invest in only the private good.

Following the initial public goods game, participants played a randomly assigned, nonpartisan, one-shot trust game. The trust game required participants to be paired into groups. Each group member was then assigned the role of either Player X or Player Y. As in the initial public goods game, pairings were randomly assigned for the first trust game. At the start of the game, Player X was given an endowment of $10. Player X then decided to send some amount T to Player Y, where $0 \leq T \leq 10$. Players were informed that any amount of the endowment that Player X chose to send to Player Y was tripled as it was transferred. Player Ys were informed of the amounts transferred to them. Then, each Player Y chose to send some amount R back to Player X, where $0 \leq R \leq 3T$. Player Ys were informed that they could keep any amount that they did not choose to send to Player X. Player Y's decision marks the end of the game. Final Payoffs for each player can be represented by the equations:

$$\textit{Player X: } (10\text{-}T) + R$$

$$\textit{Player Y: } 3T - R$$

Neutral terms were employed in the game's instructions to avoid framing effects.

The game allows for both participants to receive an amount greater than the original ten-dollar endowment. If Player X chooses to send the full $10 over to Player Y, then both players

have the opportunity to earn a final payoff of $15. However, this payoff is only possible if Player X trusts that Player Y will send at least $15 back during the second half of the game. Though Player X can earn a larger payoff if he chooses to trust Player Y, he also faces the risk that Player Y will send nothing back. Therefore, Player X has an incentive to forgo the maximum payoff and keep all of the ten-dollar endowment.

Treatment One: Political Affiliation

The second round of the public goods game and trust game followed the same procedure as their control round counterparts. However, subjects were now informed of the political affiliation of their partners in each game. Participants were also informed that participant groupings (pairings) had changed. No additional information regarding partner identity, contribution amount, or final payoff was included. Subjects were matched according to the distribution of Republicans and Democrats in the session and their pre-assigned roles within each game. While the purpose of the study is to measure the effect of political memes on partisan polarization, this intermediate step was necessary to isolate the effect of introducing political affiliation into the games.

Treatment Two: Political Affiliation and Memes

The final round of the public goods and trust game was implemented to study the effect of political memes. Once again, participants were also informed that groupings (pairings) had changed. Prior to the third round of each game, subjects were exposed to memes corresponding with their political affiliation. However, the procedures for both games remained consistent with the first treatment round of the experiment. Subjects were aware of the political affiliation(s) of their partner(s), but otherwise were given no additional information regarding player identity, contribution amounts, or final payoff.

The chosen memes dealt with a variety of topics: healthcare, gun control, and climate change. These topics were chosen to provide a variety of current social and economic issues. The specific memes chosen, *Willy Wonka*, *Math Lady*, and *Conceited* were chosen due to their popularity and ability to be applied easily to both democratic and republican views. Each meme focuses on a negative stereotype about the opposing party. The meme used for each issue was held constant and the accompanying text was constructed to be as similar as possible to that used for the opposing political party. While the text of each meme is targeted at one party, details such as picture and tone are consistent. The memes were made to be as similar as possible to control for the difference in effect that may occur with memes of varying topics and tones.

Figure 1. ***Willy Wonka*****/Healthcare Meme**

Figure 1: *Left: Democrat meme*[1]*, Right: Republican meme*

Figure 2. ***Math Lady*****/Gun Control Meme**

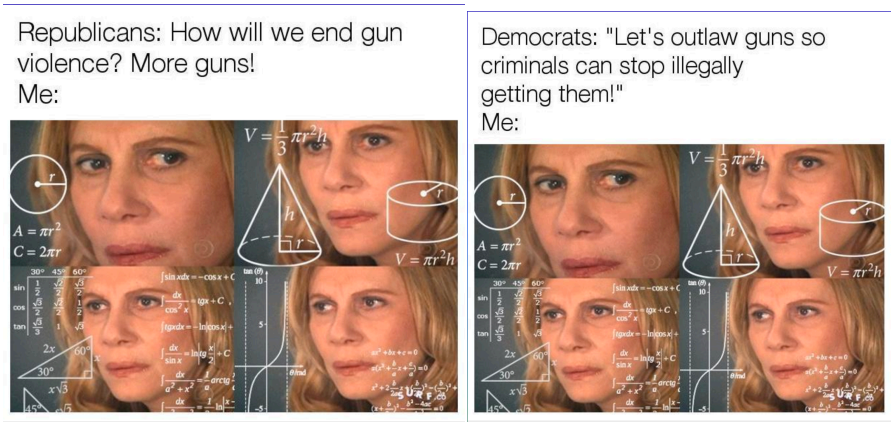


Figure 2: *Left: Democrat meme, Right: Republican meme*

[1] "Oh so you're a Republican? Tell me more about how people who can't afford healthcare should just die." Image, 2017. Accessed February 23, 2017. http://creatememe.chucklesnetwork.com/memes/52989/oh-so-youre-a-republican-tell-me-more-about-how-people-who-cant/

Figure 3. *Conceited*/Climate Change

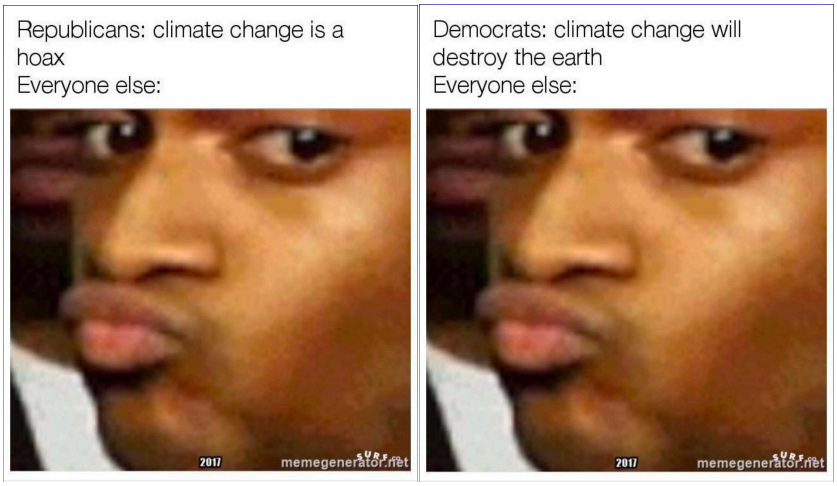


Figure 3: *Left: Democrat meme, Right: Republican meme*

Exit Survey

The exit survey served as the final component of the experiment. The first half of the exit survey assessed political beliefs and involvement. In the initial survey, participants were able to affiliate only as either a Democrat or Republican. To achieve a more accurate understanding of participant beliefs, participants were once again asked to describe their political affiliation. However, a greater variety of political parties and an ideological spectrum were provided. These responses were to be used in later analysis to determine the accuracy of participant affiliations. Moreover, participants were asked to describe their level of political involvement. Research indicates that politically active individuals are often more polarized (Pew Research Center, 2014). The second half of the exit survey employed the GSS Trust, Help, and Fair survey

questions. These questions acted as a control for social capital in later stages of analysis.

IV. Results

As previously stated, 110 undergraduate students (apart from 1 graduate student, counted as a senior in later analysis) from Emory University participated in the study. As students were primarily recruited from introductory level economics classes, most participants were in either their first or second year of study. Male participants slightly exceeded female participants with 69 and 41 participants respectively. Subjects also primarily identified as Asian/Pacific Islander or White. It should be noted, however, that the variables year and race/ethnicity were found to have insignificant effects on contributions in both the trust game and public goods game. Of the 110 participants, only 23 affiliated with a party other than the Republican or Democratic parties. Of those 23, 17 identified as independents. In regression analysis, excluding individuals who did not identify with either the Republican or Democratic parties did not produce any notable changes to the results.

Due to the political nature of this experiment, we start by examining the distribution of political parties among participants. We find that party representation is heavily lopsided in favor of the Democratic Party (Table 1). Given the sample population of college students, the uneven distribution of the parties does not come unexpectedly. In the past decade, college students have shown a strong tendency to lean towards the Democratic Party (Hart Research Associates, 2012).

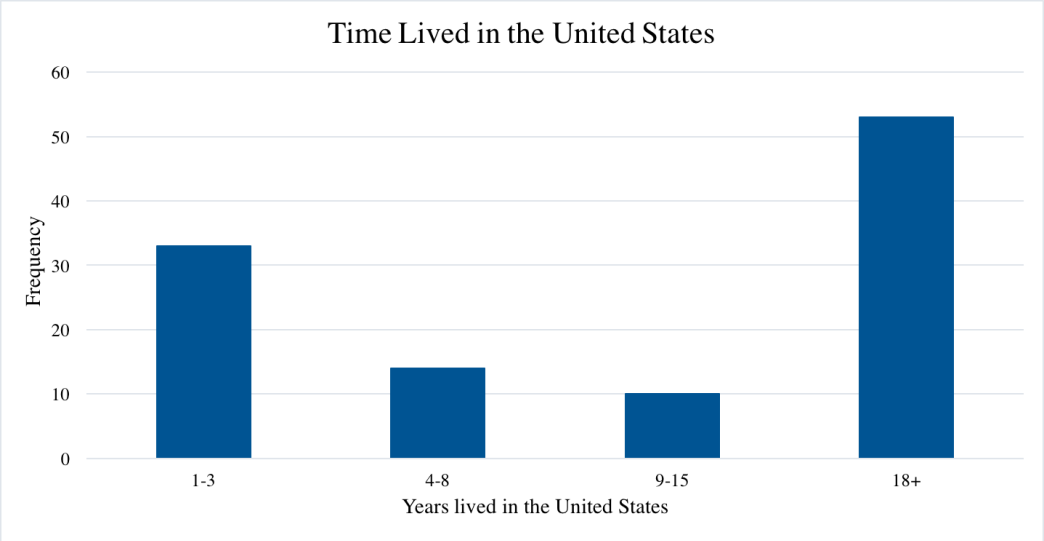
The disparity of political affiliation among participants hindered the diversity of groupings in later phases of the experiment and contributed to low numbers of opposing party pairs in the trust game. This is discussed more thoroughly in a later section.

Table 1: Party Distribution

Party	Frequency	Percentage
Democrat	80	72.73
Republican	30	27.27

Other interesting characteristics of the participant population include the amount of time individuals have lived within the United States. As this study focuses on political behavior within the American political system, the amount of time one has lived within the United States may be an indicator with how familiar one is with the American political system or the extent to which one identified with their selected party. The full distribution can be seen in Figure 4. Though the majority of participants have lived in the United States their entire lives (18+ years), there is a significant portion that have only lived in the United States for three or less years.

Figure 4. Frequency Distribution of Time Lived in the United States[2]



Public Goods

The public goods game was played a total of three times throughout the experiment. The first game acted as the control, with no participant information given. Within the control round, the mean contribution to the public good was $4.42. In the first treatment round, which included partisan information, the mean contribution to the public good was $3.36 (Table 2). While a two-tailed, paired t-test reports the difference between the control and first treatment rounds as significant (*t=1.98, p=0.05*), it should be noted that participants were also separated into groups of either same, mixed, or opposite parties in the second public goods game. Thus, the treatment effect depends upon which type of group each participant was placed into.

[2] Note: The category 18+ years corresponds to individuals who have lived their entire lives in the United States.

In the second treatment, which included both meme exposure and partisan information, the mean contribution to the public good was $3.83 (Table 2), a slight increase from the second treatment. The mean contribution to the public good in the second treatment was not significantly different from that of the control round (*t=1.41, p=0.16*) or that of the first treatment (*t=-0.92, p=0.36*) when analyzed through a two-tailed, paired t-test. However, the same restriction regarding party groupings still applies.

Table 2: Summary Statistics of Overall Public Good Contribution in the Public Goods Game

Treatment	Observations	Mean	Standard Deviation	Min	Max
Control	110	4.418	4.473	0	15
Treatment 1	110	3.361	4.095	0	15
Treatment 2	110	3.827	4.374	0	15

The first and second treatment rounds must be analyzed through the resulting party groupings. Participants listed under the same party group were paired with two members of the same party, while those under the mixed party groupings were paired with one member of the same party and one member of the opposite party. Finally, participants listed under the opposite party group were paired with two members of the opposite party. In both treatments, there is little difference between the means of the same party and mixed party individuals.

Table 3: Summary Statistics of Public Good Contributions in the First Treatment by Party Groupings

Group type	Participants	Mean	Standard Deviation	Min	Max
Same Party	33	3.333	3.997	0	15
Mixed Parties	51	3.451	3.568	0	15
Opposite Party	26	4.269	5.158	0	15

Table 4: Summary Statistics of Public Good Contribution in the Second Treatment by Party Groupings

Group type	Participants	Mean	Standard Deviation	Min	Max
Same Party	42	3.690	3.972	0	15
Mixed Parties	45	3.467	4.192	0	15
Opposite Party	23	4.783	5.385	0	15

Before conducting simple statistic tests for difference between treatments, these party groupings should be examined by party distribution as well. Given the small number of republican participants, the number of republican and democratic participants categorized in each group is heavily skewed (Figure 5, 6). Participants in same party groups and mixed party groups primarily identified as Democrats (with no Republicans at all in the same party group category in the first treatment). On the other hand, participants in opposite party groups, those with two partners of the opposite party, primarily identified as Republicans. This disparity should be taken into account when interpreting data.

***Figure 5**: Party Distribution in the First Treatment/Second Public Goods Game*

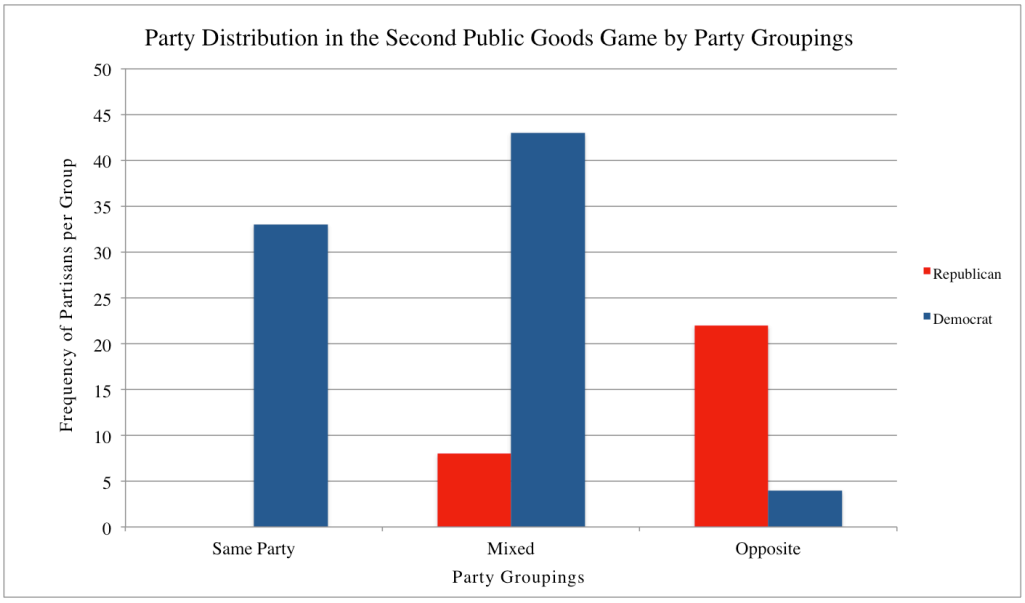
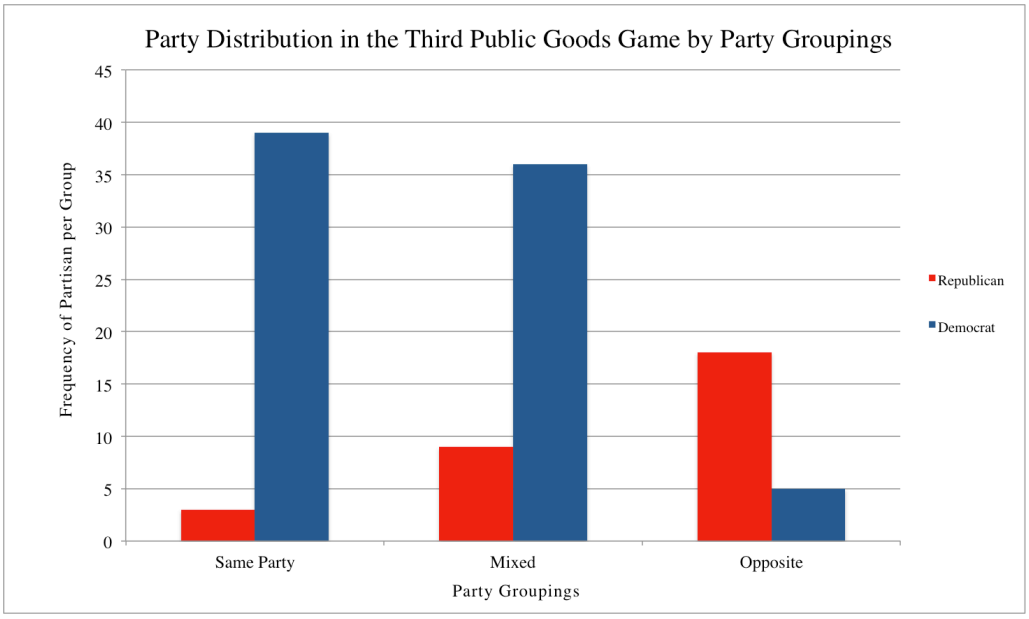


***Figure 6**: Party Distribution in the Second Treatment/Third Public Goods Game*



Two-tailed, paired t-tests were performed for differences in the contribution to the public good according to party grouping both between treatments and within treatments. Paired t-tests were chosen due to the experiment's within subject design. Overwhelmingly, these tests did not

report any significant differences in contributions to the public good between the first and second treatments for individuals within any type of party grouping (Table 5). However, it should be noted that each test only includes the contributions made by individuals who were placed into the relevant party grouping for both the first and second treatment, generally reducing the sample size for each party grouping. The results suggest that the meme exposure did not significantly affect contribution amount for any type of party grouping.

Table 5: Paired t-test Results between Mean Contributions to the Public Good by Party Grouping

Party Grouping	Observations	Mean by Treatment	Difference in Means	t-value	Pr(|T| > |t|)
Same Party	18	Treatment 1: 3.28 (0.896)	-0.778	-0.89	0.39
		Treatment 2: 4.06 (1.103)			
Mixed Parties	23	Treatment 1: 2.87 (0.657)	0.087	0.30	0.77
		Treatment 2: 2.78 (0.653)			
Opposite Party	14	Treatment 1: 4.36 (1.373)	0.357	0.81	0.43
		Treatment 2: 4 (1.350)			

Standard errors listed in parentheses

Independent, two-sample t-tests ran for differences in the mean contribution to the public good according to party grouping within each treatment failed to report any significant values as well, suggesting that the parties of an individual's partners did not condition contribution amount.

Ordinary Least Squares (OLS) linear regression analysis found that contribution to the public good did not significantly depend on the inclusion of partisan information or exposure to

political memes. In addition, demographic and social variables were not found to be significant in the OLS linear regression either. These findings confirm those of the paired and independent two-sample t-tests run for each treatment and party grouping.

OLS regressions were used to compute linear regressions for each type of party grouping within the first and second treatments. The type of party grouping an individual received was not a significant factor in the contribution to the public good in either treatment (Table 6). It should be noted that the regressions found in Table 6 do not account for additional demographic or behavioral variables.

Table 6: OLS Regressions on Public Good Contribution in Treatment 1 and 2 by Party Grouping

Variables	(1) pg2pubgood	(2) pg3pubgood
Same Party	--	-1.092
		(1.128)
Mixed Party	0.118	-1.316
	(0.920)	(1.124)
Opposite Party	0.936	--
	(1.079)	
Constant	3.33	4.783
	(.7166)	(0.914)
Observations	110	110
Adjusted R-Squared	-0.010	-0.005

Standard Errors in Parentheses
***p≤.01, **p≤.05. *p≤.10

To account for demographic and behavioral factors, an additional model (1) was run to control for political party, gender, time lived in the United States, race, religion, answers to the GSS Help, Trust, and Fair questions, and political engagement. Given the distribution of race within the experiment, only the two largest groups, individuals identifying as Asian/Pacific Islander and white, were included in the regression. The same is true for religious identification, those identifying as Christian and those who chose no religion were included in the regression model due to each group's respective size. Given the small sample size of additional ethnicity/race and religious categories, we did not feel as if a conclusive statement could be made regarding the regression results for these groups. The GSS Help, Trust, and Fair questions were compiled into an index to measure social capital, each question was recoded as to reflect either positive or negative answers and standardized. Political engagement also consisted of an index reflecting positive answers to the political engagement questions found in the exit survey. A full description of variables can be found in the Appendix(Table 13) . The model followed the following general pattern:

$$publicgoodcontribution = \beta_1 treatmentpartytype + \beta_2 democrat + \beta_3 male + \beta_4 ustime + \beta_5 white + \beta_6 asian/pacificislander + \beta_7 christian + \beta_8 noreligion + \beta_9 gss\_index + \beta_{10} pe\_index + \varepsilon \quad (1)$$[3]

[3] Note: this model will differ depending on the treatment and specific party grouping of interest

The model returned insignificant results for contributions to the public good in both treatments and the control round, although these results were not separated by same, mixed, or opposite party groupings. Overall, neither the party grouping nor following demographic or behavioral variables produced significant results.

Since the expected effect of each treatment is party-dependent, further analysis on the basis of party grouping is required. However, regression models run for specific party groupings within each treatment failed to return any significant results as well, both on the basis of party grouping type and the relevant individual demographic or behavioral variables. Though statistically insignificant, the coefficients corresponding to individuals in opposite party groupings were positive and approximately equal to one for both the first and second treatments. This is an interesting result, not only because it contradicts our hypothesis regarding opposite party groupings, but also because almost all same and mixed party groupings returned small, negative coefficients. While all variables returned insignificant p-values, the coefficients would suggest that being paired with two members of the opposite party would positively increase contributions to the public good, while being paired with at least one member of the same party would negatively impact contribution amounts.

Trust Game

The experiment included three trust games. The first corresponded to the control round, with no participant information given. The second trust game corresponded to the first treatment, the introduction of partisan information, while the third corresponded to the second treatment, meme exposure in addition to partisan information. To ensure that we capture only the effect of partisan information and meme exposure, our analysis will only include the decisions of first movers, or Player X. Player X did not view the amounts returned to them by Player Y at any time during the experiment, unless selected for the random payout. Factors affecting reciprocity are beyond the scope of this paper.

Summary statistics indicate a difference in the overall amount sent between the control and first treatment, with the mean amount sent to Player Y equaling $4.46 and $5.70 respectively (Table 7). This difference is significant by a two-tailed, paired t-test ($t=-2.38, p=0.02$). The second treatment indicated an increase in the amount sent in comparison to the control round, but a decrease in amount sent in comparison with the first treatment. While the difference between the control and second treatment was significant ($t=-1.34, p=0.058$), the difference between the first and second treatment was not ($t=0.05, p=0.957$). While the partisan information did seem to have a positive effect on the amount sent, meme exposure did not.

Table 7: Summary Statistics of Overall Contribution by Players X in the Trust Game

Treatment	Observations	Mean	Standard Deviation	Min	Max
Control	59	4.763	3.650	0	10
Treatment 1	59	5.695	3.710	0	10
Treatment 2	59	5.424	3.914	0	10

However, once again these differences must be examined through the lens of party pairing for a more accurate assessment of treatment effect. As seen in the public goods game, the distribution of party affiliation within each type of party pairing is highly skewed. In both the first and second treatment, the majority of individuals with same party partners are Democrats. In contrast, Republicans comprise the majority of individuals with opposite party partners in both treatments (Figure 7, 8), though the difference is less pronounced than within the public goods game.

***Figure 7**: Party Distribution in the First Treatment/Second Trust Game*

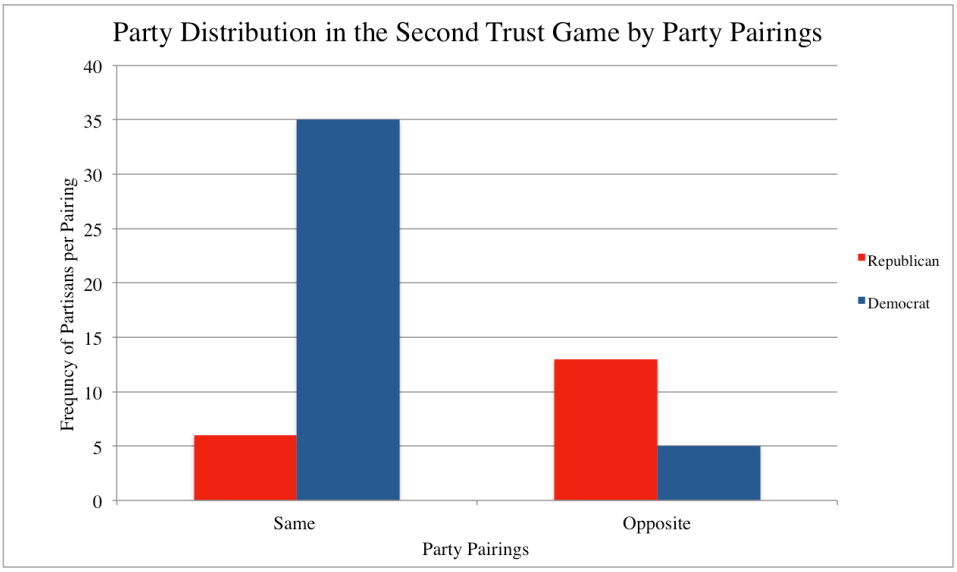
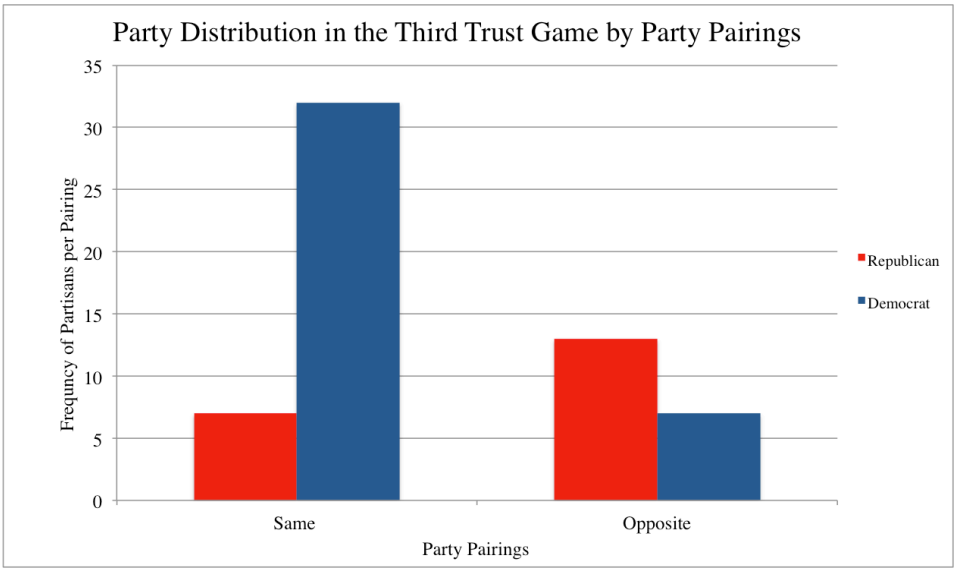


***Figure 8**: Party Distribution in the Second Treatment/Third Trust Game*



There did appear to be a significant difference in the amounts sent by same party partners and opposite party partners within the first treatment. Individuals with partners of the same party sent an average of $6.32, while those with partners of the opposite party sent an average of $4.28 (Table 8). A two-tailed t-test conducted between same party and opposite party pairings returned

a t-value of -1.99 and a p-value of 0.05. This would suggest that co-partisans do exhibit higher levels of trust than rival partisans.

Table 8: Summary Statistics of Player X Contributions in the Second Trust Game by Party Pairings

Partner	Observations	Mean	Standard Deviation	Min	Max
Same Party	41	6.317	3.684	0	10
Opposite Party	18	4.278	3.461	0	10

Table 9: Summary Statistics of Player X Contributions in the Third Trust Game by Party Pairings

Partner	Observations	Mean	Standard Deviation	Min	Max
Same Party	39	5.692	3.715	0	10
Opposite Party	20	4.900	4.327	0	10

The second treatment, however, returns different results. After meme exposure, those with same-party partners sent over an average of $5.69. Those with partners of the opposite party sent over an average of $4.90 (Table 9). A two-tailed t-test returns an insignificant result (*t=1.37, p=0.47*). While this difference is insignificant, the results of the second treatment suggest that meme exposure had the opposite effect as expected. Transfer amounts between co-partisans decline after meme-exposure, while those between rival partisans increase.

Upon further analysis, however, differences between the treatments are insignificant. A paired t-test returns insignificant differences between the average transfer amounts transferred by co-partisans (*t=0.91, p=0.37*) and rival partisans (*t=-1.44, p=0.18*) between each treatment

(Table 10). It should be noted that while the two-tailed p-value for rival partisans between the first and second treatments was not significant, the one-tailed value (H_0: *mean(diff) < 0*) did affirm significance (*p=0.09*).

Table 10: Between Treatment Differences in Amount Sent by Party Pairing

Party Pairing	Observations	Mean	Mean Difference	T-value	Pr(|T| > |t|)
Same Party	29	Treatment 1: 6.07 (0.703) Treatment 2: 5.72 (0.721)	0.345	0.91	0.37
Opposite Party	11	Treatment 1: 4.27(1.161) Treatment 2: 5.73 (1.013)	-1.455	-1.44	0.18

Standard errors listed in parentheses

OLS linear regression was also applied to examine the effects of party pairings alone for each treatment. As party pairing represents a binary variable equaling one if an individual's partner was of the same party and zero if otherwise, we only examine same party pairings in this analysis. Coefficients corresponding to opposite party pairings are the inverse of those for same party pairings. The full results are reported in the table below.

Table 11: Individual Regressions for Same Party Partners by Treatment

Variables	(1) t2amount	(2) t3amount
t2same	2.039*	--
	(1.023)	
t3same	--	0.7923
		(1.081)
Constant	4.278	4.9
	(0.853)	(0.879)
Observations	59	59
Adjusted R-Squared	0.049	-0.008

Standard Errors in Parentheses
***p≤.01, **p≤.05. *p≤.10

Trustors assigned a partner of the same party sent higher amounts to their partners than those who were assigned partners of the opposite party ($\beta_1=2.039, p=0.051$). However, this same effect is not seen for partners of the same party in the second treatment ($\beta_1=.7923, p=0.466$) (Table 11). Not only is the beta-coefficient in the second treatment more than 1 unit less than that of the first treatment, the effect is not significant. However, these regressions did not control for any additional variables.

A model similar to that run for the public goods game was included to determine the effect of party pairing controlling for political party, gender, time lived in the United States, race, religion, answers to the GSS Help, Trust, and Fair questions, and political engagement (2). Once again, the model only controls for participants identifying as white or Asian/Pacific Islander and

for those identifying as Christian or with having no religion. The GSS questions and political engagement were once again implemented as index variables. The following equation represents the model:

$$trustamount = \beta_1 treatmentpartytype + \beta_2 democrat + \beta_3 male + \beta_4 ustime + \beta_5 white + \beta_6 asian/pacificislander + \beta_7 christian + \beta_8 noreligion + \beta_9 gss\_index + \beta_{10} pe\_index + \varepsilon \quad (2)$$ [4]

Without taking type of party pairing into consideration, the model produced interesting results regarding gender, Christian, and Democrat identification on the proportion of endowment sent to Player Y. Men sent two dollars more than women in the control round ($\beta_3=2.00, p=0.037$). This result held, and even increased, in the model specified for the first treatment ($\beta_3=2.84, p=0.006$) and the second treatment ($\beta_3=2.23, p=0.048$). Christians ($\beta_7=2.42, p=0.05$) and those indicating higher levels of social capital through the GSS survey questions ($\beta_9 =0.44, p=0.06$) also sent higher amounts, though both effects became insignificant upon analysis of the first and second treatments. In the first treatment, Democrats also sent greater amounts than Republicans ($\beta_2=2.33, p=0.048$). However, in the control and second treatment, the coefficients

[4] Note: this model will differ depending on the treatment and specific party grouping of interest

corresponding to Democrat identification remained positive and equal to a value greater than one, but were statistically insignificant.

Same party identification did not produce a significant effect in the first treatment. Though the model reported a relatively large and positive beta-coefficient ($\beta_1=1.73$), the corresponding p-value failed to be significant at the 10% level ($p=0.185$). Once again, men sent more money to their partners than women ($\beta_3=2.58, p=0.012$). No other variables were found to significant at or below the 10% level.

Once again, same party identification was not a significant factor in the amount transferred Player Y in the second treatment. However, the corresponding beta-coefficient dropped significantly between the first and second treatments. In the second treatment, $\beta_1=0.59$ with a reported p-value of 0.675. While this effect is not significant, it does correspond to the findings of the t-tests and, to a certain extent, the findings of the public goods game. The results suggest that after meme exposure, participants with opposite party partners trust those partners more. However, once again, it should be noted that only a small number of individuals were placed into opposite party pairings and were comprised mostly of republican participants. No other variables were found to produce significant effects, with the exception of men who, once again, were found to send more money to their partners than women ($\beta_3=2.31, p=0.046$). This finding is common and discussed further in the Discussion. Results from the regression on

amounts sent from both the first and second treatment according to same party pairings can be found in Table 12.

Table 12: Regressions on Amount Sent in the First and Second Treatment by Same Party Pairings

Variables	(1) t2amount	(2) t3amount
t2same	1.731	--
	(1.287)	
t3same	--	0.593
		(1.405)
democrat	1.178	0.974
	(0.987)	(1.471)
male	2.584**	2.306**
	(0.987)	(1.126)
ustime	0.096	0.267
	(0.479)	(0.540)
white	0.682	0.340
	(1.718)	(1.931)
asian/pacific islander	1.099	0.486
	(1.432)	(1.603)
christian	-0.306	0.968
	(1.249)	(1.415)
noreligion	-0.306	0.585
	(1.500)	(1.617)
gss_index	0.409	0.240
	(0.249)	(0.286)
pe_index	-0.040	-0.040
	(0.356)	(0.405)
Constant	1.506	1.455
	(2.624)	(2.986)
Observations	59	59
Adjusted R-Squared	0.0969	-0.0501

Standard Errors in Parentheses
***p≤.01, **p≤.05. *p≤.10

V. Discussion

The results of the public goods game and trust game did not yield conclusive results regarding the inclusion of partisan information and meme exposure. While trust game analysis did provide some evidence for higher trust levels among co-partisans, we cannot give a conclusive statement as to its effect given the current data. There also appeared to be evidence that exposure to politically focused memes encouraged cooperation and trust between rival partisans, while breaking down that of co-partisans. However, this evidence was inconclusive as well. Ultimately, we recommend further research into both the topics of partisan information and meme exposure.

Though the trust game appeared to have promising results, the public goods game did not produce significant effects for either treatment or the included demographic and behavioral variables. One possible reason for this result is that participants did not understand the underlying incentives involved in the public goods game. Given the available time and logistical procedures within the experiment, rounds were completed at a fast pace. However, subjects were provided examples and given time to ask questions before each round. Furthermore, if this should be the case, we would expect participants to contribute higher levels of the public good in the later rounds of the experiment after they have had a chance to become familiar with the

game. However, the mean contribution to the public good across treatments confirms that this is not the case.

Additionally, the incentives themselves may have encouraged participants to contribute predominantly to the private good, rather than the public good. As written, the highest possible payoff for an individual was only possible when that individual invested solely in the private good, but other group members contributed only to the public good. However, this attribute of the payoff structure is also present in the public goods game conducted by Andreoni (1988).

While the trust game did appear to provide some evidence that co-partisans did exhibit higher levels of trust, no definitive statement can be made about the inclusion of partisan information in this study. This result does not agree with the findings of Carlin & Love (2013) or Martini & Torcal (2016), which both found large trust gaps indicating significantly higher levels of trust between co-partisans. Given the proportion of students who have lived in the United States for only a short period of time (30%) and the low number of students who considered themselves politically involved, it could be that partisan groupings had little meaning for many of the participants. Thus, while even the creation of arbitrary groups should result in-group bias and out-group discrimination (Tajfel, 1970; Tajfel, 1971), perhaps the effect was not large enough to produce the same magnitude seen in the studies conducted by Carlin & Love or Martini & Torcal. While students were given the option of taking the Pew Research Center

political affiliation quiz, thus determining the party that aligned most closely with their views, it is unclear how many students took advantage of this option. If implemented in future research, data should be collected on the completion of the political affiliation quiz.

Though the trust game did not return significant results regarding partisan information and meme exposure, men consistently sent greater amounts to their partners than women. This is in-line with existing literature that has found that men are likely to exhibit higher levels of trust than women (Buchanan, Croson, & Solnick, 2008; Innocenti & Pazienza, 2006).

One interesting observation seen in the data is that meme exposure may have the opposite effect as expected. The mean amount sent to Player Y increased for opposite party pairings in the second treatment, while that of same party pairings decreased. Though inconclusive, this would suggest that meme exposure negatively affected co-partisan trust while positively affecting rival partisan trust. This effect is even seen, to some extent, in the public goods game.

This result could stem from the party distributions within opposite party groups or pairs. Opposite party groups in both games and treatments were comprised primarily of republican participants. Given the within subject design of the experiment, it is likely that participants had a vague idea of the goal of the study. If this is true and republican participants felt they were in the minority, as is expected on college campuses, republican participants may have “over contributed” to avoid casting a negative light onto their party. Previous research among

stigmatized and minority groups does support the hypothesis that when a negative stereotype about an individual's group in made salient, a coping mechanism may be to compensate, or act in such a way as to counteract the stereotype (Miller & Kaiser, 2001; Olatunji, Tomarken, & Zhao, 2014). This may be especially pertinent given the political climate following the 2016 election. However, it should be noted that negative stereotypes about each political party were not directly presented to the party's own members.

Following a between subject design with only one treatment implemented at a time may help to correct for such behavior, if present, and control for order effects in future research. This study did not implement such a design due to certain logistical constraints. However, since it is possible that subjects could surmise the purpose of the experiment after partaking in all three rounds and both games, limiting participants to one treatment and game could serve to obscure the purpose of the study and capture more candid behavior.

While Internet memes in-and-of-themselves may have no effect on partisanship, it is also possible that an individual must be exposed to many memes over time before any effect takes place. In consideration of social media's propensity to act as an echo chamber, long exposure to Internet memes shared by like-minded friends may shape the way an individual thinks about and embodies their partisan identity. However, this effect occurs in conjunction based upon a host of other content shared on social media by friends of the same ideology, rather than through memes

alone. Though this study could not provide a definitive answer on the effect of Internet memes on partisan identity and behavior towards co- and rival partisans, further research should occur before dismissing the power memes may have on the way individuals perceive partisanship and interact with members from both the same and opposite sides of the aisle.

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I. Appendix

Table 13: Description of Variables

Variable	Description
pgg1publicgood	The amount contributed to the public good in the control, or no treatment round. Minimum=0, Maximum=15
pgg2publicgood	The amount contributed to the public good in the first treatment. Minimum=0, Maximum=15
pgg3publicgood	The amount contributed to the public good in the second treatment. Minimum=0, Maximum=15
t1amount	The amount of the endowment sent to Player Y by Player X in the control, or no treatment round. Minimum=0, Maximum=10
t2amount	The amount of the endowment sent to Player Y by Player X in the first treatment. Minimum=0, Maximum=10
t3amount	The amount of the endowment sent to Player Y by Player X in the second treatment. Minimum=0, Maximum=10
pgg2same	Dummy variable representing party grouping in the second public goods game or first treatment. 1=same party, 0=otherwise
pgg2mixed	Dummy variable representing party grouping in the second public goods game or first treatment. 1=mixed party, 0=otherwise
pgg2opposite	Dummy variable representing party grouping in the second public goods game or first treatment. 1=opposite party, 0=otherwise
pgg3same	Dummy variable representing party grouping in the third public goods game or second treatment. 1=same party, 0=otherwise
pgg3mixed	Dummy variable representing party grouping in the third public goods game or second treatment.

	1=mixed party, 0=otherwise
pgg3opposite	Dummy variable representing party grouping in the third public goods game or second treatment. 1=opposite party, 0=otherwise
t2same	Dummy variable representing pairing type in the second trust game or first treatment. 1=same party partner 0=opposite party partner
t3same	Dummy variable representing pairing type in the second trust game or first treatment. 1=same party partner 0=opposite party partner
democrat	Dummy variable representing party affiliation 1=Democrat 0=Republican
male	Dummy variable representing gender 1=male 0=female
ustime	Categorical variable representing the amount of time lived in the United States 1=1-3 years 2=4-8 years 3=9-15 years 4=Life
white	Dummy variable representing individual identifying as white 1=white 0=other
asian/pacificislander	Dummy variable representing individual identifying as Asian or Pacific Islander 1=Asian/Pacific Islander 0=other
christian	Dummy variable representing Christian individuals 1=Christian 0=other

noreligion	Dummy variable representing individuals who chose the "no religion" option on the exit survey 1=no religion 0=other
GSS_index	An index holding answers to the GSS trust, help, and fairness questions 1. Do you think that most people would try to take advantage of you if they got a chance, or would they try to be fair? 1= would try to be fair 0= would take advantage of you 2. Would you say that most of the time people try to be helpful, or that they are mostly just looking out for themselves? 1=try to be helpful 0=just look out for themselves 3. Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people? 1=most people can be trusted 0=can't be too careful
pe_index	An index holding answers to survey questions gauging political involvement/knowledge 1.Do you consider yourself to be politically engaged? 1=Yes 0=No 2. Do you consider yourself to be interested in politics? 1=Yes 0=No 3. Do you often keep up with current events? 1=Yes 0=No 4. Have you ever participated in a political event (campaign volunteer, political rally, protest, etc.)

	1=Yes 0=No