The Dual Role of Nationality and Political Identity in Cooperation

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Abstract

Although several studies have investigated the role of social identity in economics, few have examined how multiple facets of identity reinforce, or alternatively, undermine, in-group biases and out-group discrimination. This study contributes to the sparse literature on this question by investigating whether sharing a common American nationality can overcome partisan discrimination against members of the political out-group. I randomize 57 American participants into one of two treatment arms: a priming treatment that attempts to increase the salience of their national identity by asking them to reflect upon their country and its culture, and a baseline treatment inquiring about their favorite TV shows that serves as a control. After the treatment, all participants play a standard stag hunt game against six hypothetical opponents: two American, two Brits, and two Frenchmen/women, each of whom is identified as either a Republican or Democrat. The participants are then paired off and awarded points based on their actual choices in the study. I find that my participants frequently demonstrate a strong preference for their co-partisans, regardless of nationality; the priming treatment does not appear to affect this pattern. I also observe that partisan discrimination seems to be driven mostly by statistical discrimination rather than a distaste for members of the opposite party, although the latter plays a small role as well.

1 Introduction

In recent years, empirical research on the role of social identity—one's self-perception due to apparent membership in a social group—has begun to flourish in economics (Li 2020). Though social psychologists Tajfel and Turner were the first to propose that individuals modify their behavior towards others based on whether they share the same social identity (Tajfel and Turner 1979), Akerlof and Kranton's (2000) seminal paper introduced this concept into microeconomic models. Psychologists and economists have repeatedly demonstrated the power of social identity bias, finding individuals favor members of the "in-group"—that is, those perceived to belong to the same identity group—as well as discriminate against the "outgroup" (Li 2020).

However, in everyday life, unlike the laboratory, individuals possess multiple identities—race, gender, nationality, sexual orientation and many more—that may interact and influence individual behavior in multifaceted ways. This study attempts to build upon the burgeoning literature on this question by examining how sharing a common identity (nationality)[1] may diminish the in-group bias and out-group discrimination prompted by division along a partisan axis. Though many have examined various aspects of identity, few studies have investigated the complex interaction between multiple facets of identity. My study design randomizes 57 American participants into two treatment arms: one that attempts to increase the salience of their common American identity and another that serves as a baseline control. Specifically, the participants in the priming treatment are first asked to reflect upon the values that characterize the United States; I then show them a photograph related to an important moment in American World War II history, an event that frequently evokes patriotic emotions, and ask them to answer three questions on the text that accompanies the photograph.

All my subjects then participate in a standard stag hunt game against six hypothetical opponents—two fellow Americans, two Brits, and two Frenchmen/women, each of which is identified as either a Republican or Democrat (the two main political parties in the United States). The subjects face two choices: cooperate or defect. The game design results in two possible pure-strategy Nash equilibria—both defect or both cooperate; a perfectly rational player would thus arrive at his decision based on what he believes his opponent will do (defect if she defect, cooperate if she cooperates). I also ask my subjects to predict the choice—cooperation or defection—of each of their hypothetical opponents.

I observe that political affiliation appears much more salient than nationality; participants in my study frequently illustrate a strong preference for their co-partisans, but do not distinguish between American, French and British opponents when making their choices. This pattern persists even among those randomized into the priming treatment. Moreover, participants' choices to cooperate or defect appear to be mostly driven by their perceptions of the partisan identity to which their opponent belongs—also known as "statistical discrimination"—although a more general affinity for one's own identity group (or distaste for the out-group) appears to also play a role. However, participants only correctly predict their opponents' behavior half the time, suggesting their statistical discrimination may be rooted in

[1]For the purposes of this study, nationality should be understood as equivalent to citizenship. The two terms possess almost the exact same meaning in the American context.

partisan stereotypes or antipathy rather than accurate perceptions. Finally, although some previous work has reported the stronger tendency of left-wing participants to both trust and be trusted, my study finds no significant difference in the behavior of left- or right-wing participants, all else equal.

This paper is organized in the following way: Section II reviews the previous literature on this subject and Section III details my methodology, experimental procedure and sample statistics. I develop my theoretical framework and hypotheses in Section IV and finish by reporting and discussing my findings in Section V.

2 Literature Review

2.1 Minimal versus Real Identities

Experimental economists interested in social identity have considered two types of identities in the lab: "real" identities, naturally formed outside the lab, or "minimal" identities"—induced within the course of an experiment.

The latter, more commonly known as the minimal group paradigm, originates from social psychological research (Tajfel and Turner 1979). Experimenters directly induce an artificial (not formed prior to the experiment) group identity in the laboratory; subjects are either randomly assigned or are classified as members of a group based on seemingly incidental criteria that should not correspond with prior identities. One classic example of the latter criteria is the assignation of subjects to groups based on their preferences for either the paintings of Wassily Kandinsky or Paul Klee, early 20th century abstract artists who exhibit a similar style. In such cases, experimenters normally show five pairs of paintings, with each pair containing one painting by Kandinsky and the other by Klee, to their subjects, asking which they prefer; they are then sorted into either a Kandinsky or Klee group based on which artist's paintings they more frequently prefer.

Even this type of minimal categorization can trigger in-group favoritism and stronger group- (as opposed to individual) level efforts, particularly if exercises intended to reinforce a common group identity, such as working together to identify whether a painting was painted by Klee or Kandinsky, precede the categorization (Chen and Li 2009; Chen and Chen 2011; Chowdhury et al. 2016). However, such studies possess limited external validity, since these categorizations are inherently artificial and last only as long as the laboratory experience.

Many empirical studies have instead examined the role of real identities, including race, gender, nationality, political and organizational identities. Chen et al. (2014) found subjects that were previously primed with reminders of their ethnicity exhibited more effort when paired with co-ethnics in a series of minimum-effort games. In another study consisting of a group effort game in which individuals were financially rewarded based only on the amount of effort contributed by their group as a whole (rather than their individual effort), which should normally incentivize individuals to attempt to "free-ride" off the efforts of other group members, subjects who were informed they were placed in groups with individuals of the same race and faced groups whose members were a different race exhibited more effort than those not informed of this fact (Chowdhury et al. 2016). Even a shared organizational identity can impact altruistic tendencies; members of the University of Iowa band, who had formed

many of the ties considered essential to enhance one's self-perception of membership in a social group, contributed more in a standard public goods experiment (Solow and Kirkwood 2002). However, members of the same fraternity or sorority at the same university, who also frequently participate in activities that enhance their interpersonal ties, did not exhibit this same effect, perhaps due to the self-selection of more selfish individuals into those types of groups (Solow and Kirkwood 2002).

Similarly, augmenting the salience of an identity increases the probability that subjects will cooperate with members of the same organization (Kirkwood and Solow 2002) or university (McLeish and Oxoby 2011).

My study focuses on the combined impact of two previously studied salient identities: nationality (citizenship) and political identity. To the best of my knowledge, only one study has investigated nationality as an identity; Stoddard and Leibbrandt (2014) examined the impact of nationality in a stag hunt game, finding that salient national identities encouraged individuals to act more cooperatively towards fellow members of their country. As for political identity, several previous studies have examined the role it may play in economic models; Kranton et al. (2018) discovered college students on average seek to maximize the total income of and are averse to inequity in groups that share the same political identity. Dhami et al. (2019) found that registered members of British political parties playing the ultimatum game demonstrated more generosity towards fellow members of their party; they also noted that right-wing subjects tended to be less generous, all else equal, and receive less generous offers from others. In the American context, Hernandez-Lagos and Minor (2018) discovered the same results in a sample of Republicans and Democrats playing the trust game, further observing that these results seemed to be driven mostly by statistical discrimination against those of different political identities rather than a taste-based prejudice. A final study examining the role of political identity in behavior in a modified trust game similarly found partisan biases negatively impact the decision of individuals to trust their game partners (Carlin and Love 2013).

However, this route poses difficulties in avoiding bias resulting from endogeneity, as it relies on identities formed prior to their study within the lab environment. To overcome this challenge, Goette et al. (2006) cleverly exploit the randomness of the Swiss Army's platoon assignments to test how the formation of a new group identity impacts behavior in a prisoner's dilemma game, finding membership in the same platoon (the in-group) induces more cooperation and a higher willingness to enforce cooperative norms of behavior on others.

2.2 Experimental Games

Research examining the role of identity in economics usually relies on economic games to uncover bias and discrimination, including the Prisoner's Dilemma (Goette et al. 2006; Ravetti et al. 2019), the trust game (Villeval and Suchon 2019; Hernandez-Lagos and Minor 2018), the dictator game (Chen and Li 2009), public goods games (Solow and Kirkwood 2002; Chowdhury et al. 2016), minimum-effort games (Chen et al. 2014) and the ultimatum game (Dhami et al. 2019; McLeish and Oxoby 2011). Because I sought to examine whether increasing the saliency of a common identity can increase the probability that individuals from different partisan backgrounds will cooperate, I instead used the stag hunt game, a type of coordination game in which the best outcome is mutual cooperation. Despite its

frequent occurrence in other behavioral economics studies (Charness, 2000b; Girtz et al. 2017), the stag hunt game has appears in only one study on identity, to the best of my knowledge—Stoddard and Leibbrandt's work on the role of nationality as a coordination device (2014).

2.3 Diversity and Multiple Identities

Diversity, in all senses, has been shown to enhance organizational efficiency—improving performance, creativity and innovation (Van der Zee and Paulus 2008) and problem-solving abilities (Hong and Page 2001) as well as equipping members of the organization to anticipate and better handle conflict when it arises (Mannix and Neale 2005). However, managing diversity can be extremely difficult; it may trigger group biases that cause discord (Pelled et al. 1999; Hargreaves Heap and Zizzo 2009). One technique adopted to improve trust and decrease conflict is to highlight shared characteristics—including common membership in a group. Through increasing the salience of a commonly shared identity, researchers have found that individuals will act more altruistically and put forth more effort in strategic and minimum-effort games to benefit fellow group members (McLeish and Oxoby 2011; Chen and Chen 2011). Chen and Chen (2011) found that even a minimal group identity created by the researchers could be made salient enough to induce this same effect.

However, individuals do not possess one single identity, but rather, many, which can shift over time. Social identity theory arises from the assumption that an individual is not solely categorized by a single self, but rather many "selves" that "correspond to overlapping circles of group identities" (Attanasi et al. 2016).

Consider a young white Christian American male from a working-class background; his income, religion and age (and perhaps even his nationality) may change over time, but he will always remain white and male. Further, which of these identities feels the most salient at any given time may depend on the situation or circumstances in which he finds himself; when abroad and surrounded by non-Americans, he may be more keenly aware of his nationality, whereas he might note his sex more acutely if he is the only man in the room. And how would he respond if these identities come into conflict?

This study expands upon a nascent field in the literature of economics and identity by investigating whether a shared identity can be made salient enough to diminish the impact of partisan out-group discrimination. Though various individual facets of identity have been studied both in and outside the laboratory, only a few studies have examined how multiple identities might reinforce or, alternatively, undermine, the individual impact of each one. When Ravetti et al. (2019) investigated how union membership among South African mineworkers might impact behavior in the dictator game, they found membership appeared to encourage worker solidarity with both other union and even non-union members; ethnicity, on the other hand, induced discrimination even amongst the same ethnic group. Hong et al. (2017) distinguished between "horizontal" (a group identity that does not assign an explicit hierarchical social status, such as gender or religion) and "vertical" (group identities with explicit social stratification, such as income) identities, finding that participants more strongly favored those who shared both vertical and horizontal identity attributes than those who shared one or neither of these attributes. In-group favoritism and out-group bias appeared regardless of whether the identity in question was horizontal or vertical. Finally,

Villeval and Suchon (2019) observe that subjects who have been "promoted" to a higher social status trust their lower-status in-group less than those who had not achieved such a promotion.

My study is most similar to Chen et al. (2014), which found that when subjects were primed to think about membership in a common group (in this case, the university they had chosen to attend) with subjects of different races, they became more cooperative in minimum-effort games; ethnic priming, on the other hand, reduced the effort the subjects put forth (Chen et al., 2014). I build upon this study by expanding the research to the intersection of nationality and political affiliation, both of which have been studied separately but never in conjunction, using a stag hunt game to study coordination and cooperation rather than a prisoner's dilemma or minimum-effort game as in Chen et al. Further, unlike Chen et al., I also examine the extent to which my participants' decisions are driven by beliefs about the expected behavior of social groups (statistical discrimination) versus feelings of antipathy towards the opposite social group. Finally, I investigate which of the two social identities proves the most salient.

3 Experimental Design and Procedures

Though I originally intended to conduct this study in the laboratory of *Groupe d'Analyse et de Théorie Economique* (GATE-Lab), drawing upon their pool of subjects, I was unable to continue with this plan due to the COVID-19 pandemic, which forced both the laboratory and the universities from which the subject pool was drawn to close down in mid-March. I modified my study, including the research question and methodology, to allow it to be performed remotely. I thus employed a convenience sample of participants instead. Professors Mark Witte of Northwestern University and Krista Saral of the University of North Carolina at Charlotte invited their students to participate in the study. I also relied on personal connections to several individuals, including current and former members of the Northwestern University College Republicans (NUCR), to provide the rest of my sample. At my request, the current president of NUCR sent out a newsletter via email that included a link to the study to the members of the organization. The survey was implemented using Qualtrics and analyzed with R.

3.1 Demographics

3.1.1 Design

I first requested demographic data from the participant, including gender, race, whether a participant was Hispanic or Latino, age, household income range (including parents if parents provided more than half their support), weekly expenditures (not including rent, mortgage, educational fees and work expenses) and highest educational degree obtained. Each subject could answer "Prefer Not to Respond" to any of the above questions. I also requested their nationality as well as the country in which they spent the majority of the last five years, including options for France, the United Kingdom, the United States, and "Other." I excluded from my study all subjects who were not Americans who had not spent the last five years in the United States As I wanted to examine whether reminding subjects of their

membership in a common group (in this case, nationality) could overcome salient political divisions, I had to ensure that all my subjects were not only American themselves, but were more closely connected to American politics than those of any other country. However, I did not specify any requirements about nationality ex ante because I did not want my control treatment subjects to be reminded of their identity as Americans, as this reminder might have canceled out some of the impact of the priming treatment.

3.1.2 Sample Characteristics

Table 1: Sample Characteristics

	Characteristic	Count	Share of Sample
Race	White or Caucasian	29	50.9%
	Asian	16	28.1%
	Black or African-American	4	7.0%
	Mixed Race/Other	8	14.0%
Hispanic/Latino	Yes	6	10.5%
	No	51	89.5%
Sex	Male	28	49.1%
	Female	29	50.9%
Age	$18-20$	18	31.6%
	$21-23$	22	38.6%
	$24-26$	14	24.6%
	$28-53$	3	5.3%
Level of Education	High school diploma or equivalent	24	42.1%
	Undergraduate degree	26	45.6%
	Post-graduate degree	7	12.3%
Household Income	$10,001-50,000	10	17.5%
	$50,001-100,000	16	28.1%
	$100,101-$250,000	16	28.1%
	$250,000 or more	13	22.8%
	Prefer not to Answer	2	3.5%
Weekly Expenditures	Less than $100	28	49.1%
	$101-200	22	38.6%
	$201 or more	7	12.3%

Table 1 shows the distribution of the demographic characteristics collected. My sample overrepresents Asians, while Caucasians and African-Americans are underrepresented rel-

ative to their proportions in the greater American population, perhaps reflecting the fact that the majority of the respondents are current or former students at Northwestern University and the University of North Carolina at Charlotte.[2] The large proportion of students most likely also explains the discrepancy between the high incomes and relatively low weekly expenditures (which excluded rent, mortgage, educational or work expenses)—most Northwestern students disproportionately come from high-income backgrounds (79% of subjects in the sample have household incomes above $50,000, even though the median American household income is $61,937, according to the Census Bureau), but students, even those from wealthy backgrounds, rarely spend much on non-educational expenses (Edwards and Rothbaum 2019). Similarly, the sample was also disproportionately young and well-educated.

3.2 Political Affiliation and Patriotism

3.2.1 Political Affiliation Design

Although two political parties overwhelmingly dominate the electoral process in the United States, Americans' political views span a much wider range. Although many Americans classify themselves as Independent rather than either Republican or Democratic, they usually vote for one party or the other (Drutman 2019). However, self-categorization as an Independent rather than a Democrat or Republican, even if one clearly prefers one party, may indicate weaker group identity. Kranton et al. (2018) found that while self-identified Democrats exhibited in-group bias, Democratic-leaning independents did not. Thus, to both ensure the robustness of my results and categorize all my participants as a member of one of the two major parties, I designed several questions intended to uncover which political party was favored by each participant. Because I did not want to decrease the already small size of the sample, I did not exclude self-classified Independents, which comprised a large portion of the sample.

I first asked how they would classify their political affiliation: Republican, Democratic, Independent, or Other. The participants were then asked which party's candidates they would vote for if the elections for Congress were held today. I restricted these answers to Republican or Democratic to discern which party they favored between the two; furthermore, as these two parties dominate elections, comprising all but three of the 535 members of Congress, this accurately reflects the effective choice between the Republican or Democratic parties that most Americans face when they vote. They were classified as Republican or Democrat based on the party they preferred; this served as my second political affiliation measure.

I also asked my subjects to indicate the extent to which they agreed with the goals of the Republican and Democratic parties, using a slider that ranged from 0 to 100, where 0 meant "Strongly Agree" and 0 "Strongly Disagree." This allowed me to calculate a third measure of political affiliation, in which each participant was classified as either a Republican or Democrat based on which party's goals they agreed with more. If respondents agreed with both party's goals equally, then they were classified as Republican or Democrat based on

[2]Northwestern's Class of 2023 is 13% Hispanic/Latino, 23% Asian-American, 10.2% African American, 54% White, and 11% International ("Northwestern Undergraduate Admissions: Diversity"). UNC Charlotte is 33% non-white students ("UNC Charlotte: Diversity").

their answer to the Congressional election question.

Finally, to fully capture the nuances of individual political views, I included nine questions on political issues that effectively distinguish between the Republican and Democratic parties as well as between the centrist and more radical wings of each party. I used a slider to capture variation in and strength of opinion to divide out the various wings of the parties—for instance, a centrist Democrat might agree more than a Republican with the proposal that public four-year universities should be free, but less than a left-wing Democrat. After adjusting the scores for each of the five questions so that a higher score indicated more left-wing beliefs, I averaged them to arrive at a single score for each participant. My final political affiliation measure classified participants as Republicans if their score was below 50 and Democrats if above.

Each questions' answers were presented in a random order, as were the order of the questions in this section.

3.2.2 Patriotism Design

Because the prime could backfire in individuals inclined to dislike the United States, I included a series of questions intended to measure their level of patriotism, modified from Kosterman and Feschbach 1989. After adjusting the scores for each of the five questions so that a higher score indicated a higher propensity towards patriotism, I averaged them to arrive at a single score for each participant. The participants answered these questions at the end of the survey to ensure that this section did not bias responses during the cooperation game.

3.2.3 Sample

Table 2: Self-Identified Political Affiliation

Political Affiliation	Count	Share of Sample
Republican	7	12.3%
Democrat	32	56.1%
Independent	17	29.8%
Other	1	1.8%

Tables 2-4 display different measures of political affiliation of the respondents in my sample. Table 2 represents the self-identified political affiliation of students; however, nearly a third of the sample did not identify as either Republican or Democrat. I thus constructed three other measures (detailed in the previous sub-section) to classify each participant into one of the two parties: one based on which congressional party they would prefer to vote for, one constructed from the party whose goals they agree with more, and a final one created from their answers on the political questionnaire. Table 3 displays the distribution of these three measures.

Finally, I also classified my sample into Republicans, Republican-leaning Independents, Democratic-leaning Independents, and Democrats, as seen in Table 4. Self-identified Republicans and Democrats were classified as such, whereas self-identified Independents were identified as either Republican-leaning or Democratic-leaning based on which political party they indicated they would vote for.

Table 3: Different Measures of Political Affiliation

Measure	Political Affiliation	Count	Share of Sample
Congressional Election	Republican	12	21.1%
	Democrat	45	78.9%
Agree with Party Goals	Republican	12	21.1%
	Democrat	45	78.9%
Political Questionnaire	Republican	14	24.6%
	Democrat	43	75.4%

Table 4: Political Groups

Political Group	Count	Share of Sample
Republican	7	12.3%
Republican-leaning Independent	5	8.8%
Democratic-leaning Independent	13	22.8%
Democrat	32	56.1%

Unsurprisingly, most likely due to the large proportion of current university students who comprise the sample, Democrats are overrepresented. Although the measures of political affiliation constructed post-study result in a larger proportion of Republicans, Democrats and Democratic-leaning Independents still comprise three-quarters of the sample. This reflects an endemic problem in experiments that rely on university students—just under half (48%) of Kranton et al (2018)'s sample of Duke students[3] identified as Democrats and more than a third (39%) as Independents or Other, versus only 13% of the sample that identified as Republicans, strikingly similar to my sample. Efforts to recruit more Republicans were hampered due to the COVID-19 pandemic and limited time available to collect data.

Tables 5 and 6 summarize the questions used to classify two of the constructed political affiliation measures: the extent to which the participants agreed with each party's goals and the nine questions in the political questionnaire (both out of 100). In the latter, the scores were adjusted so that a higher score reflected more left-wing beliefs.

I have also included the average overall score on the political questionnaire as well as the on the patriotism questionnaire included as a control, where higher scores indicate more

[3]An university similar to Northwestern in terms of prestige, student background, and wealth

Table 5: Level of Agreement with Each Party's Goals

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Republican Party Goals	57	35.088	25.774	0	10	50	100
Democratic Party Goals	57	63.404	27.495	0	50	85	100

patriotic beliefs. These two measures show that while the members of my sample, unsurprisingly, demonstrated mostly left-wing political beliefs, they also exhibited a high degree of patriotism, with a mean score of 68 out of 100.

Table 6: Political and Patriotism Questionnaire Average Scores

Question	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Single-Payer Healthcare	57	55.018	36.222	0	20	85	100
Public Option	57	57.684	30.861	0	40	80	100
Free College	57	40.789	29.653	0	16	60	100
Decrease Military Spending	57	79.105	21.346	30	63	99	100
Photo ID Voting	57	54.614	34.816	0	26	91	100
Green New Deal	57	58.825	33.561	0	31	90	100
Carbon Tax	57	67.456	30.742	0	51	90	100
Gun Restrictions	57	75.684	33.372	0	60	100	100
Student Loans	57	38.842	30.395	0	10	65	100
Political Questionnaire Score	57	58.669	21.486	5	51	73	96
Patriotism Overall Score	57	67.568	17.632	24	61	78.6	97

3.3 Treatment: Priming American Identity

The design is based on two treatments, a priming treatment, in which I randomly exposed half of my subjects to an intervention intended to increase the salience of their common identity as Americans, and a baseline, or control, treatment. To create the priming treatment, I drew on the findings in Li's (2020) review of the previous research, which reported that joint experiences and a common fate aided in creating a salient group identity. I modeled this treatment after McLeish and Oxoby (2011) and Chen et al. (2014), who both found priming their subjects on certain facets of their identity changed their behavior in later ultimatum or minimum-effort games. McLeish and Oxoby instructed their subjects, all students at the same university, to spend 10 minutes writing on one of three topics: one intended to strengthen the salience of their shared identity as university students, one that attempted to boost their identities as distinct individuals, and a third one on an unrelated topic that served as a control. Chen et al. asked their subjects questions pertaining to their individual ethnic backgrounds, family history, and cultural heritage, including a short-answer portion.

This treatment began with three questions, presented in a randomized order: one asking the participants to select up to 11 positive values that "seem to fit with the culture of your country", one instructing the subjects to write a short paragraph (at least 200 characters) on the best aspects of "your country" and its culture, and one inquiring how often they took public transit in an average month, intended to obscure the true purpose of the study. Because I excluded any non-Americans after the demographic section, the country and culture in question was always the United States. The 11 values were presented in a randomized order.

The priming treatment participants were then instructed that they would be shown a well-known painting or photograph whose information they would be tested on, earning one point for every question they answered correctly. This incentive was intended to encourage them to pay careful attention to the material. They were shown the photograph *Raising the Flag on Iwo Jima*, along with text detailing the background behind the photo, then asked three questions about the photo on the following page (see appendix). This photograph was chosen due to its association with one of the proudest moments in American history—the country's participation in World War II, which proved integral to the Allies' victory in the war. I included the fact that three of the six Marines depicted in the photograph had later died in battle, using the wording "gave their lives for America" to remind my participants of the sacrifices previous Americans had made for the country and hopefully induce feelings of patriotism.

Figure 1: *Raising the Flag on Iwo Jima*

In the baseline treatment, I began with the same instructions as the priming treatment but included two questions about the participant's favorite TV shows in place of the priming treatment's questions about their country's culture. This arm of the treatment used the same question format as the priming treatment: the participants were asked to select up to 11 TV shows that they watched and write a paragraph about their favorite TV show and why they liked it. I also included the same question about public transit. The control participants were then shown Vincent Van Gogh's painting *Starry Night* with accompanying text and three questions on the following page on the content of the text (see appendix).

Figure 2: *Starry Night*

3.4 Stag Hunt Game

3.4.1 Design

To test the extent to which participants favored those with the same political affiliation and discriminated against those in a different political party, I relied on the stag hunt game, a cooperative game with two pure-strategy Nash equilibria: when both players cooperate or when both defect. The best outcome is for both to cooperate; the worst outcome for each subject is when he cooperates but his partner defects. Each subject received instructions modified from those in the Stag Hunt game in Stoddard and Leibbrandt (2014) and the Ultimatum Game in Dhami et al. (2019), along with the accompanying matrix:

The Other

		A	*B*
YOU	*A*	*You = 5* *Other = 5*	*You = 1* *Other = 4*
	B	*You =4* *Other = 1*	*You = 3* *Other = 3*

• *If you choose "A" and the other participant chooses "A" then both of you receive 5 points each.*

• *If you choose "A" and the other participant chooses "B" then you receive 1 point and the other participant receives 4 points.*

• *If you choose "B" and the other participant chooses "A" then you receive 4 points and the other participant receives 1 point.*

• *If you choose "B" and the other participant chooses "B" then both of you receive 3 points each.*

18 respondents received a version of the questionnaire with slightly incorrect instructions, although they saw the same matrix image presented above as the rest of the respondents.[4] I thus flagged these 18 respondents while analyzing the results. Importantly, this flag remained insignificant in all regressions tested, indicating that this mistake did not result in an incorrect understanding of the question and thus biased results.

These instructions were followed by two questions to test the respondent's comprehension of the reward matrix (see the appendix). If they chose the correct answers, they received a congratulatory message; if they answered at least one of the two questions wrong, the correct answer was displayed instead.

Each subject was then asked to indicate the choice they would make when faced with one of six potential opponents: a member of each political party and one of three nationalities (French, British, and American).[5] This method, known as the "strategy method," is frequently used in studies on identity in economics (Chen and Li 2009; Dhami et al. 2019; Hong et al. 2017).

They were also asked to predict which decision their partner in each game would make and informed that the correct answer would be rewarded with five points for accuracy. This question was intended to disentangle the effects of taste-based discrimination from statistical discrimination, as Hernandez-Lagos and Minor (2018) found that the behavior of participants in a trust game that revealed their opponents' partisan identities was driven more by beliefs about opponent trustworthiness (statistical discrimination) rather than an affinity or dislike for that particular political party (taste-based discrimination).

3.4.2 Stag Hunt Results

28 participants (49.1%) were randomized into the priming treatment, versus 29 (50.9%) in the baseline treatment. All but six (10.5%) of the participants correctly answered the two post-instruction questions intended to test each respondent's comprehension of the stag hunt game.

I also calculated the number of questions answered correctly during the treatment—the baseline treatment, where respondents were asked about the Vincent Van Gogh painting *Starry Night*, or the priming treatment, which required respondents to answer questions on the picture *Raising the Flag on Iwo Jima*. Table 7 demonstrates the distribution of these answers.

I performed a Mann-Whitney U test for each of the continuous variables (extent of agreement with the Republican Party as well as the Democratic Party, average overall score on the political questionnaire, and average overall score on the patriotism questions) to

[4]Specifically, although the matrix image was correct, the instructions that gave the number of points awarded when one person chose A and the other chose B were incorrect. These participants received the following incorrect set of instructions:

- If you choose "A" and the other participant chooses "B" then you receive 4 points and the other participant receives 1 point.
- If you choose "B" and the other participant chooses "A" then you receive 1 point and the other participant receives 4 points.

[5]American Republican, American Democrat, British Republican, British Democrat, French Republican, French Democrat

Table 7: Number of Treatment Questions Answered Correctly

Total Correct	Count	Share of Sample
1	7	12.3%
2	19	33.3%
3	31	54.4%

investigate whether the two independently selected samples (the participants in the baseline versus the priming treatment) demonstrate the same underlying distribution.

I also conducted Fisher's exact test to assess the same question regarding the categorical and binary variables I collected (sex, race, age, Hispanic/Latino, household income, weekly expenditures, level of education, political affiliation, Congressional election vote, and number of treatment questions answered correctly). I chose these tests as they do not assume a particular underlying distribution for the variables assessed, unlike the normal distribution assumed when performing the Student's t-test.

As the table below demonstrates, no significant differences were observed between the priming and the control treatment, indicating that the participants were successfully randomized between the two groups.

Table 8: Non-Parametric Descriptive Statistics

Fisher Exact Test			
Variable	P-Value	Variable	P-Value
Sex	1.00	Race	0.74
Age	0.98	Hispanic/Latino	0.42
Household Income	0.50	Weekly Expenditures	0.93
Level of Education	1.00	Political Affiliation	0.16
Congressional Election	0.53	# of Correct Answers	0.70
Mann-Whitney U Test			
Variable	P-Value	Variable	P-Value
Extent of Agreement with Goals of:			
Republican Party	0.92	Democratic Party	0.97
Average Overall Score on			
Political Questionnaire	0.48	Patriotism Questions	0.53

3.5 Points and Compensation

Each participant earned a certain number of points throughout the study, which translated into a certain number of entries into a lottery. The compensation system was explained immediately after the participant provided consent; to indicate interest in entering the lottery, the participants were asked to enter their email at the end of the study.

Participants could earn up to 14 points—up to three from the questions on the Van Gogh or World War II image, up to five from the stag hunt game, and the final five from correctly predicting their opponents' answers in the stag hunt game. Each participant also received a point for completing the study.

After I closed data collection, I paired up all 57 participants randomly and awarded points based on both participants' decisions in the stag hunt game. Because many participants identified as Independents, I relied on the Congressional election question to classify individuals' political parties when awarding points. As an uneven number of individuals participated in the study, one person was matched up twice, resulting in 29 pairs. I awarded 539 total points and thus 539 entries into my lottery; I then randomly drew three participants from this pot, who received $20, $15, and $10 Visa gift cards respectively.

Table 9 shows how the participants performed in the study. Subjects received 9.5 points (out of 14) on average, a strong performance. Unsurprisingly, the majority of pairs were Democrat-Democrat, while the rest were mostly mixed pairs, with only one Republican-Republican pair. Only half of the sample correctly predicted their opponents' choices in the second half of the stag hunt game, suggesting that their statistical discrimination may be partly driven by inaccurate stereotypes or antipathy for the other political party rather than accurate perceptions. The sample also performed strongly in the game itself, with 34 of 57 participants scoring either 4 or 5 (the maximum) points.

Table 9: Performance in Study

Stag Hunt Game	Performance	Count	Share of Sample
Predictions of Opponents' Choice	Incorrect	28	49.1%
	Correct	29	50.9%
Number of Points Won in Game	1	13	22.8%
	3	10	17.5%
	4	14	24.6%
	5	20	35.1%
Pairs Matched Up For the Game	Rep-Rep	1	3.45%
	Rep-Dem	10	34.48%
	Dem-Dem	18	62.07%

Overall Study Performance	Mean	Standard Deviation
Total Points Earned	9.456	3.665

3.6 Power Analysis

I also conducted a post-hoc power analysis with Cohen's f^2, a measure of local effect size (the effect size of a single variable in a multivariate linear regression). I set f^2 equal to 0.02, 0.15, and 0.35 to represent small, medium, and large effects, respectively, as suggested by Cohen (1988), finding they yielded a power of 0.18, 0.82, and 0.99 respectively.[6] This result implies that while most medium- and large effect sizes will be detected by multivariate regression, the sample is not large enough to identify many small but true effects.

4 Theoretical Framework and Hypotheses

Player A and Player B are playing the stag hunt game. All Player A knows about B is his nationality and political affiliation, either of which may differ from her own. Player A thus views Player B's identity in relation to her own in the following way:

	Nationality of Player A (in relation to Player B)	
Political Affiliation of Player A	Same, Same (s,s)	Same, Different (s,d)
	Different, Same (d,s)	Different, Different (d,d)

Following Hernandez-Lagos and Minor (2018), I assume Player A is risk-neutral and aims to maximize her utility. She does not take efficiency concerns or inequality aversion into account. She chooses her course of action based on two variables: her feelings towards the members of the identity group(s) that Player B belongs to (or "taste for discrimination", as in Fershtman and Gneezy 2001), represented by $\alpha(I)$, and her perceptions about the behavior of the social identity groups to which Player B belongs, or "statistical discrimination." This is denoted by p, Player A's expected probability that a member of Player B's identity group will choose to cooperate.

We begin by assuming Player A's utility is as follows:

$$U_A(\pi_A, \pi_B) = \pi_A + \alpha(I) * \pi_B \tag{1}$$

where π_A is Player A's payoff (number of points won), π_B is Player B's payoff, and $\alpha(I)$ (taste-based discrimination) is the weight that Player A places on Player B's payoff. *I =[(s,s); (s,d); (d,s); (d,d)]* as above. If $\alpha(I)$ ¡ 0, then Player A dislikes or loathes Player B to the extent that her utility is negatively impacted by his positive payoff; if $\alpha(I) > 1$, then Player A values Player B's payoff more than her own. As Player B can only be identified by his political affiliation and nationality, the value of $\alpha(I)$ represents Player A's feelings towards any member of that group.

Player A faces two choices in the stag hunt game: to cooperate or defect. Her payoff depends on Player B's decision, although she does not know what he will decide. The stag

[6] In other words, a study investigating a true and small, medium, or large effect will correctly reject the null hypothesis 18, 82 and 99% of the time, respectively.

hunt game has two Nash equilibrium: both cooperate or both defect. If Player A simply wants to maximize her own payoff, she should cooperate if she thinks Player B will do so, while she should defect if she believes he will defect. However, Player A's beliefs about Player B's actions will be her expectations about how a member of his social group should behave—an example of statistical discrimination. Thus, assuming risk neutrality, Player A's expected utility of cooperating is:

$$5p + \alpha(I)p5 + (1-p) + (1-p)\alpha(I)4 + \epsilon_c \tag{2}$$

where $0 \leq p \leq 1$ represents Player A's beliefs that Player B will choose to cooperate and ϵ_c denotes other random elements that determine the decision to cooperate. $5p + \alpha(I)p5$ represents Player A's expected utility if Player B cooperates; $5p$ equals the probability that Player B will cooperate multiplied by Player A's payoff if both cooperate, whereas $\alpha(I)p5$ equals Player B's expected payoff multiplied by Player A's weight on said payoff.

Similarly, $(1-p) + (1-p)\alpha(I)4$ denotes Player A's expected utility if Player B defects; $(1-p)$ is equal to the probability that Player B defects multiplied by Player A's payoff if she cooperates but Player B defects (payoff = 1), while $(1-p)\alpha(I)4$ equals Player B's expected payoff in this case multiplied by α(I), Player A's weight on B's payoff.

Similarly, Player A's expected utility of defecting is:

$$4p + \alpha(I)p + (1-p)3 + (1-p)\alpha(I)3 + \epsilon_d \tag{3}$$

where ϵ_d represents other random elements that determine the decision to defect.

Thus, Player A will choose to cooperate if:

$$\begin{aligned} 5p + \alpha(I)p5 + (1-p) + (1-p)\alpha(I)4 + \epsilon_c \geq \\ 4p + \alpha(I)p + (1-p)3 + (1-p)\alpha(I)3 + \epsilon_d \end{aligned} \tag{4}$$

This is equivalent to:

$$p + 4\alpha(I)p - 2(1-p) + (1-p)\alpha(I) + (\epsilon_c - \epsilon_d) \geq 0 \rightarrow \tag{5}$$

$$3p + 3\alpha(I)p + \alpha(I) + \epsilon \geq 0 \tag{6}$$

where ϵ = (ϵ_c - ϵ_d). Though I do not directly elicit p or $\alpha(I)$, I do ask my subjects if they believe their opponent will cooperate or defect, thus eliciting whether $p \geq 0.5$. Let $\mathbf{a = 1}$ if $p \geq 0.5$ for Player A (when facing Player B) and $\mathbf{a = 0}$ otherwise. As p increases, a will as well.

This model demonstrates that an increase in either $\alpha(I)$ (indicating a more positive affinity for one's opponent) or p will induce a greater probability of cooperation from the player. Thus, I examine these two variables in my hypotheses and results.

***Hypothesis 1*: The probability that a = 1 will be higher when facing left-wing (more Democratic) players than right-wing (more Republican) ones, all else equal.**

Thus, p—and therefore the probability of cooperation—will increase for left-wing relative to right-wing opponents. This conjecture is justified by Dhami et al.'s (2019) findings that left-wing respondents received more generous offers in an ultimatum game played amongst members of British political parties. Similarly, Hernandez-Lagos and Minor (2018) found that Democrats and Republicans alike were more likely to trust Democrats than Republicans, on average, in the simplified trust game they ran.

***Hypothesis 2*: The priming treatment should increase $\alpha(I)$ when facing fellow Americans relative to the control treatment, thus increasing the probability the subject will cooperate with his opponent regardless of political party.**

As Li (2020) found, priming subjects increases the salience of one particular identity, which should increase in-group favoritism as well as out-group bias, thus partially canceling out the impact of political affiliation salience.

***Hypothesis 3*: Subjects should illustrate a higher preference for opponents whose identities match with theirs in terms of both political affiliation and nationality than those whose identities differ on one or both axes—that is, $\alpha(I)_{[s,s]} \geq \alpha(I)_{[s,d]} \& \alpha(I)_{[d,s]} \geq \alpha(I)_{[s,s]}$.**

When Hong et al. (2017) studied the effect of horizontal versus vertical identities on token allocation, they found that their subjects favored the absolute in-group (those token recipients with the same vertical and horizontal identity) over the relative in-group (recipients who shared only one identity). However, both groups were preferred to recipients in the out-group who did not share either identity.

***Hypothesis 4*: The absolute value of $\alpha(I)$ will be higher for political affiliation than for nationality, thus increasing in-group favoritism as well as amplifying out-group bias, due to the more intense antipathy that accompanies differences in political affiliation.**

American partisan hostility and political polarization is at its highest in years (Pew 2017); moreover, individuals discriminate against partisan opponents more than members of ethnic or regional out-groups (Westwood et al., 2018), which serve as valid proxies for nationality.

***Hypothesis 5*: Subjects' cooperation (or lack thereof) will be mostly driven by statistical discrimination about others (p), rather than taste-based discrimination ($\alpha(I)$)).**

Hernandez-Lagos and Minor (2018) found that differences in trust rates among political partisans were mostly driven by beliefs about opponents' trustworthiness rather than partisan antipathy or some other form of taste-based preference. Similarly, I expect that my subjects will believe their co-partisans will cooperate more than members of the opposite party; since the best strategy is to follow one's opponent (i.e., to cooperate when he cooperates and defect when he defects), they should cooperate more in this case.

***Hypothesis 6*: Left-wing subjects will cooperate more often than right-wing subjects, all else equal.**

Dhami et al. (2019) and Anderson et al. (2004) both find that liberal or left-wing subjects tend to act more generously and demonstrate more trust in their game partners than right-wing subjects do, perhaps because liberals tend to be associated with greater redistribution. I expect that these results will translate as a greater tendency to cooperate in my study.

5 Results and Discussion

5.1 Outcomes

Table 10: Player's Choice against Opponent

Opponent	Cooperate	Defect
Republican American	27	30
Democratic American	37	20
Republican Brit	26	31
Democratic Brit	38	19
Republican French	29	28
Democratic French	35	22

Table 11: Prediction of Opponent's Choice

Opponent	Cooperate	Defect
Republican American	33	24
Democratic American	37	20
Republican Brit	29	28
Democratic Brit	37	20
Republican French	33	24
Democratic French	38	19

Tables 10 and 11 display the outcome of the stag hunt game played by each participant. Table 10 counts the number of decisions to either defect or cooperate chosen by participants when facing one of six potential opponents: a Republican American, Democratic American, Republican Brit, Democratic Brit, Republican Frenchman/woman, and Democratic French/woman. Regardless of their opponents' nationality, students choose to cooperate more often (in a Fisher exact test, $p < .10$ for American and British opponents, $p = .35$ for French opponents) when their opponent was identified as a Democrat than a Republican. I will show that this difference is mostly driven by perceptions about the behavior of members of these two political parties (statistical discrimination) rather than affinity or antipathy towards one party or the other (the "taste for discrimination").

Table 11 displays the participants' predictions of their opponents' choices; the participants choose to cooperate more often than defect in all cases, although (non-significant) differences exist between Republicans and Democrats, with Democrats judged as more likely to cooperate than Republicans regardless of nationality.

Table 12: **American** Opponents

Opponent Party: **Republican**		Prediction of Opponent's Choice	
		Cooperate	Defect
Player's Choice	Cooperate	25	2
	Defect	8	22

Opponent Party: **Democrat**		Prediction of Opponent's Choice	
		Cooperate	Defect
Player's Choice	Cooperate	33	4
	Defect	4	16

Table 13: **British** Opponents

Opponent Party: **Republican**		Prediction of Opponent's Choice	
		Cooperate	Defect
Player's Choice	Cooperate	23	3
	Defect	6	25

Opponent Party: **Democrat**		Prediction of Opponent's Choice	
		Cooperate	Defect
Player's Choice	Cooperate	31	7
	Defect	6	13

Tables 12-14 detail the cross-sectional count of participants' choices to cooperate or defect versus their prediction of their opponents' choice. Unsurprisingly, participants are significantly more likely to cooperate than defect if they believe their opponent will cooperate as well, according to a Fisher exact test ($p < 0.01$ for all nationalities and political affiliations).

In the next sub-section, I detail the results of the reduced-form empirical models I estimate to investigate each hypothesis.

Table 14: **French** Opponents

Opponent Party: **Republican**		Prediction of Opponent's Choice	
		Cooperate	Defect
Player's Choice	Cooperate	27	2
	Defect	6	22

Opponent Party: **Democrat**		Prediction of Opponent's Choice	
		Cooperate	Defect
Player's Choice	Cooperate	32	3
	Defect	6	16

5.2 Empirical Models

5.2.1 Result 1

The probability that a = 1 does not significantly increase when facing left-wing (more Democratic) players than right-wing (more Republican) ones, all else equal.

To test Hypothesis 1, I estimated the following model:

$$Prediction_{i,o} = \beta_0 + LW_o + SamePoliticalAffiliation_i + IndependentFlag_i + \gamma' X_i + \epsilon_i$$

The subscript i indexes individual participants, whereas o indexes the six opponents that each participant faces.[7]. LW_o denotes a dummy variable equal to 1 when the opponent is left-wing (Democratic) and 0 otherwise, while $\gamma' X_i$ represents demographic and other controls. The dependent variable, $Prediction_{i,o}$, represents $\boldsymbol{a}$; it equals 1 when the participant believes that her opponent will cooperate (that is, $p \geq 0.5$) and 0 otherwise ($p < 0.5$). I estimate this model for the overall sample, reporting regressions using a logit model with and without the control variables. Each model is estimated using standard errors clustered by a unique participant ID.

The controls included are age, sex, race, Hispanic/Latino identity, household income, average weekly expenditures, level of education, overall score on the patriotism questionnaire, a flag equal to 1 if the respondent answered the two post-stag hunt game instruction questions incorrectly and 0 otherwise ("check flag") and a flag that indicated whether the respondent had received the incorrect instructions for the stag hunt game ("instructions flag"). I also included a dummy variable entitled *Same Political Affiliation*, which equals 1 if the opponent possesses the same political identity as the participant and 0 otherwise. This variable serves as a control, since any result finding left-wing players are trusted to cooperate more often

[7] As a reminder, Republican American, Democratic American, Republican Brit, Democratic Brit, Republican Frenchman/woman, Democrat Frenchman/woman

might be driven entirely by the tendency of individuals to trust those of their own political affiliation (as far more Democrats than Republicans participated in this study). Because many of the respondents are Independents whose opponents necessarily always represent a different political affiliation, I also included as a control variable a dummy variable flagging if the participant self-identified as an Independent (or "Other," as one person did).

Columns 1 and 2 in Table 15 display the results of the model without and with controls respectively. Columns 3-5 test the robustness of the results by substituting three new measures of political affiliation to calculate the *Same Political Affiliation* dummy variable (rather than self-identified political affiliation)[8]. The independent flag is removed from Models 3-5 as these measures classify each participant as either Democrat or Republican but none as Independent or Other.

Each model results in non-significant left-wing dummy coefficients, perhaps due to the relatively large clustered standard errors. As previously discussed, due to the small size of the sample, weak effects have only a 20% chance of discovery. These results fail to support Hypothesis 1, as well as other prior results (Dhami et al. 2019; Hernandez-Lagos and Minor 2018) that found left-wingers tended to receive more generous treatment from their opponents in economic games.

5.2.2 Result 2

While the priming treatment did not lead to increased cooperation, the participants were significantly more likely to cooperate with members of the same political party.

Since I wanted to test the impact that the priming treatment would have on opponents with the same nationality and all my participants were Americans, I first restricted the dataset to only those decisions made when facing American opponents (either American Republicans or American Democrats). I then estimated the following logit model:

$$Decision_{i,o} = \beta_0 + PrimingFlag_i + SamePoliticalAffiliation_{i,o} + PrimingFlag_i * SamePolAff_{i,o} + IndependentFlag_i + \gamma' Xi + \epsilon_i$$

The subscript i indexes individual participants, whereas o represents each of the two opponents that each participant faces.[9] $PrimingFlag_i$ denotes a dummy variable equal to 1 when the participant is assigned to the priming treatment and 0 if assigned to the baseline treatment, while *Same Political Affiliation* remains the same as the previous model. *Priming Flag * Same Pol Aff* denotes the interaction of the two variables.

$\gamma' Xi$ represents the same control variables as in the previous model, including the Independent flag.[10]. The dependent variable, $Decision_i, o$, represents the decision that par-

[8]Each of these is described in Table 3—the party the participant would vote for in current Congressional elections, the extent to which the participant agrees with either party's goals, and the participant's average score on the political questionnaire.

[9]Republican American and Democratic American

[10]Age, sex, race, Hispanic/Latino identity, household income, average weekly expenditures, level of education, patriotism questionnaire score, check flag, and instructions flag

Table 15: Result 1

	Dependent Variable: Prediction of Opponent Choice				
	(1)	(2)	(3)	(4)	(5)
Left Wing Flag	0.494	0.583	−0.108	0.668	0.401
	(0.441)	(0.537)	(0.473)	(0.605)	(0.500)
Same Pol Aff	−0.174	−0.215	1.144**	−0.306	0.177
	(0.550)	(0.678)	(0.475)	(0.607)	(0.502)
Constant	0.278	3.245**	3.037*	3.231**	3.114**
	(0.311)	(1.515)	(1.554)	(1.502)	(1.490)
Controls	No	Yes	Yes	Yes	Yes
Includes Independent Flag	No	Yes	No	No	No
Pol Aff Measure	Original	Original	Congress Election	Agree with Party Goals	Political Questions
N	57	57	57	57	57
Adj. R-sq	0.002	0.101	0.146	0.104	0.104

Note: *p<0.1; **p<0.05; ***p<0.01; political affiliation measures vary between models

ticipant i makes when facing opponent o in the stag hunt game; cooperation is equal to 1, while defection equals 0. I report logit regressions with and without the control variables as well as with substitute measures of political affiliation to serve as a robustness check. As with the previous result, each model is estimated using standard errors clustered by a unique participant ID.

Columns 1 and 2 in Table 16 display the results of the model without and with controls respectively. As in the previous model, Columns 3-5 substitute three new measures of political affiliation to calculate the *Same Political Affiliation* dummy variable, while also excluding the independent flag as these measures only classify respondents as Democrats or Republicans.

In each model, only the *Same Political Affiliation* flag displays a significant effect. This unsurprising result supports the results of previous work on the subject, which had repeatedly found that subjects demonstrate strong in-group bias towards those with similar political beliefs and out-group discrimination against those who do not (Carlin and Love 2013; Kranton et al. 2018; Hernandez-Lagos and Minor 2018; Dhami et al. 2019). Importantly, this result holds true even when different measures of political affiliation are used, indicating a strong degree of robustness.

However, the priming treatment does not appear to affect the decision to cooperate or defect, suggesting that appealing to a common identity to overcome bitter and deep divisions may prove difficult.

5.2.3 Result 3

Participants illustrated a significant preference for opponents with the same political affiliation but a different nationality over opponents who vary in both ways—that is, $\alpha(I)[s,d] > \alpha(I)[d,d]$.

To arrive at this result, I estimated the following logit model:

$$Decision_{i,o} = \beta_0 + I_{s,s}Flag_{i,o} + I_{d,s}Flag_{i,o} + I_{d,s}Flag_{i,o} + Prediction_{i,o} + IndependentFlag_i + \gamma' Xi + \epsilon_i$$

$I_{s,s}Flag_{i,o}$ denotes a dummy variable equal to 1 when the participant i faces an opponent o with the same political affiliation and nationality and 0 otherwise. Similarly, $I_{d,s}Flag_{i,o} = 1$ when facing an opponent with a different political affiliation and same nationality, while $I_{s,d}Flag_{i,o} = 1$ for cases in which the opponent exhibits the same political affiliation but different nationality. The case in which $I_{d,d} = 1$—that is, when the participant faces an opponent with a differing political affiliation and nationality—should be thought of as the baseline against which these results are compared, since the model does not include a flag for this case. I also include $Prediction_{i,o}$, which equals 1 when participant i predicts that opponent o will cooperate and 0 if she believes he will defect, since her prediction of his actions may drive her decision, regardless of her feelings towards those who share (or not) her political affiliation and nationality.

$\gamma' X_i$ includes the same control variables as the previous models. As in the previous model, since many participants are Independents and thus always face opponents with a

Table 16: Result 2

	Dependent Variable: Decision to Cooperate or Defect				
	(1)	(2)	(3)	(4)	(5)
Priming Flag	−0.503	−0.342	−0.256	−0.256	−0.256
	(0.497)	(0.582)	(0.672)	(0.672)	(0.672)
Same Pol Aff	1.394**	1.908**	1.741**	1.741**	1.741**
	(0.703)	(0.879)	(0.759)	(0.759)	(0.759)
Priming Flag * Same Pol Aff	−0.478	−0.626	−0.696	−0.696	−0.696
	(0.890)	(1.021)	(0.951)	(0.951)	(0.951)
Constant	0.147	1.194	1.303	1.303	1.303
	(0.301)	(2.063)	(2.064)	(2.064)	(2.064)
Controls	No	Yes	Yes	Yes	Yes
Includes Independent Flag	No	Yes	No	No	No
Pol Aff Measure	Original	Original	Congress Election	Agree with Party Goals	Political Questions
N	57	57	57	57	57
Adj. R-sq	0.045	0.035	0.058	0.058	0.058

Note: *p<0.1; **p<0.05; ***p<0.01; political affiliation measures vary between models

different political affiliation, I included the Independent Flag as a control variable. The dependent variable, $Decision_{i,o}$, represents the decision that participant i makes when facing opponent o in the stag hunt game; cooperation is equal to 1, while defection equals 0. I estimate this model for the overall sample, reporting regressions using a logit model with and without the control variables. Each model is again estimated with standard errors clustered by a unique participant ID.

Columns 1 and 2 in Table 17 display the results of the model without and with controls respectively. In both models, only the $I_{s,d}$ flag is significant and positive, indicating that subjects cooperate more often with those who share a political affiliation but different nationality (i.e., not American) than those who differ on both axes. Sharing both a common political affiliation and nationality ($I_{s,s}$) appears to positively, albeit insignificantly, impact participants' decisions relative to the baseline $I_{d,d}$, while sharing a common nationality but differing in political party ($I_{d,d}$) negatively (though not significantly) affects participants' decisions, perhaps suggesting that they cared much more about the political identity rather than the nationality of their opponent.

Importantly, the Prediction flag is also positive and significant, suggesting that participants' decisions may be mostly driven by their perceptions of how a member of their opponent's identity group would act—that is, statistical discrimination.

5.2.4 Result 4

The absolute value of $\alpha(I)$ increased for political affiliation relative to nationality, indicating political affiliation serves as a more salient identity. Moreover, participants' cooperation appeared to be mostly driven by statistical discrimination, although taste-based discrimination also played a role.

To test both Hypotheses 4 and 5, I estimated the following clustered standard error logit model:

$$Decision_{i,o} = \beta_0 + SamePoliticalAffiliation_{i,o} + SameNationality_{i,o} + SameNationality_{i,o} * SamePolAffiliation_{i,o} + Prediction_{i,o} + IndependentFlag_i + \gamma' X_i + \epsilon_i$$

As in Result 2, *Same Political Affiliation* equals 1 if the opponent possesses the same political identity as the participant and 0 if not. Similarly, *Same Nationality* equals 1 if the opponent is American (since all my participants were American) and 0 otherwise. *Same Nationality* Same Pol Affiliation* denotes the interaction of the two variables. $Prediction_{i,o}$ denotes the participant's prediction of her opponent's decision. I also choose to include the Independent flag with the controls to account for the fact that Independents always face those with different political affiliations.

The dependent variable, $Decision_{i,o}$, represents the decision that participant i makes when facing opponent o in the stag hunt game; cooperation is equal to 1, while defection equals 0. I report logit regressions with and without the control variables as well as with substitute measures of political affiliation to serve as a robustness check.

Columns 1 and 2 in Table 18 display the results of the model without and with controls respectively. Columns 3-5 test the robustness of the results by substituting three new

Table 17: Result 3

Dependent Variable: Decision to Cooperate or Defect		
	(1)	(2)
I_{ss} Flag	0.728	0.961
	(0.554)	(0.742)
I_{ds} Flag	−0.061	−0.088
	(0.201)	(0.220)
I_{sd} Flag	0.796*	1.058*
	(0.429)	(0.619)
Prediction of Opponent's Choice	3.192***	3.545***
	(0.501)	(0.649)
Constant	−1.894***	−1.804
	(0.396)	(1.911)
Controls	No	Yes
Includes Independent Flag	No	Yes
N	57	57
Adj. R-sq	0.438	0.483
Note:	*p<0.1; **p<0.05; ***p<0.01	

measures of political affiliation[11] to calculate the *Same Political Affiliation* dummy variable (rather than self-identified political affiliation). The independent flag is removed from Models 3-5 as these measures classify each participant as either Democrat or Republican but none as Independent or Other.

All but one model estimation demonstrate that a shared political affiliation significantly and positively impacts the decision to cooperate, even once statistical discrimination has been accounted for through the *Prediction* flag, implying that taste-based discrimination plays a role in participants' decisions. Statistical discrimination appears to drive most of the result, however, as it exhibits a much larger and more significant impact on the participant's decision to cooperate or defect. This result, along with the estimations from Result 3, support Hernandez-Lagos and Minor's (2018) findings that political affiliation discrimination is mostly determined by individuals' perceptions of how those belonging to the other political party should act.

However, unlike political affiliation, sharing the same national identity does not significantly affect participants' decisions to defect or cooperate, implying that political affiliation is more salient than nationality. This result is unsurprising, considering past research that has found people are more likely to discriminate against those with different political beliefs than members of regional or ethnic out-groups (Westwood et al. 2018).

5.2.5 Result 5

Left-wing participants did not cooperate significantly more often than right-wing ones, all else equal.

To arrive at this result, I estimated the following clustered standard error logit model:

$$Decision_{i,o} = \beta_0 + PrimingFlag_{i,o} + SamePoliticalAffiliation_{i,o} + SameNationality_{i,o} + Prediction_{i,o} + LeftWingFlag_i + PrimingFlag * SamePoliticalAffiliation + SameNationality_{i,o} * SamePolAffiliation_{i,o} + PrimingFlag_{i,o} * SameNat_{i,o} + PrimingFlag_{i,o} * SameNat_{i,o} * SamePol_{i,o} + IndependentFlag_i + \gamma' X_i + \epsilon_i$$

The *Decision*, *Priming Flag, Same Political Affiliation, Same Nationality, Prediction* and *Independent Flag* variables are defined as in previous models. *Priming Flag * Same Political Affiliation*, *Same Nationality * Same Pol Affiliation*, *Priming Flag * Same Nat*, and *Priming Flag * Same Nat * Same Pol* denote interaction terms. *Left Wing Flag* represents a dummy variable equal to 1 if participant i is left-wing or a Democrat and 0 otherwise. I report logit regressions with and without the control variables as well as with varying left-wing dummy variables to serve as a robustness check.

Columns 1 and 2 in Table 19 display the results of the model without and with controls respectively. Both Columns 1 and 2 employ the average overall score on the political questionnaire described in Section III to measure how left-wing the subject is. Columns 3 and 4 are similar to Column 2 but rely on binary rather than continuous variables to flag a

[11] Each of these is described in Table 3—the party the participant would vote for in current Congressional elections, the extent to which the participant agrees with either party's goals, and the participant's average score on the political questionnaire.

Table 18: Result 4

	Dependent Variable: Decision to Cooperate or Defect				
	(1)	(2)	(3)	(4)	(5)
Same Pol Aff	0.796*	1.058*	1.051*	1.051*	0.580
	(0.429)	(0.619)	(0.542)	(0.542)	(0.542)
Pred of Opp's Choice	3.192***	3.545***	3.587***	3.587***	3.524***
	(0.501)	(0.649)	(0.655)	(0.655)	(0.670)
Same Nationality	−0.061	−0.088	−0.163	−0.163	−0.268
	(0.201)	(0.220)	(0.285)	(0.285)	(0.296)
Same Pol Aff * Same Nat	−0.007	−0.009	0.173	0.173	0.423
	(0.264)	(0.307)	(0.407)	(0.407)	(0.378)
Constant	−1.894***	−1.804	−1.928	−1.928	−1.627
	(0.396)	(1.911)	(1.939)	(1.939)	(1.908)
Controls	No	Yes	Yes	Yes	Yes
Includes Independent Flag	No	Yes	No	No	No
Pol Aff Measure	Original	Original	Congress Election	Agree with Party Goals	Political Questions
N	57	57	57	57	57
Adj. R-sq	0.438	0.484	0.493	0.493	0.481

Note: *p<0.1; **p<0.05; ***p<0.01; political affiliation measures vary between models

respondent as left-wing. In Column 3, respondents who indicated their desire to vote for a Democrat in their Congressional election were identified as left-wing. Finally, the model in Column 4 flags a respondent as left-wing if he indicated a greater level of agreement with the Democratic Party's goals than the Republican Party.

The estimation of these models clearly support previous results; statistical discrimination once again drives most of the results. The evidence on the question of whether left-wing participants are more likely to cooperate is mixed; although the continuous left wing measures in Columns 1 and 2 are not statistically distinguishable from 0, the binary substitutes in Columns 3 and 4 contradict Hypothesis 6, indicating that left-wing participants were significantly less likely to cooperate. These results thus support Hernandez-Lagos and Minor's finding that statistical discrimination drives most of the behavior between co-partisans or political opponents in economic games, but contradict other results in which left-wing participants tended to act more generously towards their opponents (Dhami et al. 2019). Anderson et al. (2004) similarly observed mixed results when they investigated whether left-of-center Americans "played nice" in two economic games; while the authors did not find that these participants made more generous contributions than conservatives did, they did observe some evidence of liberals behaving in a more trustworthy manner.

6 Conclusion

6.1 Findings

In this study, I investigated the impact of a novel priming treatment on the outcomes of a stag hunt game, in which the participants were asked whether they would cooperate or defect against hypothetical opponents whose only known characteristics were their nationality and political affiliation. Half my participants were randomized into a baseline treatment where they were asked to contemplate their favorite TV shows, while the other half were primed to reflect upon their experiences as American citizens. They were then asked to participate in a cooperative "stag hunt" game against one of six hypothetical opponents: two Americans, two Brits, and two Frenchmen/women. Each opponent was identified as affiliated with either the (American) Republican or Democratic party. Each participant also indicated their predictions of their opponents' choices. I lastly paired up each participant with another player and awarded points based on both of their answers in the stag hunt game.

My findings reflected many of the prior studies on the topic of political discrimination in experimental economic games. I followed Hernandez-Lagos and Minor (2018) in disentangling the impact of statistical discrimination versus taste-based discrimination on the stag hunt game, echoing their finding that statistical discrimination proved the largest driver in the decision to cooperate or defect, although antipathy towards the other party (or affinity for one's own party) also played a role. The priming treatment did not significantly increase the probability of cooperation, as political affiliation appeared a far more salient identity than nationality. This finding lends support to previous results in social psychology that identified the tendency to engage in partisan discrimination as a relatively stronger force than that of regional discrimination. However, these results also appear to contradict other studies that observe the power of a common identity, such as ethnicity or union membership,

Table 19: Result 5

	Dependent Variable: Decision to Cooperate or Defect			
	(1)	(2)	(3)	(4)
Priming Flag	−0.402	−0.343	−0.371	−0.408
	(0.554)	(0.631)	(0.625)	(0.607)
Same Pol Aff	1.048	1.469	1.660	1.653
	(0.739)	(1.026)	(1.064)	(1.067)
Same Nat	−0.003	−0.023	−0.006	−0.008
	(0.351)	(0.381)	(0.395)	(0.398)
Prediction Decision	3.232***	3.652***	3.692***	3.707***
	(0.511)	(0.691)	(0.684)	(0.692)
Left-wing Measure	0.009	−0.002	−1.135*	−1.169*
	(0.010)	(0.010)	(0.616)	(0.619)
Priming Flag * Same Pol	−0.388	−0.714	−0.935	−0.898
	(0.910)	(1.105)	(1.114)	(1.112)
Same Pol * Same Nat	0.284	0.300	0.340	0.355
	(0.549)	(0.709)	(0.774)	(0.790)
Priming Flag * Same Nat	−0.154	−0.153	−0.148	−0.141
	(0.390)	(0.428)	(0.438)	(0.438)
Priming * Same Nat * Same Pol	−0.399	−0.433	−0.520	−0.544
	(0.615)	(0.788)	(0.860)	(0.876)
Constant	−2.254***	−1.029	−0.333	−0.248
	(0.788)	(2.047)	(1.826)	(1.842)
Controls	No	Yes	Yes	Yes
Includes Independent Flag	No	Yes	Yes	Yes
Left-Wing Measure	Score on Questions	Score on Questions	Congress Election	Agree with Party Goals
N	57	57	57	57
Adj. R-sq	0.445	0.492	0.496	0.499

Note: *p<0.1; **p<0.05; ***p<0.01; left-wing measures differ between models

to increase trust and cooperation amongst individuals who differ along another axis of identity (Ravetti et al. 2019; Chen et al. 2014; Hong et al. 2017). This seeming contradiction may arise from the relatively non-salient nature of nationality as opposed to partisanship, ethnicity, or union membership; if individuals do not identify strongly with a certain part of their identity, simply sharing that part of identity with someone else may fail to overcome divisions caused by another, more salient facet. Finally, I did not observe that left-wing participants cooperated more often than right-wing ones, nor that left-wing (Democratic) opponents were considered more trustworthy than right-wing (Republican) ones, despite some findings in previous studies to that effect.

Of course, it is important to note that partisanship is neither an exogenous nor neutral identity, particularly in the United States; rather, it represents "arguably the most fundamental identity in American political life," intimately related to race, sex, national origin, level of education, religion and many other identities (Ahler and Sood 2016). Partisan discrimination may therefore serve as a convenient cover for other types of bias, including country of origin, a concept closely tied to that of nationality.

6.2 Limitations and Extensions

This study was subject to many limitations, many of which arose from the consequences of the COVID-19 pandemic. I had originally intended to study whether an artificially induced identity could diminish in-group bias and out-group discrimination prompted by a real identity, political partisanship. Rather than prime a real identity, as I did in this study, I had intended to randomly assign my subjects to either a "Green" or "Blue" identity, then allow half of each group to communicate with each other to solve a puzzle, which was intended to reinforce their identity as a Green or Blue and trust in the other members of their group. However, as France began confinement just before I would have begun my experiment, I had to adapt my research question and methodology to ensure it could all be completed remotely. In future research under such restrictions, it may be possible to use applications like Zoom, with all video capabilities turned off, to complete such interactive studies. For instance, Zoom's breakout room function may allow subjects in certain groups to communicate with each other remotely. However, I chose to pursue a different route due to current privacy concerns with Zoom, particularly its automatic displaying of respondents' names. Moreover, I believed that the demands required to complete such a study (download Zoom, be present at a certain time, etc.) would prove too much for me to adequately recruit a large enough sample, since I could not pay every participant.

Despite my adaptions, my study still faced several constraints. Firstly, the sample size was small and unrepresentative. As I was personally funding the study and the GATE laboratory was shut down due to the pandemic, I had to rely on a convenience sample that I recruited myself. I attempted to expand my sample as much as possible by requesting professors at Northwestern and UNC Charlotte publicize the study to their students, but this still resulted in a disproportionately young, wealthy and left-wing sample. Moreover, as revealed by the post-hoc power analysis I conducted, the size of the sample may have resulted in the overlooking of small-to-medium size effects. Secondly, the respondents were rewarded by entries into a lottery to win one of three gift cards, which is a much weaker incentive than cash. As well, because the study was conducted remotely, the respondents

had to wait several weeks to find out their points, rather than immediately, which may have resulted in weaker incentives. Despite this, the high number of points awarded on average to the respondents suggests that they were successfully incentivized. Thirdly, the phrasing of the stag hunt game instructions may have confused some individuals, as the last-minute adaptations due to the pandemic meant I did not have enough time to conduct a pilot study. However, as only six of the 57 respondents incorrectly answered the questions designed to check for understanding of these instructions, most of the subjects appear to have correctly understood the incentives of the game. In any future studies, I would recommend potentially asking subjects to choose between "cooperating" and "defecting" rather than Choice "A" versus Choice "B." Though the latter wording appears commonplace for many stag hunt games (Girtz et al. 2017), I received post-study feedback from some subjects that suggested the wording proved difficult to understand. Many laboratory studies are presented in a more natural and easier to understand fashion, such as assigning the subjects the roles of "employers" and "employees" (Charness 2000a). As well, future research on this topic could estimate a structural rather than reduced-form model by directly eliciting p (probability that one's opponent will cooperate) from participants.

More generally, further research could extend to artificially induced identities, as previously suggested. As well, further research could take place in the field rather than the laboratory; it would be interesting to study whether corporations can successfully create a common culture that highlights shared values in an attempt to surmount the potentially divisive impacts of diverse personal identities and increase worker cooperation.

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9 Appendix: Questionnaire

Note: * means the question's answers were presented in randomized order

9.1 Consent Form and Lottery Instructions

Principal Investigator: Lauren Thomas (Master's Thesis Project)
What should I know about a research study? Someone will explain this research study to you.Whether or not you take part is up to you.You can choose not to take part.You can agree to take part and later change your mind.Your decision will not be held against you.You can ask all the questions you want before you decide.
Who can I talk to? If you have questions, concerns, or complaints, or think the research has hurt you, talk to Lauren Thomas at lcthomas1212@gmail.com. This research has been reviewed and approved by Professor Marie-Claire Villeval, who directs the GATE Lab at Université Lumière Lyon (France). She speaks fluent English and French. You may reach her at villeval@gate.cnrs.fr if: Your questions, concerns, or complaints are not being answered by the research team.You cannot reach the research team.You want to talk to someone besides the research team.You have questions about your rights as a research participant.You want to get information or provide input about this research.Why is this research being done?The purpose of this study is to examine how certain traits affect the choices made by participants in an economic game.
How long will the research last? We expect that you will take approximately 20-40 minutes to complete this study.
What happens if I say "Yes, I want to be in this research"? You will be asked questions relating to demographic and personality information (including political preferences) through this Qualtrics study. You will also be asked to participate in a brief game in which you will earn points based on your answers. Most questions will be closed-ended and multiple choice, although a few are open-ended.
What happens if I do not want to be in this research? Participating in this study is completely voluntary and you are not under any obligation to consent. If you do consent, you can withdraw at any time during the study. You can leave the research at any time and it will not be held against you.
What happens if I say "Yes", but I change my mind later? You can leave the research at any time without penalty and without having to give any reason and it will not be held against you. Any data collected from your responses will be deleted. Is there any way being in this study could be bad for me?There is a risk of discomfort, as some of the questions, including some on political preferences, are sensitive. You can exit the survey at any point.
What happens to the information collected for the research? This survey is being hosted by Qualtrics and involves a secure connection. Terms of service, addressing confidentiality, may be viewed at http://www.qualtrics.com/research-suite/. Upon receiving results of your survey, any possible identifiers will be deleted. You will be identified only by a unique subject number. All information will be kept on a password protected computer only accessible by the research team. The results of the research study will only be used for a master's thesis and will not be published in any other way.
What else do I need to know? You will not be allowed to complete the survey if you do not consent or do not qualify for the survey. Please note that not everybody will necessarily qualify for the study. If you complete this research study and answer every question, you will be entered into a lottery for three prizes based on the number of points you earn. Further

instructions will be provided on the following page.

Consent If you want a copy of this consent for your records, you can print it from the screen. If you wish to participate, please click the "I Agree" button and you will be taken to the survey.If you do not wish to participate in this study, please select "I Disagree" or select X in the corner of your browser.
o I Agree (1)
o I Disagree (2)

(If "I Disagree" is selected, skip to End of Survey)

Q3 Lottery Instructions
Each participant will receive one point for completing the study, as well as the potential to earn several more points at various times throughout the study. The maximum number of points possible is 14. Each of these opportunities to earn points will be clearly and carefully explained to you.
You will be entered into the lottery based on the number of points you earn. For example, if you earn five points, you will be entered five times. The program will then randomly choose three individuals to win a prize. The first individual selected randomly will receive a $20 Visa gift card, the second one will receive a $15 gift card, and the third will receive a $10 gift card. Each of these gift cards can be mailed or delivered via email and act as preloaded debit cards. The more points you earn, the more times you are entered into the lottery. This study is expected to have around 50 participants, who can earn up to 14 points each (including the point for completing the study).
In the course of the study, you will be matched up with another participant and receive points based on both of your decisions. However, due to the coronavirus pandemic, each subject will be participating at his or her own pace and thus cannot be immediately matched up. I will therefore be tallying the number of points each participant has received and drawing the names for the lottery after all data is collected. You will be asked if you wish to participate in the lottery at the end of the study.

9.2 Demographics

Q4: Which gender do you identify with?
o Male (1)
o Female (2)
o Neither of the Above/Other (3)
o Prefer Not to Answer (4)

Q5 What is your race? (Check all that apply)
o Black or African-American (1)
o White or Caucasian (2)
o Asian (3)

o Native American or Alaskan Native (4)
o Native Hawaiian or Other Pacific Islander (5)
o Other (6)
o Prefer Not to Answer (7)

Q6 Are you Hispanic or Latino?
o Yes (1)
o No (2)
o Prefer Not to Answer (3)

Q7 What is your nationality? Please check all that apply.
o France (1)
o United Kingdom of Great Britain and Northern Ireland (2)
o United States of America (3)
o Other (4)
(Skip to End of Survey if anything other than USA is selected)

Q8 In which country did you spend the majority of the last five years?
o France (1)
o United Kingdom of Great Britain and Northern Ireland (2)
o United States of America (3)
o Other
(Skip to End of Survey if anything other than USA is selected)

Q9 What is your age?
(Blank Form)

Q10 To the best of your knowledge, in which of the following ranges did your 2019 household income fall? If your parents provide more than half of your financial support, please include their income. If they do not, only include your income and that of your spouse or partner, if applicable.
o $0-10,000 (1)
o $10,001-50,000 (2)
o $50,001-100,000 (3)
o $100,001-$250,000 (4)
o $250,001 or more (5)
o Prefer not to Answer (6)

Q11 How much money do you spend in a typical week (this should be your daily expenses

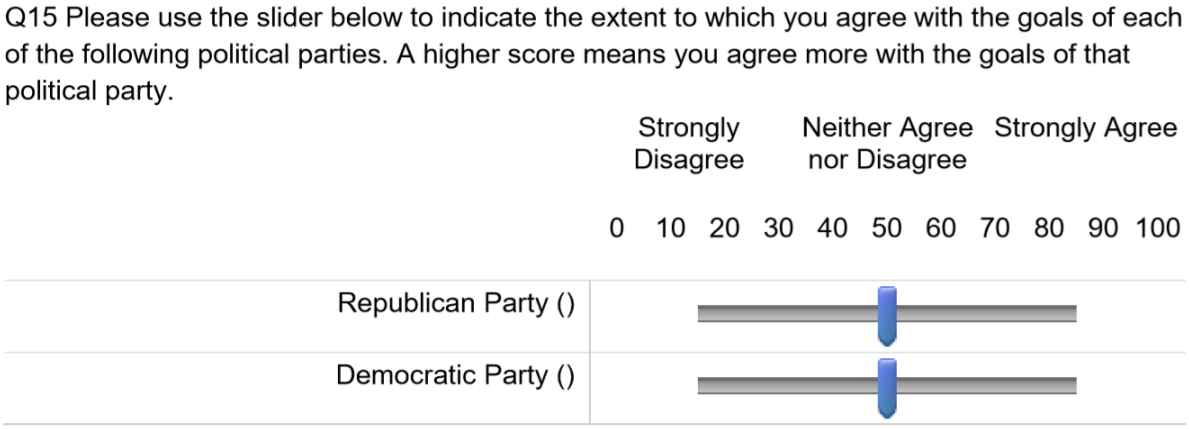
e.g., food, travel, mobile charges, purchases; but excluding rent, mortgage, educational fees, work expenses)? Please only consider your expenditures prior to the onset of measures intended to stem the spread of the coronavirus pandemic.
o Less than $100 (1)
o $101-200 (2)
o $201 or more (3)
o Prefer not to Answer (4)

Q12 What is the highest educational degree you have obtained?
o Primary school (1)
o Less than high school (2)
o High school diploma or equivalent (3)
o Undergraduate degree (4)
o Post-graduate degree (5)
o Prefer not to Answer (6)

9.3 Political Demographics

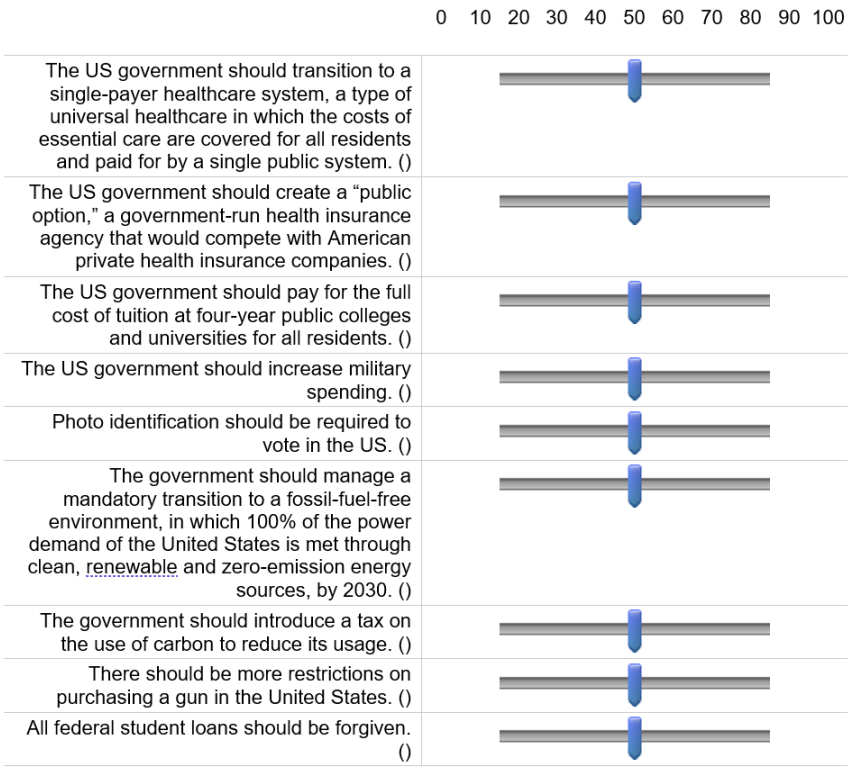
Q13 Instructions: You will now be asked to answer several questions relating to your political preferences. Please note that you will only be asked about American political parties and policy issues, even if you are not an American. If this is the case, please answer based on the best of your knowledge about the United States.

Q14* How would you classify your political affiliation?
o Republican (1)
o Democrat (2)
o Independent (3)
o Other (4)



Q16* If the elections for Congress were being held today, which party's candidate would you be **more** likely to vote for if you were eligible to vote and had to choose between the following parties?
o Republican Party (1)
o Democratic Party (2)

Q17* Please use the slider below to indicate the extent to which you agree with each statement. A higher score means you agree more strongly with the statement.



9.4 Priming Treatment

Q18* I am interested on your opinions on certain aspects of your daily life in your country. Please note that "your country" refers to the country of your citizenship. If you are a citizen of multiple countries, "your country" refers to the country in which you have spent the majority of the last five years. Please disregard the effect of the coronavirus on any questions about your life and answer all questions about your daily life by referring to your life prior to February 15, 2020.

Q19* Which of the following values seems to fit with the culture of your country? (Check as many as apply)
o Freedom (1)
o Liberty (2)
o Equality (3)
o Solidarity (4)
o Independence (5)
o Individualism (6)
o Communitarianism (7)
o Honesty (8)
o Informality (9)
o Optimism (10)
o Pessimism (11)

Q20 Please write a short paragraph (2-4 sentences, or at least 200 characters) on the best aspects of your country and its culture.
(Blank Form)

Q21 In an average month, how often do you take public transit?
o Never (1)
o Up to three times a month but less than once a week on average (2)
o Once to twice a week on average (3)
o Three or more times a week (4)

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Q22 You will now be shown a well-known photograph or painting, as well as text explaining its background. You will then be asked to answer three questions about the depiction. Every question you answer correctly will gain you one point (one entry into the lottery), for a maximum of three points.

Q24 This Pulitzer-Prize-winning photograph, Raising the Flag on Iwo Jima, shows six US Marines raising the American flag atop Mount Suribachi during the Battle of Iwo Jima in the final stages of the Pacific War (in the Second World War). In February of 1945, the United States invaded Iwo Jima as part of its island-hopping strategy to defeat Japan in the

last stages of World War II. The flag raising occurred in the early morning; three of the six Marine depicted in the photograph later gave their lives for America by dying in the later battle. The image was later used for the construction of the Marine Corps War Memorial, which honors all Marines who died for their country since its founding in 1775.

PAGE BREAK

Q25* What event in the Second World War does this photograph depict?
o The raising of the flag during the Battle of Iwo Jima (1)
o The fall of the Philippines (2)
o The invasion of Okinawa (3)

Q26 How many of the Marines in the photo died later that day in battle?
o Two (1)
o Three (2)
o Five (3)

Q27 In which month in 1945 was this photograph taken?
o February (1)
o April (2)
o July (3)

9.5 Control Treatment

Q28 I am interested in certain aspects of your daily life in your country. Please disregard the effect of the coronavirus on any questions about your life and answer all questions about your daily life by referring to your life prior to February 15, 2020.
Q29* Which of the following TV shows have you watched at least one episode of? (Please check all that apply).
o You (1)

o Friends (2)
o Sex and the City (3)
o Seinfeld (4)
o Black Mirror (5)
o The Simpsons (6)
o The Office (7)
o American Horror Story (8)
o The Bachelor (9)
o Big Bang Theory (10)
o Saturday Night Live (11)

Q30 Please write a short paragraph (2-4 sentences, or at least 200 characters) on your favorite TV show (it does not have to be any of the above shows) and why you like it. (Short Form Answer)

Q31 In an average month, how often do you take public transit?
o Never (1)
o Up to three times a month but less than once a week on average (2)
o Once to twice a week on average (3)
o Three or more times a week (4)

Q32 You will now be shown a well-known photograph or painting, as well as text explaining its background. You will then be asked to answer three questions about the depiction. Every question you answer correctly will gain you one point (one entry into the lottery), for a maximum of three points.

Q33 This painting, Starry Night, by Dutch artist Vincent Van Gogh depicts a view from the east-facing window of his asylum room in French village Saint-Rémy-de-Provence, where Van Gogh spent much of the last year of his life. Starry Night, which was painted in June 1889, belongs to a series of nocturnal paintings set in and around Arles, France, in Provence, where Van Gosh lived before his time at the asylum. Regarded as one of Van Gogh's finest works, Starry Night is among the most recognized paintings in Western culture and currently hangs in the Museum of Modern Art in New York City.

PAGE BREAK

Q34* Which famous artist painted this painting?
o Vincent Van Gogh (1)
o Claude Monet (2)
o Paul Gauguin (3)

Q35* In which museum does this painting now hang?
o The Musée d'Orsay (1)
o The Museum of Modern Art (2)
o The Metropolitan Museum of Art (3)

Q36 In which year was this painting created?
o 1887 (1)
o 1888 (2)
o 1889 (3)

9.6 Stag Hunt Game Instructions

Q37 This part consists of six scenarios. In each scenario, you are matched with a different participant. You do not know anything about the person you are matched with apart from their (American) party affiliation (Republican or Democrat) and their nationality: French, American, or British. The political affiliation and citizenship of each of your partners in each scenario is indicated on the left.
At the end, the program will randomly match you up with another participant. You will earn points based on the choices each of you made in the scenario with the other's nationality and political affiliation. For example, if you are matched with an American Republican, the program will award points based on the choice you picked for the "American Republican" scenario. Remember, the number of points you receive will determine the number of entries into the lottery.

Your task in this part is to choose either "A" or "B." Depending on your choice and the choice of your match, your earnings will be the following:

• If you choose "A" and the other participant chooses "A" then both of you receive 5 points each.

• If you choose "A" and the other participant chooses "B" then you receive 1 point and the other participant receives 4 points.

• If you choose "B" and the other participant chooses "A" then you receive 4 points and the other participant receives 1 point.

• If you choose "B" and the other participant chooses "B" then both of you receive 3 points each.

		The Other	
		A	*B*
YOU	*A*	*You = 5* *Other = 5*	*You = 1* *Other = 4*
	B	*You =4* *Other = 1*	*You = 3* *Other = 3*

Q38 Example 1: Your partner has chosen "A" for the scenario with your nationality and political affiliation. How many points would you receive if you...

	1	2	3	4	5
Choose A	o	o	o	o	o
Choose B	o	o	o	o	o

Q46 Example 2: Your partner has chosen "B" in the scenario with your nationality and political affiliation. How many points would you receive if you...

	1	2	3	4	5
Choose A	o	o	o	o	o
Choose B	o	o	o	o	o

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(If all answers are correct)
Q47 Your answers for both examples were correct. Great job!

(If answer for Example 1 is wrong, but 2 is correct)
Q51 Your answer for Example 2 was correct, but your answer for Example 1 was incorrect. Because your partner chose A, you would earn 5 points if you choose "A" and 4 points if you choose "B."

(If answer for Example 2 is wrong, but 1 is correct)
Q52 Your answer for Example 1 was correct, but your answer for Example 2 was incorrect. Because your partner chose B, you would earn 1 point if you choose "A" and 3 points if you choose "B."

(If both answers are incorrect)
Q53 Your answers for both examples were incorrect. In Example 1, because your partner chose A, you would earn 5 points if you choose "A" and 4 points if you choose "B." In Example 2, because your partner chose B, you would earn 1 point if you choose "A" and 3 points if you choose "B."

9.7 Stag Hunt Game Choices

Q37 In each round, after entering your decision, you will also be asked to predict the choice of the other participant in this round. If you correctly predict your opponent's choice, then you will receive 5 points.
Thus, you can earn up to 10 points in this part —5 from your choice in one of the rounds and 5 from your correct prediction. Now, please make your choice as prompted on the screen. The graphic displaying the number of points you would earn in each scenario is also displayed.

		The Other	
		A	*B*
YOU	*A*	*You = 5* *Other = 5*	*You = 1* *Other = 4*
	B	*You =4* *Other = 1*	*You = 3* *Other = 3*

Q39* Would you choose "A" or "B" if your fellow participant is...

	YOUR Choice: "A"	YOUR Choice: "B"
An **American** who identifies more or is affiliated with the **Republican** Party	o	o
An **American** who identifies more or is affiliated with the **Democratic** Party	o	o
A **Brit** who identifies more or is affiliated with the **Republican** Party	o	o
A **Brit** who identifies more or is affiliated with the **Democratic** Party	o	o
A **Frenchman/woman** who identifies more or is affiliated with the **Republican** Party	o	o
A **Frenchman/woman** who identifies more or is affiliated with the **Democratic** Party	o	o

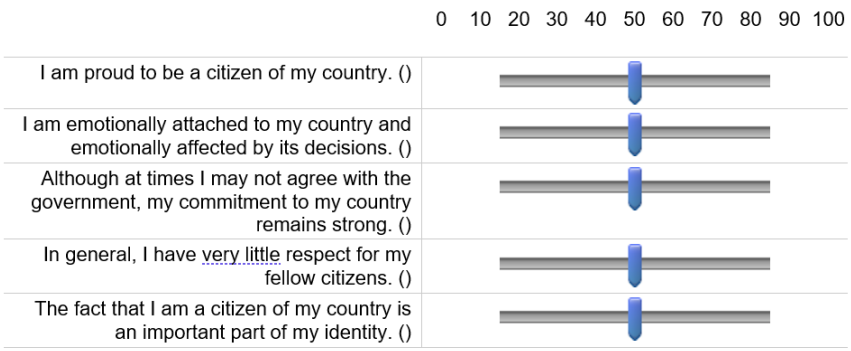
Q41* Now, please predict the choice that the other participant would make. Recall that you will earn 5 points if you correctly predict the choice of the other participant.

	THEIR Choice: "A"	THEIR Choice: "B"
An **American** who identifies more or is affiliated with the **Republican** Party	o	o
An **American** who identifies more or is affiliated with the **Democratic** Party	o	o
A **Brit** who identifies more or is affiliated with the **Republican** Party	o	o
A **Brit** who identifies more or is affiliated with the **Democratic** Party	o	o
A **Frenchman/woman** who identifies more or is affiliated with the **Republican** Party	o	o
A **Frenchman/woman** who identifies more or is affiliated with the **Democratic** Party	o	o

9.8 Post-Game Survey

Q42* In this final section, you are asked to indicate the extent to which you agree with each of the following statements. Please recall that "your country" refers to the country of your citizenship. If you are a citizen of multiple countries, "your country" refers to the country in which you have spent the majority of the last five years.

Please use the slider below to indicate the extent to which you agree with each statement. A higher score means you agree more strongly with the statement.



Q43 Thank you for participating in this study. If you have questions about the study, please email Lauren at lcthomas1212@gmail.com. If you wish to learn the number of points you received and be entered into the lottery to win the Visa gift cards, please enter your email below:
(Blank Form)