Hidden Identity and Social Preferences: Evidence From Sexual Minorities*

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Abstract

Social identities play an important role in economic decision making. However, in many instances, aspects of one's identity (e.g., social class or nationality) are not immediately salient to others. Using the context of sexual minorities, we experimentally study how these *hidden* identities interact with discriminatory behavior along pro-social domains, and individuals' responses in anticipation of such behavior. We design a novel Icon Task where participants are allowed to voluntarily signal their sexual identity by choosing the Pride icon (rainbow flag), prior to participating as recipients in a dictator game. We find that recipients who chose the Pride icon are more likely to be perceived as non-heterosexual, and dictators discriminate based on their perceptions of recipients' sexual identity. Heterosexual dictators who are Republican or voted for Trump allocate about 14%-17% less of their endowment to recipients whom they perceive to be non-heterosexual. On the recipients' end, women are less likely to choose the Pride icon when they know the icon will be used to identify them in the dictator game. We posit that women may in general be more likely to anticipate discriminatory behavior. Our findings have broad implications and contribute to the discourse on the role of identity and discrimination in economic decision making.

JEL Codes: C90, D63, D90, J15
Keywords: social preferences, identity, LGBTQ+, discrimination.

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1 Introduction

Identity is an important driver of many observed economic and social phenomena (Akerlof and Kranton, 2000). In recent decades, there has been growing interest amongst economists in understanding the role that social identity plays in driving behavior across various environments.[1] While individuals' social identities are often tied to characteristics or traits that are relatively salient (such as a person's gender as signalled by the way they dress, or a person's race as identified by their skin color), there are many instances where these identities may not be as easily observable (such as a person's sexual orientation, social class, political preferences, nationality, or the U.S. state that they grew up in).

This gives rise to two important issues. First, interactions between people of different social categories with less visible traits will be shaped by their *beliefs* about the identities of the persons they are interacting with. Nonetheless, while an individual may rely on stereotypes or other cues to make inferences about another person's (hidden) identity, such inferences are not always correct. Hence, actions that are intended for certain individuals based on their perceived social identity (such as out-group discrimination) are likely to also affect others who are mistakenly inferred to be part of the same social category. Second, the different statuses typically attached to each social category (e.g., high versus middle or working class individuals, or gay versus straight individuals) imply that there may be advantages (or disadvantages) for being identified as part of a specific social category. As a result, some individuals may choose to strategically signal (or hide) their identities to leverage on these potential gains (or losses).[2]

We seek to understand these issues in the context of discriminatory behavior toward individuals based on their perceived sexual identity. Even though one's sexual identity is often difficult to infer based on observable characteristics, there exist significant differences in the socioeconomic status of LGBTQ+ individuals relative to those of the general population.[3] While

[1] Examples include investments in education (Akerlof and Kranton, 2002), work incentives (Akerlof and Kranton, 2005), pro-social behavior (Chen and Li, 2009), group work (Eckel and Grossman, 2005; Chen and Chen, 2011), inter-temporal or risky decision making (Benjamin et al., 2010), moral behavior (Bénabou and Tirole, 2011), marriage (Bertrand et al., 2015), and contributions to public goods (Benjamin et al., 2016).

[2] For example, names that reveal information about gender, ethnicity, or nationality have significant impacts in labor market outcomes (e.g., Bertrand and Mullainathan, 2004; Oreopoulos, 2011; Rubinstein and Brenner, 2014). And, it is common for migrants in the United States to "Americanize" their names to boost their chances of success in the labor market (Biavaschi et al., 2017). Gender and sexual minorities also frequently constrain their behavior in ways to avoid being stereotyped (e.g., Mohr et al., 2019; Newheiser and Barreto, 2014; Newheiser et al., 2017).

[3] For instance, in the United States, LGBTQ+ individuals are more likely to be unemployed, be uninsured, and to have lower food security and income than the general population (Williams Institute, 2019). One should also note that the definition of LGBTQ+ individuals goes beyond sexual minorities, but also include gender minorities. Our study focuses more explicitly on the discrimination against individuals based on their sexual identity and not gender. Nonetheless, as a significant majority of transgender individuals self-identify as non-heterosexual (Factor

understanding these differences is complex, a significant determinant thereof is discrimination against individuals who identify as sexual minorities (e.g., Tilcsik, 2011; Acquisti and Fong, 2020; Carpenter and Eppink, 2017; Coffman et al., 2017; Aksoy et al., 2019).

To this end, we design a set of incentivized online experiments to address two research goals. First, we examine if there are systematic differences in the treatment of individuals along pro-social domains based on their perceived sexual identity. Second, we examine whether, in such an environment, non-heterosexual[4] individuals strategically mask signals about their sexual identity in order to avoid discrimination.

To achieve these goals, participants take part in a modified dictator game in which dictators are given the opportunity to share some of their endowments, if any, with anonymous recipients. The dictator game provides a straightforward laboratory measure of individuals' social preferences and has also been shown to predict pro-social behavior in the field (e.g., see Franzen and Pointner, 2013). Pro-social behavior such as helping co-workers or mentoring junior colleagues contribute to the productivity and efficiency of the workers and the workplace.[5] These behaviors play an important role in day-to-day interactions and may impact many other aspects of our lives beyond workplace environments (e.g., charitable giving). They can also contribute to social cohesion within diverse communities and societies (Baldassarri and Abascal, 2020).

A key novelty of our paper is that we introduce the Icon Task as a way for individuals to signal their hidden sexual identity anonymously in the experiment. In the Icon Task, participants recruited as recipients are asked to choose a personal ID to represent themselves. An ID consists of an alpha-numeric string and a flag icon. One of the icon options is a rainbow icon (the "Pride" flag), which is used by many sexual and gender minorities to represent their identities and is commonly associated with these minority groups. Hence, by selecting the Pride icon as part of their personal ID, recipients are able to signal their sexual identity in a non-intrusive manner. The recipients' chosen IDs are then revealed to their matched dictators.

Our data reveals that the Icon Task is effective in signalling sexual identity on two fronts: (i) non-heterosexual recipients are more likely to choose the Pride icon than heterosexual recipients, and (ii) dictators are more likely to perceive a recipient who has chosen the Pride icon to be non-heterosexual than one who has chosen a non-Pride icon. Importantly, a non-trivial

and Rothblum, 2008), our interest in sexual minorities would also apply to gender minorities.

[4]The term "non-heterosexual" is a broad category that encompasses any individual who does not consider themselves to be strictly heterosexual, e.g., those who are homosexual, bisexual, or asexual.

[5]These activities are often referred to as organizational citizenship behavior (Organ, 1988) or extra role behavior (Van Dyne and LePine, 1998).

number of heterosexual recipients choose the Pride icon, and not all dictators perceive a recipient who has chosen the Pride icon to be non-heterosexual. Hence, similar to what is observed in practice, signals of one's sexual identity are imperfect and noisy in the Icon Task. We posit that the Icon Task can be applied to many environments (e.g., to examine strategic interactions between heterosexual and non-heterosexual individuals), or to other minority groups (e.g., by replacing the Pride icon with identifying icons often associated with those groups). Hence, it provides social scientists with more options (i.e., the use of controlled experiments) to advance research on issues relating to both sexual minorities and other minority groups.

We next examine discriminatory behavior based on perceived sexual identity. Each dictator participates in two independent dictator games, where they are each matched with a recipient who has chosen the Pride icon and another who has not. This order is randomized at the individual level. Hence, our design allows us to evaluate, both between- and within-subjects, whether dictators give differently to recipients whom they perceive to be non-heterosexual. We recruit both homosexual and heterosexual participants as dictators. We use an online recruitment platform for our experiment that allows us to identify and recruit sexual minorities without revealing the nature of the study to them.[6] As we anticipated a priori that heterosexual dictators' behavior may depend on their political affiliation, we also recruit a balanced sample of heterosexual dictators based on their party affiliation in the U.S. (Republicans, Democrats, and Independents/Other).[7]

We find that the giving behavior of heterosexual dictators is driven by their political preferences. Heterosexual dictators who report that they are Republicans or that they voted for Donald Trump in the 2016 presidential election give between 14% and 17% less of their endowments to recipients perceived to be non-heterosexual. On the other hand, heterosexual dictators who report that they are Democrats or that they voted for Hillary Clinton give between 5% and 6% more of their endowments to recipients perceived as non-heterosexual. Interestingly, the discriminatory behavior by Trump voters is observed only under a between-subject comparison but not under a within-subject comparison, while evidence of discrimination by Republicans persists under both a between- and a within-subject comparison. We posit that self-image concerns may potentially be stronger for Trump voters than they are for the average Republican

[6] As further explained in Section 2.4, our procedure also allows us to circumvent several other issues related to the study of sexual minorities.

[7] For example, Glaeser et al. (2005) provide evidence of party divisions in the United States along religious values (e.g., same-sex marriage). Note also that we are unable to recruit a balanced sample of homosexual dictators based on party affiliations as the majority of them report themselves as Democrats.

voters.

On the other hand, to study recipients' behavior due to anticipated discrimination, each recipient is randomly assigned to one of two treatments. In the Uninformed-Choice treatment, recipients choose their personal IDs before they are informed of the details of the dictator game. In the Informed-Choice treatment, this order is reversed. Hence, when creating their personal IDs, recipients in the Informed-Choice treatment know that their IDs would be shown to their matched dictators. By comparing the proportion of recipients who choose the Pride icon between the two treatments, we can evaluate whether sexual minorities respond to anticipated discrimination by choosing not to use the Pride icon to signal their identity. Since we are also interested in whether males and females differ in their behavior, we recruit a sample of recipients that is balanced on both their gender and sexual identity.

Despite the potential for discrimination based on perceived sexual identity, the proportion of non-heterosexual (and heterosexual) recipients who choose the Pride icon do not differ between the Uninformed-Choice and Informed-Choice treatments. Surprisingly, we instead find that male and female recipients react differently when they are informed how their chosen IDs will be used in the dictator game. While female recipients are less likely to choose the Pride icon when they know that their personal ID will be revealed to dictators, male recipients are more likely to use the Pride icon to represent themselves. We also find that this treatment difference is stronger for non-heterosexual females than it is for heterosexual females.

To our knowledge, this is the first study that uses controlled experiments to present causal evidence that individuals exhibit preference-based discrimination in their pro-social behavior against others on the basis of *perceived* sexual identity (e.g., see Becker, 1971).[8] Given the imperfect nature of signals about identity, both in our experiment and in practice, our findings imply that discrimination against minorities extends to individuals who are *incorrectly* perceived to be part of these minority groups. For instance, heterosexual men who do not conform to traditional masculine norms may be perceived as homosexual and subject to the same

[8] Early work using experimental methods to study discrimination include audit studies (e.g., Ayres and Siegelman, 1995; Neumark et al., 1996; List, 2004) and laboratory experiments (e.g., Fershtman and Gneezy, 2001). Rodgers (2009) provides an exhaustive survey of earlier research. See also recent surveys by Bertrand and Duflo (2017) and Neumark (2018) examining discriminatory behavior using field and laboratory experiments, respectively. It is also important to note that the economics literature distinguishes between taste-based discrimination and statistical discrimination. There is limited scope for strategic interactions in our setup, e.g., reciprocal behavior by recipients. Hence, it is less likely that biased beliefs, i.e., statistical discrimination (e.g., see Phelps, 1972; Arrow, 1973), are driving dictators' behavior. Badgett (2009) surveys controlled experiments that investigate discrimination against sexual minorities, but these audit and correspondence studies cannot rule out statistical discrimination.

type of discrimination that sexual minorities face. It may be possible that such behavior also extends to other minority groups with non-salient characteristics (e.g., social class, religion, mental disabilities).

Our findings have several broad implications and contribute to the discourse on the role of identity and discrimination in economic decision making. We expand upon these discussions in Section 4. In summary, first, the fact that we observe discrimination even when signals of one's identity are noisy may explain why some minority groups choose to mask these signals about their identity in practice. Importantly, the gender differences we find in recipients' behavior suggest that discrimination along one dimension of identity may have spillover effects when it comes to signalling other dimensions of identity. Second, we show that discriminatory behavior does not manifest only in "formal" economic transactions such as hiring decisions, but they also occur in more informal forms of behavior such as helping or pro-social behavior. It is important to understand when and how discrimination in such forms of behavior occurs because they can play a crucial role in influencing economic outcomes. Third, the strong evidence of preference-based discrimination that we document suggests that more targeted interventions are needed to overcome individuals' implicit biases toward sexual minorities. Fourth, our observation that discriminatory behavior is shaped by political views and affiliations suggests that sharp divides persist along party lines when it comes to issues pertaining to diversity and inclusion. This can, in turn, have repercussions when it comes to attempts to legislate bipartisan laws in support of minority rights. Finally, from a methodological perspective, the Icon Task that we introduce in this study provides a novel tool for investigating behavior involving individuals with hidden and/or stigmatized identities using controlled experiments.

2 Experimental Design and Predictions

Our experiment features a modified dictator game where recipients and dictators participate in the game asynchronously. Separate pools of subjects were recruited in two sessions, where those in the first session participated in the game as recipients and those in the second session participated as dictators.

Following the standard dictator game, each dictator is matched with one recipient and has to decide how to divide an endowment of 100 experimental currency units (ECU) within the matched pair. One key modification is the introduction of the Icon Task, where each recipient is asked to choose an ID to represent themselves. Each dictator is presented with an ID and asked to make an allocation decision with respect to a recipient who has chosen that ID.

Figure 1: Set of possible IDs that can be chosen by recipients

2.1 Icon Task

In the recipient sessions, each subject is asked to choose an ID that consists of two components: (i) a string component and (ii) an icon component.[9]

The string component consists of an alpha-numeric string of eight characters. All the recipients are presented with the same three options to choose from: **rgzxw471**, **gwxzr174**, and **zrqgx741**. The options consist of the same set of letters and numbers presented in different orders, and they were determined by the researchers prior to the study. Specifically, they have been chosen in a way to not resemble any word or number (such as an U.S. ZIP code) that subjects may potentially relate to.[10]

The icon component resembles a flag. Similar to the string component, all the recipients are given the same three options to choose from: , , and . All three options are constructed using six horizontal bands of colors, and the colors for the first two options are randomly determined. However, the colors of the third option are deliberately chosen to match the familiar rainbow colors and to resemble the Pride flag, which is a well-established marker for the LGBTQ+ community.[11]

The options for both the string and icon components are presented in a random order for each recipient. At the end of the task, they are presented with their final ID based on their choices. Figure 1 shows the set of all nine possible IDs that a recipient could choose given the string and icon options presented to them. As an example, a recipient who chooses the first string option and the third icon option will have the following ID for the experiment: **rgzxw471**.

[9] The reasons for having two components in the each ID are twofold. First, we want it to resemble a handle that individuals would often see on social media (such as Twitter) and are therefore familiar with. Second, introducing a string component reduces the emphasis of the icon and helps minimize experimenter demand.

[10] The format of each string (i.e., three numbers followed by three letters) is also deliberately chosen to resemble the formats of computer or account usernames we often see in practice.

[11] Prior to the main experiment, we conducted two pilot experiments where subjects participated only in the Icon Task (and not the Dictator Game). Subjects in one of the pilot experiments were given more flag options in addition to the ones presented here. We chose these two non-Pride flags for our main experiments as they were the options most frequently chosen in the pilot experiment. The results from the pilots, as presented in Appendix D, validate our main finding that the Pride flag is an effective tool for representing one's sexual identity in the experiment.

2.2 Dictator Treatments and Predictions

We frame the experiment for dictators as consisting of several main tasks, and instructions to each task are revealed after the completion of the previous task. These instructions can be found in Appendix E.2.

In the first task, dictators are informed that they will be matched with another participant, and they are provided with the details of the Icon Task completed by their matched partners. Specifically, they are presented with the the set of all possible IDs that the recipients can choose from, as presented in Figure 1. Next, each dictator is presented with an ID of a recipient that they will be matched with, and they are asked to choose how much of an endowment of 100 ECU (equivalent to 5 USD) to allocate between themselves and the recipient. They are informed that the actual matches will be realized after all the experiments are completed, and that their allocation decision will determine both their payment and that of a recipient who has chosen the ID that they are shown.

After each dictator has completed the first task, they then proceed to a second task where they are asked to make a similar allocation decision with respect to another recipient who has chosen a *different* ID. Hence, each dictator participates in the dictator game twice, and they are matched with two different recipients with non-identical IDs.

Each dictator is randomly assigned to either one of two treatments. In the *Pride-First* treatment, the dictator is matched with a recipient who has chosen the Pride flag for their ID in the first task (Pride recipient), and then with a recipient who has chosen either one of the two non-Pride flags in the second task (non-Pride recipient). In the *Pride-Second* treatment, this order is reversed, i.e., the ID of the recipient in the first task has one of the two non-Pride flags, while the ID of the recipient in the second task has the Pride flag. For each dictator, only the icon component of the recipients' IDs is varied across both tasks, but the string component remains the same.

Because dictators are only informed that they are repeating the dictator game with a different recipient after they have made the allocation decision for the first recipient, this design feature allows us to carry out both a between- and a within-subject comparison of dictators' allocation decisions based on the recipients' flag choices. Specifically, a between-subject comparison is made based on dictators' decisions in the first task only, while a within-subject comparison is evaluated based on each dictator's decisions for the two recipients across both tasks.

We posit that dictators will see the Pride flag as a signal of one's sexual identity, and we

expect dictators' behavior to be shaped by in-group favoritism and out-group bias along this dimension of their identity (Chen and Li, 2009). That is, we predict that heterosexual dictators will allocate less of their endowment to Pride recipients (or those perceived to be non-heterosexual) as compared to non-Pride recipients (or those perceived to be heterosexual), and that the reverse will hold for non-heterosexual dictators.

Moreover, the purpose of the experiment may become more salient to dictators when they repeat the dictator game with a second recipient whose only difference is in the icon component of their experimental ID (e.g., see Zizzo, 2010). Dictators may also become more cognizant of their own implicit discriminatory behavior when asked to make similar decisions for two different individuals, and be concerned of being viewed negatively for such behavior . Hence, we expect the differences in giving between Pride and non-Pride recipients to be muted under a within-subject comparison.

2.3 Recipient Treatments and Predictions

Recipients are randomly assigned to either the *Uninformed-Choice* or *Informed-Choice* treatments.[12] These treatments differ on the timing in which recipients are given the details of the dictator game, relative to the Icon Task. In the Uninformed-Choice treatment, recipients complete the Icon Task *before* they are informed that their chosen ID will be shown to a dictator who would make an allocation decision between them. In the Informed-Choice treatment, this order is reversed.[13]

The treatment variation provides a between-subject evaluation of recipients' responses to anticipated discrimination. In the Informed-Choice treatment, recipients have a clearer understanding of the potential implications of their choices when completing the Icon Task. If recipients see the Pride flag as a signal of one's affiliation with the LGBTQ+ community and anticipate that dictators will discriminate against individuals who are perceived as non-heterosexual, then they would be less likely to choose the Pride flag when they know during the Icon Task that their chosen ID will be shown to the dictators. In other words, we expect recipients to be less likely to choose the Pride flag in the Informed-Choice treatment as compared to in the

[12] Dictators are only given details of the Icon Task faced by the recipients, but they are not informed of the different treatments faced by them (these treatments are described in Section 2.3). It is possible that higher-order beliefs about recipients' strategic ID choices may enter into the dictator's decision-making process. However, without knowledge of the different recipient treatments, these beliefs can be assumed to be the same on average for dictators regardless of the treatments that their recipients have been assigned to.

[13] Instructions for the recipient sessions are available in Appendix E.1. The instructions are broadly identical across these two treatments, and recipients are shown screenshots of the decision screens which their matched dictators will see. In the Uninformed-Choice treatment, the recipient's chosen ID is used in the screenshots, while a placeholder ID (**abcde123**) is used in the screenshots in the Informed-Choice treatment.

Uninformed-Choice treatment.[14]

2.4 Experimental Procedures

Our experiment was designed to circumvent several issues that one would encounter when studying discriminatory behavior using observational data. In the field, it is difficult to both identify sexual minorities based on their observed characteristics and to reliably elicit the beliefs of others about their identity based on these characteristics. Moreover, any observed interactions of individuals with sexual minorities in the field are subject to concerns about selection, since the occurrence of these interactions may depend on individuals' attitudes towards the out-group in the first place.

While traditional laboratory experiments using university students may overcome some of these issues, they come with their own set of challenges. Because sexual minorities form a relatively small sample of the population, a more targeted recruitment on campus is required to ensure that there are sufficient sexual minorities in the sample. This could cause three issues. First, given that sexual orientation and gender identities are sensitive topics, a different selection problem may arise where individuals who are more confident and open about their identities are more likely to participate in the study. Second, the targeted recruitment could reveal the nature and purpose of the study, which may then induce experimenter demand. Third, since sexual minority students may select into certain universities (e.g., depending on how accepting the universities are towards the LGBTQ+ community), there may also be systematic differences in the sexual minority populations across different universities.

In light of these issues, we conducted the experiments online using oTree (Chen et al., 2016), and we recruited subjects currently residing in the United States via Prolific, an online participant recruitment tool catered to researchers. Crucially, Prolific allows researchers to recruit subjects based on their demographic variables, including gender identity and sexual orientation. Hence, we were able to identify subjects' sexual and gender identities without revealing the purpose of the experiment to them. A total of 282 subjects participated in the recipient sessions, and another 590 subjects participated in the dictator sessions about a week after the recipient sessions. For the recipient sessions, the recruitment was balanced on subjects' gender

[14]Note that this prediction implies that recipients anticipate in-group favoritism or out-group discrimination by dictators based on their sexual identity. Hence, non-heterosexual dictators may give more while heterosexual dictators may give less to recipients who are perceived as non-heterosexual, as compared to those perceived as heterosexual. We do not provide recipients with information about the relative proportions of non-heterosexual and heterosexual dictators in the experiment. Given that non-heterosexual individuals are a minority in the general population, it is reasonable to assume that recipients would believe the average dictator to identify as heterosexual, and, consequently, there would be lower amounts sent to recipients perceived as non-heterosexual on average.

and sexual orientation as reported on their Prolific profiles.[15] As we anticipate heterogeneity in the behavior of heterosexual dictators based on their political views, we recruited a balanced sample of heterosexual subjects based on their political party affiliations in the United States (i.e., Republicans, Democrats, and Independent/Other) for the dictator sessions. Hence, a larger sample of heterosexual dictators ($N = 416$) was recruited relative to that of homosexual dictators ($N = 174$).[16] Our entire recruitment strategy was preregistered.

As noted above, the experiment was conducted asynchronously with asymmetric sample sizes between the recipient and dictator sessions. Hence, we implemented the following many-to-one matching protocol, where each recipient was matched with potentially multiple dictators to determine their payments. The dictators were informed that one of their two allocation decisions would be randomly chosen for payment. This decision would be used to determine the payment of both themselves and a recipient who has chosen an ID that coincided with the one they were shown for the paid task. Hence, from each dictator's perspective, they were making an allocation decision with respect to one recipient for each task of the experiment. At the same time, each recipient was explicitly informed that they could potentially be matched with multiple dictators, and that they might therefore receive transfers from more than one dictator. Hence, from each recipient's perspective, their flag choice would affect the aggregate transfers made to them by multiple dictators. Our protocol preserves the incentive-compatibility of decisions made by both recipients and dictators in a non-deceptive manner.

At the end of both the recipient and dictator sessions, subjects were also asked to complete a survey eliciting demographic variables and asking them questions about the decisions they have made during the experiment. Most of the survey questions are common to both the recipient and dictator sessions, although several questions are specific to either recipients or dictators. We summarize the list of survey questions for both the recipient and dictator sessions in Appendix F. In addition, dictators were also asked to complete an Implicit Association Test using a set of stimuli to measure implicit bias against homosexual individuals (Nosek et al., 2007).

Each recipient session lasted for about 14 minutes while each dictator session lasted for about 18 minutes. The average earnings of subjects were \$6.75 and \$5.82 in the recipient and dictator sessions, respectively. We also asked subjects to complete two attention check questions during the experiments . Only two recipients and six dictators failed to answer exactly

[15]Given the broad spectra of both gender and sexual identities, we restricted our recruitment to both ends of the spectrum for each identity. That is, we recruited an equal number of male and female subjects, and an equal number of homosexual and heterosexual subjects, for the recipient sessions.

[16]The majority of homosexual subjects on Prolific identify as Democrats.

one attention check question correctly, but none of the subjects failed to answer both questions correctly. Hence, we include all the subjects for the main analysis presented below.

3 Results

Tables A.1 and A.2 in Appendix A present summary statistics of key demographic variables of our dictator and recipient samples, respectively. There are no statistically significant differences in the overall characteristics of dictators between the Pride-First and Pride-Second treatments (F-test: p-value = 0.907), and those of recipients between the Uninformed-Choice and Informed-Choice treatments (F-test: p-value = 0.399).[17]

The demographic variables reported in Tables A.1 and A.2 are based on recipients' and dictators' responses in the post-experimental questionnaire. Recall that our recruitment strategy relies on dictators' sexual identity, and recipients' gender and sexual identities, as reported on their Prolific profiles. Tables A.3 and A.4 in Appendix A present comparisons of dictators' and recipients' characteristics, respectively, as reported in the questionnaire and on their Prolific profiles. Overall, 18 dictators and 22 recipients (3.1% and 7.8% of the respective samples) have Prolific profiles that are inconsistent with their responses in the questionnaire. For the main analysis presented below, we use the subjects' characteristics as reported on their Prolific profiles. Our conclusions do not change when we consider the analysis using subjects' gender and sexual identities as reported in the questionnaire.[18]

In what follows, we will first present in the next section the relationship between recipients' flag choice and their sexual identity, as well as that between dictators' perceptions of their matched recipient's sexual identity and flag choice. Next, we examine in Section 3.2 whether dictators discriminate in their giving behavior based on the recipient's flag choices and their perceived sexual identity. Finally, we investigate in Section 3.3 whether recipients respond to anticipated discrimination in their flag choices.

3.1 Flag Choice as a Representation of Sexual Identity

We first turn to the recipients' flag choice based on their sexual orientation. Figure 2 presents the overall proportion of recipients who choose the Pride flag based on their sexual orientation.

[17] Note that we excluded the *male* and *other religion* variables from the F-tests due to multicollinearity. Examining individual characteristics, we find that dictators in the Pride-First treatment are more likely to have some college degree than those in the Pride-Second treatment (p-value = 0.095). Moreover, recipients in the Informed-Choice treatment are slightly younger, are less likely to have some college degree, and are more likely to have a Bachelor's degree than those in the Uninformed-Choice treatment (p-values = 0.097, 0.040, and 0.053, respectively). We control for these demographic variables in all our regression analyses.

[18] Details of these robustness checks are presented in Appendix C.1.

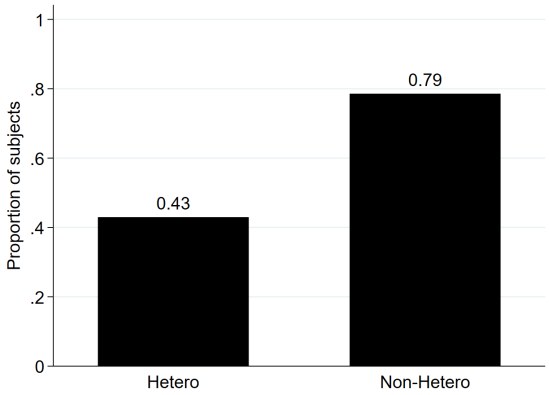


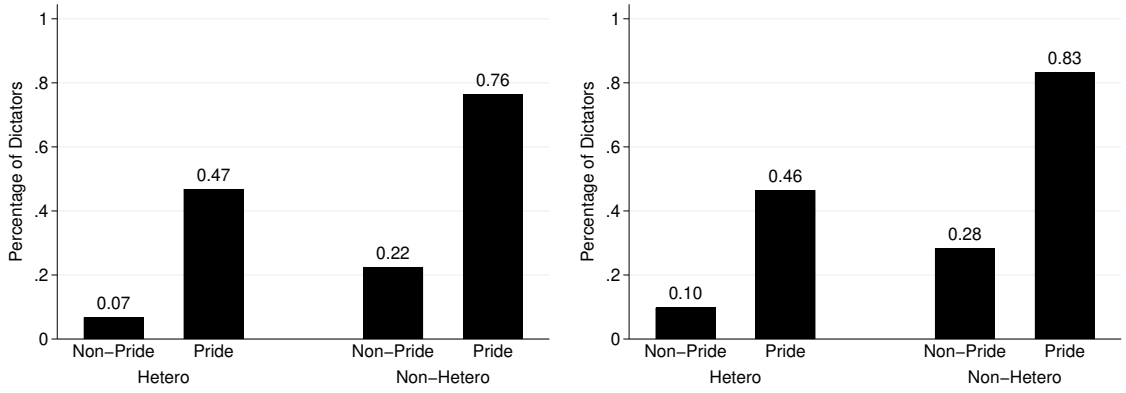
Figure 2: Recipients' choice of Pride flag by sexual orientation

The figure reveals that non-heterosexual recipients are more likely to choose the Pride flag than their heterosexual counterparts (one-tailed Fisher's exact test: p-value < 0.001). Hence, recipients view the Pride flag as a representation of their sexual identity. Nonetheless, the Pride flag remains a noisy representation of identity. A non-trivial proportion (43%) of heterosexual recipients choose the Pride flag. At the same time, not all non-heterosexual recipients choose the Pride flag, even though the majority of them (79%) do so.

Next, we examine whether dictators' beliefs about the recipients' sexual identities are consistent with the recipients' flag choices. Figure 3 presents the proportion of dictators who perceive the recipient to be non-heterosexual based on their flag choice in each task. Across two tasks, 47% (8%) of heterosexual dictators perceive Pride (non-Pride) flag recipients to be non-heterosexual. On the other than, 80% (25%) of non-heterosexual dictators perceive Pride (non-Pride) flag owners to be non-heterosexual. The differences in perception between flags for both heterosexual and non-heterosexual dictators are statistically significant (one-tailed Fisher's exact tests: p-value < 0.001 for both).

Moreover, since most of our analysis is based on dictators' perceptions on the recipients' sexual identity, it is important to compare perceptions across two tasks. When we compare the proportions of dictators perceiving a Pride recipient to be non-heterosexual, we do not see any significant difference in perceptions across two tasks. When the heterosexual dictators are matched with a Pride recipient, 47% and 46% of them in task 1 and task 2, respectively, perceive the recipient to be non-heterosexual (Fisher's exact test: p-value = 1.000). For non-heterosexual dictators, 76% and 83% of them in task 1 and task 2, respectively, perceive a Pride recipient to be non-heterosexual (Fisher's exact test: p-value = 0.345).

Hence, we conclude that the Pride flag is both used by recipients as a marker of their un-



(a) Task 1 (b) Task 2

Figure 3: Proportion of dictators perceiving recipients as non-heterosexual by flag choice

derlying sexual identity, and by dictators as a signal of the recipient's sexual identity. We summarize our main results as follows.

Result 1 *Non-heterosexual recipients are more likely to choose the Pride flag than heterosexual recipients.*

Result 2 *Both heterosexual and non-heterosexual dictators are more likely to perceive a recipient who has chosen the Pride flag to be non-heterosexual as compared to one who has chosen a non-Pride flag.*

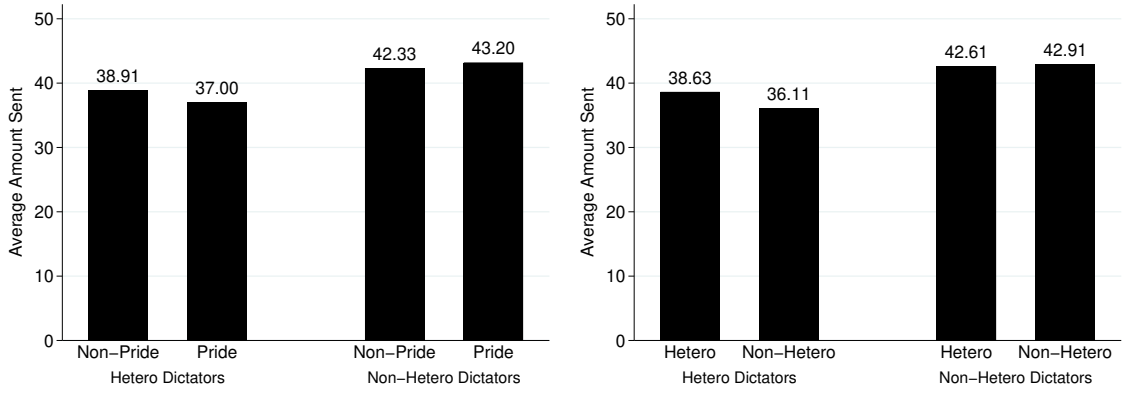
3.2 Dictators' Giving Behavior by Flag Choice and Perceived Orientation

We first examine the dictators' behavior in the first task (task 1) since it gives us a clean comparison between treatments without any potential order effect. After which, we will examine the dictators' behavior using both tasks.

3.2.1 Dictator Behavior Toward First Matched Recipient

First, we present the dictators' giving behavior between the Pride-First and Pride-Second treatments toward their matched recipients in task 1. Panel (a) of Figure 4 shows the average amount sent by dictators based on dictators' sexual orientation and the recipients' flag choice. Comparing the average amounts sent to Pride recipients to non-Pride recipients, we do not find any significant differences in behavior by neither heterosexual nor non-heterosexual dictators (p-values are 0.462 and 0.410, respectively).[19]

[19]Unless otherwise stated, the p-values reported in this section are for two-tailed Mann-Whitney tests.



(a) by Flag Choice (b) by Perceived Sexual Orientation

Figure 4: Average Amount Sent in Task 1

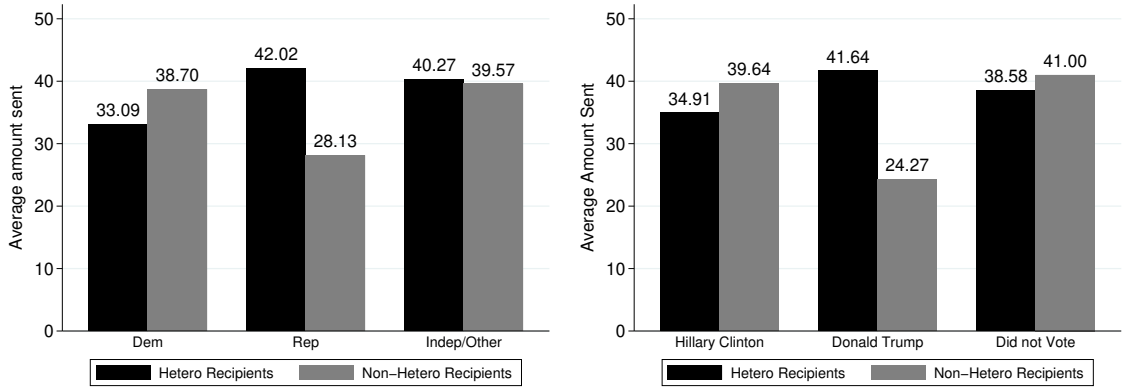
As mentioned in Section 3.1, dictators' perceive recipients' flag choices as a noisy signal of their sexual identity. Hence, our main analysis in this section focuses on giving behavior based on dictators' perceptions about their matched recipients' sexual identity.[20,21]

Panel (b) of Figure 4 shows the average amount sent by dictators based on dictators' sexual orientation and their perception of the recipients' sexual identities. We find that both heterosexual and non-heterosexual dictators send similar amounts to recipients who are perceived to be heterosexual and non-heterosexual (p-values = 0.386 and 0.615, respectively). These findings suggest that, on average, we see neither an out-group discrimination by heterosexual individuals nor an in-group favoritism by non-heterosexual individuals.

Table 1 presents coefficient estimates of tobit regressions of dictators' giving behavior. In the regressions, we control for dictators' gender, ethnicity, age, education level, and ally status. Regression results presented in column (1) of the table are in line with our findings above. Even though heterosexual dictators, on average, transfer less of their endowment relative to non-heterosexual dictators (p-value = 0.169), we do not see any significant differential behavior by neither groups of dictators based on their perceptions of the recipients' sexual identity. We

[20] We repeat all of the analyses presented in the main text by using dictators' behavior toward Pride vs non-Pride recipients. These findings are presented in Appendix B.1. In summary, we obtain similar findings directionally although they are not statistically significant. The lack of statistical significant may be attributed to the Pride flag being an imperfect signal of the sexual identity.

[21] An alternative is to study dictators' giving behavior based on their perceptions about their matched recipients' LGBTQ status. In addition to the perceptions about sexual identity, we also elicited dictators' perceptions about the recipients gender identity (Female, Male or Trans/Non-Binary/Other). A recipient is perceived to be LGBTQ+ if the dictator either believes they are non-heterosexual or Trans/Non-Binary/Other. Only about 13% of the recipients are perceived to be Trans/Non-Binary/Other. Of those, 89% of those are also perceived to be non-heterosexual. As a result, the findings reported in Tables 1 and 2 are similar when we use perceptions about the LGBTQ status rather than the sexual identity.



(a) by Party Affiliation (b) by Voting Behavior in 2016 U.S. Elections

Figure 5: Average Amount Sent by Heterosexual Dictators in Task 1 by Political Preferences

summarize as follows.

Result 3 *Overall, there is no statistically significant evidence of discrimination toward recipients based on their flag choice or by their perceived sexual identity. This is true for both heterosexual and non-heterosexual dictators.*

Even though we do not see any overall discriminatory behavior by heterosexual dictators toward recipients who are perceived to be non-heterosexual, there may be heterogeneity in dictators' behavior. We further compare the behavior of heterosexual dictators' based on their political preferences and religious views.

As the recruitment of heterosexual dictators was stratified by their political party affiliations, we use the information provided on their Prolific profiles to analyze giving behavior across different party affiliations. Panel (a) in Figure 5 presents the average amounts sent by heterosexual dictators to recipients based on their perceived sexual identity, separated by the dictators' political affiliations as reported on Prolific. We find that Democratic heterosexual dictators (N = 139) send more on average to recipients who are perceived to be non-heterosexual as compared to those who are perceived to be heterosexual (p-value = 0.045). The opposite holds for Republican heterosexual dictators (N = 137), who send less on average to recipients whom they perceive to be non-heterosexual (p-value = 0.011). Heterosexual dictators who reported that they are either Independents or affiliated to other parties (N = 140) do not send different amounts to recipients based on their perceived sexual identity (p-value = 0.622).

We also examine dictators' behavior based on their voting behavior in the 2016 U.S. Pres-

Table 1: Tobit Regression Results for Amount Sent in Task 1

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable: Amount Sent in Task 1						
Non-Hetero Recipient	0.084	6.784	6.936	5.463	10.612*	10.949*
	(3.750)	(4.967)	(5.025)	(4.566)	(5.884)	(5.601)
Hetero Dictator	−4.595					
	(3.119)					
Non-Hetero Recip. × Hetero Dict.	−2.778					
	(4.662)					
Rep		10.895***			8.761**	
		(4.035)			(4.221)	
Indep/Other		7.716**			7.057*	
		(3.919)			(3.897)	
Non-Hetero Recip. × Rep		−22.677***			−18.874**	
		(7.588)			(7.985)	
Non-Hetero Recip. × Indep/Other		−7.542			−6.802	
		(7.225)			(7.218)	
Donald Trump			8.353**			5.957
			(3.952)			(4.111)
Election: Other			5.312			4.676
			(4.059)			(4.032)
Non-Hetero Recip. × Donald Trump			−28.016***			−24.535***
			(7.880)			(8.340)
Non-Hetero Recip. × Election: Other			−5.552			−5.460
			(7.078)			(7.116)
Christian				10.212***	7.966**	8.099**
				(3.535)	(3.722)	(3.697)
Other Religion				13.217**	12.607**	12.417**
				(6.029)	(6.002)	(5.974)
Non-Hetero Recip. × Christian				−15.226**	−9.417	−8.512
				(6.458)	(6.914)	(6.800)
Non-Hetero Recip. × Other Religion				−9.220	−8.315	−10.785
				(10.608)	(10.590)	(10.620)
Constant	43.513***	30.841***	30.646***	31.100***	27.605***	27.747***
	(5.583)	(7.487)	(8.085)	(7.076)	(7.550)	(8.104)
Observations	590	416	416	416	416	416
Controls	Y	Y	Y	Y	Y	Y

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Coefficients of tobit model reported. Standard errors in parentheses. Column (1) includes all dictators, Columns (2)-(6) include heterosexual dictators only. In the regressions, we control for dictators' gender, ethnicity, age, education level, and ally status.

idential Elections, as presented in panel (b) of Figure 5.[22] We find that the dictators' giving behavior based on voting preferences are in line with their behavior based on party affiliations. Heterosexual dictators who voted for Hilary Clinton (N = 135) send more on average to recipients perceived to be non-heterosexual as opposed to those perceived to be heterosexual, although this difference is not statistically significant (p-value = 0.108), while Donald Trump voters (N = 138) send less on average to these recipients (p-value = 0.001). Finally, we do not find any statistically significant evidence of differential giving by dictators who were eligible to but did not vote (N = 68) (p-value = 0.721).

These findings are also supported by our regression analysis in columns (2) and (3) in Table 1. Column (2) reveals that, compared to Democratic heterosexual dictators who are matched with recipients whom they perceive as heterosexual, Republican heterosexual dictators are more giving toward recipients who are perceived to be heterosexual, but less giving toward those whom they perceive as non-heterosexual. When we consider dictators' voting behavior in the 2016 Presidential elections in column (3), we make similar observations for Donald Trump voters compared to Hilary Clinton voters.

Result 4 *There is discrimination against recipients who are perceived to be non-heterosexual by heterosexual dictators based on the their political preferences. Dictators who are Republican or Donald Trump voters give less on average to recipients perceived to be non-heterosexual as compared to those perceived to be heterosexual, while those who are Democratic or Hillary Clinton voters give more.*

Next, we compare the behavior of heterosexual dictators behavior based on their religious affiliation.[23,24] Figure 6 illustrates the giving behavior by heterosexual dictators based on their

[22] Voting behavior data in the 2016 U.S. Presidential Elections was collected as part of our survey. It is important to note that, as one would expect, there is a significant correlation between party affiliation and the voting behavior. 68.4% dictators who indicated their political affiliation to be with the Democratic Party voted for Hilary Clinton and 0.2% voted for Donald Trump, while the rest either voted for someone else or did not vote. 78.8% dictators who indicated their political affiliation to be with the Republican Party voted for Donald Trump and 0.6% voted for Hilary Clinton, while the rest either voted for someone else or did not vote.

[23] Here, we examine heterogeneity in behavior by religious affiliations only for heterosexual dictators. 51.2% of heterosexual dictators are Christian (N = 213), 39.9% not religious (N = 166), and 8.9% belong to other religious groups, which include Buddhist, Jewish, Muslim, and Asian Folk (N = 37). On the other hand, only 20.7% of non-heterosexual dictators are Christian (N = 36), 68.4 % are not religious (N = 119), and 10.9% belong to other religions (N = 19). In Appendix B.3, we study non-heterosexual dictators' giving behavior based on their religious affiliations. We find that, contrary to their heterosexual counterparts, Christian non-heterosexual dictators give more on average to recipients who are perceived to be non-heterosexual.

[24] It is also important to note that there is a significant overlap between political and religious affiliations. 81.8% of Republican heterosexual dictators are also Christian. The proportion of heterosexual dictators who are Democratic and have other party affiliations that are also Christian are much smaller (36.7% and 35.7%, respectively).

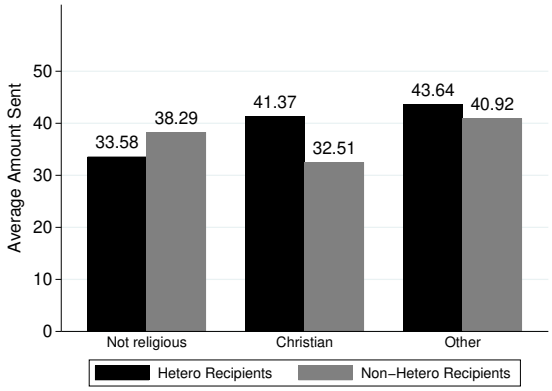


Figure 6: Average Amount Sent by Heterosexual Dictators in Task 1 by Religious Affiliation

religious affiliations. Christian heterosexual dictators send less to recipients who are perceived to be non-heterosexual as compared to those perceived to be heterosexual (p-value = 0.021). Non-religious heterosexual dictators send more to recipients who are perceived to be non-heterosexual, although this difference is not statistically significant, (p-value = 0.166). There is no statistically significant evidence that heterosexual dictators with other religious affiliations send different amounts to recipients based on their sexual identities (p-value = 0.864).

These findings are also supported by our regression analysis in column (4) in Table 1. We find that religious heterosexual dictators (both Christians and those of other religious affiliations) give more on average to recipients perceived as heterosexual as compared to non-religious heterosexual dictators. However, Christian heterosexual dictators give less on average to recipients whom they perceive as non-heterosexual.

Finally, we run a pooled regression to identify whether it is the political and/or religious views of non-heterosexual dictators that dominate in explaining their giving behavior. In column (5) of Table 1, we control for both dictators' political and religious affiliations, and in column (6), we control for both their voting behavior and religious affiliation. Due to the large overlap between dictators' political affiliations and voting behavior, we do not control for both variables in the same regression. Our estimates suggest that the discrimination by heterosexual dictators toward recipients who are perceived to be non-heterosexual is mainly driven by their political views. Specifically, once we control for their political affiliation (column 5) or voting behavior (column 6), we do not observe any statistically significant evidence that Christian dictators discriminate in their giving behavior against recipients perceived to be non-heterosexual.

Result 5 *There is discrimination against recipients who are perceived to be non-heterosexual by Christian heterosexual dictators. However, once we control for political affiliation and*

voting behavior, we no longer find any statistically significant evidence of discrimination by Christian heterosexual individuals.

We also elicited the dictators' beliefs about their matched recipients' gender, ally status, age, and political leanings in the same manner as the perceived sexual identity. Dictators giving behavior may also be different based on perceptions other than sexual identity. For example, Dimant (2020) studies the impact of political polarization, through the lens of one's feelings of hate and love for Donald Trump, on pro-/anti-social decisions. He finds that Trump supporters show out-group hate in the behavioral domain (in terms of helping and cooperating behavior). As a robustness check, we control for the dictators' perceptions of each of these items using regression analyses. Our main results discussed above are robust even after controlling for each of these perceptions and their interactions with the dictators' political affiliation (see Table B.1) and voting behavior in the 2016 U.S. Presidential Elections (see Table B.2).

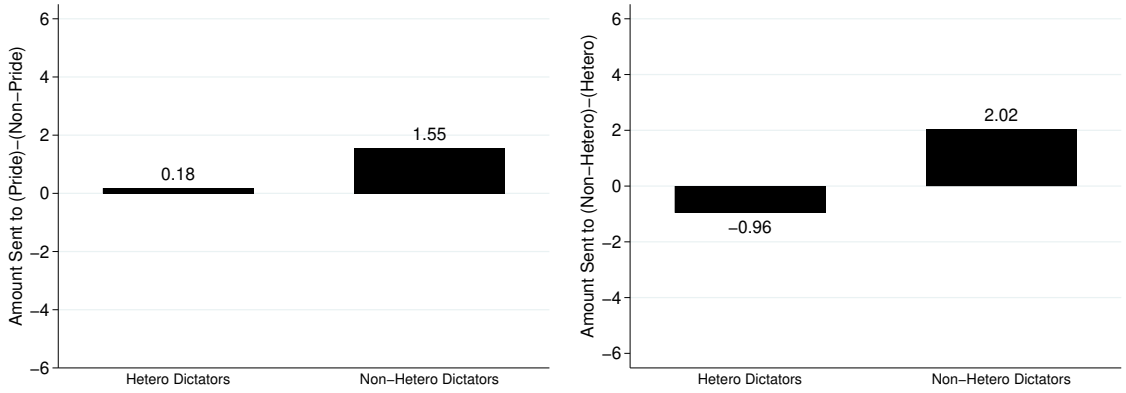
3.2.2 Dictator Behavior Across Two Tasks

In this section, we present differences in dictators' giving behavior between the first and second tasks using a within-subject comparison.[25] Recall that each dictator is matched with a Pride recipient and a non-Pride recipient across both tasks. Panel (a) of Figure 7 shows the average difference in amounts sent by each dictator to their Pride recipient relative to their non-Pride recipient, separately based on the dictators' sexual orientation. A positive (negative) difference implies discrimination by dictators in favor of (against) the Pride recipient. The figure reveals that, on average, heterosexual dictators do not discriminate in their giving behavior between the two recipients that they are matched with, while non-heterosexual dictators tend to give more to Pride recipients than non-Pride recipients (Wilcoxon signed-rank tests: p-values = 0.432 and 0.002, respectively).

Panel (b) of Figure 7 shows the average difference in amounts sent by each dictator to a recipient perceived to be non-heterosexual relative to a recipient perceived to be heterosexual. Similarly, a positive (negative) difference implies discrimination in favor of (against) a recipient perceived to be non-heterosexual.[26] The figure reveals patterns of behavior similar to those observed in panel (a). Under a within-subject comparison, while heterosexual dictators give slightly less on average to recipients perceived to be non-heterosexual, this difference is not statistically significant (Wilcoxon signed-rank test: p-value = 0.139). On the other hand,

[25] Appendix B.2 provides an analysis of dictators' behavior in the second task (task 2) only. The conclusions based on task 2 behavior are largely in line with our conclusions in this section.

[26] Note that panel (b) excludes dictators who perceive both their recipients to have the same sexual orientation.



(a) by Flag Choice (b) by Perceived Sexual Orientation

Figure 7: Difference in Average Amount Sent to Both Recipients

non-heterosexual dictators give more on average to recipients whom they perceive to be non-heterosexual (p-value < 0.001).

As in our analysis of task 1 behavior, we next examine heterogeneity in the giving behavior of heterosexual dictators. Figure 8 presents the average difference in amounts sent by heterosexual dictators to recipients perceived as non-heterosexual as opposed to those perceived as heterosexual. We consider separate graphs based on the dictators' political affiliations (panel a), voting behavior in the 2016 U.S. elections (panel b), and religious views (panel c).

The figures paint a stark picture of the differences in heterosexual dictators' behavior along political and religious views under a within-subject comparison. Contrary to our conclusions based only on task 1 behavior, Democrats and Clinton voters do not differentiate in their giving behavior toward their recipients based on perceived sexual identity (Wilcoxon signed-rank tests: p-values = 0.301 and 0.895, respectively). Nonetheless, there remains no statistically significant evidence of discriminatory behavior by non-religious dictators (p-value = 0.673).

We continue to observe that Republicans/Trump voters and Christians tend to give less on average to recipients whom they perceive as non-heterosexual. Also consistent with our findings based on task 1 behavior, this difference is statistically significant for Republicans and Christians (p-values = 0.003 and 0.039, respectively). However, we find that the difference in giving behavior by Trump voters is no longer statistically significant (p-value = 0.247).[27]

Table 2 presents similar tobit regressions to Table 1, except that the dependent variable

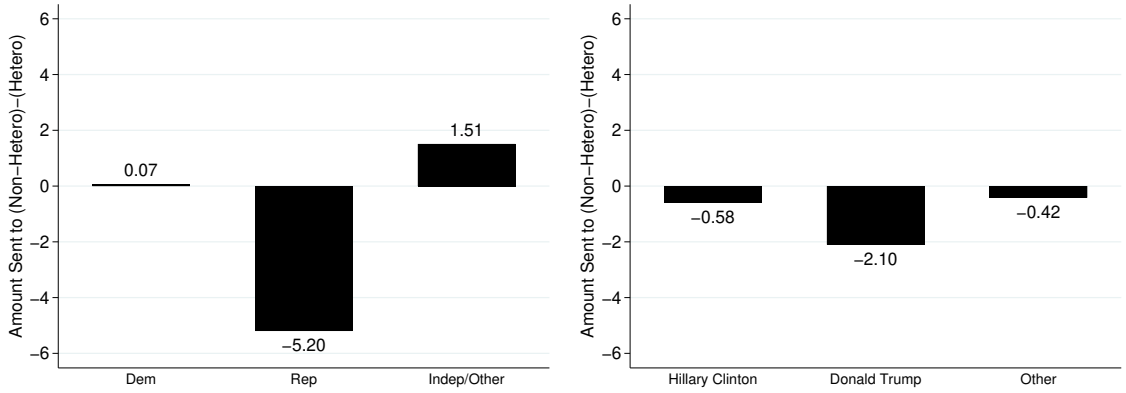
[27] We do not find any statistically significant evidence of discriminatory behavior by dictators who are Independents or affiliated with other parties, or those who voted for candidates other than Clinton or Trump, or those who are affiliated with other religions (Wilcoxon signed-rank tests: p-values = 0.987, 0.211, and 1.000, respectively). These conclusions are consistent with our observations under a between-subject comparison using task 1 behavior only.

Table 2: Tobit Regression Results for Amount Sent to Non-Heterosexual vs. Heterosexual Recipients

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable: Difference in Amounts Sent (Non-Heterosexual - Heterosexual Recipients)						
Hetero Dictator	−2.973**					
	(1.209)					
Rep		−5.461**			−4.949**	
		(2.301)			(2.324)	
Indep/Other		1.500			1.459	
		(1.986)			(1.985)	
Donald Trump			−0.883			−0.239
			(2.335)			(2.343)
Election: Other			−0.233			0.166
			(2.095)			(2.106)
Christian				−3.090	−2.251	−3.086
				(1.907)	(1.896)	(1.939)
Other Religion				1.015	0.655	0.969
				(3.078)	(3.027)	(3.100)
Constant	2.017**	3.655	3.998	4.642	4.202	4.441
	(0.946)	(3.448)	(4.016)	(3.577)	(3.514)	(4.011)
Observations	297	182	182	182	182	182
Controls	Y	Y	Y	Y	Y	Y

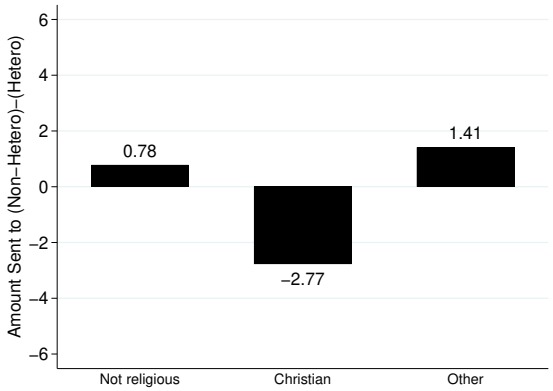
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Coefficients of tobit model reported. Standard errors in parentheses. Column (1) includes all dictators, Columns (2)-(6) include heterosexual dictators only. In the regressions, we control for dictators' gender, ethnicity, age, education level, and ally status.



(a) by Party Affiliation

(b) by Voting Behavior in the 2016 U.S. Elections

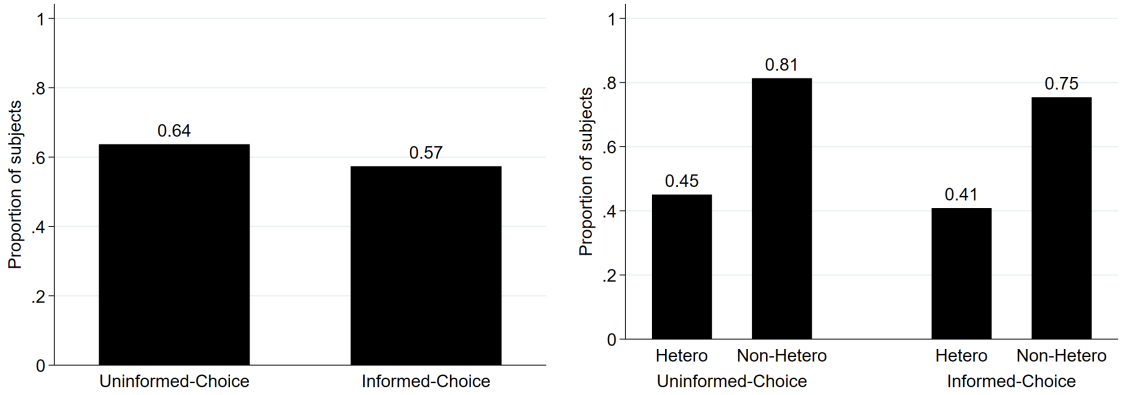


(c) by Religious Affiliation

Figure 8: Difference in Average Amount Sent by Heterosexual Dictators based on Political and Religious Views

is now the difference in amount sent by each dictator to their recipients based on perceived sexual orientation. Column (1) reports the estimates for both non-heterosexual and heterosexual dictators and confirms our observations in panel (b) of Figure 7. Columns (2) to (6) report estimates only for heterosexual dictators. In columns (2) to (4), we control for the dictators' political and religious views separately, while in columns (5) and (6) we control for both factors in the same regressions.

The estimates in columns (2) to (4) of Table 2 reveal that, while Republicans discriminate by giving less to recipients whom they perceive as non-heterosexual, we do not see any statistically significant evidence of such discriminatory behavior by neither Trump voters nor Christians. The discriminatory behavior by Republicans remains statistically significant when we control for religious affiliations (in column 5). Importantly, unlike our conclusions based on task 1 behavior only, we no longer find any statistically significant evidence of discrimination by Trump voters under a within-subject comparison. We summarize as follows.



(a) by treatment (b) by treatment and sexual orientation

Figure 9: Choice of Pride flag by both treatment and sexual orientation

Result 6 *Discrimination against recipients who are perceived to be non-heterosexual persists across both tasks for Republican heterosexual dictators, but we no longer find evidence of discrimination by heterosexual dictators who voted for Donald Trump under a within-subject comparison.*

A key difference in dictators' behavior between task 1 and task 2 is that by heterosexual dictators who voted for Donald Trump in 2016. In task 1, we find evidence of a large difference in average giving behavior based on perceived sexual identities by Trump voters. This discriminatory behavior disappears when we compare behavior across both tasks 1 and 2. We conjecture that this could be due to self-image concerns. It is possible that, in task 2, dictators may have realized the purpose of the experiment (i.e., to study attitudes toward LGBTQ+ individuals). Our findings that discriminatory behavior by Trump voters exist when we examine behavior in task 1 only, but not across both tasks, would be consistent with the conjecture that Trump voters are concerned about their self-image. However, since we find that discriminatory behavior by Republicans exists both under a between-subject and a within-subject comparison, this would suggest that self-image concerns may potentially be stronger for Trump voters than they are for the average Republican voters.

3.3 Recipients' Flag Choice by Treatment

We now turn to recipients' choice of Pride flag within each treatment. Figure 9 presents the proportion of recipients choosing the Pride flag by treatment (panel a) and by recipients' sexual orientation within each treatment (panel b).

Panel (a) reveals that 64% of recipients choose the Pride flag in the Uninformed-Choice

treatment. In line with our predictions, this proportion decreases to 57% when recipients are informed of the dictator game procedures before choosing their ID in the Informed-Choice treatment. However, the treatment difference in the proportion of recipients choosing the Pride flag is not statistically significant (p-value = 0.167).[28]

Panel (b) reveals that, first, non-heterosexual recipients are more likely to choose the Pride flag than heterosexual recipients in both the Uninformed-Choice and Informed-Choice treatments (p-values < 0.001 in both treatments). This is consistent with our observation in Figure 2. Second, while both heterosexual and non-heterosexual recipients are less likely to choose the Pride flag in Informed-Choice than in Uninformed-Choice, these treatment differences are not statistically significant for both groups of recipients (p-values = 0.367 and 0.258, respectively). Hence, contrary to our predictions, we do not find any evidence to suggest that recipients are less likely to choose the Pride flag in the Informed-Choice treatment on average. We summarize our results as follow.

Result 7 *There is no statistically significant difference in the proportions of recipients choosing the Pride flag between the Uninformed-Choice and Informed-Choice treatments, both overall and separately for non-heterosexual and heterosexual recipients.*

We next examine the treatment differences in the proportion of recipients choosing the Pride flag by gender. Figure 10 presents the proportion of recipients choosing the Pride flag within each treatment, separately based on their reported gender (panel a), and on both their reported gender and sexual orientation (panel b).

Panel (a) reveals that the effect of revealing the details of the dictator game on the choice of Pride flag depends on the recipient's gender. In the Uninformed-Choice treatment, female recipients are more likely to choose the Pride flag than male recipients, with 73% of female recipients choosing to do so as opposed to 54% of male recipients (p-value = 0.014). This gender difference is reversed in the Informed-Choice treatment, where we observe that 47% of female recipients choose the Pride flag as compared to 68% of male recipients (p-value = 0.012). Importantly, we observe that while there is an *increase* in the proportion of *male* recipients choosing the Pride flag in Informed-Choice as compared to Uninformed-Choice (p-value = 0.072), there is instead a *decrease* in the proportion of *female* recipients doing so in Informed-Choice as compared to Uninformed-Choice (p-value = 0.001). Hence, there are gender differences in

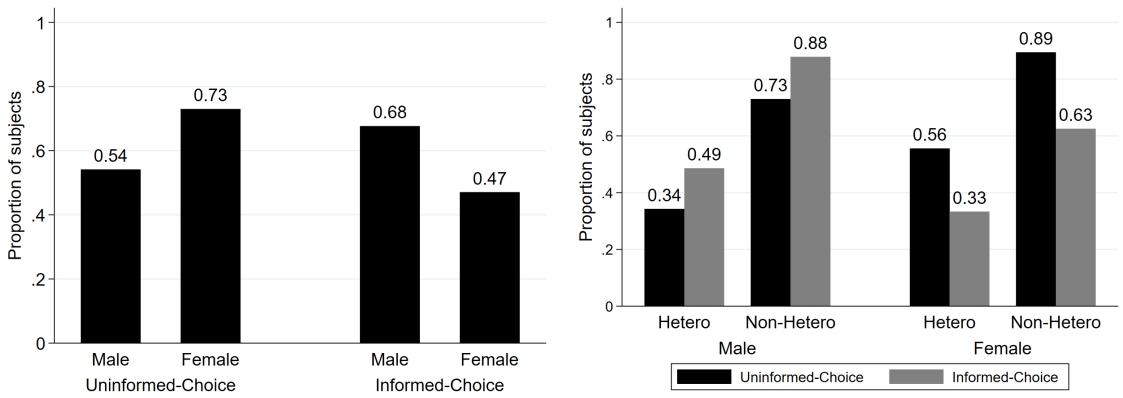
[28] Unless otherwise stated, the p-values reported in this section are for one-tailed Fisher's exact tests.

the recipients' response to anticipated discrimination when deciding whether to use the Pride flag to represent themselves.

We next examine whether this gender difference in the response to treatment depends on recipients' sexual orientation. Panel (b) of Figure 10 reveals that the gender differences in the choice of the Pride flag hold for both heterosexual and non-heterosexual recipients. Specifically, both heterosexual and non-heterosexual female recipients are more likely to choose the Pride flag in the Uninformed-Choice treatment than their male counterparts (p-values = 0.059 and 0.061, respectively). On the other hand, female recipients are less likely to choose the Pride flag in the Informed-Choice treatment than male recipients regardless of their sexual orientation, although this gender difference is statistically significant only for non-heterosexual recipients and not for heterosexual recipients (p-values = 0.018 and 0.144, respectively).

Panel (b) also reveals that both heterosexual and non-heterosexual male recipients are more likely to choose the Pride flag in the Informed-Choice treatment than in Uninformed-Choice treatment, although these treatment differences are not statistically significant (p-values = 0.166 and 0.104, respectively). On the other hand, both heterosexual and non-heterosexual female recipients are less likely to choose the Pride flag in the Informed-Choice treatment than in the Uninformed-Choice treatment (p-values = 0.048 and 0.008, respectively).

Table 3 presents coefficient estimates of probit regressions of recipients' choice of Pride flag against the treatment variable and recipients' sexual orientation, and gender. Columns (2) and (3) include interactions between the treatment variable and recipients' sexual orientation and gender, respectively. In the regressions, we also control for recipients' age, ethnicity, education level, religion, ally status, LGBTQ+ views, political views on social issues, whether they have



(a) by treatment and gender

(b) by treatment, gender, & sexual orientation

Figure 10: Choice of Pride flag by treatment, gender, and sexual orientation

Table 3: Probit regressions of recipients' choice of Pride flag

	(1)	(2)	(3)
Dependent variable: Chose Pride flag			
Informed-Choice	−0.106	−0.079	0.484*
	(0.178)	(0.236)	(0.250)
Non-heterosexual	0.884***	0.914***	0.909***
	(0.206)	(0.266)	(0.212)
Non-heterosexual × Informed-Choice		−0.061	
		(0.348)	
Female	−0.109	−0.108	0.478*
	(0.179)	(0.180)	(0.250)
Female × Informed-Choice			−1.238***
			(0.358)
Constant	−1.784**	−1.801**	−1.878***
	(0.702)	(0.708)	(0.720)
Observations	282	282	282
Controls	Y	Y	Y

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.
Coefficients of probit model reported. Standard errors in parentheses.

a family member or close friend who identifies as LGBTQ+, how frequent they interact with LGBTQ+ individuals, their beliefs about the amounts sent to other recipients' based on their flag choice, and their beliefs about the political views of the Prolific population.[29]

The estimates in Table 3 confirm Result 1, where in all three columns we observe that non-heterosexual recipients are more likely to choose the Pride flag on average. Columns (1) and (2) also confirm Result 7. There are no treatment differences in the proportion of recipients choosing the Pride flag both overall and separately for heterosexual and non-heterosexual recipients. Column (3) confirms our observations that there are gender differences in the choice of Pride flag in the Uninformed-Choice treatment, and that male and female recipients respond to the knowledge of the dictator game differently when deciding on their flag choice. Specifically, male recipients are more likely to choose the Pride flag in the Informed-Choice treatment than

[29]Four recipients (1.42%) indicated in the post-experimental questionnaire that they suffer from color blindness. Table C.2 in Appendix C.2 show that our main results are robust to the exclusion of these recipients in our analysis.

in the Uninformed-Choice treatment, while the opposite holds for female recipients.[30,31] We summarize as follows.

Result 8 *Female recipients are more likely to choose the Pride flag than male recipients in the Uninformed-Choice treatment, while they are less likely to do so in the Informed-Choice treatment. Consequently, female recipients are less likely to choose the Pride flag in the Informed-Choice treatment than in the Uninformed-Choice treatment, while male recipients are more likely to do so.*

We observe stark gender differences in the choice of Pride flag between the Uninformed-Choice and Informed-Choice treatments regardless of recipients' sexual orientation. What might be driving these gender differences? One possible explanation is that women may be more likely to perceive discrimination along other dimensions of identity given prevailing discrimination and unequal treatment of women along gender lines (e.g., Fisk and Overton, 2019; Charness et al., 2020).[32]

To further explore this, we examine whether gender differences in perceived discrimination manifest in recipients' beliefs about the amount sent to other recipients based on their flag choice.[33] Figure 11 presents the recipients' beliefs about the difference in amounts sent to Pride and non-Pride recipients. The figure reveals that male recipients believe that Pride recipients will receive slightly more from their dictators than non-Pride recipients. While this difference from zero is statistically significant (Wilcoxon signed-rank test: p-value = 0.009), one should note that the magnitude is small. Moreover, female recipients do not expect Pride and non-Pride recipients to be treated differently (Wilcoxon signed-rank test: p-value = 0.310), and

[30] As per our pre-analysis plan, Appendix C.3 presents further heterogeneity analysis by recipients' LGBTQ+ allyship status and political views on social issues. Overall, we do not find systematic heterogeneous treatment effects along these two dimensions. While we find weak evidence that LGBTQ+ allies are less likely to choose the Pride flag in the Informed-Choice treatment than in the Uninformed-Choice treatment (p-value = 0.080), this result appears to be driven by female recipients. As further exploratory analysis, we also present treatment comparisons by recipients' education, ethnicity, and religion in Appendix C.4, as well as regression models including interaction terms between the treatment variable and these demographic variables. We find that Asian recipients are more likely to choose the Pride flag in the Informed-Choice treatment than in the Uninformed-Choice treatment (t-test: p-value = 0.044). Nonetheless, the overall gender difference in the choice of Pride flag is robust to the inclusion of these demographic variables and interaction terms as controls.

[31] In Appendix C.5, we consider additional analyses of recipients' individual flag and string choices by treatment, gender, and sexual orientation. Our main conclusions are also robust to these additional analyses.

[32] This conjecture is also consistent with the intergroup threat theory in the psychology literature which suggests that individuals of low-power groups tend to be more susceptible to perceiving threats to their group as compared to those from high-power groups (Stephan et al., 2009). Moreover, evidence suggests that men and women react differently to cues on outgroup threat (Yuki and Yokota, 2009; Sugiura et al., 2017). .

[33] This analysis serves as ex-post rationalization of the data and are therefore not included in our pre-analysis plan.

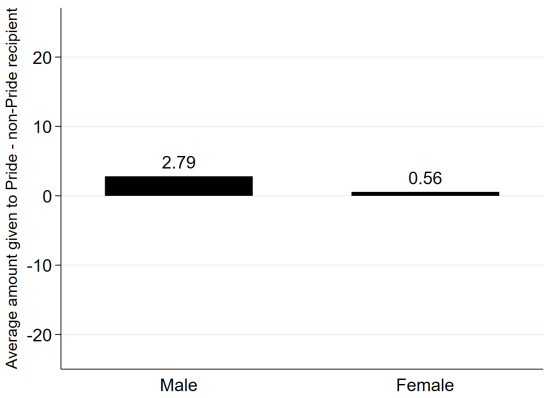


Figure 11: Belief about difference in amounts sent to Pride and non-Pride recipients

there are no overall difference between male and female recipients in their beliefs (Wilcoxon rank-sum test: p-value = 0.215).[34] Moreover, recipients' beliefs are included as controls in the regressions reported in Table 3. We find that they do not yield any explanatory power, and gender differences in the choice of Pride flag still persist. Hence, it does not appear that recipients' beliefs can fully explain our main result.

Gender differences in the choice of Pride flag in the Uninformed-Choice treatment may also arise due to differences between men and women in their behavior under ambiguity. In this treatment, recipients are presented with an uncertain environment since they are not informed of the implications of their choices in the Icon Task. In the Informed-Choice treatment, such ambiguity is resolved. Hence, in the Uninformed-Choice treatment, recipients' flag choices may depend on both their beliefs about the potential implications of these decisions, and their response to these beliefs. For example, recipients may hold some level of belief that selecting the Pride flag would lead to adverse outcomes due to anticipated discrimination, and those who over-estimate these negative consequences or who respond more adversely to ambiguity would be less likely to choose the Pride flag. While there is mixed evidence as to how men and women respond to ambiguity[35], our finding that male recipients are less likely to choose the Pride flag than female recipients in the Uninformed-Choice treatment is consistent with the conjecture that men respond less favorably than women in ambiguous environments.

[34]It is possible that, with a within-subject comparison, recipients may be more likely to anchor their beliefs about the second recipient on those they report for the first recipient, or that experimental demand may affect their reported beliefs. Figure C.11 in Appendix C.6 presents recipients' beliefs about the amounts sent to the first recipient they were matched with. We do not observe any statistically significant differences in recipients' beliefs based on treatment nor gender.

[35]Borghans et al. (2009) find that men tend to respond to ambiguity less favorably than women, but Schubert et al. (2000) and Pulford and Gill (2014) find that women are more ambiguity averse than men.

4 Discussion

Using a series of controlled experiments and introducing a novel Icon Task to signal one's sexual identity, we document differential treatment of individuals based on their perceived sexual identity in pro-social domains. We find strong evidence of discriminatory behavior by heterosexual individuals, and that such behavior is driven by political preferences. Specifically, dictators who are Republican or voted for Donald Trump in the 2016 U.S. elections are significantly less pro-social toward recipients whom they perceive to be non-heterosexual. On the recipients' side, we document a stark gender difference in behavioral responses to information about how their chosen IDs would be utilized in the dictator game. While men are more likely to choose the Pride flag as part of their IDs when they are aware of the possibility of discrimination, women are less likely to do the same.

These results, taken together, have several implications. First, discrimination on the basis of perceptions of identity can explain why individuals of certain social categories choose to conceal or mask signals about their identity (e.g., Newheiser and Barreto, 2014; Biavaschi et al., 2017; Charness et al., 2020). While we do not find evidence that sexual minorities conceal their identity in the face of discrimination, we observe that women – in particular, non-heterosexual women – do. Given the well-documented evidence of discrimination against women in various environments (e.g., Neumark et al., 1996; Goldin and Rouse, 2000; Moss-Racusin et al., 2012; Reuben et al., 2014), our result suggests that there are potential spillover effects of discrimination along one dimension of identity (gender) onto other dimensions (sexuality). It may also explain the gay wage penalty and lesbian wage premium documented in the literature (Klawitter, 2015).[36] For example, non-heterosexual women may be more capable in avoiding disadvantageous situations arising from discrimination as compared to both heterosexual women and non-heterosexual men. While our study provides some suggestive evidence, further research will be required to understand how individuals belonging to multiple stigmatized social categories behave in the face of discrimination.

Second, while much of the focus in economics has been on discrimination in more "formal" transactions (e.g., hiring decisions as in Neumark et al. 1996, or interview offers as in Bertrand and Mullainathan, 2004), understanding how and when discrimination manifests in more "informal" forms of behavior (e.g., bargaining as in List, 2004, or general pro-social behavior as

[36] However, more recent evidence has shown mixed evidence on this front (e.g., see Carpenter and Eppink, 2017; Sabia et al., 2017; Aksoy et al., 2018).

in Fershtman and Gneezy, 2001) is also important.[37] Our results suggest that preference-based discrimination in the latter may be prevalent when it comes to sexual minorities. Much like discrimination in formal hiring decisions can contribute to gaps in career outcomes, discrimination in informal forms of behavior can also have detrimental effects on individuals' outcomes. For example, in the workplace, attitudes and preferences toward minorities can determine the level of support and interactions that these minorities are provided with by those in positions of power. Such form of support or informal mentoring can play a crucial role in shaping career outcomes (Allen et al., 2004; Dennehy and Dasgupta, 2017; Lundberg and Stearns, 2019). Moreover, a self-fulling prophecy could emerge where minorities become less productive or under-perform, especially if they believe that their managers harbor biases against them (e.g., Glover et al., 2017, find this to be the case for racial minorities).

Third, the compelling and strong evidence of preference-based discrimination that we find in our experiment implies that more targeted interventions are needed to overcome individuals' implicit biases toward sexual minorities (Bertrand et al., 2005; Bertrand and Duflo, 2017). For instance, one could appeal to the intergroup contact theory in social psychology (e.g., see Allport, 1954; Pettigrew and Tropp, 2000), which suggests that increasing contact between groups can help reduce intergroup bias. Relatedly, recent evidence within economics suggests that interventions that seek to increase contact between different social groups divided along ethnicity or social class leads to less discrimination against these minority groups (e.g., see Boisjoly et al., 2006; Corno et al., 2019; Rao, 2019). Moreover, the lower average difference in giving that we find under a within-subject comparison provides suggestive evidence that raising self-awareness may help mitigate discriminatory behavior. Consequently, one could design interventions such as those that aim to raise consciousness, target emotions through perspective taking, or to increase accountability, as possible methods to mitigate the biases that manifest subconsciously within individuals (see Paluck and Green, 2009, for a review of these strategies as advocated by social psychologists).

Fourth, our findings that discriminatory behavior is largely shaped by political views, while unsurprising, are concerning. Our results suggest that deep-rooted divides continue to exist along party lines when it comes to diversity and inclusion. For instance, while the 2020 elec-

[37] Mujcic and Frijters (2020) use an audit study to examine whether ethnic minorities are less likely to get away with fare evasion, while Dupas et al. (2020) uses observational data to document discrimination against women in academic seminars. In psychology, studies have found that individuals with implicit biases toward minority groups are less likely to interact (or engage in positive social interactions) with members from these minority groups (e.g., McConnell and Leibold, 2001; Hebl et al., 2002).

tions in the United States saw a record number of gender and sexual minorities elected to office, almost all of these office holders come from the same party.[38] The lack of bipartisan representation of these minority groups and consensus on the treatment of these individuals will likely make it challenging to legislate laws for minority rights, and, consequently, these minority groups may continue to get worse outcomes relative to the general population (Besley and Coate, 1997; Pande, 2003). However, recent studies by Aksoy et al. (2020) and Abou-Chadi and Finnigan (2019) indicate that laws could play an important role in shaping attitudes toward minorities, suggesting that policy itself can bring about changes to public opinion and the treatment of minority groups.

Finally, our key methodological contribution is the development of the Icon Task as a tool for subjects to signal their sexual orientation in a non-intrusive manner. This novel method allows subjects to signal identity to others in a way that mimics the inherent imperfect nature of similar signals in the field. This technique could prove useful to advance research on sexual minorities (in both strategic and non-strategic environments) and also be adapted to study other minority groups.

[38] https://www.nbcnews.com/feature/nbc-out/congress-will-have-record-number-lgbtq-lawmakers-next-session-n1246487.

References

T. Abou-Chadi and R. Finnigan. Rights for same-sex couples and public attitudes toward gays and lesbians in Europe. *Comparative Political Studies*, 52(6):868–895, 2019.

A. Acquisti and C. Fong. An experiment in hiring discrimination via online social networks. *Management Science*, 66(3):1005–1024, 2020.

G. A. Akerlof and R. E. Kranton. Economics and identity. *Quarterly Journal of Economics*, 115(3):715–753, 2000.

G. A. Akerlof and R. E. Kranton. Identity and schooling: Some lessons for the economics of education. *Journal of Economic Literature*, 40(4):1167–1201, 2002.

G. A. Akerlof and R. E. Kranton. Identity and the economics of organizations. *Journal of Economic Perspectives*, 19(1):9–32, 2005.

C. G. Aksoy, C. S. Carpenter, and J. Frank. Sexual orientation and earnings: New evidence from the United Kingdom. *ILR Review*, 71(1):242–272, 2018.

C. G. Aksoy, C. S. Carpenter, J. Frank, and M. L. Huffman. Gay glass ceilings: Sexual orientation and workplace authority in the UK. *Journal of Economic Behavior & Organization*, 159:167–180, 2019.

C. G. Aksoy, C. S. Carpenter, R. De Haas, and K. D. Tran. Do laws shape attitudes? Evidence from same-sex relationship recognition policies in europe. *European Economic Review*, 124: 103399, 2020.

T. D. Allen, L. T. Eby, M. L. Poteet, E. Lentz, and L. Lima. Career benefits associated with mentoring for protégés: A meta-analysis. *Journal of Applied Psychology*, 89(1):127, 2004.

G. W. Allport. *The nature of prejudice*. Perseus Books, Cambridge, MA, 1954.

K. Arrow. The theory of discrimination, discrimination in labor markets. *Achenfelter, A. Ress (eds.), Princeton–New Jersey*, 1973.

I. Ayres and P. Siegelman. Race and gender discrimination in bargaining for a new car. *American Economic Review*, pages 304–321, 1995.

M. Badgett. Bias in the workplace: Consistent evidence of sexual orientation and gender identity discrimination 1998-2008. *Chi.-Kent L. Rev.*, 84:559, 2009.

D. Baldassarri and M. Abascal. Diversity and prosocial behavior. *Science*, 369(6508): 1183–1187, 2020.

G. Becker. *The Economics of Discrimination*. University of Chicago Press, 1971.

R. Bénabou and J. Tirole. Identity, morals, and taboos: Beliefs as assets. *Quarterly Journal of*

Economics, 126(2):805–855, 2011.

D. J. Benjamin, J. J. Choi, and A. J. Strickland. Social identity and preferences. *American Economic Review*, 100(4):1913–28, 2010.

D. J. Benjamin, J. J. Choi, and G. Fisher. Religious identity and economic behavior. *Review of Economics and Statistics*, 98(4):617–637, 2016.

M. Bertrand and E. Duflo. Field experiments on discrimination. In *Handbook of economic field experiments*, volume 1, pages 309–393. Elsevier, 2017.

M. Bertrand and S. Mullainathan. Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination. *American economic review*, 94 (4):991–1013, 2004.

M. Bertrand, D. Chugh, and S. Mullainathan. Implicit discrimination. *American Economic Review*, 95(2):94–98, 2005.

M. Bertrand, E. Kamenica, and J. Pan. Gender identity and relative income within households. *The Quarterly Journal of Economics*, 130(2):571–614, 2015.

T. Besley and S. Coate. An economic model of representative democracy. *The Quarterly Journal of Economics*, 112(1):85–114, 1997.

C. Biavaschi, C. Giulietti, and Z. Siddique. The economic payoff of name Americanization. *Journal of Labor Economics*, 35(4):1089–1116, 2017.

J. Boisjoly, G. J. Duncan, M. Kremer, D. M. Levy, and J. Eccles. Empathy or antipathy? The impact of diversity. *American Economic Review*, 96(5):1890–1905, 2006.

L. Borghans, J. J. Heckman, B. H. Golsteyn, and H. Meijers. Gender differences in risk aversion and ambiguity aversion. *Journal of the European Economic Association*, 7(2-3):649–658, 2009.

C. S. Carpenter and S. T. Eppink. Does it get better? Recent estimates of sexual orientation and earnings in the United States. *Southern Economic Journal*, 2017. ISSN 00384038. doi: 10.1002/soej.12233.

G. Charness, R. Cobo-Reyes, S. Meraglia, and Á. Sánchez. Anticipated discrimination, choices, and performance: Experimental evidence. *European Economic Review*, page 103473, 2020.

D. L. Chen, M. Schonger, and C. Wickens. oTree—an open-source platform for laboratory, online, and field experiments. *Journal of Behavioral and Experimental Finance*, 9:88–97, 2016.

R. Chen and Y. Chen. The potential of social identity for equilibrium selection. *American*

Economic Review, 101(6):2562–89, 2011.

Y. Chen and S. X. Li. Group identity and social preferences. *American Economic Review*, 99 (1):431–57, 2009.

K. B. Coffman, L. C. Coffman, and K. M. M. Ericson. The size of the LGBT population and the magnitude of antigay sentiment are substantially underestimated. *Management Science*, 63(10):3168–3186, 2017.

L. Corno, E. La Ferrara, and J. Burns. Interaction, stereotypes and performance: Evidence from South Africa. *Working Paper*, 2019.

T. C. Dennehy and N. Dasgupta. Female peer mentors early in college increase women's positive academic experiences and retention in engineering. *Proceedings of the National Academy of Sciences*, 114(23):5964–5969, 2017.

E. Dimant. Hate trumps love: The impact of political polarization on social preferences. *Available at SSRN*, 2020.

P. Dupas, A. Modestino, M. Niederle, and J. Wolfers. Gender and the dynamics of economics seminars. In *presentation at lunchtime seminar, Economic Society of Australia*, 2020.

C. C. Eckel and P. J. Grossman. Managing diversity by creating team identity. *Journal of Economic Behavior & Organization*, 58(3):371–392, 2005.

R. Factor and E. Rothblum. Exploring gender identity and community among three groups of transgender individuals in the united states: MTFs, FTMs, and genderqueers. *Health Sociology Review*, 17(3):235–253, 2008.

C. Fershtman and U. Gneezy. Discrimination in a segmented society: An experimental approach. *Quarterly Journal of Economics*, 116(1):351–377, 2001.

S. R. Fisk and J. Overton. Who wants to lead? Anticipated gender discrimination reduces women's leadership ambitions. *Social Psychology Quarterly*, 82(3):319–332, 2019.

A. Franzen and S. Pointner. The external validity of giving in the dictator game. *Experimental Economics*, 16(2):155–169, 2013.

E. L. Glaeser, G. A. Ponzetto, and J. M. Shapiro. Strategic extremism: Why Republicans and Democrats divide on religious values. *The Quarterly Journal of Economics*, 120(4): 1283–1330, 2005.

D. Glover, A. Pallais, and W. Pariente. Discrimination as a self-fulfilling prophecy: Evidence from French grocery stores. *The Quarterly Journal of Economics*, 132(3):1219–1260, 2017.

C. Goldin and C. Rouse. Orchestrating impartiality: The impact of "blind" auditions on female

musicians. *American Economic Review*, 90(4):715–741, 2000.

M. R. Hebl, J. B. Foster, L. M. Mannix, and J. F. Dovidio. Formal and interpersonal discrimination: A field study of bias toward homosexual applicants. *Personality and Social Psychology Bulletin*, 28(6):815–825, 2002.

T. Hossain and R. Okui. The binarized scoring rule. *Review of Economic Studies*, 80(3): 984–1001, 2013.

M. Klawitter. Meta-analysis of the effects of sexual orientation on earnings. *Industrial Relations*, 54(1):4–32, 2015.

J. A. List. The nature and extent of discrimination in the marketplace: Evidence from the field. *The Quarterly Journal of Economics*, 119(1):49–89, 2004.

S. Lundberg and J. Stearns. Women in economics: Stalled progress. *Journal of Economic Perspectives*, 33(1):3–22, 2019.

A. R. McConnell and J. M. Leibold. Relations among the Implicit Association Test, discriminatory behavior, and explicit measures of racial attitudes. *Journal of experimental Social psychology*, 37(5):435–442, 2001.

J. J. Mohr, H. M. Markell, E. B. King, K. P. Jones, C. I. Peddie, and M. S. Kendra. Affective antecedents and consequences of revealing and concealing a lesbian, gay, or bisexual identity. *Journal of Applied Psychology*, 2019.

C. A. Moss-Racusin, J. F. Dovidio, V. L. Brescoll, M. J. Graham, and J. Handelsman. Science faculty's subtle gender biases favor male students. *Proceedings of the National Academy of Sciences*, 109(41):16474–16479, 2012.

R. Mujcic and P. Frijters. The colour of a free ride. *The Economic Journal*, 2020.

D. Neumark. Experimental research on labor market discrimination. *Journal of Economic Literature*, 56(3):799–866, 2018.

D. Neumark, R. J. Bank, and K. D. Van Nort. Sex discrimination in restaurant hiring: An audit study. *Quarterly Journal of Economics*, 111(3):915–941, 1996.

A.-K. Newheiser and M. Barreto. Hidden costs of hiding stigma: Ironic interpersonal consequences of concealing a stigmatized identity in social interactions. *Journal of Experimental Social Psychology*, 52:58–70, 2014.

A.-K. Newheiser, M. Barreto, and J. Tiemersma. People like me don't belong here: Identity concealment is associated with negative workplace experiences. *Journal of Social Issues*, 73 (2):341–358, 2017.

B. A. Nosek, F. L. Smyth, J. J. Hansen, T. Devos, N. M. Lindner, K. A. Ranganath, C. T. Smith, K. R. Olson, D. Chugh, A. G. Greenwald, et al. Pervasiveness and correlates of implicit attitudes and stereotypes. *European Review of Social Psychology*, 18(1):36–88, 2007.

P. Oreopoulos. Why do skilled immigrants struggle in the labor market? A field experiment with thirteen thousand resumes. *American Economic Journal: Economic Policy*, 3(4):148–71, 2011.

D. W. Organ. *Organizational citizenship behavior: The good soldier syndrome.* Lexington Books/DC Heath and Com, 1988.

E. L. Paluck and D. P. Green. Prejudice reduction: What works? A review and assessment of research and practice. *Annual Review of Psychology*, 60:339–367, 2009.

R. Pande. Can mandated political representation increase policy influence for disadvantaged minorities? Theory and evidence from India. *American Economic Review*, 93(4):1132–1151, 2003.

T. F. Pettigrew and L. R. Tropp. Does intergroup contact reduce prejudice? Recent meta-analytic findings. *Reducing Prejudice and Discrimination*, 93:114, 2000.

E. S. Phelps. The statistical theory of racism and sexism. *American Economic Review*, 62(4): 659–661, 1972.

B. D. Pulford and P. Gill. Good luck, bad luck, and ambiguity aversion. *Judgment and Decision Making*, 9(2):159–166, 2014.

G. Rao. Familiarity does not breed contempt: Generosity, discrimination, and diversity in Delhi schools. *American Economic Review*, 109(3):774–809, 2019.

E. Reuben, P. Sapienza, and L. Zingales. How stereotypes impair women's careers in science. *Proceedings of the National Academy of Sciences*, 111(12):4403–4408, 2014.

W. M. Rodgers. *Handbook on the Economics of Discrimination*. Edward Elgar Publishing, 2009.

Y. Rubinstein and D. Brenner. Pride and prejudice: Using ethnic-sounding names and inter-ethnic marriages to identify labour market discrimination. *Review of Economic Studies*, 81 (1):389–425, 2014.

J. J. Sabia, M. Wooden, and T. T. Nguyen. Sexual identity, same-sex relationships, and labour market dynamics: New evidence from longitudinal data in australia. *Southern Economic Journal*, 83(4):903–931, 2017.

R. Schubert, M. Gysler, M. Brown, and H.-W. Brachinger. Gender specific attitudes towards

risk and ambiguity: An experimental investigation. *Working Paper*, 2000.

W. G. Stephan, O. Ybarra, and K. R. Morrison. Intergroup threat theory. In T. D. Nelson, editor, *Handbook of prejudice, stereotyping, and discrimination*, chapter 3. Psychology Press, 2009.

H. Sugiura, N. Mifune, S. Tsuboi, and K. Yokota. Gender differences in intergroup conflict: The effect of outgroup threat priming on social dominance orientation. *Personality and Individual Differences*, 104:262–265, 2017.

A. Tilcsik. Pride and prejudice: Employment discrimination against openly gay men in the United States. *American Journal of Sociology*, 2011. ISSN 00029602. doi: 10.1086/661653.

L. Van Dyne and J. A. LePine. Helping and voice extra-role behaviors: Evidence of construct and predictive validity. *Academy of Management Journal*, 41(1):108–119, 1998.

Williams Institute. LGBT demographic data interactive, 2019. URL `https://williamsinstitute.law.ucla.edu/visualization/lgbt-stats/?topic=LGBT#density`.

M. Yuki and K. Yokota. The primal warrior: Outgroup threat priming enhances intergroup discrimination in men but not women. *Journal of Experimental Social Psychology*, 45(1): 271–274, 2009.

D. J. Zizzo. Experimenter demand effects in economic experiments. *Experimental Economics*, 13(1):75–98, 2010.

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A Subjects' Characteristics

Table A.1: Summary statistics of dictators' characteristics by treatment

	Pride-First	Pride-Second	p-value
Age	34.262	33.310	0.301
	[12.624]	[12.475]	
Male	0.497	0.523	0.564
	[0.501]	[0.500]	
Female	0.448	0.433	0.740
	[0.498]	[0.496]	
Trans/ Non-binary/ Other	0.079	0.070	0.754
	[0.271]	[0.256]	
Non-heterosexual	0.293	0.297	0.928
	[0.456]	[0.458]	
White	0.755	0.767	0.773
	[0.431]	[0.424]	
Black/ African American	0.073	0.090	0.547
	[0.286]	[0.261]	
Asian	0.141	0.130	0.719
	[0.349]	[0.337]	
Hispanic/ Latino	0.079	0.077	1.000
	[0.271]	[0.267]	
Some college degree	0.304	0.240	0.095
	[0.461]	[0.428]	
Bachelor's	0.369	0.410	0.312
	[0.483]	[0.493]	
Master's and above	0.217	0.250	0.382
	[0.413]	[0.434]	
Not religious	0.476	0.490	0.742
	[0.500]	[0.501]	
Christian	0.414	0.430	0.739
	[0.493]	[0.496]	
Other religion	0.110	0.080	0.261
	[0.314]	[0.272]	
V. Liberal on social issues	0.338	0.327	0.794
	[0.474]	[0.470]	
Liberal on social issues	0.327	0.327	0.861
	[0.470]	[0.473]	
(V.) Conservative on social issues	0.197	0.193	1.000
	[0.396]	[0.398]	
LGBTQ+ ally	0.650	0.645	0.931
	[0.478]	[0.480]	
Observations	290	300	

Standard deviations in brackets. All demographic variables reported in the table are based on dictators' responses in the post-experimental questionnaire. Two-tailed pairwise comparisons are conducted using Fisher's exact tests (for binary outcome variables) and Wilcoxon rank-sum tests (for continuous outcome variables).
*** $p<0.01$, ** $p<0.05$, * $p<0.10$.

Table A.2: Summary statistics of recipients' characteristics by treatment

	Uninformed-Choice	Informed-Choice	p-value[a]
Age	32.151	30.022	0.034**
	[10.554]	[10.924]	
Male	0.500	0.500	1.000
	[0.502]	[0.502]	
Female	0.493	0.485	0.906
	[0.502]	[0.502]	
Trans/ Non-binary/ Other	0.021	0.029	0.715
	[0.142]	[0.170]	
Non-heterosexual	0.486	0.471	0.812
	[0.502]	[0.501]	
White	0.712	0.713	1.000
	[0.454]	[0.454]	
Black/ African American	0.103	0.096	1.000
	[0.305]	[0.295]	
Asian	0.130	0.147	0.732
	[0.338]	[0.355]	
Hispanic/ Latino	0.096	0.096	1.000
	[0.295]	[0.295]	
Some college degree	0.363	0.250	0.053*
	[0.483]	[0.435]	
Bachelor's	0.322	0.434	0.065*
	[0.469]	[0.497]	
Master's and above	0.219	0.154	0.173
	[0.415]	[0.363]	
Not religious	0.589	0.581	0.904
	[0.494]	[0.495]	
Christian	0.315	0.316	1.000
	[0.466]	[0.467]	
Other religion	0.096	0.103	0.845
	[0.295]	[0.305]	
V. Liberal on social issues	0.411	0.353	0.329
	[0.494]	[0.480]	
Liberal on social issues	0.356	0.441	0.180
	[0.481]	[0.498]	
(V.) Conservative on social issues	0.075	0.110	0.411
	[0.265]	[0.314]	
LGBTQ+ ally	0.801	0.816	0.764
	[0.400]	[0.389]	
Observations	146	136	

[(a)]Two-tailed pairwise comparisons are conducted using Fisher's exact tests (for binary outcome variables) and Wilcoxon rank-sum tests (for continuous outcome variables).
Standard deviations in brackets. All demographic variables reported in the table are based on recipients' responses in the post-experimental questionnaire.
*** $p<0.01$, ** $p<0.05$, * $p<0.10$.

Table A.3: Frequency table of gender and sexual orientation on dictators' Prolific profile versus as reported in post-experimental questionnaire

	Prolific Profile		
Questionnaire	Heterosexual	Homosexual	Total
Heterosexual	410	12	422
Non-Heterosexual	6	162	168
Total	416	174	590

Table A.4: Frequency table of gender and sexual orientation on recipients' Prolific profile versus as reported in post-experimental questionnaire

	Prolific Profile				
Questionnaire	Hetero. Male	Homo. Male	Hetero. Female	Homo. Female	Total
Hetero. Male	70	5	0	1	76
Homo. Male	0	64	0	0	64
Hetero. Female	0	0	66	4	70
Homo. Female	0	0	5	60	65
Hetero. Other[a]	0	0	1	0	1
Homo. Other[a]	0	1	0	5	6
Total	70	70	72	70	282

[(a)]No non-binary recipients were recruited based on their Prolific profiles. However, 7 recipients (2.48% of the sample) reported their gender as non-binary in the post-experimental questionnaire.

B Additional Analyses of Dictator's Behavior

Table B.1: Robustness Check - 1: Other Perceptions and Political Affiliation

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent Variable: Amount Sent in Task 1							
Non-Hetero Recip.	−0.154	4.660	4.705	2.100	7.229	3.985	3.163
	(3.924)	(5.671)	(5.669)	(6.176)	(6.181)	(6.072)	(5.696)
Female Recip.	2.462	3.158	3.423	3.202	3.474	2.910	2.828
	(2.413)	(3.225)	(5.011)	(3.218)	(3.241)	(3.226)	(3.233)
Trans/Non-Binary/Other Recip.	7.838**	8.663	8.644	15.28*	8.694	8.320	9.018*
	(3.702)	(5.310)	(5.309)	(8.380)	(5.299)	(5.311)	(5.286)
Recip. Political Leaning	2.091*	1.882	1.876	1.736	1.773	0.912	1.763
	(1.228)	(1.493)	(1.492)	(1.493)	(1.493)	(2.945)	(1.485)
Ally Recipient	1.881	1.041	0.974	0.874	−3.895	0.875	0.0770
	(2.612)	(3.343)	(3.357)	(3.338)	(5.784)	(3.352)	(3.361)
Recip. Age	1.432	0.386	0.439	0.261	0.139	0.376	−4.713
	(1.377)	(1.816)	(1.826)	(1.817)	(1.829)	(1.813)	(3.261)
Hetero Dictator	−3.715						
	(3.134)						
Non-Hetero Recip. × Hetero Dictator	−4.653						
	(4.757)						
Rep		10.74***	10.39**	10.99***	7.337	3.482	−20.36
		(4.093)	(4.460)	(4.089)	(5.028)	(10.43)	(14.19)
Indep/Other		7.653*	8.352*	7.670*	5.442	11.65	−5.274
		(3.919)	(4.520)	(3.915)	(5.299)	(11.13)	(14.04)
Non-Hetero Recip. × Rep		−23.59***	−23.88***	−16.73*	−28.88***	−21.42***	−19.46**
		(7.588)	(7.627)	(9.245)	(8.854)	(8.191)	(7.740)
Non-Hetero Recip. × Indep/Other		−8.301	−8.249	−5.768	−11.14	−8.921	−6.811
		(7.242)	(7.243)	(8.517)	(8.177)	(7.872)	(7.387)
Female Recip. × Rep			2.163				
			(7.642)				
Female Recip. × Indep/Other			−2.263				
			(7.004)				
Trans/Non-Binary/Other Recip. × Rep				−16.71			
				(12.96)			
Trans/Non-Binary/Other Recip. × Indep/Other				−6.734			
				(11.20)			
Ally Recip. × Rep					9.015		
					(7.799)		
Ally Recip. × Indep/Other					5.103		
					(7.656)		
Recip. Political Leaning × Rep ×						2.586	
						(3.566)	
Recip. Political Leaning × Indep/Other						−1.707	
						(4.152)	
Recip. Age × Rep							9.589**
							(4.210)
Recip. Age × Indep/Other							4.209
							(4.481)
Constant	32.07***	23.49**	23.18**	24.60***	26.53***	26.46**	40.92***
	(7.265)	(9.323)	(9.435)	(9.342)	(9.704)	(11.64)	(12.83)
Observations	590	416	416	416	416	416	416
Controls	Y	Y	Y	Y	Y	Y	Y

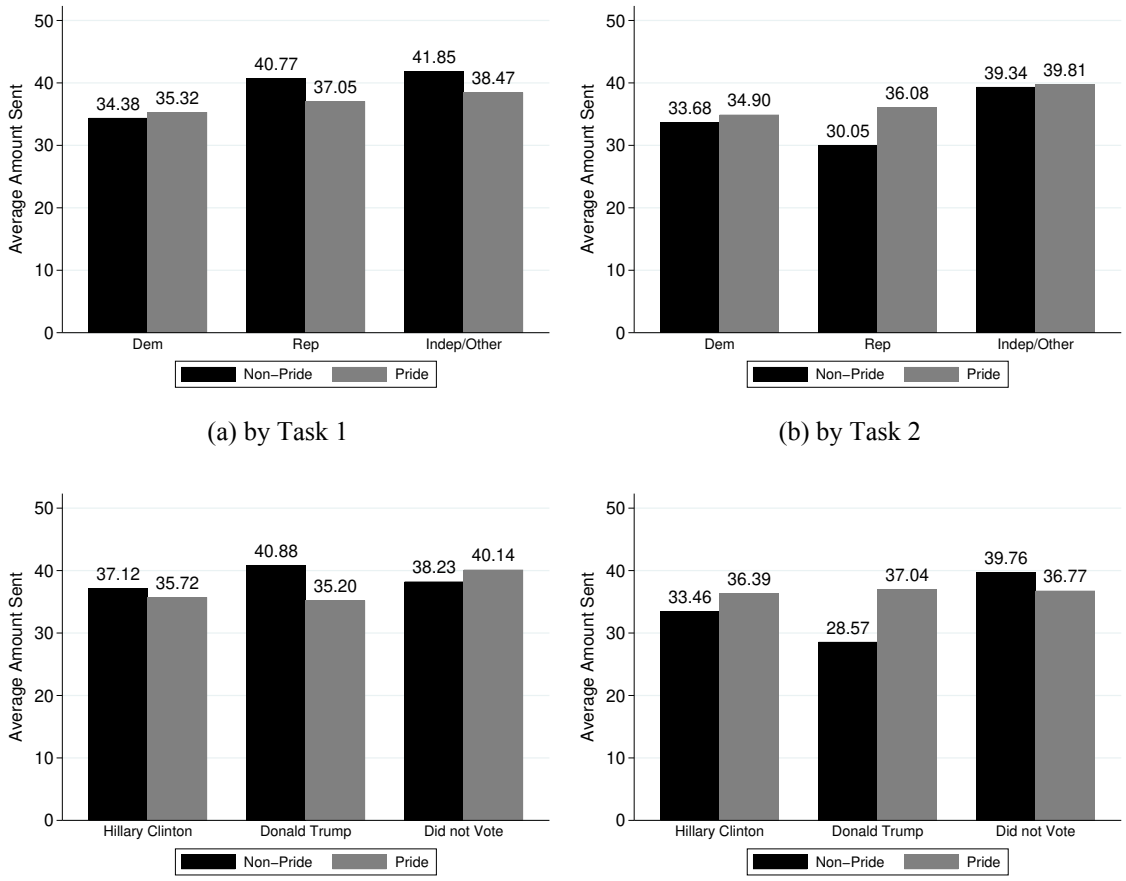
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Coefficients of tobit model reported. Standard errors in parentheses. Column (1) includes all dictators, Columns (2)-(6) include heterosexual dictators only. In the regressions, we control for dictators' gender, ethnicity, age, education level, and ally status. The following variables are constructed using the dictators' perception on recipients: Non-Hetero Recip., Female Recip., Trans/Non-Binary/Other Recip., Recip. Political Leaning, Ally Recipient, and Recip. Age. Recip. Non-Hetero Recip., Female Recip., Trans/Non-Binary/Other Recip., and Ally Recipient variables are dummy variables. Political Leaning ranges from 1 (Very Liberal) to 5 (Very Conservative). Recip. Age is a categorical variables that takes the value of 1 for "Under 18", 2 for "18-24", 3 for "25-34", 4 for "35-44", 5 for "45-54", and 6 for "55-64".

Table B.2: Robustness Check - 2: Other Perceptions and Voting Behavior

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable: Amount Sent in Task 1						
Non-Hetero Recip.	5.040	4.797	2.558	7.557	4.041	3.836
	(5.811)	(5.803)	(6.366)	(6.420)	(6.124)	(5.850)
Female Recip.	2.616	7.912	2.537	3.666	2.105	2.591
	(3.219)	(5.311)	(3.217)	(3.231)	(3.221)	(3.224)
Trans/Non-Binary/Other Recip.	7.216	7.264	13.26	8.551	6.401	7.060
	(5.317)	(5.321)	(8.283)	(5.316)	(5.341)	(5.345)
Recip. Political Leaning	1.720	1.854	1.580	1.781	−0.119	1.807
	(1.496)	(1.497)	(1.501)	(1.485)	(2.751)	(1.493)
Ally Recipient	1.043	1.107	1.039	−4.280	0.753	0.835
	(3.348)	(3.360)	(3.355)	(5.829)	(3.345)	(3.343)
Recip. Age	0.820	0.852	0.934	0.710	0.881	−2.540
	(1.824)	(1.825)	(1.835)	(1.812)	(1.822)	(3.046)
Donald Trump	7.962**	9.759**	8.013**	2.306	−3.765	−12.69
	(3.980)	(4.337)	(3.975)	(4.973)	(9.975)	(14.27)
Election: Other	5.354	7.907*	5.504	5.988	8.904	−6.845
	(4.139)	(4.681)	(4.144)	(5.472)	(10.98)	(14.10)
Non-Hetero Recip. × Donald Trump	−27.69***	−27.05***	−23.73**	−36.26***	−24.13***	−24.63***
	(7.864)	(7.897)	(9.366)	(9.026)	(8.331)	(8.097)
Non-Hetero Recip. × Election: Other	−6.039	−5.714	−2.130	−6.776	−6.700	−4.608
	(7.106)	(7.097)	(8.483)	(8.109)	(7.674)	(7.248)
Female Recip. × Donald Trump		−7.303				
		(7.783)				
Female Recip. × Election: Other		−8.375				
		(7.012)				
Trans/Non-Binary/Other Recip. × Donald Trump			−10.48			
			(13.99)			
Trans/Non-Binary/Other Recip. × Other			−9.359			
			(10.96)			
Ally Recipient × Donald Trump				14.87*		
				(7.679)		
Ally Recipient × Election: Other				−0.246		
				(7.710)		
Recip. Political Leaning × Donald Trump					4.268	
					(3.432)	
Recip. Political Leaning × Election: Other					−1.521	
					(4.135)	
Recip. Age × Donald Trump						6.229
						(4.138)
Recip. Age × Election: Other						3.758
						(4.492)
Constant	23.08**	21.00**	23.34**	24.56**	28.60**	35.26***
	(10.03)	(10.15)	(10.09)	(10.22)	(11.36)	(13.29)
Observations	416	416	416	416	416	416
Controls	Y	Y	Y	Y	Y	Y

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Coefficients of tobit model reported. Standard errors in parentheses. Heterosexual dictators only. In the regressions, we control for dictators' gender, ethnicity, age, education level, and ally status. The following variables are constructed using the dictators' perception on recipients: Non-Hetero Recip., Female Recip., Trans/Non-Binary/Other Recip., Recip. Political Leaning, Ally Recipient, and Recip. Age. Recip. Non-Hetero Recip., Female Recip., Trans/Non-Binary/Other Recip., and Ally Recipient variables are dummy variables. Political Leaning ranges from 1 (Very Liberal) to 5 (Very Conservative). Recip. Age is a categorical variables that takes the value of 1 for "Under 18", 2 for "18-24", 3 for "25-34", 4 for "35-44", 5 for "45-54", and 6 for "55-64".

B.1 Dictators' behavior toward pride vs non-pride flag



(a) by Task 1

(b) by Task 2

(c) by Task 1

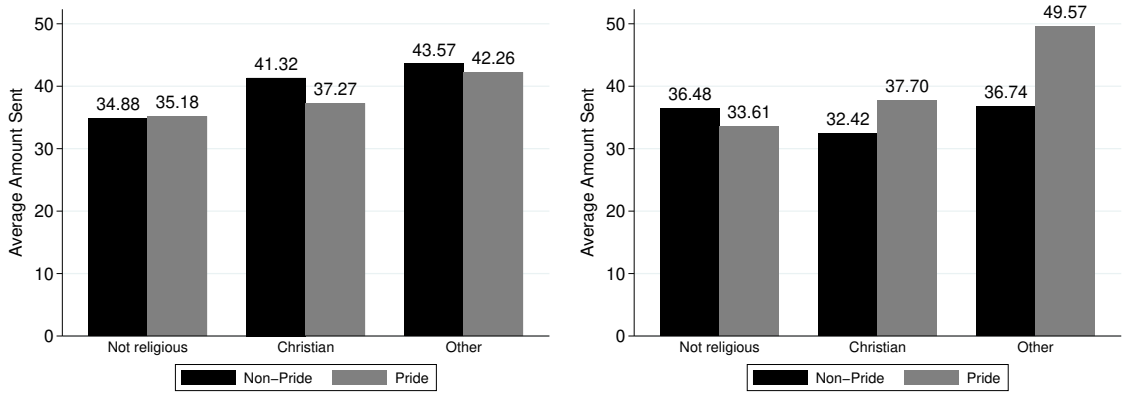
(d) Task 2

Figure B.1: Amount Sent by Heterosexual Dictators by Political Party Affiliation and Voting Behavior in 2016 US elections

Here, we present dictators' behavior toward recipients with a pride flag vs non-pride flag for each sub-groups discussed in the main text.

First, we present heterosexual dictators behavior based on their political affiliations (see Figure B.1). We find that Democratic heterosexual dictators send similar amounts to Pride recipients relative to non-Pride recipients in both tasks (p-values are 0.489 and 0.822, respectively). On the other than, the Republican heterosexual dictators send less to Pride recipients in task 1 and more in task 2 but these differences are not statistically significant (p-values are 0.323 and 0.229, respectively). Finally, heterosexual dictators who are either Independents or affiliated to other parties send similar amounts to both recipients in both rounds (p-values are 0.459 and 0.569, respectively).

We also compare the amounts sent by heterosexual dictators' voting behavior in 2016 US presidential elections (see Figure B.1). Heterosexual dictators who voted for Hilary Clinton and those who did not vote in the 2016 elections send similar amounts in task 1 (p-value are 0.967 and 0.694, respectively) and in task 2 (p-value are 0.656 and 0.558, respectively). On the other



(a) Task 1 (b) by Task 2

Figure B.2: Average Amount Sent by Heterosexual Dictators By Religious Affiliation

hand, heterosexual dictators who voted for Donald Trump send less to Pride recipients in task 1 (p-value = 0.142) but significantly more in task 2 (p-value = 0.088).

Finally, we compare the average amounts sent by heterosexual dictators' religious affiliation (see Figure B.2). Christian heterosexual dictators, although not significant, send less to Pride recipients in task 1 (p-value = 0.177) and more in task 2 (p-value = 0.112). We also see that heterosexual dictators who have other religious affiliations send similar amounts to both recipients in task 1 (p-value = 0.820) but more to Pride recipients in task 2 (p-value = 0.112).

Tables B.3 and B.4 present coefficient estimates of tobit regressions of dictators' giving behavior in task 1 and 2, respectively. In the regressions, we control for dictators' gender, ethnicity, age, education level, and ally status. Overall, although the signs of the regression coefficients are mostly in line with the main findings using perceived sexual orientation, we do not find any significance. As discussed in the main text, it is mainly because the pride flag is an imperfect signal of the LGBTQI identity.

Table B.3: Tobit Regression Results for Amount Sent in Task 1

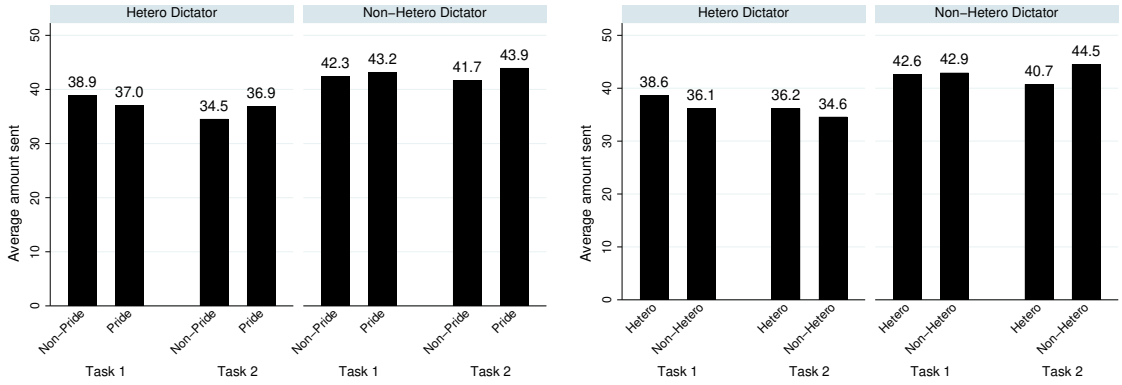
	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable: Amount Sent in Task 1						
Pride Recipient	0.704	0.599	−1.236	0.889	1.714	−0.315
	(3.751)	(4.670)	(4.747)	(4.255)	(5.430)	(5.351)
Hetero Dictator	−4.145					
	(3.267)					
Pride Recipient × Hetero Dictator	−2.625					
	(3.955)					
Rep		7.459			4.421	
		(4.806)			(5.253)	
Indep/Other		7.716			7.071	
		(4.713)			(4.690)	
Pride Recipient × Rep		−3.903			−0.397	
		(6.634)			(7.190)	
Pride Recipient × Indep/Other		−4.143			−3.312	
		(6.601)			(6.566)	
Donald Trump			4.537			1.187
			(4.778)			(5.174)
Election: Other			2.844			1.450
			(4.870)			(4.886)
Pride Recipient × Donald Trump			−4.541			−1.332
			(6.690)			(7.190)
Pride Recipient × Election: Other			2.505			3.257
			(6.598)			(6.591)
Christian				8.862*	8.287*	8.296*
				(4.157)	(4.574)	(4.542)
Other Religion				11.61	11.40	11.22
				(7.906)	(7.880)	(7.920)
Pride Recipient × Christian				−5.425	−4.999	−4.432
				(5.670)	(6.253)	(6.153)
Pride Recipient × Other Religion				−2.334	−2.060	−2.558
				(10.16)	(10.12)	(10.17)
Constant	42.96***	30.03***	29.89***	30.21***	26.30***	27.24***
	(5.622)	(7.514)	(8.356)	(7.297)	(7.679)	(8.419)
Observations	590	416	416	416	416	416
Controls	Y	Y	Y	Y	Y	Y

Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column (1) includes all dictators, Columns (2)-(6) include heterosexual dictators only. In the regressions, we control for dictators' gender, ethnicity, age, education level, and ally status.

Table B.4: Tobit Regression Results for Amount Sent in Task 2

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable: Amount Sent in Task 2						
Pride Recipient	2.518	1.474	2.737	−3.875	−2.864	−1.149
	(3.803)	(4.717)	(4.769)	(4.297)	(5.475)	(5.364)
Hetero Dictator	−6.623*					
	(3.378)					
Pride Recipient × Hetero Dictator	−0.0569					
	(4.536)					
Rep		−2.048			−1.193	
		(5.004)			(5.132)	
Indep/Other		6.861			6.768	
		(4.698)			(4.674)	
Pride Recipient × Rep		4.950			1.852	
		(6.703)			(7.258)	
Pride Recipient × Indep/Other		−1.139			−1.679	
		(6.663)			(6.620)	
Donald Trump			−4.467			−3.738
			(4.972)			(5.110)
Election: Other			9.281*			9.119*
			(4.756)			(4.730)
Pride Recipient × Donald Trump			6.641			3.194
			(6.724)			(7.227)
Pride Recipient × Election: Other			−6.395			−7.592
			(6.622)			(6.608)
Christian				−2.466	−0.581	−0.871
				(4.273)	(4.469)	(4.388)
Other Religion				1.136	0.886	−0.200
				(6.549)	(6.515)	(6.507)
Pride Recipient × Christian				9.833*	8.158	7.887
				(5.791)	(6.380)	(6.352)
Pride Recipient × Other Religion				18.43*	18.14*	19.15*
				(9.017)	(9.015)	(9.192)
Constant	41.25***	29.05***	24.63***	33.93***	29.64***	25.95***
	(5.591)	(7.692)	(8.354)	(7.371)	(7.940)	(8.491)
Observations	590	416	416	416	416	416
Controls	Y	Y	Y	Y	Y	Y

Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column (1) includes all dictators, Columns (2)-(6) include heterosexual dictators only. In the regressions, we control for dictators' gender, ethnicity, age, education level, and ally status.



(a) by Flag Choice (b) by Perceived Sexual Orientation

Figure B.3: Average Amount Sent in Tasks 1 and 2

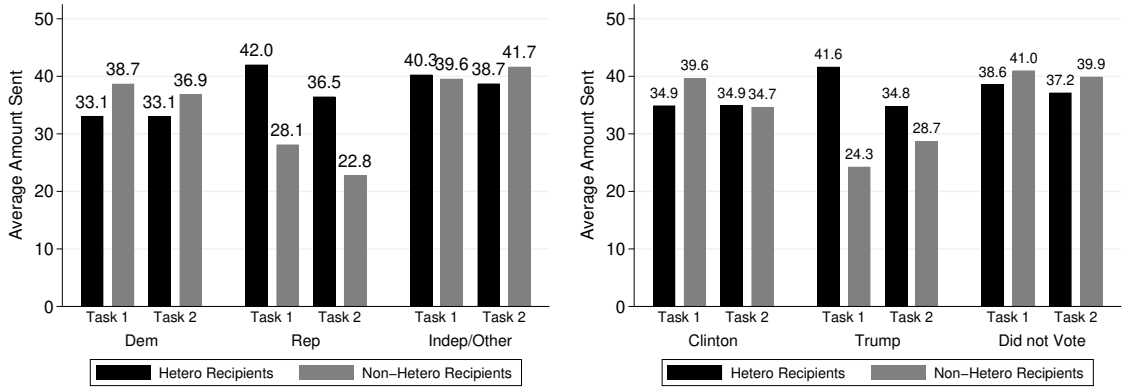
B.2 Dictators' behavior using task 2 only

In this section, we present dictators' giving behavior in the second task (task 2) and compare that to their behavior in task 1. Panel (a) of Figure B.3 shows the average amount sent by dictators in both task 1 and task 2 based on dictators' sexual orientation and recipients' flag choice. First, when comparing the average amount sent to Pride versus non-Pride recipients in task 2, we do not find any statistically significant differences in giving behavior by neither heterosexual nor non-heterosexual dictators (p-values are 0.331 and 0.538, respectively). This result is consistent with our observations in task 1.

Panel (b) of Figure B.3 shows the average amount sent by dictators in both tasks based on dictators' sexual orientation and their perception of the recipients' sexual identities. Again, similar to their behavior in task 1, we find that both heterosexual and non-heterosexual dictators send similar amounts in task 2 to recipients who are perceived to be heterosexual and non-heterosexual (p-values = 0.830 and 0.240 for heterosexual and non-heterosexual dictators, respectively). Table B.5 presents similar tobit regressions to Table 1 using dictators' giving behavior in task 2 only. The estimates in column (1) of the table are in line with our observations from Figure B.3.

Next, we examine heterosexual dictators' giving behavior in task 2 based on their political preferences (Figure B.4). Panel (a) of the figure reveals that, different to our observations of the dictators' behavior in task 1, we no longer see evidence of positive discrimination by Democratic dictators (p-value = 0.348). However, negative discrimination of recipients perceived as non-heterosexual by Republicans continue to persist (p-value = 0.020), while there remains no evidence of discrimination by heterosexual dictators who are either Independents or affiliated to other parties (p-value = 0.395).

We turn to dictators' giving behavior in task 2 based on their voting preferences in the 2016 U.S. presidential elections (panel (b) of Figure B.4). Similar to task 1, we find no statistically significant evidence that heterosexual dictators who voted for Clinton or those who did not



(a) by Party Affiliation (b) by Voting Behavior in 2016 U.S. Elections

Figure B.4: Average Amount Sent by Heterosexual Dictators in Tasks 1 and 2 by Political Preferences

vote discriminate in their giving behavior based on the recipients' perceived sexual identities (p-values = 0.765 and 0.859, respectively). However, relative to their giving behavior in task 1, we find that heterosexual dictators who voted for Trump give significantly less on average to recipients who are perceived to be heterosexual (p-value = 0.055), but more to those who are perceived to be non-heterosexual (p-value = 0.298). Consequently, we no longer find any statistically significant evidence of negative discrimination of recipients perceived to be non-heterosexual in task 2 (p-value = 0.394).

These findings are also supported by our regression estimates in columns (2) and (3) of Table B.5. Moreover, when we compare the coefficient estimates across Tables 1 and B.5 using the Wald test, we find that while the coefficient estimates of *Non-Hetero Recipient*×*Rep* is similar across the two tasks (p-value = 0.7679), the coefficient estimates of *Non-Hetero Recipient*×*Donald Trump* is significantly different from one another (p-value = 0.0371).

We next examine heterosexual dictators' giving behavior in task 2 based on their religious affiliations (Figure B.5). There is no significant difference in giving behavior by both non-religious dictators or those of other religious affiliations (p-value are 0.203 and 0.811 respectively). However, contrary to our observations of their Task 1 behavior, we no longer see any evidence of discrimination by Christian heterosexual dictators against recipients perceived to be non-heterosexual in Task 2 (p-value = 0.213).[1]

Finally, similar to our analysis of task 1 behavior, we control for both dictators' political and religious affiliations, and both their voting behavior and religious affiliation, in columns (5) and (6) of Table B.5, respectively. Consistent with our observations in Task 1, the estimates in column (5) reveal that the discrimination by heterosexual dictators toward recipients who are perceived to be non-heterosexual is driven by individuals who are Republican, and not by their

[1] These findings are supported by our regression estimates in column (4) of Table B.5. Even though the coefficient estimate of *Non-Hetero Recipient*×*Christian* is significant in Table 1 but not in Table B.5, using the Wald test, we find these two coefficient estimates not to be significantly different (p-value = 0.5335).

Table B.5: Tobit Regression Results for Amount Sent in Task 2

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable: Amount Sent in Round 2						
Non-Hetero Recipient	3.631	3.861	−1.540	3.774	5.835	2.440
	(3.851)	(5.050)	(5.271)	(4.701)	(5.889)	(5.911)
Hetero Dictator	−4.137					
	(3.334)					
Non-Hetero Recip. × Hetero Dict.	−5.387					
	(4.159)					
Rep		5.490			4.822	
		(4.092)			(4.314)	
Indep/Other		5.958			5.986	
		(3.981)			(3.963)	
Non-Hetero Recip. × Rep		−19.72***			−19.261**	
		(7.466)			(8.022)	
Non-Hetero Recip. × Indep/Other		0.638			0.777	
		(7.153)			(7.134)	
Donald Trump			0.821			−1.266
			(4.078)			(4.341)
Election: Other			4.785			3.956
			(4.131)			(4.129)
Non-Hetero Recip. × Donald Trump			−4.977			−1.006
			(7.621)			(8.025)
Non-Hetero Recip. × Election: Other			3.985			5.682
			(7.275)			(7.289)
Christian				5.465	4.400	6.090
				(3.646)	(3.826)	(3.886)
Other Religion				10.40*	10.434*	9.843*
				(5.866)	(5.772)	(5.856)
Non-Hetero Recip. × Christian				−9.829	−2.667	−10.396
				(6.331)	(6.814)	(6.690)
Non-Hetero Recip. × Other Religion				−6.984	−9.456	−6.275
				(11.63)	(11.48)	(11.57)
Constant	40.517***	30.810***	27.285***	31.348***	27.855***	24.605***
	(5.789)	(7.625)	(8.338)	(7.359)	(7.773)	(8.400)
Observations	590	416	416	416	416	416
Controls	Y	Y	Y	Y	Y	Y

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Coefficients of tobit model reported. Standard errors in parentheses. Column (1) includes all dictators, Columns (2)-(6) include heterosexual dictators only. In the regressions, we control for dictators' gender, ethnicity, age, education level, and ally status.

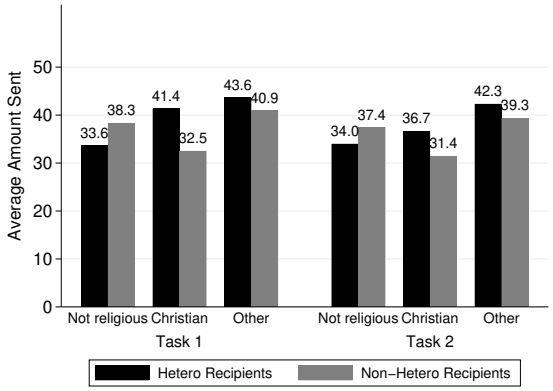
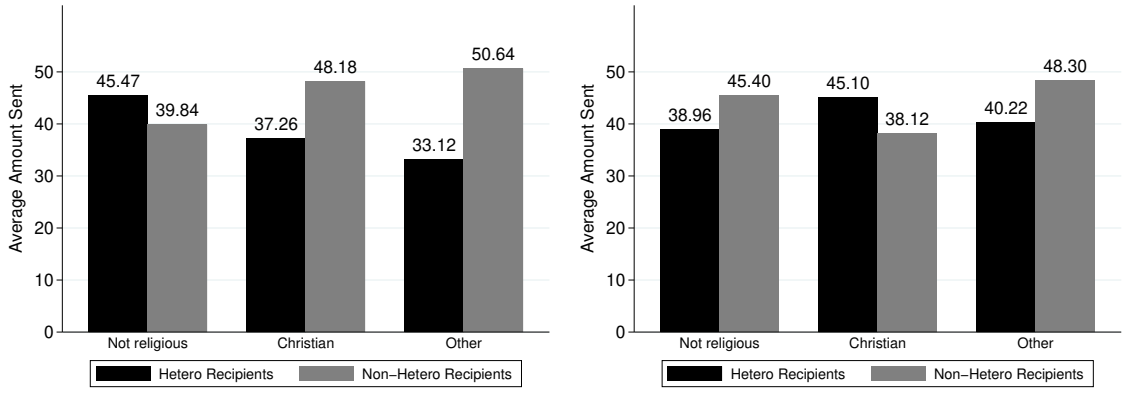


Figure B.5: Average Amount Sent by Heterosexual Dictators in Tasks 1 and 2 by Religious Affiliation

religious affiliations.[2] On the other hand, the estimates in column (6) reveal that we do not see any evidence of discriminatory behavior by neither Christian heterosexual dictator nor those who voted for Donald Trump in the 2016 U.S. presidential elections.[3]

B.3 Subgroup Analysis for Non-Heterosexual Dictators



(a) Task 1 (b) Task 2

Figure B.6: Average Amount Sent by Non-Heterosexual Dictators Across Religious Affiliation

Non-heterosexuals who are not religious send similar amounts to both recipients in both tasks. However, Christian non-heterosexual dictators as well as those with other religious affiliations send significantly more to recipients who are perceived to be non-heterosexual (p-value = 0.0493 and 0.0477, respectively) in task 1 only. In task 2, religious non-heterosexual dictators similar amounts to both recipients.

[2]Using the Wald test, we compare the coefficient estimates across Tables 1 and B.5. We find that the coefficient estimates of *Non-Hetero Recipient*×*Rep* and *Non-Hetero Recipient*×*Christian* are not significantly different across the two tasks (p-values are 0.9714 and 0.4742, respectively).

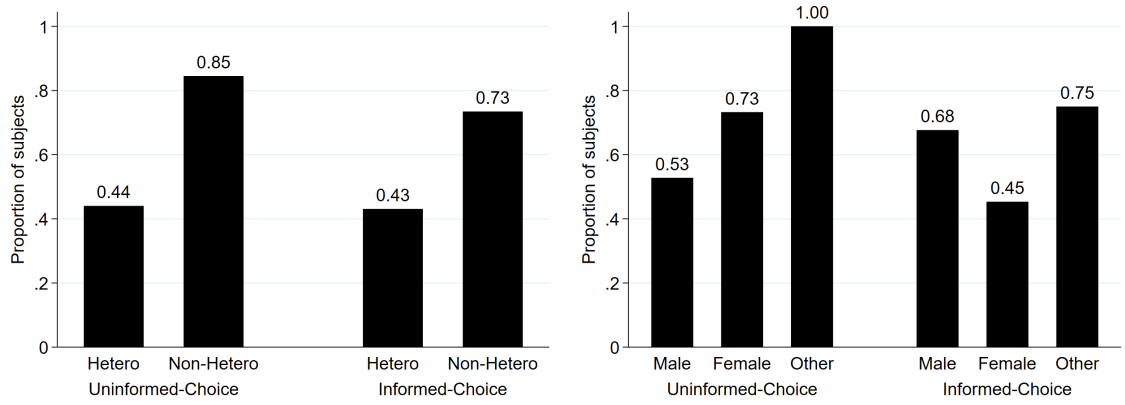
[3]Again, using the Wald test, we compare the coefficient estimates and find that while the coefficient estimates of *Non-Hetero Recipient*×*Donald Trump* are significantly different across the two tasks (o-value = 0.0515), the coefficient estimates of *Non-Hetero Recipient*×*Christian* are not significantly different (p-values = 0.8405).

C Additional Analyses of Recipient's Behavior

C.1 Recipients' behavior by gender and sexual orientation as reported in post-experimental questionnaire

In this section, we present the analysis of recipients' choice of the Pride flag based on their gender and sexual orientation as reported in the post-experimental questionnaire. We show that our main results, which consider recipients' reported gender and sexual orientation on their Prolific profiles, are robust to these alternative measures.

Figure C.1 presents the proportion of recipients choosing the Pride flag within each treatment based on their sexual orientation (panel a) and gender (panel b) as reported in the post-experimental questionnaire.



(a) by sexual orientation (b) by gender

Figure C.1: Choice of Pride flag by gender and sexual orientation (questionnaire profile)

Panel (a) reveals that non-heterosexual recipients are more likely to choose the Pride flag that heterosexual recipients in both the Uninformed-Choice and Informed-Choice treatments (one-tailed Fisher's exact tests: p-values < 0.001 for both treatments). Hence, the choice of Pride flag is still positively associated with the recipients identifying as non-heterosexual in the post-experimental questionnaire.

Panel (a) also reveals that the proportion of recipients choosing the Pride flag are slightly lower in the Informed-Choice than in the Uninformed-Choice treatment. This difference is not statistically significant for heterosexual recipients, but it is marginally statistically significant for non-heterosexual recipients (one-tailed Fisher's exact tests: p-values = 0.520 and 0.085, respectively).

Next, panel (b) reveals that the gender differences in the choice of Pride flag we observe in Figure 10 are present even when we consider recipients' self-reported gender in the post-experimental questionnaire. Specifically, female recipients are more likely to choose the Pride flag than male recipients in the Uninformed-Choice treatment (one-tailed Fisher's exact test: p-value = 0.009), although they are less likely to do so in Informed-Choice treatment (one-tailed Fisher's exact test: p-value = 0.008). This is again driven by both an increase in the proportion

of male recipients choosing the Pride flag and a decrease the proportion of female recipients doing so in Informed-Choice relative to Uninformed-Choice (one-tailed Fisher's exact tests: p-values = 0.052 and 0.001, respectively).

Table C.1: Probit regressions of recipients' choice of Pride flag (questionnaire profile)

Variables	(1)	(2)	(3)[a]
Dependent variable: Chose Pride flag			
Informed-Choice	−0.122	0.054	0.491**
	(0.177)	(0.234)	(0.248)
Non-heterosexual	0.802***	1.014***	0.829***
	(0.214)	(0.284)	(0.219)
Non-heterosexual × Informed-Choice		−0.411	
		(0.356)	
Female	−0.136	−0.130	0.471*
	(0.179)	(0.180)	(0.250)
Female × Informed-Choice			−1.276***
			(0.358)
Non-binary / Other gender	0.620	0.612	−0.044
	(0.739)	(0.738)	(0.805)
Constant	−1.553**	−1.701**	−1.625**
	(0.686)	(0.700)	(0.702)
Observations	282	282	279
Controls	Y	Y	Y

Coefficients of probit model reported. Standard errors in parentheses.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.
[(a)] Interaction between treatment and non-binary / other gender cannot be estimated in column (3) due to collinearity. Three observations are dropped in this analysis as a result.

We also note that a small proportion of recipients (2.48%) reported their gender as non-binary in the post-experimental questionnaire. We do not observe any statistically significant difference in the choice of Pride flag by these recipients both between treatments and relative to male/female recipients. However, this is likely due to the small sample size.

Finally, Table C.1 presents coefficient effects of probit regressions of recipients' choice of Pride flag against the main treatment variable and their sexual orientation and gender as reported in the questionnaire. Similar to Table 3, columns (2) and (3) include interactions between the treatment variable and recipients' sexual orientation and gender, respectively. The estimates presented in the table are broadly consistent with both the conclusions from the non-parametric tests above and those from Table 3. Note that, unlike the conclusions from the non-parametric test, there is now no statistically significant treatment difference in non-heterosexual recipients' choice of Pride flag between the Uninformed-Choice and Informed-Choice treatments (column 2, non-heterosexual × Informed-Choice: p-value = 0.248).

Table C.2: Probit regressions of recipients' choice of Pride flag (excluding color blind recipients)

Variables	(1)	(2)	(3)
Dependent variable: Chose Pride flag			
Informed-Choice	−0.125	−0.099	0.479*
	(0.180)	(0.237)	(0.255)
Non-heterosexual	0.900***	0.929***	0.915***
	(0.208)	(0.270)	(0.214)
Non-heterosexual × Informed-Choice		−0.058	
		(0.350)	
Female	−0.137	−0.136	0.458*
	(0.181)	(0.181)	(0.253)
Female × Informed-Choice			−1.241***
			(0.361)
Constant	−1.710**	−1.727**	−1.790**
	(0.704)	(0.711)	(0.723)
Observations	278	278	278
Controls	Y	Y	Y

Coefficients of probit model reported. Standard errors in parentheses.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C.2 Choice of Pride flag excluding color blind recipients

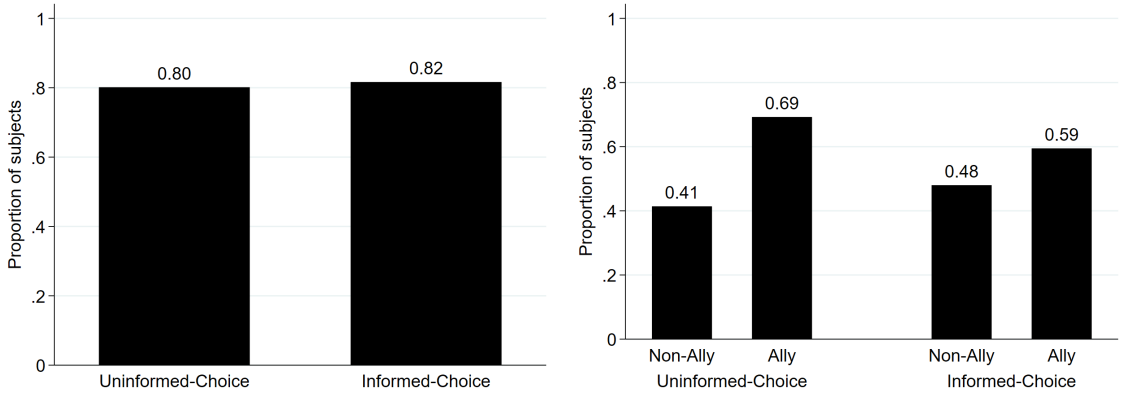
C.3 Heterogeneity of treatment differences in recipients' choice of Pride flag (included in pre-analysis plan)

In this section, we present further analysis of heterogeneous treatment effects of recipients' choice of Pride flag along LGBTQ+ allyship and their political views on social issues. These analyses of heterogeneous treatment effects are included in our pre-analysis plan.

Figure C.2 shows the proportion of recipients who consider themselves as LGBTQ+ allies (panel a) and their choice of Pride flag based on their allyship status (panel b) within each treatment. Panel (a) reveals that there are virtually no difference in the proportion of recipients who identify as LGBTQ+ allies between the Uninformed-Choice and Informed-Choice treatments (one-tailed Fisher's exact test: p-value = 0.435).

Panel (b) reveals that LGBTQ+ allies are more likely to choose the Pride flag than non-LGBTQ+ allies in both the Uninformed-Choice and Informed-Choice treatments. However, this difference is statistically significant in the Uninformed-Choice treatment and not in the Informed-Choice treatment (one-tailed Fisher's exact tests: p-values = 0.006 and 0.205, respectively). Moreover, while non-LGBTQ+ allies are more likely to choose the Pride flag in the Informed-Choice treatment than in the Uninformed-Choice treatment, the reverse is true for LGBTQ+ allies. The difference in the choice of Pride flag between treatments is not statistically significant for non-LGBTQ+ allies, but it is marginally statistically significant for LGBTQ+ allies (one-tailed Fisher's exact tests: p-values = 0.415 and 0.080, respectively).

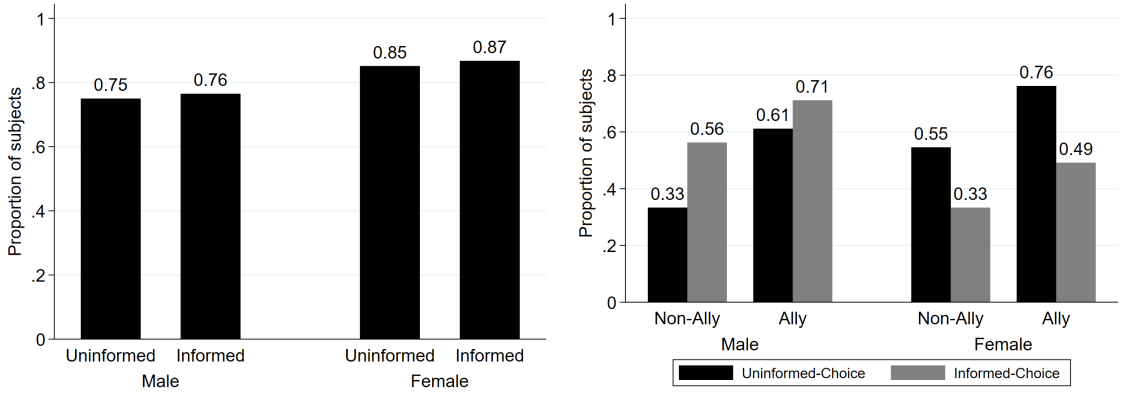
Figure C.3 reveals that the difference in the choice of Pride flag between treatments appears



(a) Consider themselves as LGBTQ+ allies (b) Choice of Pride flag

Figure C.2: Proportion of LGBTQ+ allies and choice of Pride flag by allyship

to be driven by the fact that female recipients are more likely to identify as LGBTQ+ allies. Panel (a) shows that, in both treatments, female recipients are more likely than male recipients to identify as LGBTQ+ allies (one-tailed Fisher's exact tests: p-values = 0.092 in both treatments). Panel (b) reveals that, consistent with Result 8, female recipients are less likely to choose the Pride flag in the Informed-Choice treatment than in the Uninformed-Choice treatment regardless of their allyship status. However, the difference in the choice of Pride flag by female recipients between treatments is statistically significant for LGBTQ+ allies and not for non-LGBTQ+ allies (one-tailed Fisher's exact tests: p-values = 0.002 and 0.311, respectively).



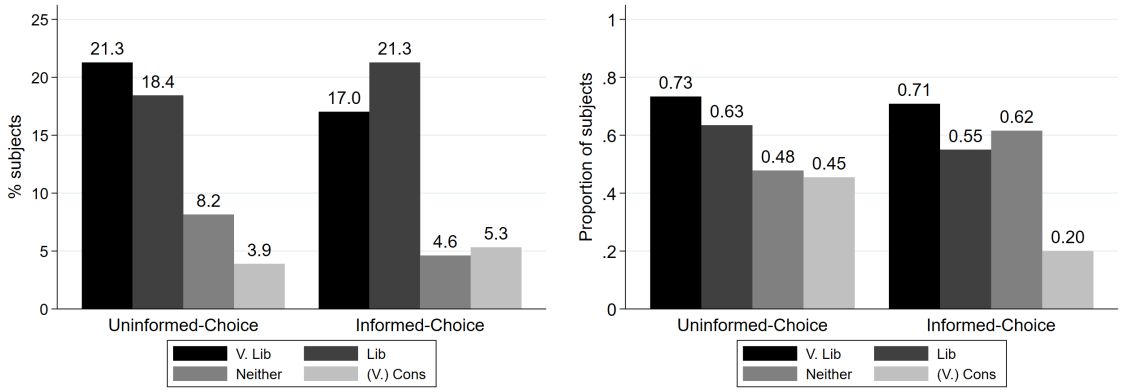
(a) Consider themselves as LGBTQ+ allies (b) Choice of Pride flag

Figure C.3: Proportion of LGBTQ+ allies and choice of Pride flag by allyship, by gender (Prolific)

Finally, Figure C.4 shows the distribution of recipients based on their political views on social issues (panel a) and recipients' choice of Pride flag based on their political views (panel b) within each treatment. Panel (a) reveals that recipients are on average more liberal on social issues.[4] This is largely driven by our sample of non-heterosexual recipients. We find that

[4]Due to the low proportions of recipients identifying as conservative and very conservative, we pool these into

there are overall no differences in recipients' political views on social issues between the two treatments (Kolmogorov-Smirnov test: p-value = 0.972).



(a) Political views (b) Choice of Pride flag

Figure C.4: Recipients' political views on social issues and choice of Pride flag

Panel (b) reveals that recipients who are conservative or very conservative on social issues are less likely to choose the Pride flag in the Informed-Choice treatment than in the Uninformed-Choice treatment. However, when we consider treatment differences in the choice of Pride flag separately for each group of recipients of recipients based on their political views, none of these differences are statistically significant (one-tailed Fisher's exact tests: (i) very liberal: p-value = 0.470; (ii) liberal: p-value = 0.237; (iii) neither: p-value = 0.330; and (iv) conservative/ very conservative: p-value = 0.169).

C.4 Heterogeneity of treatment differences in recipients' choice of Pride flag (beyond pre-analysis plan)

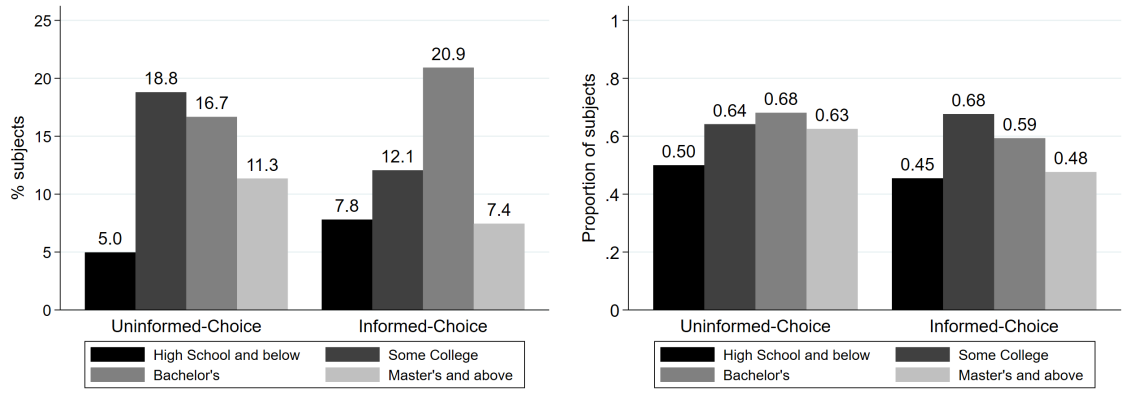
In this section, we present further analysis of heterogeneous treatment effects of recipients' choice of Pride flag along their education, ethnicity, and religion. These analyses extend beyond our pre-analysis plan.

Panel (a) of Figure C.5 reveals that, even though treatment assignment is random, there appears to be differences in the recipients' education attainment between the Informed-Choice and Uninformed-Choice treatments (Fisher's exact test: p-value = 0.027). Specifically, recipients are on average less likely to have some college degree but are more likely to have a Bachelor's degree in the Informed-Choice than in the Uninformed-Choice treatment (p-values = 0.040 and 0.053, respectively, as reported in Table A.2). We control for recipients' education attainment in our main regression analyses in the paper.

Panel (b) shows that recipients who have a Bachelor's or Master's and above degree are less likely to choose the Pride flag in the Informed-Choice treatment than in the Uninformed-Choice treatment. Hence, it appears that recipients who are more educated are, on average, less likely

one category.

to choose the Pride flag when they are aware of the potential implications of the flag choice on their earnings. Nevertheless, the treatment differences in the proportion of Pride flag choices (in panel b) are not statistically significant for any sub-group of recipients (one-tailed Fisher's exact tests p-values: (i) 0.530 for high school and below; (ii) 0.461 for some college; (iii) 0.234 for Bachelor's degree; and (iv) 0.216 for Master's and above).



(a) Education level (b) Choice of Pride flag

Figure C.5: Recipients' education level and choice of Pride flag

We next turn to recipients' ethnicity. In the post-experimental questionnaire, recipients are permitted the option to choose multiple ethnicity which they identify with. Figure C.6 presents the breakdown of recipients by each ethnic group within each treatment. Overall, we observe that the majority of recipients in our sample identify as White. Moreover, there are no statistically significant differences in the proportions of recipients identifying with each ethnicity group between the two treatments (one-tailed Fisher's exact tests: (i) White: p-value = 0.546; (ii) Black: p-value = 0.500; (iii) Hispanic: p-value = 0.577; (iv) Asian: p-value = 0.405; and (v) Other: p-value = 0.451).[5]

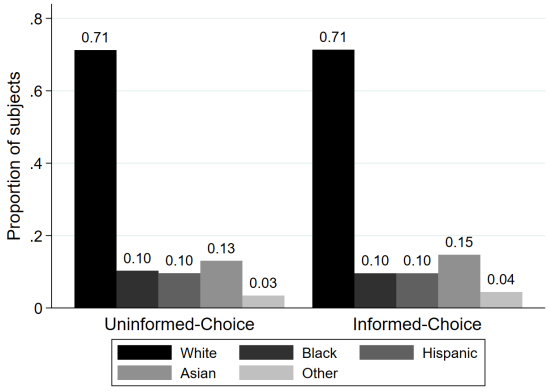
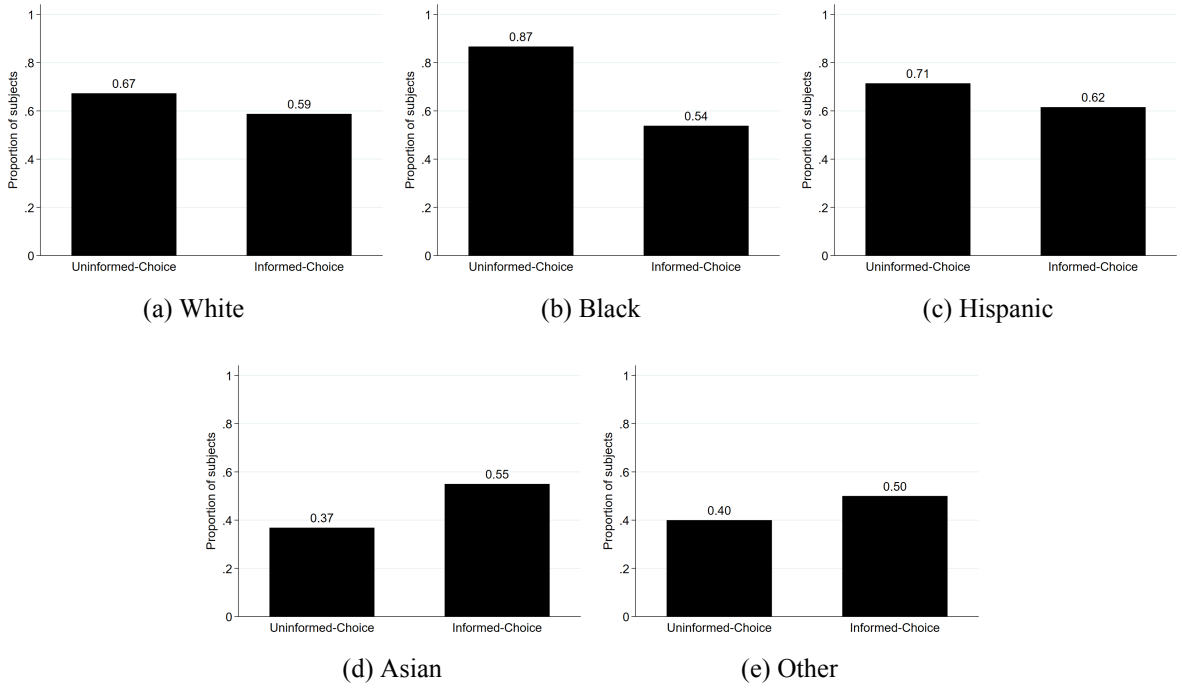


Figure C.6: Recipients' ethnicity by treatment

[5]Other ethnicity includes "American Indian / Alaskan Native", "Native Hawaiian / Pacific Islander", and "Middle Eastern / Arab".



(a) White (b) Black (c) Hispanic

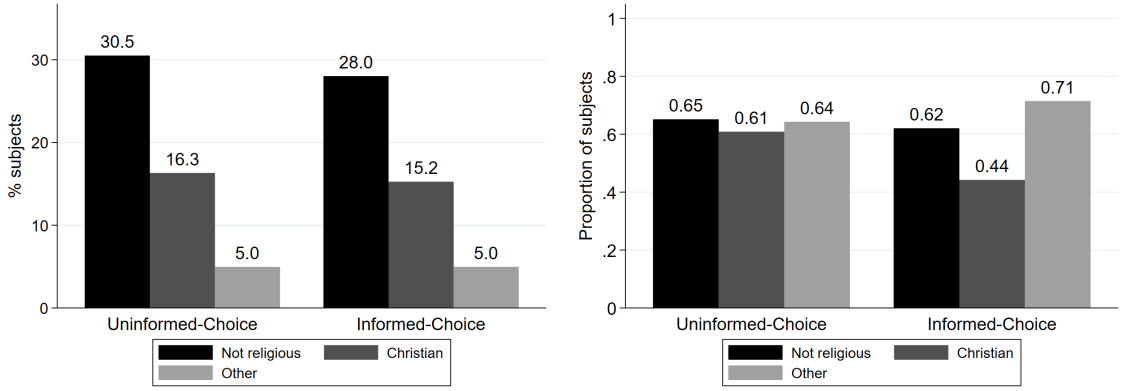
(d) Asian (e) Other

Figure C.7: Recipients' choice of Pride flag by ethnicity

Figure C.7 presents a breakdown of the proportions of recipients choosing the Pride flag within each treatment. The figures reveal certain key patterns. While White, Black, and Hispanic recipients are less likely to choose the Pride flag in the Informed-Choice treatment than in the Uninformed-Choice treatment, Asian and recipients of other ethnicity are more likely to choose the Pride flag instead. While the treatment difference in the proportion of Pride flag choices is marginally statistically significant for Black recipients, they are not statistically significant for the other sub-groups of recipients (one-tailed Fisher's exact tests: (i) White: p-value = 0.134; (ii) Black: p-value = 0.067; (iii) Hispanic: p-value = 0.208; (iv) Asian: p-value = 0.445; and (v) Other: p-value = 0.608).

Finally, panel (a) of Figure C.8 reveals that there are no differences in the recipients' religious affiliations between the Informed-Choice and Uninformed-Choice treatments (Fisher's exact test: p-value = 0.984).[6] Panel (b) shows that there are no visible treatment differences in Pride flag choices for non-religious recipients (one-tailed Fisher's exact test: p-value = 0.401). However, Christian recipients are less likely to choose the Pride flag in the Informed-Choice treatment than in the Uninformed-Choice treatment, and this difference is marginally statistically significant (one-tailed Fisher's exact test: p-value = 0.086). While recipients of other religious affiliations are more likely to choose the Pride flag in the Informed-Choice treatment than in the Uninformed-Choice treatment, this difference is not statistically significant (one-tailed Fisher's exact test: p-value = 0.500).

[6]Other religious groups include those who identify as "Hindu", "Buddhist", "Jewish", "Muslim", or "Asian Folk".



(a) Education level (b) Choice of Pride flag

Figure C.8: Recipients' education level and choice of Pride flag

Table C.3 presents coefficient estimates of probit regressions of recipients' choice of Pride flag against the main treatment variable and recipient's sexual orientation and gender. We present the detailed estimates for the controls that we consider in both Appendix C.3 and in this section. Note that columns (1)-(3) are the same as in Table 3. In columns (4) and (5), we interact the treatment variable with the recipients' allyship status and political views on social issues, respectively. The estimates in these columns reveal that there are no statistically significant heterogeneous treatment effects along these two dimensions.

Columns (6), (7), and (8) consider interactions with the recipients' education, ethnicity, and religious affiliations, respectively. We find that, contrary to the observations from the non-parametric tests above, there is now a statistically significant difference in the proportion of Pride flag choices between the two treatments for Asian recipients (p-value = 0.056). Finally, column (9) includes the full set of interaction terms in the preceding columns. Interestingly, we still observe a heterogeneous treatment effect for Asian recipients. That is, Asian recipients are more likely to choose the Pride flag in the Informed-Choice treatment than in the Uninformed-Choice treatment. Nonetheless, the gender difference in flag choice reported in Table C.4 is robust to the inclusion of interactions between the treatment and various demographic variables.

Table C.3: Probit regressions of recipients' choice of Pride flag (including interactions of treatment with demographic variables)

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Dependent variable: Chose Pride flag									
Informed-Choice	−0.106	−0.079	0.484*	0.314	0.436	0.031	−0.233	−0.043	1.495*
	(0.178)	(0.236)	(0.250)	(0.378)	(0.476)	(0.504)	(0.221)	(0.229)	(0.879)
Non-heterosexual	0.884***	0.914***	0.909***	0.870***	0.891***	0.874***	0.880***	0.866***	1.056***
	(0.206)	(0.266)	(0.212)	(0.206)	(0.208)	(0.207)	(0.211)	(0.208)	(0.304)
Informed-Choice × Non-heterosexual		−0.061							−0.291
		(0.348)							(0.419)
Female	−0.109	−0.108	0.478*	−0.109	−0.078	−0.104	−0.097	−0.112	0.560**
	(0.179)	(0.180)	(0.250)	(0.179)	(0.182)	(0.180)	(0.182)	(0.180)	(0.266)
Informed-Choice × Female			−1.238***						−1.249***
			(0.358)						(0.380)
Consider themselves as an LGBTQ+ ally	0.058	0.057	0.039	0.295	0.024	0.056	0.045	0.051	0.217
	(0.251)	(0.251)	(0.256)	(0.313)	(0.254)	(0.253)	(0.255)	(0.252)	(0.341)
Informed-Choice × LGBTQ+ ally				−0.542					−0.344
				(0.429)					(0.492)
V. Liberal on social issues	−0.050	−0.049	0.086	−0.075	0.204	0.001	−0.043	−0.040	0.459
	(0.312)	(0.313)	(0.323)	(0.316)	(0.385)	(0.317)	(0.317)	(0.313)	(0.427)
Informed-Choice × V. Liberal					−0.651				−0.554
					(0.563)				(0.656)
Liberal on social issues	−0.116	−0.117	0.022	−0.122	0.073	−0.091	−0.122	−0.108	0.411
	(0.289)	(0.289)	(0.298)	(0.292)	(0.371)	(0.293)	(0.294)	(0.290)	(0.406)
Informed-Choice × Liberal					−0.520				−0.743
					(0.547)				(0.606)
(V.) Conservative on social issues	−0.920**	−0.922**	−0.786*	−0.949**	−0.418	−0.907**	−0.927**	−0.909**	−0.256
	(0.406)	(0.406)	(0.417)	(0.407)	(0.532)	(0.408)	(0.414)	(0.408)	(0.562)

Coefficients of probit model reported. Standard errors in parentheses.

Continued on next page

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C.3 – *Continued from previous page*

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Dependent variable: Chose Pride flag									
Informed-Choice × (V.) Conservative					−1.151				−1.162
					(0.777)				(0.828)
Some college degree	0.518*	0.516*	0.363	0.484	0.560*	0.477	0.512*	0.525*	0.229
	(0.298)	(0.298)	(0.305)	(0.300)	(0.301)	(0.459)	(0.302)	(0.300)	(0.529)
Informed-Choice × Some college degree						0.201			0.427
						(0.610)			(0.663)
Bachelor's	0.674**	0.671**	0.617**	0.656**	0.737**	0.921*	0.677**	0.673**	0.936*
	(0.292)	(0.292)	(0.295)	(0.293)	(0.299)	(0.472)	(0.295)	(0.294)	(0.552)
Informed-Choice × Bachelor's						−0.413			−0.434
						(0.583)			(0.648)
Master's and above	0.358	0.352	0.243	0.320	0.408	0.465	0.332	0.350	0.296
	(0.339)	(0.341)	(0.346)	(0.341)	(0.346)	(0.488)	(0.343)	(0.340)	(0.554)
Informed-Choice × Master's and above						−0.217			−0.175
						(0.649)			(0.716)
Black	0.316	0.313	0.339	0.313	0.336	0.344	0.549	0.332	0.665
	(0.309)	(0.309)	(0.320)	(0.311)	(0.313)	(0.314)	(0.468)	(0.311)	(0.525)
Informed-Choice × Black							−0.426		−0.431
							(0.628)		(0.690)
Hispanic	0.282	0.277	0.167	0.243	0.247	0.265	0.149	0.272	0.008
	(0.301)	(0.302)	(0.310)	(0.303)	(0.304)	(0.303)	(0.426)	(0.304)	(0.478)
Informed-Choice × Hispanic							0.257		0.060
							(0.601)		(0.644)
Asian	−0.584**	−0.583**	−0.626**	−0.574**	−0.557**	−0.598**	−1.125***	−0.585**	−1.234***
	(0.259)	(0.259)	(0.261)	(0.260)	(0.262)	(0.261)	(0.385)	(0.266)	(0.423)
Informed-Choice × Asian							0.971*		1.103**

Coefficients of probit model reported. Standard errors in parentheses. *Continued on next page*

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C.3 – *Continued from previous page*

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Dependent variable: Chose Pride flag									
							(0.508)		(0.548)
Other ethnicity	−0.396	−0.390	−0.348	−0.434	−0.452	−0.427	−0.158	−0.417	−0.268
	(0.449)	(0.451)	(0.455)	(0.452)	(0.455)	(0.451)	(0.681)	(0.457)	(0.723)
Informed-Choice × Other ethnicity							−0.521		−0.434
							(0.885)		(0.944)
Christian	0.377	0.375	0.370	0.354	0.385	0.370	0.424*	0.475	0.447
	(0.235)	(0.235)	(0.241)	(0.237)	(0.236)	(0.236)	(0.239)	(0.290)	(0.331)
Informed-Choice × Christian								−0.225	−0.155
								(0.385)	(0.491)
Other religion	0.628**	0.630**	0.578*	0.600*	0.631**	0.647**	0.813**	0.602	0.908*
	(0.315)	(0.315)	(0.324)	(0.316)	(0.316)	(0.319)	(0.336)	(0.458)	(0.540)
Informed-Choice × Other religion								0.045	−0.196
								(0.627)	(0.697)
Beliefs in amount sent (P vs. NP)	0.009	0.009	0.008	0.008	0.008	0.010*	0.009	0.009	0.009
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Constant	−1.784**	−1.801**	−1.878***	−1.897***	−2.004***	−1.912**	−1.672**	−1.817**	−2.391***
	(0.702)	(0.708)	(0.720)	(0.710)	(0.738)	(0.776)	(0.712)	(0.706)	(0.887)
Observations	282	282	282	282	282	282	282	282	282
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y

Coefficients of probit model reported. Standard errors in parentheses.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C.5 Recipients' individual flag and string choices

In this section, we present additional analyses of recipients' individual string and flag choices based on their gender and sexual orientation. The analyses presented here extend beyond our pre-analysis plan and serve as further robustness checks of our main findings.

Figure C.9 presents the proportion of recipients choosing each flag by treatment and sexual orientation, separately for male (panel a) and female (panel b) recipients.[7] Overall, the figures reveal that both male and female non-heterosexual recipients are more likely to choose the the Pride flag than the other two non-Pride flags in both treatments. For heterosexual recipients, there appears to be gender differences in recipients' preference for specific non-Pride flags.

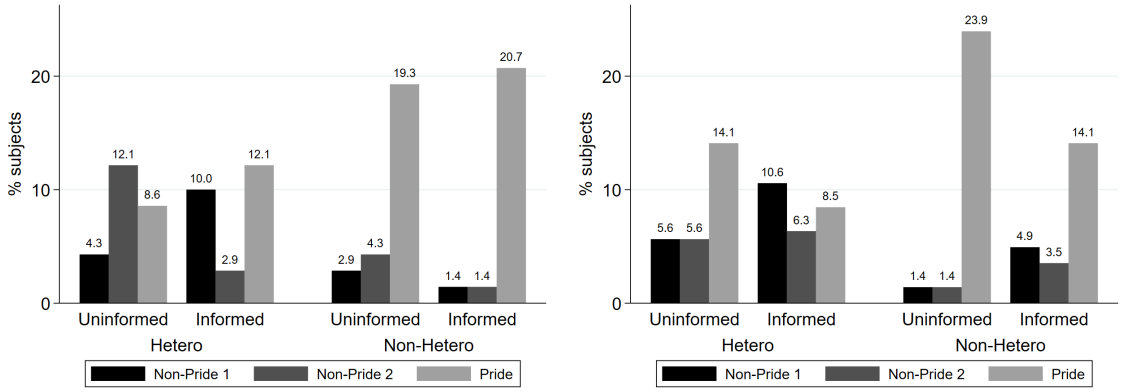
To investigate this further, Table C.4 presents marginal effect estimates of multinomial probit regressions of recipients' flag choices against recipients' sexual orientation and gender, and the treatment variable. Column (1) reveals that, consistent with Result 1, non-heterosexual recipients are more likely to choose the Pride flag than heterosexual recipients (p-value < 0.001). Also consistent with Result 7, column (1) reveals that there is no overall difference in the share of recipients choosing the Pride flag between the Uninformed-Choice and Informed-Choice treatments (p-value = 0.338). Columns (2) and (3) reveal that this result holds for both heterosexual and non-heterosexual recipients (p-values = 0.600 and 0.405, respectively). However, we observe in column (1) that relative to the Uninformed-Choice treatment, there is a higher proportion of recipients choosing non-Pride flag 1 and a lower proportion of recipients choosing non-Pride flag 2 in the Informed-Choice treatment (p-values = 0.005 and 0.081, respectively). This result appears to be driven by heterosexual recipients, as observed in column (2).

Consistent with Result 8, columns (4) and (5) reveal that male recipients are more likely to choose the Pride flag in the Informed-Choice treatment relative to the Uninformed-Choice treatment (p-value = 0.049), while the reverse holds for female recipients (p-value = 0.001). Interestingly, this gender difference appears to be driven by gender differences in the preference for the two non-Pride flags. Column (4) reveals that the increase in the proportion of male recipients choosing the Pride flag in the Informed-Choice treatment relative to the Uninformed-Choice treatment appears to be driven by a decrease in the share of male recipients choosing non-Pride flag 2 between the two treatments (p-value < 0.001). On the other hand, column (5) reveals that the difference in the choice of Pride flag by female recipients between the treatments appears to be driven by female recipients being switching to non-Pride flag 1 from the Uninformed-Choice treatment to the Informed-Choice treatment (p-value = 0.007).

Overall, we conclude that, while there are some gender differences in recipients' choices between the two non-Pride flags, our main conclusions centered around the choice of Pride versus non-Pride flags are robust after controlling for these differences.

We next move on to recipients' choice of string in their ID. Panels (a) and (b) Figure C.10 presents the proportion of male and female recipients, respectively, who choose each string based on the treatment and their sexual orientation. Table C.5 presents marginal effect esti-

[7] In all our analyses, non-Pride flags 1 and 2 refer to and , respectively.



(a) male recipients (b) female recipients

Figure C.9: Individual flag choices by gender and sexual orientation (Prolific profile)

Table C.4: Multinomial probit regressions of recipients' flag choice (Prolific profile)

Variables	Pooled (1)	Hetero (2)	Non-Hetero (3)	Male (4)	Female (5)
Dependent variable: Flag choice					
Informed-Choice					
Non-Pride 1	0.131***	0.210***	0.055	0.083	0.181***
	(0.046)	(0.075)	(0.053)	(0.063)	(0.067)
Non-Pride 2	−0.079*	−0.166**	0.003	−0.231***	0.066
	(0.045)	(0.073)	(0.053)	(0.063)	(0.062)
Pride	−0.052	−0.043	−0.058	0.147**	−0.247***
	(0.054)	(0.083)	(0.070)	(0.075)	(0.075)
Non-Heterosexual					
Non-Pride 1	−0.190***			−0.196***	−0.184***
	(0.046)			(0.063)	(0.066)
Non-Pride 2	−0.162***			−0.188***	−0.133**
	(0.045)			(0.063)	(0.061)
Pride	0.352***			0.384***	0.318***
	(0.054)			(0.075)	(0.075)
Female					
Non-Pride 1	0.034	0.030	0.039		
	(0.046)	(0.075)	(0.052)		
Non-Pride 2	−0.032	−0.053	−0.013		
	(0.045)	(0.073)	(0.053)		
Pride	−0.002	0.023	−0.026		
	(0.054)	(0.083)	(0.069)		
Observations	282	142	140	140	142
Controls	N	N	N	N	N

Marginal effects of multinomial probit model reported. Standard errors in parentheses. Individual controls are excluded to allow for convergence of the estimated models.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

mates of multinomial probit regressions of recipients' string choices against recipients' sexual orientation and gender, and the treatment variable.[8]

Overall, both Figure C.10 and Table C.5 reveal that there are no systematic differences in the recipients choice of strings across treatments. The only exception is that recipients are more likely to choose String 3 in the Informed-Choice treatment than in the Uninformed-Choice treatment, although this difference is only marginally statistically significant (p-value = 0.052). This difference appears to be driven by non-heterosexual and male recipients (columns 3 and 4, p-values = 0.038 and 0.041, respectively). Nonetheless, as compared to recipients' flag choices, the lack of systematic differences in string choices suggest that recipients do not view the string component of the ID as conveying any meaning or representation of their identity.

C.6 Recipients' beliefs about amounts sent to other recipients

D Results from Pilot Experiments with Icon Task

We ran two pilot experiments with only the Icon Task to evaluate whether individuals perceive the choice of the Pride flag as a representation of one's sexual identity.

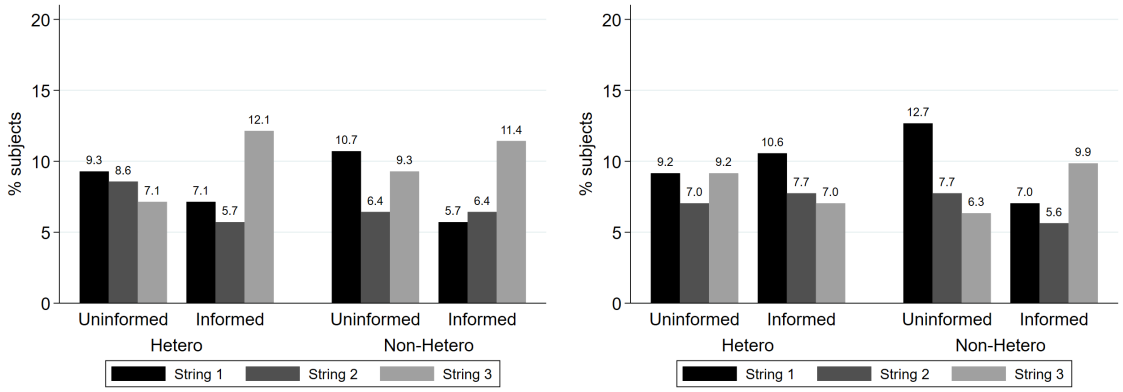
We recruited 120 and 121 subjects via Prolific to participate in the two separate waves of the pilot experiment in March 2020. Each subject participated in the Icon Task as described in Section 2.1. In the first wave, each subject was presented eight icons to choose from, one of which is the Pride flag. In the second wave, we narrowed the set of icon options down to three. Another key departure from the main task was that subjects in both pilot experiments were not given any string option to choose from, but were instead provided with a randomly generated string to have as part of their ID.

After completing the Icon Task, each subject was presented with another ID and was asked to assume that it was chosen hypothetically by another subject. Subjects were then asked to state their beliefs about the characteristics of their hypothetical matched partner based on the ID they have chosen. Specifically, we asked each subject what they think was their hypothetical matched partner's age, gender identity, sexual orientation, and allyship with the LGBTQ+ community.[9] Finally, subjects completed a brief questionnaire eliciting their own demographic variables and the reasons behind their own icon choice in the task.

Figure D.1 and D.2 summarizes the main findings from our pilot experiments. Figure D.1 shows the proportion of subjects who identify themselves as non-heterosexual separated by their flag choice in Pilot 1 (panel a) and Pilot 2 (panel b), respectively. The figures in both panels reveal that non-heterosexual individuals are much more likely to choose the Pride flag than heterosexual individuals (one-tailed Fisher's exact p-values < 0.001 for both pilot experiments). Moreover, the proportions of Pride flag choices are similar across both pilot experiments for each group of subjects, suggesting that the number of icon options available does not substantially influence their choices. Figure D.2 shows the proportion of subjects who believe that their hypothetical partner is non-heterosexual based on their flag choice. Both figures show

[8] In all our analyses, Strings 1, 2, and 3 refer to "gwxzr174", "rgzxw471", and "zrwgx741", respectively.

[9] These belief questions were not incentivized.



(a) male recipients (b) female recipients

Figure C.10: Individual string choices by gender and sexual orientation (Prolific profile)

Table C.5: Multinomial probit regressions of recipients' string choice (Prolific profile)

Variables	Pooled (1)	Hetero (2)	Non-Hetero (3)	Male (4)	Female (5)
Dependent variable: String choice					
Informed-Choice					
String 1	−0.087	−0.014	−0.163**	−0.125	−0.050
	(0.057)	(0.080)	(0.080)	(0.079)	(0.082)
String 2	−0.023	−0.041	−0.005	−0.042	−0.005
	(0.053)	(0.076)	(0.075)	(0.075)	(0.076)
String 3	0.110*	0.055	0.167**	0.167**	0.056
	(0.057)	(0.080)	(0.081)	(0.082)	(0.079)
Non-Heterosexual					
String 1	0.002			−0.005	0.009
	(0.057)			(0.079)	(0.082)
String 2	−0.024			−0.029	−0.019
	(0.053)			(0.075)	(0.076)
String 3	0.022			0.034	0.010
	(0.057)			(0.082)	(0.078)
Female					
String 1	0.065	0.059	0.070		
	(0.057)	(0.080)	(0.080)		
String 2	0.009	0.006	0.015		
	(0.053)	(0.076)	(0.075)		
String 3	−0.074	−0.065	−0.085		
	(0.057)	(0.080)	(0.080)		
Observations	282	142	140	140	142
Controls	N	N	N	N	N

Marginal effects of multinomial probit model reported. Standard errors in parentheses. Individual controls are excluded to allow for convergence of the estimated models.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

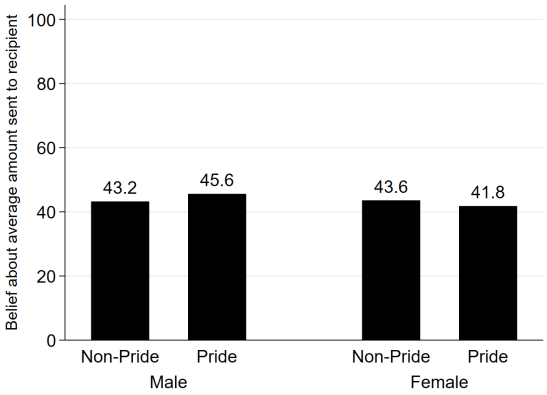
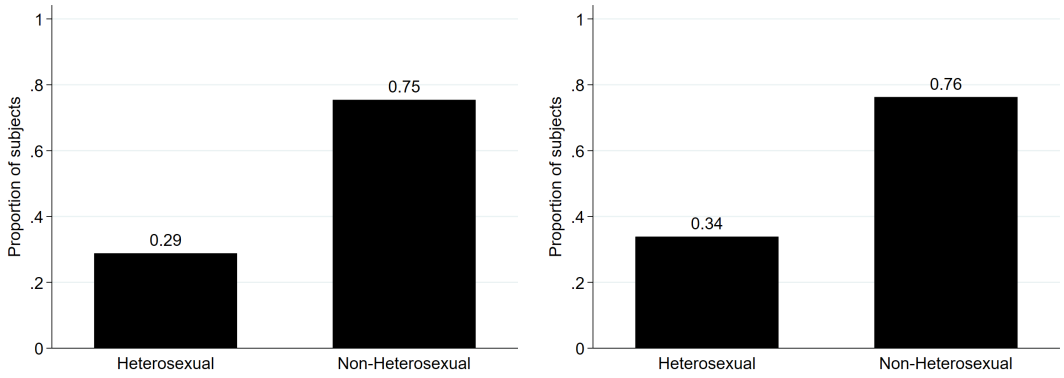


Figure C.11: Belief about amount sent to recipients by flag choice (between-subject, first recipient only)

that individuals are more likely to perceive their matched partner is non-heterosexual if their ID contains a Pride flag as opposed to a non-Pride flag (one-tailed Fisher's exact p-values < 0.001 for both pilot experiments).



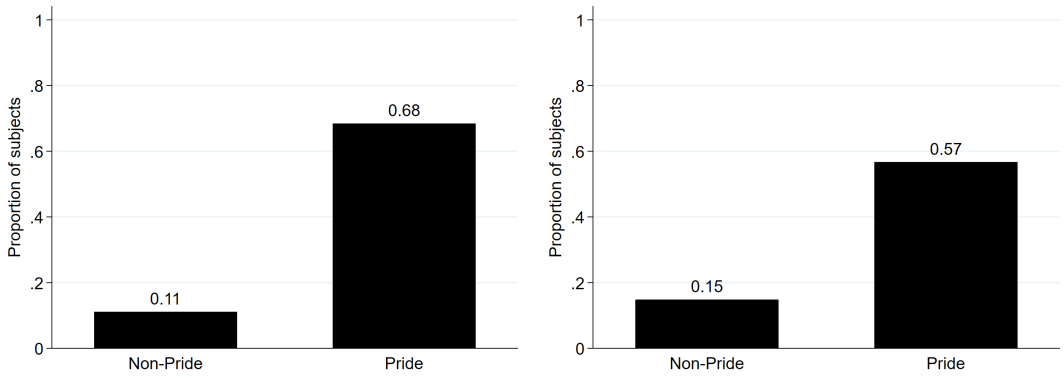
(a) Pilot 1 (b) Pilot 2

Figure D.1: % participants choosing Pride flag by sexual orientation

In our pilot experiments, we also asked several additional questions to assess the effectiveness of the Pride flag in signalling one's sexual identity.

First, we asked subjects an open-ended question regarding the reasons behind their icon choice in the Icon Task. The subjects' responses to this open-ended question reveal important information. A majority of the subjects who chose the Pride flag either indicated that the flag is associated with their own LGBTQ+ identity or expressed their support for the LGBTQ+ community. Subjects who did not choose the Pride flag typically either indicated preferences for the colors in the non-Pride flags or stated that they made their decision randomly. Hence, we can conclude that the subjects' choice of the Pride flag is an indication of their affiliation to the LGBTQ+ community.

Second, in Pilot 2, we asked each subject to indicate the beliefs of *other individuals* about the characteristics of their matched partners. Figure D.3 presents the proportion of subjects



(a) Pilot 1 (b) Pilot 2

Figure D.2: % participants perceiving hypothetical partner is non-heterosexual by flag choice

who believe that other individuals would perceive their hypothetical matched partners as non-heterosexual based on their flag choice. Of those subjects whose matched partners chose the pride flag, 73% of them indicated that *other individuals* would consider their partner to be non-heterosexual, as compared to 19% of subjects whose partner chose the non-pride flag (one-tailed Fisher's exact test: p-value < 0.001). Hence, we conclude that subjects associate the use of the Pride flag by their matched partners as a representation of their partners' sexual identity, and they also believe that other individuals hold such beliefs as well.

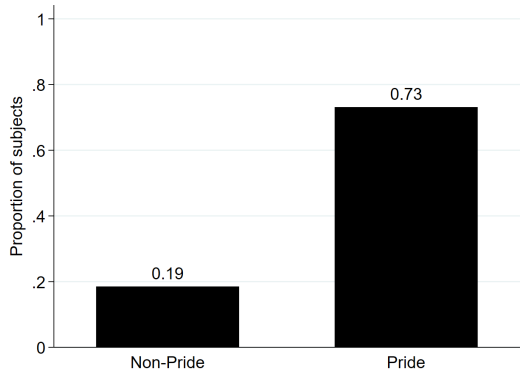


Figure D.3: % participants who believe other individuals will perceive hypothetical partner is non-heterosexual by flag choice (Pilot 2 only)

E Instructions

In this section, we provide screenshots of the instructions for the main tasks for both the recipient and dictator sessions. We provide a list of questions asked in the post-experimental questionnaire in Appendix F.

E.1 Instructions for Recipient Sessions

Uninformed-Choice Treatment

Overview of study

Welcome! Here is a brief overview of the study.

What will I have to do?

This study consists of **two** tasks which will be explained in detail later. The study should take no longer than **20** minutes in total.

How much payment will I receive for my participation?

You will be paid 1 USD for completing the study.

Additionally, you may receive **additional bonus payments** based on your decisions in the tasks. Hence, you should pay close attention to the tasks as your decisions may determine your earnings.

How will payment be made?

During the study, we will be trading in experimental currency units (ECU). At the end of the study, any ECU you have received from the tasks will be converted to USD using the following conversion rate: **20 ECU = 1 USD**.

This experiment will continue over the next 21 days. Once all participants complete this study, we will determine your bonus payments based on the decisions made in the tasks and pay these to you via the Prolific platform.

Please note!

There will be several **Attention Check** questions throughout this study meant to test whether you are paying attention. If you fail to correctly complete any of these Attention Check questions, you may not be paid.

Finally, please note that in line with standard economics experiments, your bonus payments will be determined in the manner as described in the instructions.

NEXT

Task 1 : Creation of Personal ID

You will be asked to create a personal ID that is a combination of (i) an 8-digit alpha-numeric string of characters and (ii) an icon.

Step 1: Choose Alpha-Numeric String

All the participants in this study are given these three options. Please select one to form the alpha-numeric part of your personal ID.

- ○ rgzxw471
- ○ zrwgx741
- ○ gwxzr174

You **do not** need to remember which option you have selected. Your ID will always be shown to you whenever it is necessary.

NEXT

Task 1 : Creation of Personal ID

Step 2: Choose Icon

All participants in this study are given these three options. Please select one to form the icon part of your personal ID.

You **do not** need to remember which option you have selected. Your ID will always be shown to you whenever it is necessary.

NEXT

Task 1 : Creation of Personal ID

Your personal ID is:

 zrwgx741

We are now ready to begin the next Task.

This is to check your attention. Please select the word "Dog":

- ○ Cat
- ○ Dog
- ○ Bird

NEXT

Task 2

In this task, we will ask you to answer some questions, please answer them to the best of your ability. You may receive **additional bonus payments** based on your responses to some of the questions.

The survey consists of five parts.

NEXT

Task 2 : Part 1

You will be randomly matched with one or more participants from the United States, also recruited via the Prolific platform.

Each of these participants will be shown your ID (**zrwgx741**), and they will be asked to make one decision which will determine the bonus payments that you will receive from this part of Task 2.

Specifically, each participant you are matched with will be given the following information:

Information Given to Your Matched Participant(s)

You are randomly matched with a participant who has chosen the following ID: zrwgx741.

You will be asked to make one decision which will determine the bonus payments that you and zrwgx741 will receive from this task.

Your Decision: You will be asked how you would like to allocate 100 ECU between yourself and zrwgx741.

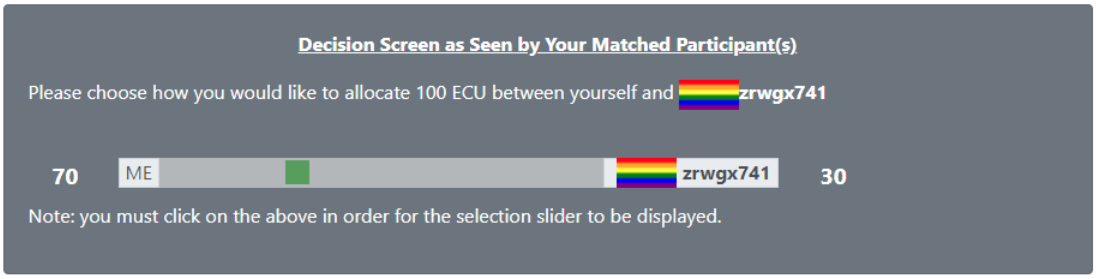
You can send any amount to zrwgx741 in increments of 1 ECU between 0 and 100 ECU. The remaining amount, if any, will be yours to keep.

In short, each of your matched partner(s) will be shown your personal ID and will be asked how to allocate 100 ECU between the two of you.

NEXT

Task 2 : Part 1

Your matched participant(s) will make their decisions on a screen as shown below:



Show/Hide Information from Previous Screen

Each of your matched participant(s) will use the slider above to allocate 100 ECU between themselves and you.

To ensure that you completely understand this task, please use the slider above to see how it works. **There is no decision for you to make here, but you will not be able to move forward without first clicking on the slider**.

Your Payment: Since you may be matched with more than one participant, your bonus payment for this part of Task 2 will be the **sum** of all their decisions.

NEXT

Task 2 : Part 1

To check that you understand the instructions, please answer the following question.

My bonus payment from this part of Task 2 is determined by the decisions of **one** randomly chosen partner I have been matched with.

- ○ True
- ○ False

SUBMIT

Informed-Choice Treatment

Overview of study

Welcome! Here is a brief overview of the study.

What will I have to do?

This study consists of **four** tasks which will be explained in detail later. The study should take no longer than **20** minutes in total.

How much payment will I receive for my participation?

You will be paid 1 USD for completing the study.

Additionally, you may receive **additional bonus payments** based on your decisions in the tasks. Hence, you should pay close attention to the tasks as your decisions may determine your earnings.

How will payment be made?

During the study, we will be trading in experimental currency units (ECU). At the end of the study, any ECU you have received from the tasks will be converted to USD using the following conversion rate: **20 ECU = 1 USD**.

This experiment will continue over the next 21 days. Once all participants complete this study, we will determine your bonus payments based on the decisions made in the tasks and pay these to you via the Prolific platform.

Please note!

There will be several **Attention Check** questions throughout this study meant to test whether you are paying attention. If you fail to correctly complete any of these Attention Check questions, you may not be paid.

Finally, please note that in line with standard economics experiments, your bonus payments will be determined in the manner as described in the instructions.

NEXT

Task 1

In this experiment, you will be asked to construct a personal ID (to be explained in detail later).

You will then be randomly matched with one or more participants. Each of these participants will be shown your personal ID, and they will be asked to make one decision which will determine your bonus payments from this part of Task 1.

Before we ask you to choose your personal ID, we will first explain the decision that your matched participant(s) will be making.

NEXT

Task 1

You will be randomly matched with one or more participants from the United States, also recruited via the Prolific platform.

For now, assume that your personal ID is: [redacted]**abcde123**. (You will get to choose this later).

Each of these participants will be shown your ID ([redacted]**abcde123**), and they will be asked to make one decision which will determine the bonus payments that you will receive from this part of Task 1.

Specifically, each participant you are matched with will be given the following information:

Information Given to Your Matched Participant(s)

You are randomly matched with a participant who has chosen the following ID: [redacted]abcde123.

You will be asked to make one decision which will determine the bonus payments that you and [redacted]abcde123 will receive from this task.

Your Decision: You will be asked how you would like to allocate 100 ECU between yourself and [redacted]abcde123.

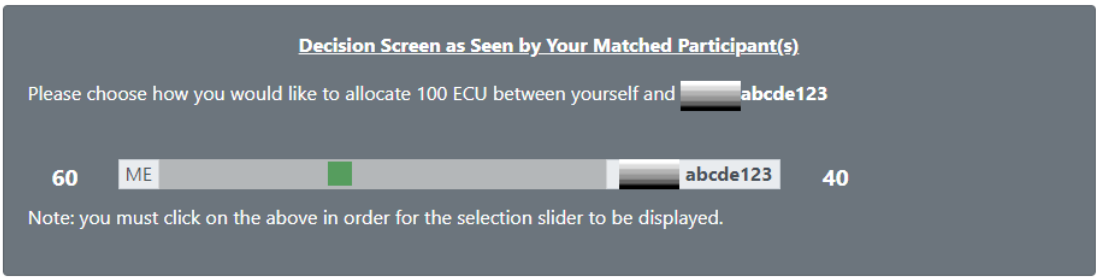
You can send any amount to [redacted]abcde123 in increments of 1 ECU between 0 and 100 ECU. The remaining amount, if any, will be yours to keep.

In short, each of your matched partner(s) will be shown your personal ID and will be asked how to allocate 100 ECU between the two of you.

NEXT

Task 1

Your matched participant(s) will make their decisions on a screen as shown below:



Show/Hide Information from Previous Screen

Each of your matched participant(s) will use the slider above to allocate 100 ECU between themselves and you.

To ensure that you completely understand this task, please use the slider above to see how it works. **There is no decision for you to make here, but you will not be able to move forward without first clicking on the slider**.

Your Payment: Since you may be matched with more than one participant, your bonus payment for this part of Task 1 will be the **sum** of all their decisions.

NEXT

Task 1

To check that you understand the instructions, please answer the following question.

My bonus payment from this part of Task 1 is determined by the decisions of **one** randomly chosen partner I have been matched with.

- ○ True
- ○ False

SUBMIT

Task 2 : Creation of Personal ID

Now we ask you to create a personal ID that is a combination of (i) an 8-digit alpha-numeric string of characters and (ii) an icon.

Step 1: Choose Alpha-Numeric String

All the participants in this study are given these three options. Please select one to form the alpha-numeric part of your personal ID.

- ○ gwxzr174
- ○ rgzxw471
- ○ zrwgx741

You **do not** need to remember which option you have selected. Your ID will always be shown to you whenever it is necessary.

NEXT

Task 2 : Creation of Personal ID

Step 2: Choose Icon

All participants in this study are given these three options. Please select one to form the icon part of your personal ID.

You **do not** need to remember which option you have selected. Your ID will always be shown to you whenever it is necessary.

NEXT

Task 2 : Creation of Personal ID

Your personal ID is:

rgzxw471

We are now ready to begin the next Task.

This is to check your attention. Please select the word "Dog":

- ○ Cat
- ○ Dog
- ○ Bird

NEXT

E.2 Instructions for Dictator Sessions

Overview of study

Welcome! Here is a brief overview of the study.

What will I have to do?

This study consists of **three** tasks which will be explained in detail later. The study should take no longer than **20** minutes in total.

How much payment will I receive for my participation?

You will be paid 1 USD for completing the study.

Additionally, you may receive **additional bonus payments** based on your decisions in Tasks 1 or 2. At the end of the study, we will randomly pick **either** Task 1 **or** Task 2 to determine your bonus payment. Since nobody knows which task will be selected for payment, you should pay close attention to the tasks as your decisions may determine your earnings.

How will payment be made?

During the study, we will be trading in experimental currency units (ECU). At the end of the study, any ECU you have received from the tasks will be converted to USD using the following conversion rate: **20 ECU = 1 USD**.

This experiment will continue over the next 21 days. Once all participants complete this study, we will determine your bonus payments based on the decisions made in the tasks and pay these to you via the Prolific platform.

Please note!

There will be several **Attention Check** questions throughout this study meant to test whether you are paying attention. If you fail to correctly complete any of these Attention Check questions, you may not be paid.

Finally, please note that in line with standard economics experiments, your bonus payments will be determined in the manner as described in the instructions.

NEXT

Task 1 : Instructions I

In Task 1, you will be matched with a participant. We asked this participant to construct an ID earlier, and you will now be asked to make a decision that will determine their bonus payment from the experiment.

Part I: Creation of Personal ID by Partner

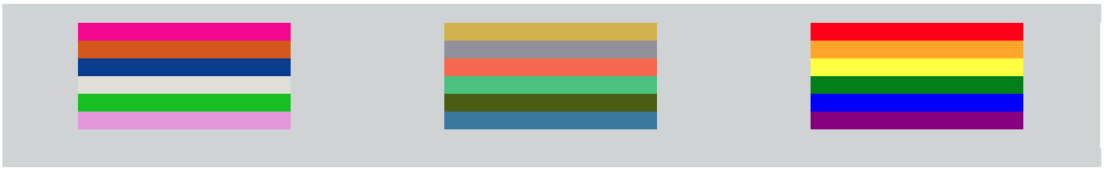
Your matched partner was asked to create a personal ID that is a combination of (i) an 8-digit alpha-numeric string of characters and (ii) an icon.

For each component, all the participants in the experiment were given the same three options to choose from:

1. Alpha-numeric String:

gwxzr174	rgzxw471	zrwgx741

2. Icon:



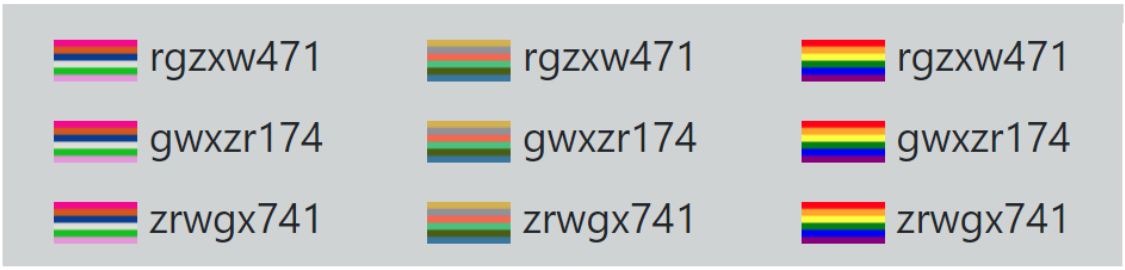
This is to check your attention. Please select the word "Bird":

- ○ Cat
- ○ Dog
- ○ Bird

NEXT

Task 1 : Instructions I

Given the options presented on the previous screen, all the participants have each constructed a personal ID that takes **one** of the following nine formats:



NEXT

Task 1 : Instructions II

You are randomly matched **with a participant who has chosen the following ID**: **gwxzr174**.

You will be asked to make one decision which will determine the bonus payments that you and **gwxzr174** will receive from this task.

Your Decision: You will be asked how you would like to allocate 100 ECU between yourself and **gwxzr174**.

You can send any amount to **gwxzr174** in increments of 1 ECU between 0 and 100 ECU. The remaining amount, if any, will be yours to keep.

If this task is randomly chosen to be the paying task, then your decision will determine **both** your and **gwxzr174**'s earnings.

NEXT

Task 1 : Decision

Please choose how you would like to allocate 100 ECU between yourself and **gwxzr174**

33 ME **gwxzr174** 67

Note: you must click on the above in order for the selection slider to be displayed.

Show/Hide Instructions

You are randomly matched **with a participant who has chosen the following ID**: **gwxzr174**.

You will be asked to make one decision which will determine the bonus payments that you and **gwxzr174** will receive from this task.

Your Decision: You will be asked how you would like to allocate 100 ECU between yourself and **gwxzr174**.

You can send any amount to **gwxzr174** in increments of 1 ECU between 0 and 100 ECU. The remaining amount, if any, will be yours to keep.

If this task is randomly chosen to be the paying task, then your decision will determine **both** your and **gwxzr174**'s earnings.

SUBMIT

Task 2 : Instructions

Task 2 is identical to Task 1 with one exception.

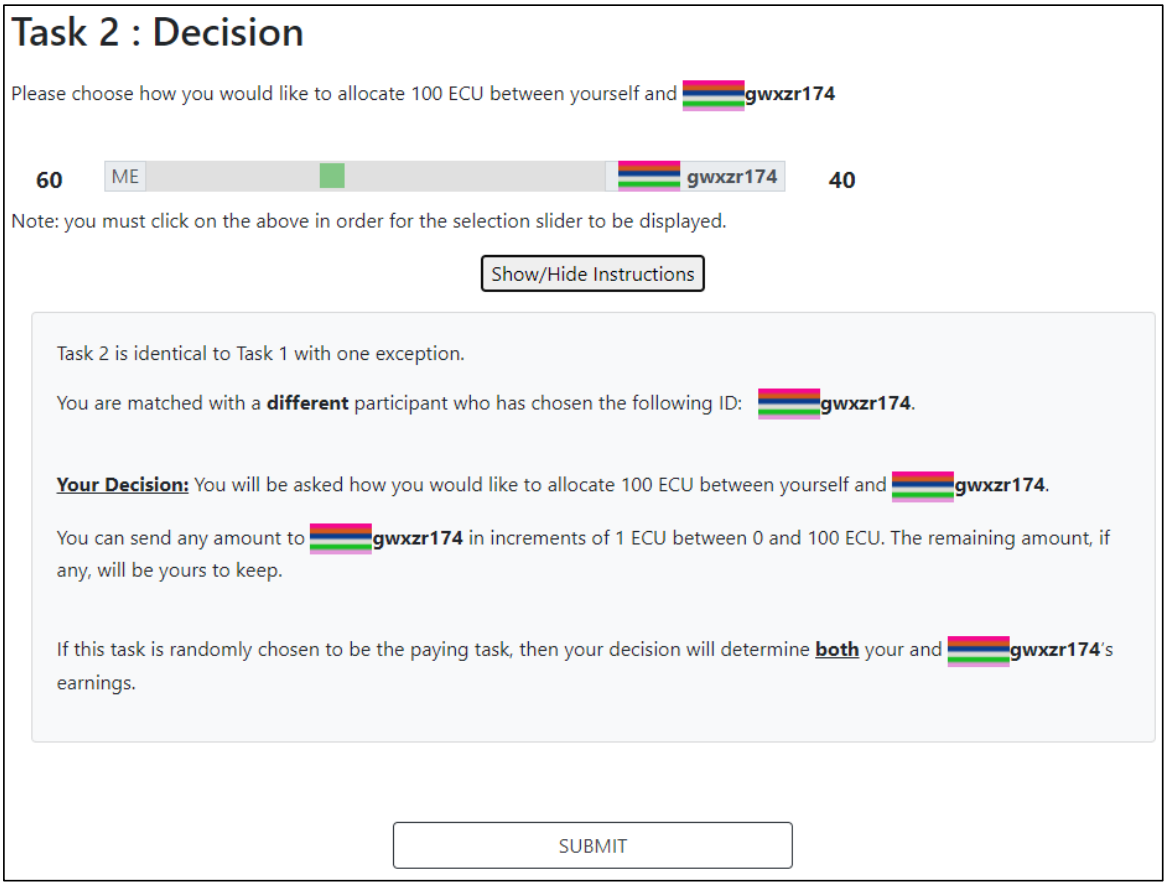
You are matched with a **different** participant who has chosen the following ID: **gwxzr174**.

Your Decision: You will be asked how you would like to allocate 100 ECU between yourself and **gwxzr174**.

You can send any amount to **gwxzr174** in increments of 1 ECU between 0 and 100 ECU. The remaining amount, if any, will be yours to keep.

If this task is randomly chosen to be the paying task, then your decision will determine **both** your and **gwxzr174**'s earnings.

NEXT


Task 2 : Decision
Please choose how you would like to allocate 100 ECU between yourself and gwxzr174
60
ME
gwxzr174
40
Note: you must click on the above in order for the selection slider to be displayed.
Show/Hide Instructions
Task 2 is identical to Task 1 with one exception.
You are matched with a different participant who has chosen the following ID: gwxzr174.
Your Decision: You will be asked how you would like to allocate 100 ECU between yourself and gwxzr174.
You can send any amount to gwxzr174 in increments of 1 ECU between 0 and 100 ECU. The remaining amount, if any, will be yours to keep.
If this task is randomly chosen to be the paying task, then your decision will determine both your and gwxzr174's earnings.
SUBMIT

F Post-Experimental Questionnaire

In this section, we provide a list of survey questions asked to participants at the end of the experiment for both the recipient and dictator sessions.

F.1 Questions for All Subjects

1. What is your year of birth?
2. What sex were you assigned at birth, on your original birth certificate?
3. What is your current gender identity? Select all that apply.
   (a) Male
   (b) Female
   (c) Trans male / Trans man
   (d) Trans female / Trans woman
   (e) Genderqueer / Gender non-conforming
   (f) Nonbinary
   (g) Other (please state below)
4. Which do you consider yourself to be:
   (a) Heterosexual or straight
   (b) Gay or lesbian
   (c) Bisexual
   (d) Other (please state below)
5. Have you ever had any kind of sexual relations with persons of the same gender as yourself?
6. Have you ever had any kind of sexual relations with persons of different gender(s) than yourself?
7. Have you ever been sexually attracted to or had sexual fantasies about persons of the same gender as yourself?
8. Have you ever been sexually attracted to or had sexual fantasies about persons of different gender(s) than yourself?
9. Do you have any form of color blindness?
10. What is your ethnicity?
11. Please indicate your current relationship status.

12. What is the highest education level you have attained?
13. Please select your household annual income from the options below.
14. What is your religious affiliation?
15. In which US state/territory do you currently live?
16. In which US state/territory did you spend the most time in for the first 18 years of your life?
17. On economic issues, politically I am:
    (a) Very Conservative
    (b) Conservative
    (c) Equally Liberal and Conservative
    (d) Liberal
    (e) Very Liberal
18. On social issues, politically I am: [scale ranging from very conservative to very liberal]
    (a) Very Conservative
    (b) Conservative
    (c) Equally Liberal and Conservative
    (d) Liberal
    (e) Very Liberal
19. Who did you vote for in the 2016 presidential election?
20. To what extent do you agree with the following statements?
    (a) "Gay men and lesbians should be free to live their own lives as they wish."
    (b) "It should be legal for business owners to refuse to serve same-sex partners."
    (c) "It should be legal for same-sex partners to adopt a child."
    (d) "Marriages between same-sex partners should be recognized by the law as valid, with the same rights as traditional marriages."
    (e) "Transgender individuals should be allowed to use the bathroom corresponding to the gender that they identify as."
21. How often do you interact with anyone who identifies as LGBTQ+ (e.g., in the workplace, in social settings)?

22. Do you have a close friend or family member who identifies as LGBTQ+?

23. Do you consider yourself to be an ally to the LGBTQ+ community?

24. Are you formally registered as an LGBTQ+ ally (e.g., Safe Zone Training or Campus Ally programs) in your workplace, school, university, or other institutions?

25. Please indicate the extent to which you agree or disagree with the following two statements.

    (a) "The instructions were clear."

    (b) "The instructions helped me understand how my earnings are calculated."

F.2 Questions Specific to Recipients

1. We will now ask you to predict what you think will be the decisions made by the matched partners of other participants who are in a similar position as you.

   Specifically, you will be shown the IDs chosen by other participants, and you will be asked to predict what would be the average number of ECU each participant will receive from their matched partner(s). At the end of the experiment, you will be paid for the accuracy of one of your predictions.

   Clicking the button below will provide a detailed description of how you will be paid for your predictions. You do not need to know it in detail, except that the procedure is designed so that it is in your best interest to state your predictions as accurately as possible.[10]

   (a) First, consider a participant who has chosen the following ID: [Icon1][String1]. On average, how many ECU do you think a participant with the ID [Icon1][String1] will receive from their matched partner(s)?

   (b) Next, consider a participant who has chosen the following ID: [Icon2][String2]. On average, how many ECU do you think a participant with the ID [Icon1][String1] will receive from their matched partner(s)?

2. Another participant in this study has chosen the ID [Icon1][String1] and provided us with information about themselves. Please indicate how you think they responded to the following questions.

   (a) I think their gender is: [...]. How sure are you?

   (b) I think their age is: [...]. How sure are you?

[10] These belief questions were incentivized using the binarized scoring rule (Hossain and Okui, 2013). The two IDs displayed to the recipients were determined in a way similar to the Pride-First and Pride-Second treatments for dictators. That is, each recipient was shown two IDs, one with the Pride flag and the other with a non-Pride flag. The order of this was randomized at the individual level.

(c) I think their sexual orientation is: [...]. How sure are you?

(d) I think they identify as an ally to the LGBTQ+ community: [...]. How sure are you?

(e) On social issues, I think they are: [...]. How sure are you?

3. Now consider a participant who has chosen the ID [Icon2][String2]. Please indicate how you think they responded to the following questions.

   (a) I think their gender is: [...]. How sure are you?

   (b) I think their age is: [...]. How sure are you?

   (c) I think their sexual orientation is: [...]. How sure are you?

   (d) I think they identify as an ally to the LGBTQ+ community: [...]. How sure are you?

   (e) On social issues, I think they are: [...]. How sure are you?

4. Here is the ID you have constructed:

   String chosen: [String] Icon chosen: [Icon]

   (a) Why did you choose [String] to be part of your ID?

   (b) Why did you choose [Icon] to be part of your ID?

5. According to the US Census Data, about 51% of the US population is female. Which of the following best describes your opinion?

   (a) I think less than 51% of Prolific participants from the US are female.

   (b) I think about 51% of Prolific participants from the US are female.

   (c) I think more than 51% of Prolific participants from the US are female.

6. According to the Gallup report, about 5% of the US population identifies as LGBT. Which of the following best describes your opinion?

   (a) I think less than 5% of Prolific participants from the US identify as LGBT.

   (b) I think about 5% of Prolific participants from the US identify as LGBT.

   (c) I think more than 5% of Prolific participants from the US identify as LGBT.

7. What percentage of Prolific participants from the US do you think are allies to the LGBTQ+ community? Please enter a number between 0 and 100.

8. For each category below, please enter a number between 0 and 100 to indicate your beliefs about the political leanings of Prolific participants from the US. The sum of these numbers must add up to 100.

(a) Percentage of Prolific participants from the US who are more liberal than conservative on social issues.

(b) Percentage of Prolific participants from the US who are equally liberal and conservative on social issues.

(c) Percentage of Prolific participants from the US who are less liberal than conservative on social issues.

F.3 Questions Specific to Dictators

1. First of all, what do you think of the study today?

2. The participant you were matched with in Task 1 ([Icon1][String1]) provided us with information about themselves. Please indicate how you think they responded to the following questions. You will receive $2 if your guess for one randomly selected question is correct (no matter how sure you are of your answer). Consider [Icon1][String1] from Task 1:

   (a) I think their gender is: [...]. How sure are you?

   (b) I think their age is: [...]. How sure are you?

   (c) I think their sexual orientation is: [...]. How sure are you?

   (d) I think they identify as an ally to the LGBTQ+ community: [...]. How sure are you?

   (e) On social issues, I think they are: [...]. How sure are you?

3. The participant you were matched with in Task 2 ([Icon2][String2]) provided us with information about themselves. Please indicate how you think they responded to the following questions. You will receive $2 if your guess for one randomly selected question is correct (no matter how sure you are of your answer). Consider [Icon1][String1] from Task 1:

   (a) I think their gender is: [...]. How sure are you?

   (b) I think their age is: [...]. How sure are you?

   (c) I think their sexual orientation is: [...]. How sure are you?

   (d) I think they identify as an ally to the LGBTQ+ community: [...]. How sure are you?

   (e) On social issues, I think they are: [...]. How sure are you?

4. Please briefly explain the factors influencing your decisions in Task 1 and Task 2. Just to remind you, you were matched with [Icon1][String1] in Task 1 and [Icon2][String2] in Task 2. If you need to refer to your partners in your response, please refer to them as "Task 1 partner" and "Task 2 partner", respectively.

5. You made the following decisions:

   In Task 1, you sent [Amount1] ECU to [Icon1][String1].

   In Task 2, you sent [Amount2] ECU to [Icon2][String2].

   Why did you choose to send [the same amount / different amounts] to [Icon1][String1] (your Task 1 partner) and [Icon2][String2] (your Task 2 partner)? In your response, please refer to your partners as "Task 1 partner" and "Task 2 partner".

6. To what extent do you agree with the following statement?

   "I care about what others think of my actions."