Effects of Socially Stigmatized Crowdfunding Campaigns in Shaping Opinions

Sanorita Dey, Karrie Karahalios, Wai-Tat Fu
University of Illinois at Urbana-Champaign
{sdey4,kkarahal,wfu}@illinois.edu

ABSTRACT

Donation-based crowdfunding platforms have an increasing number of campaigns on socially stigmatized topics. These platforms' widespread online reachability and the large flow of monetary donations have the potential to shape individuals' opinions by influencing their perceptions. However, little research has been done to investigate *whether* these campaigns impact individuals' opinions and *how*. We conducted an experiment to explore how an attitude-inconsistent campaign on fairness and equality for LGBTIQ people influenced participants' opinion on this topic. Although all the participants changed their perceived opinions after reading the support for the campaigns, participants opposing equality were less inclined to change their attitude than participants supporting equality. To examine this difference further, we conducted another experiment where participants were exposed to both attitude-consistent and attitude-inconsistent campaigns with varying levels of social support. Participants opposing equality showed less sensitivity to the level of social support, and wanted to donate significantly more money to anti-equality campaigns compared to those who supported equality. Results demonstrate the complex role of crowdfunding campaigns in shaping individuals' opinions on stigmatized topics.

ACM Classification Keywords

H.5.m Information Interfaces and Presentation (e.g. HCI): Miscellaneous;

Author Keywords

Stigmatized Crowdfunding Campaigns; Social Support; Biased assimilation; Shaping Opinions;

INTRODUCTION

GoFundMe, a pioneer in donation-based crowdfunding, came to media attention by hosting campaigns on various socially stigmatized issues such as equality for LGBTIQ people and abortion. For example, a campaign was created in 2015 to assist the owners of Memories Pizza who received death threats

and numerous negative comments for declaring during an interview that their pizza parlor would not cater a gay wedding due to religious reasons. The campaign raised $842,387 in just a few days [31]. The extraordinary success of this campaign immediately triggered several rival campaigns. One such campaign, that was launched to help homeless LGBT youth, raised $165,975 from more than 4,000 supporters. While seeking monetary support is the primary objective, such campaigns can also present discriminatory incidents related to stigmatized topics to a large audience. This creates the potential for crowdfunding campaigns to shape the opinion of the individuals' about stigmatized topics.

Shaping social opinions through online media is not new to the research community. Previous researchers have demonstrated the power of traditional mass media and social media in shaping opinions regarding mental illness and political movements [35, 25]. Similarly, while crowdfunding platforms might primarily be viewed as fundraising sites, these platforms contain numerous unique social signals that may potentially impact individuals' social opinions. For example, crowdfunding platforms allow people to see the active support from others in the form of monetary donations along with social media shares and comments. Despite the potential of these signals, little is known about how socially stigmatized campaigns with active social supports may influence individuals' opinions about stigmatized topics.

In this paper, we aim to explore how people assimilate information about stigmatized topics when the information is presented as a donation-based crowdfunding campaign. We chose a specific stigmatized topic, fairness and equality for LGBTIQ people, as it is one of the most discussed topics in donation-based crowdfunding platforms (5064 campaigns found on GoFundMe related to the keyword "LGBTQ"). Opinions on stigmatized topics such as equality for LGBTIQ people are often polarized. We hypothesize that people's pre-existing attitudes toward these topics may moderate how they perceive and react to information presented on crowdfunding campaigns, and to what extent they may change their attitudes towards them.

Often, campaigns presenting conflicting points of view of a stigmatized topic appear on a crowdfunding platform at the same time. Someone, browsing such campaigns, may experience a sense of *cognitive dissonance* especially when one sees campaigns inconsistent with his or her own pre-existing attitude. We desire to know whether individuals' pre-existing

points of view on equality for LGBTIQ people affect their opinions when the stigmatized topic is presented with differing points of view on a crowdfunding platform.

To this end, we recruited 126 participants for two experiments from a Midwestern community in the United States using flyers and mass-email. The experiments were designed to investigate how people with different opinions, either supporting or opposing equality for LGBTIQ people, will perceive and react to campaigns that are consistent or inconsistent with their pre-existing attitudes. To preview our results, we found distinct patterns between people who support and oppose equality for LGBTIQ people as they saw these campaigns. All the participants changed their perceived opinions after reading the support for the campaigns but participants opposing equality were less inclined to change their attitude than participants supporting equality. Further experiments showed that participants opposing equality would donate significantly more money to opposing campaigns compared to those who supported equality.

RELATED WORK

Sexual Stigma
Historically, the term stigma referred to a mark or bodily sign-designed to expose something bad about the moral status of the signifier [14]. Link et al. [39] focused on the socially constructed meaning of this mark and described that stigma involves a label and a stereotype, with the label linking a person to a set of undesirable characteristics that form the stereotype. One of the most discussed phenomena regarding stigma is the sexual stigma, a socially shared knowledge about the sexual orientation whose status is devalued relative to that of heterosexuals', where heterosexuals are regarded as the prototypical members of the community [24, 22].

In this work, we focus especially on stigma against LGBTIQ people. The negative attitude associated with LGBTIQ people [39] often extends to hostility, discrimination, and even aggression against sexual minorities [23]. People, suffering from this hostility, often seek social and financial support through crowdfunding campaigns. On the other hand, people who oppose sexual minorities, also face social bashing and tension as public opinions change. For many stigmatized topics, crowdfunding campaigns have been launched to support opposite perspectives on the same platform, and it is not clear how individuals' diverse pre-existing attitudes influence how they perceive these campaigns and whether their opinions will be changed by these campaigns. This motivated us to study the social impact of these campaigns, as unique and complex social dynamics may have important implications on how this emerging form of social media may moderate social opinions.

Crowdfunding and its Social Impact
The literature on crowdfunding primarily has focused on investigating the predictors of success of the campaigns [18, 45, 44, 63, 7]. However, only a few researchers identified the emotional impact of crowdfunding on individuals in various contexts such as in scientific crowdfunding [28], in medical crowdunding [34], and in enterprise crowdfunding[20, 12].

Other than financial gains, researchers have also focused on understanding the emotional experiences of campaign creators. Gonzales et al [15] examined the challenges faced by transmen as a community. They found that transmen in the LGBTQ community face many difficulties maintaining their privacy when they create crowdfunding campaigns for top surgeries. To avoid the unintended curiosity of family members on Facebook, transmen creators often preferred Tumblr over Facebook to promote their campaigns as fewer of their family members followed them on Tumblr. Though this work reflected on the impact of crowdfunding on a stigmatized community, there is still a need to explore the impact of crowdfunding beyond the creators and explicit supporters of crowdfunding campaigns. In our study, we aim to explore the effects of stigmatized campaigns not only for the supporters of the campaigns but also for the general audiences of these campaigns who may not decide to donate explicitly. We believe that this study will contribute to this corpus of prior work by revealing how individuals perceive socially stigmatized topics when they find them presented in this media.

The Rise of Stigmatized Crowdfunding Campaigns
To illustrate the impact of crowdfunding campaigns on the opinions of stigmatized social issues, it is useful to review recent notable events relevant to this paper. One recent crowdfunding campaign about the sexual stigma that raised many ethical controversies was the campaign about a bakery in Oregon, called "Sweet Cakes". The bakery owners were fined $135,000 for refusing to bake a cake for a same-sex wedding [59]. To pay this fine, the owners created a crowdfunding campaign on GoFundMe which managed to raise about $109,000 in just one day. However, GoFundMe decided to remove the campaign immediately from their platform since the owners of the bakery were involved in legal charges. GoFundMe also revised their Terms and Conditions in an attempt to not allow campaigns in future that benefit individuals or groups facing formal charges or claims of serious violations of the law [49]. The removal of this campaign attracted a lot of attention from people who supported the bakery. Later, this campaign was relaunched on another platform, *Continue to Give*, and raised $355,500, the highest amount raised by any campaign on that platform.

The revised policy prohibited people with legal charges to launch campaigns in GoFundMe; although, people without any legal charges are still launching campaigns in GoFundMe on various stigmatized issues. For example, GoFundMe hosted more than 70 campaigns to pay for the medical expenses of injured counter-protesters who opposed white supremacy at Charlottesville and managed to raise more than $1M in just five days after the incident [17]. The abundance of stigmatized campaigns suggests that campaigns on socially stigmatized topics are becoming more common in donation-based crowdfunding platforms.

GoFundMe's new restrictions created the need for restriction-free alternative crowdfunding platforms among the group of people who are no longer allowed to launch campaigns on a mainstream platform such as GoFundMe. For example, recently released platforms such as RootBocks and

WeSearchr [62] are gaining popularity as alternative anti-censorship venues within the alt-right community [6]. The proliferation of platforms with differing ideologies has led to a widening spectrum of campaigns in the charitable crowdfunding genre. An interesting and important question is how these campaigns may impact the perception of the individuals on stigmatized topics?

The Impact of Social Support

Psychiatrist Sidney Cobb defined social support as "the individual's belief that one is cared for and loved, and belongs to a network of communication." In the past, the concept of social support was studied in the primary healthcare domain where social support was essential to humanize medical care [37]. With the widespread popularity of social media and other online platforms, researchers examined the trend of seeking social support through various social media signals such as tweets [41, 42], Facebook's posts and shares [13], and YouTube *likes* and *comments* [11]. Push polling is another well-known medium that attempts to change social support using the disguise of a legitimate scientific polling [10]. Like push polls or political campaigns, crowdfunding campaigns also receive social support in the form of monetary donation, social media shares, and comments. Some platforms also indicate where the donations come from. This provides more information on the kind of social support for the campaigns. Given the impact of social support on other platforms, we aim to examine how varying levels of support for crowdfunding campaigns may moderate perceptions and influence opinions. Next, we discuss how people may show bias in assimilating new information when diverse information is presented.

Biased Assimilation and Attitude Polarization

Biased assimilation theory claims that information relevant to a topic is not always processed impartially. Rather, based on pre-existing beliefs and expectations, individual may dismiss and discount empirical evidence that contradicts their initial views but will derive support from evidence, of no greater value, that seems consistent with their views. As an outcome of biased assimilation, people may perceive that their initial attitude has become stronger after evaluating supporting and opposing evidence together. This tendency is known as attitude polarization.

Lord, Ross, and Lepper first provided the demonstration of biased assimilation and attitude polarization in 1979 [40], where participants evaluated the effects of capital punishment. Subsequent research has replicated the effect of biased assimilation on abortion [54], climate change [5], the John F. Kennedy assasination [43], presidential debates [46], technology failure [53], and biological explanation of homosexuality [2]. Like other online media, crowdfunding platforms also present opposing perspectives on stigmatized topics. We aim to examine whether presenting stigmatized crowdfunding campaigns results in the biased assimilation of information and attitude polarization that may play an important role in shaping opinions on a topic.

In our paper, we aim to understand the opinions of individuals about socially stigmatized crowdfunding campaigns, especially when the campaigns are inconsistent with their attitude and highly supported by the crowd. To the best of our knowledge, this is the first attempt to explore the impact of stigmatized campaigns and their social support on individuals' pre-existing attitude about fairness and equality for LGBTIQ people in the context of crowdfunding.

STUDY 1: IMPACT OF ATTITUDE-INCONSISTENT CAMPAIGNS ON A STIGMATIZED TOPIC

Goal

The goal of the first study is to understand how high social support for attitude-inconsistent campaigns related to gender minority (LGBTIQ) stigmatized topics impacts individuals' perceptions on the topic. Here, we call any campaign an "attitude-inconsistent" campaign for a participant when the participant supported fairness and equality for LGBTIQ people but the beneficiary of the campaign did not and vice versa. On the other hand, we call any campaign an "attitude-consistent" campaign for a participant when both the participant and the beneficiary of the campaign either supported or opposed fairness and equality for LGBTIQ people. Here, by LGBTIQ we mean lesbian, gay, bisexual, transgender, intersex, and queer or questioning people.

Materials

We prepared two pairs of crowdfunding campaigns for our study. In each pair, we had one campaign where the beneficiary of the campaign supported fairness and equality for LGBTIQ people and another campaign where the beneficiary of the campaign opposed fairness and equality for LGBTIQ people in some form. In short, we call them supporting equality and opposing equality campaigns respectively. To prepare the first pair of campaigns, we took inspiration from two highly publicized GoFundMe campaigns: 1) *Support Memories Pizza* [31] and 2) *Support LGBT Youth in Indiana* [48] launched on April 1, 2015 and April 2, 2015 respectively. The *Support Memories Pizza* campaign was launched when the owners of a pizza shop in Indiana were forced to close their business after receiving death threats for their response to a television reporter when asked if they would cater a gay wedding event. The *Support LGBT Youth in Indiana* campaign was launched the next day in response to the previous campaign to support LGBT youth group in Indiana. We could not use these campaigns in our study as they were originally published because of the differences in the length of the description, number of comments, number of shares on social media, and donation amount. Since our goal was to minimize all these external effects and capture the reaction of the participants to the topic of fairness and equality for LGBTIQ people only, we modified the descriptions of these campaigns to be broadly equivalent on key dimensions such as overall length (between 570 and 620 words), number of paragraphs, the main theme of each paragraph, and source attribution since these factors are known to be important determinants of message persuasiveness and argument strength [19, 52]. We also changed the title of the campaigns to eliminate their direct resemblance to the original GoFundMe campaigns. We used the following titles for the campaigns: 'Support Sheldon Pizza' (opposing equality) and 'Support LGBTQ Youth in Louisiana' (supporting equality).

The above two campaigns focused on the issue of fairness and equality for LGBTIQ people from a specific perspective - declining service to same-sex couples by local businesses. Although this particular perspective is important, equality for LGBTIQ people is discussed from various perspectives in our society. To make sure that our study findings are not restricted to only one type of social perspective, we chose to also study workplaces where LGBTIQ people frequently face discrimination. We prepared another pair of campaigns based on two online news articles regarding workplace discrimination [1, 57]. As reported in the first article [1], a consultant, Dr. Frank Turek was fired from Cisco and Bank of America for his involvement in writing anti-gay books. The second article [57] reported that an assistant professor named Jason Hough was forced to resign from John Brown University, a private Christian liberal arts college in Arkansas, for his sexual orientation. We took these two articles and carefully modified them to look like the description of a standard crowdfunding campaign and to match the key dimensions as we did for the previous pair of campaigns. We refer to these campaigns as "Support Derek Lan" (opposing equality) and "Support Jason Dough" (supporting equality) respectively.

Along with the description, a standard campaign has other important elements such as the amount of money donated, the goal of the campaign and the comments left by the crowd. We set a goal of $50,000 for all four campaigns. Since we hypothesized that high support from the crowd for an attitude-inconsistent campaign would be more likely to affect the opinions of participants, we decided to present these campaigns as if they had received a very high level of support. To show that a particular campaign received very high levels of support from the crowd, we set the donated amount of $848,401 which is remarkably high in comparison to other GoFundMe campaigns [4].

We also carefully designed the comments to reflect high support. To show strong support from the crowd, we showed ten comments for a campaign. We consulted the literature on the persuasiveness of messages. The use of fear or threat appeals has long played a central role in attempts to change and shape attitudes by means of persuasive messages [27, 30, 38, 55]. Threat messages have been used to successfully persuade citizens to change their behavior in certain ways: to regularly visit the dentist, to use seat belts, to stop smoking, and to vote in a certain way in an election. However, a recent study showed that the persuasiveness of a message depends not only on the type of the message(rewarding or threatening) but also on the attitude of the audience. Lavine et al. [36] found that people with high authoritarianism perceive threat messages (emphasizing negative consequences) as more persuasive than reward messages (emphasizing positive benefits). However, people with low authoritarianism perceive the reward message as more persuasive than the threat message.

Since we did not focus on the authoritarianism of our participants, we included a mix of five reward messages and five threat messages as our comments for each campaign to show high support from the crowd. The following are examples of a reward and a threat message:

"As a Christian, I really appreciate someone that decided to start something to encourage people to give to causes they do support. I fully endorse this too."[Reward message]

"I think it is a tragedy that these people are being boycotted after being asked a hypothetical question and responding they would not cater a gay wedding. Today if we don't stand up for people who are taking a stand on the word of God then we are going to lose a lot more Christian freedoms."[Threat message]

Study procedure:
We created an online platform to conduct the study. After signing the consent form, participants completed a 16 element attitude assessment survey that asked about their personal opinions on several stigmatized topics. We chose 16 most polarizing topics in America for this survey [56]. One question in this survey asked: "What is your opinion about homosexuality as a legitimate and acceptable lifestyle?". Participants used a 9-point scale to answer this question where -4 meant "strongly opposing" and 4 meant "strongly supporting". Participants' response to this question helped us determine their pre-existing attitude about fairness and equality for LGBTIQ people. Participants who answered +1 or higher were considered as participants with a supporting attitude towards equality. On the other hand, participants who answered -1 or lower were considered as participants with opposing attitude towards equality. Four participants who answered 0 for this question were excluded from this study since they did not have a strong opinion either way. Knowing the topic of our campaigns in advance might influence the responses of the participants for this survey question. To avoid this unintended influence, we included 15 other survey questions about other stigmatized topics.

Next, we asked each participant to read the description of one of our prepared crowdfunding campaigns instructing them to read it as if it was a real one and to try to react to it as if it were real. Based on participants' attitude towards fairness and equality for LGBTIQ people, we decided which campaign to assign to each participant. Every participant read a campaign inconsistent with their own attitude, i.e., participants with supporting attitude towards equality read one of the two campaigns where the beneficiary of the campaign was opposing equality and vice versa. We assigned the campaigns to participants with an opposing attitude towards equality in the same way.

Once participants finished reading the campaign, we asked them to complete a survey to understand their opinion of the crowdfunding campaign that they had just finished reading. Since we asked participants to complete the survey before showing any kind of social support from the crowd for the campaign, we called this the pre-support survey. Once participants finished answering the survey questions, we presented a very high support for the corresponding campaign. We demonstrated social supports for the campaign through the total donation amount and comments from the crowd.

Next, we asked participants the same set of questions as we did in the pre-support survey to compare the opinion of the participants before and after seeing social support for the campaign. We call this the *post-support survey*. Finally, participants completed a demographic survey.

Measures in the Surveys

To design our pre-support and post-support survey, we consulted existing literature on biased assimilation and attitude polarization [40, 54, 5, 43, 46, 53, 2]. We identified 18 survey questions from the above-mentioned literature which reliably measure opinions on stigmatized topics on a seven-point Likert scale. We classified these 18 questions into five main factors: 1) persuasiveness, 2) awareness, 3) empathy, 4) perception of social support, and 5) comfort level. We categorized the first four of them as campaign perception factors and the last one as a factor about participants' objective feelings. Table 1 shows a list of representative survey questions from each factor. We also measured whether participants perceived any change in attitude about fairness and equality for LGBTIQ people after reading the description of the campaign or after seeing social support for the campaign using a three-point scale (+1 = agreed more with the campaign's beneficiary's perspective, -1 = agreed less, 0 = no change).

Table 1. Representative survey questions from each factor

Factors	Sample Questions
Persuasiveness	How persuasive was the campaign?
Awareness	How aware are you of the social and political movements surrounding this issue?
Empathy	Are you emotionally involved in the issue?
Perception of Social Support	Do you believe that our society have the adequate social infrastructure to support the beneficiary of this campaign?
Comfort Level	To what extent did reading this campaign make you feel happy?

Participants

We recruited 52 participants from a Midwestern university town in the United States by posting flyers in restaurants, cafes, and public libraries and by sending invitation emails to campus-wide mailing lists for faculty, university staff, and student communities. Out of these 52 participants, 25 participants had a supporting attitude towards equality and 27 of them had an opposing attitude towards equality (based on our initial attitude assessment survey responses). Participants' average age was 35.33 (SD=13.61), and 52% were females. The majority of the participants (88%) were familiar with crowdfunding platforms, such as Kickstarter and GoFundMe and approximately half of the participants (46%) had donated to at least one crowdfunding campaign prior to participating in the study. More than half of the participants (62%) identified themselves as Caucasian, 19% as Asian, 13% as African-American, and 6% as others. All participants were at least high school graduates and 42% participants held a bachelor's or graduate degree. On average, each participant took 35 minutes to complete the study and received $9 for their participation.

Results

Our experiment included two independent variables. One was between-subject: *pre-existing attitude towards equality*(supporting/opposing) and the other one was within-subject:

the order of the survey (before seeing the support/after seeing the support). Since we had five dependent variables, we first performed a MANOVA test to understand the effect of our independent variables on all six dependent variables. The multivariate analysis revealed a significant two-way interaction among the independent variables on the dependent measures ($F(7,94) = 4.41$, p<0.01, Wilk's $\lambda = 0.84$, $\eta^2 = 0.15$). To further understand this interaction, we performed separate 2 X 2 ANOVAs on the six dependent variables.

We found significant two-way interactions between participants' pre-existing attitude and the order of the survey on three out of the four measures in the campaign perception category: persuasiveness ($F(1,50) = 18.11$, $p < 0.01$, $\eta^2 = 0.26$, supporting participants before: M=3.54, SD=1.08, after: M=4.92, SD=1.09, opposing participants before: M=3.78, SD=1.26, after: M=4.04, SD:1.39), awareness ($F(1,50) = 4.68$, p = 0.03, $\eta^2 = 0.10$, supporting participants before: M=3.56, SD=1.17, after: M=4.76, SD=1.09, opposing participants before: M=3.60, SD=1.13, after: M=3.72, SD:1.07) and empathy ($F(1,50) = 4.21$, p = 0.04, $\eta^2 = 0.07$, supporting participants before: M=3.64, SD=0.84, after: M=4.62, SD=0.98, opposing participants before: M=3.09, SD=1.07, after: M=2.60, SD:0.95). No other two-way interaction was found significant.

Although we did not find any interaction effect for comfort level and perception of social support measures, we found a significant main effect of order of the survey for comfort level ($F(1,50) = 4.52$, p = 0.02, $\eta^2 = 0.09$) and perception of social support measures ($F(1,50) = 13.10$, $p < 0.01$, $\eta^2 = 0.26$).
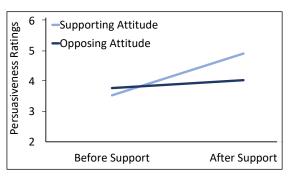

Figure 1. Average persuasiveness ratings of participants before and after showing social support for the campaign.

Figure 1 shows the average persuasiveness ratings of participants with supporting and opposing attitudes towards equality before and after they saw the social support. The figure shows that participants with supporting and opposing attitudes towards equality reacted differently in their persuasiveness ratings before and after seeing the high support of the attitude-inconsistent campaign. Participants with supporting attitude towards equality provided higher persuasiveness ratings than participants with opposing attitude towards equality after they saw social support for an attitude-inconsistent campaign. We observed similar patterns for the awareness measure. These patterns were consistent with the idea that for stigmatized topics, reactions to campaigns depended on the pre-existing attitudes of the participants: those with opposing pre-existing attitude tended to be less affected by campaigns that supported

equality; whereas those with supporting pre-existing attitude were more likely to change their opinions by campaigns that opposed equality.
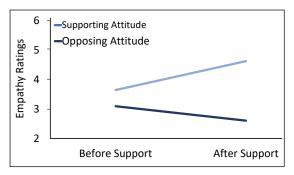

Figure 2. Average empathy ratings of participants before and after showing high social support for the campaign.

Figure 2 shows the average empathy ratings of participants with supporting and opposing attitudes towards equality before and after they saw social support. The figure shows that participants with an opposing attitude towards equality felt lower empathy after seeing support for the attitude-inconsistent campaign. On the other hand, participants with a supporting attitude towards equality felt more empathy after seeing support for the campaign. This pattern was again consistent with the idea that the attitude-inconsistent campaign moderated participants' reactions based on their pre-existing attitude - participants with supporting attitude felt more empathic for the beneficiary of the campaign although the campaign was inconsistent with their own attitude. But participants with opposing attitude did not show a similar empathy affection for the beneficiary of the attitude-inconsistent campaign. Rather, seeing the social support for the campaign made them less empathic for those campaigns.

	Before Support	After Support
Comfort Level	1.94 (0.56)	2.37 (0.68)
Perception of Social Support	2.35 (0.76)	3.82 (0.71)

Table 2. Average (standard deviation) comfort level and average perception of social support before and after showing support

Finally, we found significant main effects of the order of the survey on comfort level and perception of social support. Participants' comfort level with the campaign's message and perception of social support ratings before and after they saw social support are shown in Table 2. As Table 2 indicates, participants felt more comfortable with the campaign and a higher perception of social support after seeing the social support for the campaign, regardless of their pre-existing attitude towards equality. This increase in comfort level and perception of social support for an attitude-inconsistent campaign may initially seem counterintuitive since each participant saw an attitude-inconsistent campaign. One possible explanation is that when participants first saw the attitude-inconsistent campaign, their comfort level decreased because of cognitive dissonance [9]. Here, cognitive dissonance is the mental discomfort experienced by a person who simultaneously holds two or more contradictory beliefs, ideas, or values. Participants' comfort

level may have increased after seeing social support for the campaign because they found a way to release themselves from cognitive dissonance. According to Festinger [9], there are at least two ways to reduce cognitive dissonance: people may either change their own attitudes to accommodate the new information, or they may reinterpret the information in ways to rationalize (and sometimes strengthen) their own attitudes or beliefs. As we will see in the next analysis, we found that indeed some participants did change their attitude.

We compared the change of attitude measure for participants with supporting and opposing attitudes before and after showing social support. We performed a t-test to compare the change in attitude measure for participants with supporting and opposing attitudes towards fairness and equality for LGBTIQ people before showing the social support and found no significant difference. We performed a one-sample t-test for participants with supporting and opposing attitudes to understand whether the mean changes of attitude measures were different from 0. We found that the means were also not different from 0. This indicates that after seeing the campaign's description but before seeing social support, participants did not experience any change in attitude.

However, when we compared the change of attitude in participants with supporting and opposing attitudes after showing social support, we found that participants with a supporting attitude changed their attitude towards equality significantly more than participants with opposing attitude did ($t(51) = 3.58$, $p < 0.01$, $d = 0.13$). A one-sample t-test performed on change of attitude in participants with an opposing attitude towards equality showed a change in attitude among this group was not significantly different from 0. However, change of attitude in participants with a supporting attitude towards equality was significantly higher than 0 ($t(24) = 2.59$, $p = 0.02$, $d = 0.09$), i.e., participants with a supporting attitude changed their attitude in favor of the attitude-inconsistent campaign (which opposed equality). A possible explanation is that participants with a supporting attitude changed their existing attitude since they were not specifically attached to attitudinal consistent information over attitudinal inconsistent information. A similar finding was also observed by Iyengar et al. [29] when they studied the impact of attitudinal consistent and attitudinal inconsistent information about presidential candidates among conservatives and liberals and found that liberals did not necessarily prefer a specific type of information about presidential candidates.

Summary of results in study 1
Overall, the results of this study show that participants' opinions were significantly impacted by an attitude-inconsistent crowdfunding campaign. However, participants with an opposing attitude towards equal rights were less likely to change their attitude compared to participants with supporting attitude towards equal rights. The results suggested the pre-existing attitudes moderated participants' reactions to attitude-inconsistent campaigns on stigmatized topics.

Our results were inconsistent with the assumption that exposing people to information from "the other side" may help them develop a more balanced view of the topic(e.g., [47]). Rather,

we found that those with an opposing attitude towards equality felt less empathy for campaigns that supported equality, even if they had a large amount of social support. These findings can be explained by the values associated with conservatism which include fear, aggression, dogmatism, intolerance of ambiguity, uncertainty avoidance, terror management, group-based dominance, and system justification [58, 32]. These characteristics make conservatives more likely than liberals to misperceive their ideological opponents as more extreme than they actually are [33]. In our study, participants with opposing attitude might have felt fear and terror after seeing strong support for the attitude inconsistent campaign because of their stronger beliefs in traditional values and social norms. This might have made them less empathic for those campaigns. If so, this effect might be mitigated if we could show these participants two campaigns at the same time - one supporting and the other opposing the topic. Also, showing both high and low support interchangeably for attitude-consistent and attitude-inconsistent campaigns might make participants feel more open to both sides of this argument. Our Study 2 experiment was designed to test this idea.

We designed an additional study where we presented both an attitude-consistent and an attitude-inconsistent campaign to each participant. We wanted to know whether the behavioral difference between participants with supporting and opposing attitude towards equality remains when they encounter attitude-consistent and attitude-inconsistent campaigns simultaneously. This design also allowed us to examine how people shape their opinion when they are exposed to attitude-consistent and attitude-inconsistent information with a varying level of social support.

STUDY 2: IMPACT OF ATTITUDE-CONSISTENT AND ATTITUDE-INCONSISTENT CAMPAIGNS

Goal
The goal of the second study is to understand when attitude-consistent and attitude-inconsistent stigmatized crowdfunding campaigns are presented simultaneously along with varying levels of social supports, how participants with supporting and opposing attitudes towards equality react to those campaigns.

Materials
We reused the campaign materials that we designed for study 1. Since we want to examine the varying level of social support on stigmatized campaigns in this stage, we additionally designed low social support condition. To show very low social support for a particular campaign, we showed the donated amount as $3,809 (the total amount donated at the end of the campaign) which is only 7% of the goal amount of $50,000.

We also displayed only two comments for each campaign and both of these comments were generic and taken from the real campaigns. An example of such a comment is here:

> *"I truly believe in this campaign and support you from the heart."*

Study procedure:
We reused the online platform built for the first study with some modifications. After signing the consent form, participants in this study completed the same 16 element attitude assessment survey used in the first study. Next, we asked participants to carefully read a pair of crowdfunding campaign descriptions and showed them social supports (comments and the total amount raised) for each campaign. In each pair, we chose one campaign where the beneficiary of the campaign supported equality and another campaign where the beneficiary opposed equality. The campaigns were presented side by side and participants were allowed to read them in any order they preferred. We also randomly switched the position of the two campaigns- to counter-balance the effect of the position. We randomly assigned high support condition for one campaign and low support condition for another campaign for each participant. When participants finished viewing the two campaign descriptions and their social support indicators, we asked them to answer a set of survey questions about each campaign to know their opinion about these campaigns. While participants answered the survey questions for each campaign, we kept the corresponding campaign accessible on the right side of the screen to avoid confusion. At the end, participants completed a demographic survey.

After one week of this experiment, we invited all participants to take part in an extension of this experiment. All agreed to participate in this extension study. For the extension study, we followed the same procedure as described above, but with two important changes. First, we showed each participant a new pair of campaigns. Since we prepared two pairs of campaigns, we showed each participant the second pair of the campaigns that they had not seen the first time. Second, we switched the amount of social support each participant saw for attitude-consistent and attitude-inconsistent campaigns. For example, a participant who first saw high support for an attitude-consistent and low support for an attitude-inconsistent campaign saw low support for an attitude-consistent and high support for an attitude-inconsistent campaign.

To understand participants' opinions about these campaigns, we asked each participant to complete four surveys in total, one for each campaign. The type of the campaign and the support level were as follows: 1) high support for a supporting equality campaign, 2) low support for an opposing equality campaign, 3) low support for a supporting equality campaign, and 4) low support for an opposing equality campaign. Participants completed the same survey for each campaign. We reused all the survey questions from the first study in this new survey with some additional elements.

Designing the Revised Opinion Survey
In study 2, we used 10 new survey questions and one open-ended question. The survey began with the open-ended question in order to avoid the influence of the survey questions on the participants. In the open-ended question, we asked participants to describe their opinion on each campaign.

We included 10 new survey questions in this study related to the sense of community, fairness, donation agreement, and

Table 3. Representative survey questions for new factors

Factors	Sample Questions
Sense of Community	People supporting this campaign have similar priorities like me.
Fairness	How unfair/unjust was it for beneficiary of the campaign to be harassed for expressing his own belief?
Donation Agreement	Will you consider donating to this campaign?
Donation Amount	How much would you like to donate?

donation amount. We hypothesized that these additional factors would help us understand the behavioral differences better between participants with supporting and opposing attitudes towards equality. Table 3 shows a list of representative survey questions for the new factors. Since each participant in this study could read one attitude-consistent and another attitude-inconsistent campaign simultaneously, we were curious to know whether participants would naturally feel more comfortable and safe with one group of campaign supporters over the other group and as a result would feel either more or less fairness measure for the beneficiary of the attitude-consistent campaign.

The concept of sense of community is studied extensively by social psychologists. Durkheim [8] observed that modern society develops a community around interest and skills than around locality. With the proliferation of virtual communities, Wellman et al. [61, 26] studied this topic from various perspectives and found that virtual communities are places where people go to find emotional support, sense of belonging, companionship, and encouragement, in addition to instrumental aid. In our study, although our participants did not get an opportunity to actively participate in any virtual community, they might passively experience the effect of a community by browsing the comments of the supporters of each campaign. To capture this experience, we included seven survey questions to measure their sense of community feelings with the supporters of each campaign. We believe that participants will feel a higher sense of community with the supporters of attitude-consistent campaigns than the supporters of attitude-inconsistent campaigns.

We also included one survey question about the fairness of the incident described in each campaign with an assumption that participants will find the incident described in their attitude-consistent campaigns more unfair than the incident described in attitude-inconsistent campaigns.

At the end, we asked participants whether they would like to donate to the campaign and if they answer yes, we also asked them how much money they would like to donate.

Participants

In this study, we recruited 74 new participants following the same way as we did for the first study. Participants' average age was 36.96 (SD=12.22), and 53% were females. Based on our initial attitude assessment survey responses, 35 participants had a supporting attitude towards equality and 39 of them had an opposing attitude towards equality. Almost all the participants (96%) were familiar with crowdfunding platforms such as Kickstarter and GoFundMe and 49% of participants

had donated to at least one crowdfunding campaign prior to participating in the study. More than half of the participants identified themselves as Caucasian(73%), 10% as Asian, 8% as African-American, and 9% as others. All the participants were high school graduates and 49% of participants held at least a bachelor's or graduate degree. On average, each participant took one hour and thirty minutes to complete the study and received $9/hour for their participation.

Results

Our experiment included three independent variables. One was between-subject variable: *pre-existing attitude towards equality* (supporting/opposing) and the other two were within-subject: *the type of the campaign* (campaign's beneficiary supporting equality/campaign's beneficiary opposing equality), *the level of support* (high support/low support). In total, we have ten dependent variables: 1) persuasiveness, 2) awareness, 3) empathy, 4) perception of social support, 5) fairness, 6) comfort level, 7) sense of community, 8) agreement to donate, 9) donation amount, and 10) change of attitude.

Similar to the experiment in the first study, we categorized persuasiveness, awareness, empathy, perception of social support, and fairness as factors related to campaign perception. Next, we categorized the comfort level as participants' objective feelings. We considered the sense of community as a category for social bonding in a virtual group and finally, we categorized agreement to donate, donation amount, and change of attitude factors as active engagement factors. Since we had ten dependent variables, we performed a MANOVA test to understand the effect of our independent variables on all ten dependent variables. The multivariate analysis revealed a significant two-way interaction between the pre-existing attitude and the type of the campaign variables ($F(2,287) = 12.81$, $p<0.01$, Wilk's $\lambda = 0.82$, $\eta^2 = 0.18$). However, no three-way interaction was significant. To further understand this interaction, we performed 2 X 2 X 2 ANOVAs on ten dependent variables.

ANOVA showed two-way interactions between pre-existing attitude and the type of the campaign on all dependent variables except the perception of social support as shown in Table 4. Fig 3 shows the average persuasiveness ratings of participants for each type of campaign.

Table 4. Two-way Interactions on Dependent Variables

Dependent Variables	Significant Two-way interactions of 2 X 2 X 2 ANOVAs
Agreement to donation	$F(1,72)=59.05$, $p < 0.01$, $\eta^2=0.39$
Donation Amount	$F(1,72)=10.37$, $p=0.002$, $\eta^2=0.13$
Persuasiveness	$F(1,72)=55.99$, $p<0.001$, $\eta^2=0.37$
Awareness	$F(1,72)=28.00$, $p<0.001$, $\eta^2=0.27$
Empathy	$F(1,72)=14.04$, $p<0.001$, $\eta^2=0.15$
Comfort Level	$F(1,72)=11.85$, $p=0.001$, $\eta^2=0.14$
Sense of Community	$F(1,72)=66.34$, $p=0.001$, $\eta^2=0.48$
Fairness	$F(1,72)=22.21$, $p<0.001$, $\eta^2=0.27$
Change of Attitude	$F(1,72)=26.66$, $p<0.001$, $\eta^2=0.27$

Participants with a supporting attitude found campaigns supporting equality more persuasive than campaigns opposing
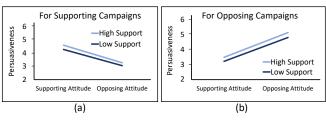
Figure 3. Average persuasiveness ratings for participants with supporting and opposing attitudes. Figure (a) shows ratings for only supporting campaigns. Figure (b) shows ratings for only opposing campaigns.

equality regardless of the level of support received from the crowd. On the other hand, participants with an opposing attitude towards equality showed completely opposite behavior; they found campaigns opposing equality more persuasive than campaigns supporting equality. This indicates that both participants with supporting and opposing attitudes found campaigns consistent with their own pre-existing attitude more persuasive than campaigns inconsistent with their own pre-existing attitude and the effect was statistically significant. The similar pattern was observed for all the other eight factors too for which we found significant two-way interactions between participants' attitude and the type of the campaign.

These patterns were consistent with biased assimilation theory which claims that people's judgment on a topic mostly depends on their preexisting attitude; rather than on the true merit of the information. Our results suggest that participants in our study were biased when they were asked to share their judgment on stigmatized campaigns. They supported campaigns that were consistent with their own attitude without any critical judgment but opposed attitude-inconsistent campaigns. Post-hoc Tukey analysis for donation amount revealed that participants with an opposing attitude towards equality (M=94.23, SD=208.03) wanted to donate significantly more money than participants with a supporting attitude towards equality (M=13.29, SD=59.66) for their corresponding attitude-consistent campaigns. One possible explanation is that participants with an opposing attitude were strongly driven by their conservative values (as seen in study one) which made them more passionate about their own attitude-consistent campaign than participants with a supporting attitude were. This implies that showing both supporting and opposing campaigns at the same time did not make participants with opposing attitude more empathic for campaigns supporting equality. Rather, it strengthened their pre-existing attitude and motivated them to donate significantly more to opposing equality campaigns than participants with supporting attitude donated for supporting equality campaigns.

One of the new factors introduced in this study was the sense of community for which we also found a significant two-way interaction between pre-existing attitude and the type of the campaign. This indicates that participants perceived that they belong to the community of the supporters who supported their own attitude-consistent campaigns. This behavior is consistent with the behavior of the virtual communities explained in [51, 60], suggesting that stigmatized campaigns are potentially building virtual communities of supporters of their own.

We did not find any two-way interaction for the level of support through ANOVA. However, we found that after seeing high social support, participants rated a campaign higher on comfort level F(1,72)=4.53, p=0.04, η^2=0.07. We also found a significant main effect of the level of support on the perception of social support factor (F(1,72)=5.10, p=0.03, η^2=0.10). Participants perceived that campaigns receiving high support from the crowd must have strong social support for its beneficiaries. On the contrary, campaigns with low support level might not receive enough social support for its beneficiaries. This suggests that participants considered the level of support, received by these campaigns, as a reliable indicator of the amount of social support available for the beneficiaries of these campaigns. This implies that the level of support received by our stigmatized campaigns helped to shape the social perception of the participants about fairness and equality for LGBTIQ people.

We also observed a significant main effect of the type of campaigns on the perception of social support factor(F(1,72)=5.43, p=0.03, η^2=0.10). A post-hoc Tukey test showed that participants perceived that the owners of the campaigns supporting equality (M=3.91, SD=0.47) have lower social support than the owners of the campaigns opposing equality (M=4.83, SD=0.41). Overall, low perceived social support can be explained by the sense of sexual stigma associated with the idea of equality for LGBTIQ people for a long time. The sense of stigma may influence participants to donate less for campaigns that are supporting equality in some form.

In summary, we found that all participants showed the tendency of biased assimilation when we presented both attitude-consistent and attitude-inconsistent campaigns simultaneously. Across nine dependent variables, participants perceived their attitude-consistent campaigns more positive and persuasive than attitude-inconsistent campaigns. We also observed that participants were more inclined to change their attitude because of the attitude-consistent campaigns than the attitude-inconsistent campaigns. Moreover, we found that participants considered the level of support as a reliable indicator of the social support for stigmatized topics such as equality for LGBTIQ people. Overall, participants perceived that the owners of the campaigns supporting equality have low supportive social support than the owners of the campaigns opposing equality.

We also observed that participants with an opposing attitude wanted to donate significantly more money to attitude-consistent campaigns than participants with a supporting attitude. To understand the differences in reactions between participants with supporting and opposing attitudes, we analyzed the open-ended responses of the participants regarding their opinion about these campaigns. We found that participants with supporting and opposing attitudes towards equality perceived these campaigns from a fundamentally different perspective. Participants with a supporting attitude believed that people in the LGBTIQ community should have equal human rights, like any other heterosexual person, to act based on their sexual orientation. However, when participants with a supporting attitude towards equality were asked to rate a campaign opposing equality, they were still sympathetic to the benefi-

ciary's of the campaign because of the humanitarian ground; although they claimed that they themselves did not share the same point of view of the beneficiaries of those campaigns.

On the contrary, many participants with an opposing attitude considered homosexuality as a sinful act to God because of their religious belief (N=14). They felt that no one should practice a homosexual lifestyle under any circumstances. They claimed that beneficiaries of the campaigns supporting equality should anyway suffer the consequences of their actions since they were committing a sin. This sense of sin may explain the less empathic attitude towards high crowd support (observed in the first study) or higher donation behavior (observed in the second study) of the participants with an opposing attitude towards equality. Participants with a supporting attitude towards equality may not experience anything as strong as a religious belief. This highlights a special characteristic of stigmatized topics such as fairness and equality for the LGBTIQ people which can potentially make people more polarized than usual when presented in an online platform similar to crowdfunding.

DISCUSSION AND CONCLUSION

In the past, researchers have identified the benefits of exposing people to diverse opinions [47, 50]. However, since stigmatized topics by definition do not conform to traditional norms, simple exposure to diverse opinions about stigmatized topics may have differential effects on shaping people's opinions. In our experiments, we found that people with supporting and opposing attitudes towards fairness and equality for LGBTIQ people did not react similarly when they were asked to judge attitude-inconsistent crowdfunding campaigns. Participants moderated their judgment based on their pre-existing attitude towards equality. While participants supporting equality were more inclined to change their attitude after seeing social support for attitude-inconsistent campaigns, participants opposing equality maintained their initial attitude; in fact, they strengthened their pre-existing attitude and decided to donate significantly more to their attitude-consistent campaigns that their attitude-consistent campaigns.

These results indicate that exposure to diverse opinions through crowdfunding campaigns on stigmatized topics does not always reduce social polarization. In fact, we found that it may lead to a feeling of discomfort for people opposing equality since it was against the values associated with conservatism. To reduce discomfort, instead of changing their beliefs, people may find ways to discount the attitude-inconsistent information and strengthen their beliefs. This indicates that exposure to diverse opinions may sometimes *increase* rather than decrease social polarization. These findings are consistent with prior work where Jost et al. [33] found that conservatives are more likely to engage in motivated reasoning than liberals, including the rejection of counter-attitudinal information. Work remains to be done in this direction to explore how the personality traits such as openness and neuroticism of an individual can influence their reactions in case of discomfort created by attitude-inconsistent information [3]. In the future, it will also be interesting to study the effect of stigmatized crowdfunding campaigns where the description of these campaigns will be modified carefully following the principles of moral founda-

tion theory [16] since the application of this theory is found to be persuasive for people with both conservative and liberal values.

In our experiments, we specifically looked into two specific scenarios of discrimination faced by the people who were either supporting or opposing equality for LGBTIQ people. However, in the real world, discrimination happens in many other scenarios such as discrimination in housing, endemic bullying in schools, colleges, and public transports, lack of medical care for HIV infected members of the LGBTIQ community and so on. Further work needs to be done to explore other scenarios related to fairness and equality for LGBTIQ people to understand the impact of these campaigns from a broader perspective. Moreover, it will also be interesting to conduct a longitudinal study to explore whether exposing stigmatized crowdfunding campaigns in an experimental setup impact participants' existing attitude on these issues in the long run. Additional work also remains to be done on how other stigmatized issues such as the use of medical marijuana, right to abortion, and gun control can impact the opinion of the people who are either supporting or opposing these issues when these issues are presented in crowdfunding platform as charitable campaigns.

Another interesting direction to look at in the future is the effects of isolated social platforms in shaping social opinions. The recent ban on certain types of campaigns from mainstream crowdfunding platforms forced people to launch alternative crowdfunding platforms such as Hatreon [21] and WeSearchr[62]. It is possible that such isolation may encourage a certain group of people to develop an alternative interpretation of attitude-inconsistent opinions and information. This may also further exacerbate social polarization and create more obstacles for deliberative democracy. Future work needs to be done to understand the effect of the existence of alternative platforms along with mainstream platforms and whether the moral stand-point of the platforms can shape individuals' opinions especially about stigmatized topics in the long run.

In conclusion, we, as researchers, are not in a position to support the point of view of any group over the other. Rather, we believe that our work will contribute to the large body of literature on social polarization and selective exposure by revealing the complex dynamics of information on stigmatized topics and the pre-existing attitudes of people. Given the potential impact of crowdfunding platforms on social opinions, we need more research to fully understand how various online media are contributing to shaping the opinions of the people on stigmatized topics, and how this will affect the aggregated social opinion of a community. We believe that our findings provide an important starting point for the research community to increase their awareness of the complex influence of crowdfunding campaigns on shaping social opinions on stigmatized social issues.

REFERENCES

1. Nathan Black. 2011. Christian Consultant Fired by Bank of America Over Gay Marriage Book. (2011). `http://www.christianpost.com/news/christian-consultant-fired-by-bank-of-america-over-gay-marriage-book-55047/`.

2. Guy A Boysen and David L Vogel. 2007. Biased assimilation and attitude polarization in response to learning about biological explanations of homosexuality. *Sex Roles* 57, 9-10 (2007), 755–762.

3. Jilin Chen, Eben M Haber, Ruogu Kang, Gary Hsieh, and Jalal Mahmud. 2015. Making Use of Derived Personality: The Case of Social Media Ad Targeting.. In *ICWSM*. 51–60.

4. JASMIN CILAS. 2016. 8 Most Successful GoFundMe Campaigns of All Time. (2016). `http://www.insidermonkey.com/blog/8-most-successful-gofundme-campaigns-of-all-time-483003/`.

5. Adam Corner, Lorraine Whitmarsh, and Dimitrios Xenias. 2012. Uncertainty, scepticism and attitudes towards climate change: biased assimilation and attitude polarisation. *Climatic change* 114, 3-4 (2012), 463–478.

6. Sheila Dang. 2017. No cash for hate, say mainstream crowdfunding firms. (2017). `https://www.reuters.com/article/us-virginia-protests-crowdfunding/no-cash-for-hate-say-mainstream-crowdfunding-firms-idUSKCN1AU2HE`.

7. Sanorita Dey, Brittany RL Duff, Karrie Karahalios, and Wai-Tat Fu. 2017. The Art and Science of Persuasion: Not All Crowdfunding Campaign Videos are The Same.. In *CSCW*. 755–769.

8. Emile Durkheim. 2014. *The division of labor in society*. Simon and Schuster.

9. Leon Festinger. 1962. *A theory of cognitive dissonance*. Vol. 2. Stanford university press.

10. Jonathan S Fox. 1997. Push Polling: The Art of Political Persuasion. *Fla. L. Rev.* 49 (1997), 563.

11. Dennis Owen Frohlich and Anne Zmyslinski-Seelig. 2012. The presence of social support messages on YouTube videos about inflammatory bowel disease and ostomies. *Health Communication* 27, 5 (2012), 421–428.

12. Elizabeth M Gerber and Julie Hui. 2013. Crowdfunding: Motivations and deterrents for participation. *ACM Transactions on Computer-Human Interaction (TOCHI)* 20, 6 (2013), 34.

13. Roman Gerodimos and Jákup Justinussen. 2015. Obama's 2012 Facebook campaign: Political communication in the age of the like button. *Journal of Information Technology & Politics* 12, 2 (2015), 113–132.

14. Erving Goffman. 2009. *Stigma: Notes on the management of spoiled identity*. Simon and Schuster.

15. Amy Gonzales and Nicole Fritz. 2017. Prioritizing Flexibility and Intangibles: Medical Crowdfunding for Stigmatized Individuals. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*. ACM, 2371–2375.

16. Jesse Graham, Jonathan Haidt, Sena Koleva, Matt Motyl, Ravi Iyer, Sean P Wojcik, and Peter H Ditto. 2013. Moral foundations theory: The pragmatic validity of moral pluralism. In *Advances in experimental social psychology*. Vol. 47. Elsevier, 55–130.

17. Samantha Grasso. 2017. Nearly $1 million raised so far for Charlottesville victims on GoFundMe. (2017). `https://www.dailydot.com/irl/gofundme-charlottesville-victims/`.

18. Michael D Greenberg, Bryan Pardo, Karthic Hariharan, and Elizabeth Gerber. 2013. Crowdfunding support tools: predicting success & failure. In *CHI'13 Extended Abstracts on Human Factors in Computing Systems*. ACM, 1815–1820.

19. Ulrike Hahn, Adam JL Harris, and Adam Corner. 2009. Argument content and argument source: An exploration. *Informal Logic* 29, 4 (2009), 337–367.

20. Emily Harburg, Julie Hui, Michael Greenberg, and Elizabeth M Gerber. 2015. Understanding the Effects of Crowdfunding on Entrepreneurial Self-Efficacy. In *Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing*. ACM, 3–16.

21. Hatreon. 2017. Hatreon. (2017). `https://hatreon.us/`.

22. Peter Hegarty and Felicia Pratto. 2004. The differences that norms make: Empiricism, social constructionism, and the interpretation of group differences. *Sex Roles* 50, 7 (2004), 445–453.

23. Gregory M Herek. 2007. Confronting sexual stigma and prejudice: Theory and practice. *Journal of Social Issues* 63, 4 (2007), 905–925.

24. Gregory M Herek. 2009. Sexual stigma and sexual prejudice in the United States: A conceptual framework. In *Contemporary perspectives on lesbian, gay, and bisexual identities*. Springer, 65–111.

25. Alfred Hermida, Seth C Lewis, and Rodrigo Zamith. 2014. Sourcing the Arab Spring: A case study of Andy Carvin's sources on Twitter during the Tunisian and Egyptian revolutions. *Journal of Computer-Mediated Communication* 19, 3 (2014), 479–499.

26. Starr Roxanne Hiltz and Barry Wellman. 1997. Asynchronous learning networks as a virtual classroom. *Commun. ACM* 40, 9 (1997), 44–49.

27. Carl I Hovland, Irving L Janis, and Harold H Kelley. 1953. Communication and persuasion; psychological studies of opinion change. (1953).

28. Julie S Hui and Elizabeth M Gerber. 2015. Crowdfunding science: Sharing research with an extended audience. In *Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing*. ACM, 31–43.

29. Shanto Iyengar, Kyu S Hahn, Jon A Krosnick, and John Walker. 2008. Selective exposure to campaign communication: The role of anticipated agreement and issue public membership. *The Journal of Politics* 70, 1 (2008), 186–200.

30. Irving L Janis and Seymour Feshbach. 1953. Effects of fear-arousing communications. *The Journal of Abnormal and Social Psychology* 48, 1 (1953), 78.

31. Lawrence Billy Jones. 2015. Support Memories Pizza. (2015). `https://www.gofundme.com/MemoriesPizza`.

32. John T Jost, Jack Glaser, Arie W Kruglanski, and Frank J Sulloway. 2003. Political conservatism as motivated social cognition. (2003).

33. John T Jost, Erin P Hennes, and Howard Lavine. 2013. Hot political cognition: Its self-, group-, and systemserving purposes. *Oxford handbook of social cognition* (2013), 851–875.

34. Jennifer G Kim, Kristen Vaccaro, Karrie Karahalios, and Hwajung Hong. 2017. " Not by Money Alone": Social Support Opportunities in Medical Crowdfunding Campaigns.. In *CSCW*. 1997–2009.

35. Anat Klin and Dafna Lemish. 2008. Mental disorders stigma in the media: Review of studies on production, content, and influences. *Journal of health communication* 13, 5 (2008), 434–449.

36. Howard Lavine, Diana Burgess, Mark Snyder, John Transue, John L Sullivan, Beth Haney, and Stephen H Wagner. 1999. Threat, authoritarianism, and voting: An investigation of personality and persuasion. *Personality and Social Psychology Bulletin* 25, 3 (1999), 337–347.

37. Shoou-Yih D Lee, Ahsan M Arozullah, and Young Ik Cho. 2004. Health literacy, social support, and health: a research agenda. *Social science & medicine* 58, 7 (2004), 1309–1321.

38. Howard Leventhal. 1970. Findings and theory in the study of fear communications. *Advances in experimental social psychology* 5 (1970), 119–186.

39. Bruce G Link and Jo C Phelan. 2001. Conceptualizing stigma. *Annual review of Sociology* 27, 1 (2001), 363–385.

40. Charles G Lord, Lee Ross, and Mark R Lepper. 1979. Biased assimilation and attitude polarization: The effects of prior theories on subsequently considered evidence. *Journal of personality and social psychology* 37, 11 (1979), 2098.

41. Kristen Lovejoy, Richard D Waters, and Gregory D Saxton. 2012. Engaging stakeholders through Twitter: How nonprofit organizations are getting more out of 140 characters or less. *Public Relations Review* 38, 2 (2012), 313–318.

42. Misa Maruyama. 2017. Social Watching a Civic Broadcast: Understanding the Effects of Positive Feedback and Other Users' Opinions. In *Proceedings of*

the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing. ACM, 794–807.

43. John W McHoskey. 1995. Case closed? On the John F. Kennedy assassination: Biased assimilation of evidence and attitude polarization. *Basic and Applied Social Psychology* 17, 3 (1995), 395–409.

44. Tanushree Mitra and Eric Gilbert. 2014. The language that gets people to give: Phrases that predict success on kickstarter. In *Proceedings of the 17th ACM conference on Computer supported cooperative work & social computing*. ACM, 49–61.

45. Ethan Mollick. 2014. The dynamics of crowdfunding: An exploratory study. *Journal of business venturing* 29, 1 (2014), 1–16.

46. Geoffrey D Munro, Peter H Ditto, Lisa K Lockhart, Angela Fagerlin, Mitchell Gready, and Elizabeth Peterson. 2002. Biased assimilation of sociopolitical arguments: Evaluating the 1996 US presidential debate. *Basic and Applied Social Psychology* 24, 1 (2002), 15–26.

47. Sean A Munson and Paul Resnick. 2010. Presenting diverse political opinions: how and how much. In *Proceedings of the SIGCHI conference on human factors in computing systems*. ACM, 1457–1466.

48. Jon Nolen. 2015. Support LGBT Youth In Indiana. (2015). `https://www.gofundme.com/lgbtIN`.

49. Abby Ohlheiser. 2015. After GoFundMe shuts down Christian bakery crowdfunding, it bans 'discriminatory' campaigns. (2015). `https://www.washingtonpost.com/news/acts-of-faith/wp/2015/05/01/after-gofundme-shuts-down-christian-bakery-crowdfunding-it-bans-discriminatory-fundraising-campaigns/?utm_term=.c3fc16f55ec9`.

50. Souneil Park, Seungwoo Kang, Sangyoung Chung, and Junehwa Song. 2009. NewsCube: delivering multiple aspects of news to mitigate media bias. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. ACM, 443–452.

51. Phil Patton. 1986. *Open Road: A Celebration of the American Highway*. Simon & Schuster.

52. Richard E Petty and John T Cacioppo. 1984. The effects of involvement on responses to argument quantity and quality: Central and peripheral routes to persuasion. *Journal of personality and social psychology* 46, 1 (1984), 69.

53. Scott Plous. 1991. Biases in the assimilation of technological breakdowns: Do accidents make us safer? *Journal of Applied Social Psychology* 21, 13 (1991), 1058–1082.

54. Eva M Pomerantz, Shelly Chaiken, and Rosalind S Tordesillas. 1995. Attitude strength and resistance processes. *Journal of personality and social psychology* 69, 3 (1995), 408.

55. Ronald W Rogers. 1983. Cognitive and psychological processes in fear appeals and attitude change: A revised theory of protection motivation. *Social psychophysiology: A sourcebook* (1983), 153–176.

56. Lydia Saad. 2010. Four Moral Issues Sharply Divide Americans. (2010). `http://www.gallup.com/poll/137357/four-moral-issues-sharply-divide-americans.aspx`.

57. Lila Shapiro. 2016. 5 Cases Of Anti-Gay Workplace Discrimination That Won't Be Covered By ENDA. (2016). `http://www.huffingtonpost.com/2013/11/07/enda-religious-exemption_n_4229247.html`.

58. Linda J Skitka and Philip E Tetlock. 1993. Providing public assistance: Cognitive and motivational processes underlying liberal and conservative policy preferences. *Journal of Personality and Social Psychology* 65, 6 (1993), 1205.

59. Todd Starnes. 2015. Christian bakers fined $135,000 for refusing to make wedding cake for lesbians. (2015). `http://www.foxnews.com/opinion/2015/07/03/christian-bakers-fined-135000-for-refusing-to-make-wedding-cake-for-lesbians.html`.

60. Barry Wellman and Milena Gulia. 1999a. Net surfers don't ride alone: Virtual communities as communities. *Networks in the global village* (1999), 331–366.

61. Barry Wellman and Milena Gulia. 1999b. The network basis of social support: A network is more than the sum of its ties. *Networks in the global village* (1999), 83–118.

62. WeSearchr. 2017. WeSearchr. (2017). `https://www.wesearchr.com/`.

63. Anbang Xu, Xiao Yang, Huaming Rao, Wai-Tat Fu, Shih-Wen Huang, and Brian P Bailey. 2014. Show me the money!: An analysis of project updates during crowdfunding campaigns. In *Proceedings of the SIGCHI conference on human factors in computing systems*. ACM, 591–600.