

Framing effects, social norm perception, and tolerance of lesbian and gay individuals:

Experimental evidence from Slovakia

Andrej Findor, PhD <sup>a</sup>, Matej Hruška, PhD <sup>a</sup>, John A. Gould, PhD <sup>b</sup>, Roman Hlatky, MA <sup>c</sup>, Zuzana Tomková, MA <sup>a</sup>, and Miroslav Sirota, PhD <sup>d</sup>

<sup>a</sup> Faculty of Social and Economic Sciences, Comenius University, Mlynské luhy 25, 82105

Bratislava, Slovak Republic. Andrej Findor: [andrej.findor@fses.uniba.sk](mailto:andrej.findor@fses.uniba.sk), <https://orcid.org/0000-0002-5896-6989>; Matej Hruška: [matej.hruska@fses.uniba.sk](mailto:matej.hruska@fses.uniba.sk), <https://orcid.org/0000-0002-4521-3697>; Zuzana Tomková: [tomkova.zuzi@gmail.com](mailto:tomkova.zuzi@gmail.com)

<sup>b</sup> Department of Political Science, Colorado College, 14 East Cache la Poudre St., Colorado Springs, CO, 80903, United States of America, [jgould@coloradocollege.edu](mailto:jgould@coloradocollege.edu)

<sup>c</sup> Department of Government, The University of Texas at Austin, 158 W 21st ST STOP A1800, Batts Hall 2.116, Austin, TX 78712-1704, United States of America, [rohlatky@utexas.edu](mailto:rohlatky@utexas.edu), <https://orcid.org/0000-0001-8378-2877>

<sup>d</sup> Department of Psychology, University of Essex, Colchester Campus, Wivenhoe Park, Colchester, Essex, CO4 3SQ, United Kingdom, [msirota@essex.ac.uk](mailto:msirota@essex.ac.uk), <https://orcid.org/0000-0003-2117-9532>

Correspondence regarding this article should be addressed to Andrej Findor, Faculty of Social and Economic Sciences, Comenius University, Mlynské luhy 25, 82105 Bratislava, [andrej.findor@fses.uniba.sk](mailto:andrej.findor@fses.uniba.sk).

## Abstract

Perceptions of social norms can have downstream consequences for attitudes and behaviors, especially when it comes to the acceptance of marginalized groups. While interventions focusing on social norms may boost tolerance, few studies test whether variations in norm communication affect individuals' perceptions. Thus, in this paper, we test the effectiveness of three communicative aspects -- valence framing (Experiments 1-3), point of view (Experiment 1), and group centrism (Experiment 3) -- in shifting perceptions of social norms. Specifically, we investigate whether manipulating these aspects affects perceptions of tolerance of lesbian and gay individuals in Slovakia, where LGBTQ+ acceptance is among the lowest in Europe. We found that while positively valenced messages shifted perceptions towards tolerance, manipulating point of view and group-centrism did not. We believe that these findings can inform interventions intended to shift perceptions of social norms in hostile contexts, an important first step in changing prejudiced attitudes and behaviors.

*Keywords:* social norm perception; persuasion; valence framing; point of view; group centrism; LGBTQ+

Framing effects, social norm perception, and tolerance of lesbian and gay individuals:

Experimental evidence from Slovakia

Tolerance and acceptance are important prerequisites for equality. Conversely, exclusionary attitudes -- prejudiced stances towards outgroups and policies that advance their standing -- cause social strife and negatively impact the lived experiences of marginalized communities. Given these negative consequences, social scientists have dedicated considerable effort to studying the determinants of these attitudes, as well as interventions meant to reduce them. One possible pathway of attitudinal and behavioral change is social norms -- people's perceptions about what the majority of people around them do or should do (Cialdini et al., 2006). In contrast to attitudinal interventions, which try to change how an individual feels, norm-based interventions focus on social stances and behaviors to change an individual's perception of how those around them feel or act (Tankard & Paluck, 2016).

If we wish to change exclusionary attitudes or behaviors, a focus on norm-based interventions is warranted. First, changes in normative perceptions "represent shifts in individuals' understanding of their society" (Tankard & Paluck, 2017, p. 9). These shifts can, in turn, have positive downstream effects on attitudes and behavior. Second, changing individual attitudes is generally more difficult than changing norm perceptions. This is due, in part, to the social nature of norms -- while singular experiences and situations may influence attitudes, norm perceptions take into account a wider range of shared, socially relevant cues. Third, interventions aimed at changing prejudiced behaviors may be more effective when they focus on changing norms than when they focus on changing attitudes (Paluck, 2009). In fact, norms-based interventions may change behavior, even if attitudes remain the same (Tankard & Paluck, 2016). While the positive effects of norm-based interventions are well understood, a normative message

can be delivered in a variety of ways and the impact of a message may be contingent on the context in which it is delivered. Thus, two questions remain: (1) does manipulating communicative aspects of a normative message affect its capacity to change perceptions of social norms; and (2) to what extent are norms-based interventions effective in hostile contexts?

To answer these questions, we investigate the acceptance of LGBTQ+ individuals. This specific norm, when combined with the research context of this study, offers a unique opportunity to address a missing gap in the existing literature: understanding “how to use norm change interventions to influence [...] individuals who are extremely high in personal opposition to an idea” (Tankard & Paluck, 2016, p. 199). To that end, we investigate the acceptance of lesbian and gay individuals in the Slovak Republic. Slovakia has one of the lowest levels of LGBTQ+ tolerance in Europe, and extremely high levels of self-reported discrimination by lesbian and gay individuals (Kuruc & Jablonická Zezulová, 2017, p. 52). Moreover, institutional rules and the signals they send are antagonistic, further legitimizing hostile attitudes. Combining the norm of LGBTQ+ tolerance and the hostility of the Slovak context allows us to identify whether normative interventions change perceptions of societal norms in environments where public opinion and legislation run contrary to the norm.

Through three nationally-representative online survey experiments -- each focusing on one of three sources of normative information (individual behavior, summary information, and institutional signals; see Tankard & Paluck, 2016) -- we test whether changing the valence of a normative message affects a respondent’s perception of a societal norm’s direction. We also investigate if the manner in which the norm is communicated matters. The individual behavior experiment (Experiment 1) tests whether the point of view through which a normative message is communicated impacts respondents’ perceptions. The institutional signal experiment

(Experiment 3) tests whether manipulating a normative message's level of group centrism affects the same outcome.

We find that positively valenced persuasive messages shift individual perceptions of social norms in a positive direction when the norm is communicated through individual behavior or through institutional signals. However, the valence of summary information has no effect on individual perceptions of social norms. Moreover, changes in point of view and group centrism have no effect on individual perceptions. These findings suggest the general importance of valence frames for interventions intended to shift perceptions of social norms. Positively valenced normative signals, whether from accounts of individual behavior or from institutional signals, lead individuals to believe that societal norms are becoming more tolerant.

### **Perceptions of social norms**

Perceptions of social norms influence individuals' judgements and behaviors. Thus, messages appealing to perceptions of social norms -- what is understood as typical and desirable behavior -- have motivated behavioral interventions targeting conflict, bullying, and harassment (Paluck & Shepherd, 2012; Paluck, Shepherd, & Aronow, 2016), intergroup prejudice (Paluck, 2009) and human rights (Prentice, 2012).

Norms can be communicated through three sources: individual stories (behavior), summary information, and institutional signals. Through these channels, an intervention provides cues indicating the "direction in which a norm is moving" (Tankard & Paluck, 2016, p. 201). In this sense, they provide information about whether, and how many, people follow a given norm, as well as if the number of people doing so is increasing or decreasing. For example, Tankard and Paluck (2017) showed that a ruling of the U.S. Supreme Court in favor of same-sex marriages (an institutional source) signaled the direction in which norms related to same-sex

marriage were moving. This institutional signal could have reflected and contributed to the evolving “social imagination of homosexuality”, where individuals shifted from considering homosexuality a deviant behavior, and reimagined it as a recognized and institutionalized identity (Hart-Brinson, 2016).

While attitudes express what individuals think about an issue, norm perceptions reflect an individual’s evaluation of what a social group thinks about said issue. An attitude takes the form of a personal stance or evaluation: “I think that gay and lesbian individuals should be free to live their own lives as they wish. A norm perceptions focus on others: “Most people in my country think that gay and lesbian individuals should be free to live their own lives as they wish.” As these examples show, an attitude is an evaluative stance directed towards some object based on underlying beliefs. Norm perceptions, on the other hand, are not evaluative and instead describe beliefs about what members of a referent group think and do or ought to think and do (Cialdini et al., 2006). It is important to note that norm perceptions and attitudes may not necessarily coincide. For example, an individual can perceive that LGBTQ+ tolerance is becoming an accepted norm, while still remaining prejudiced against gay and lesbian individuals.

Although both personal attitudes and perceptions of social norms are important precursors to changing behaviors, some argue that normative perceptions are more malleable than attitudes. Compared to norm perceptions, personal attitudes are more deeply-rooted in personal experience and long-standing ideological (and religious) beliefs (Tankard & Paluck, 2016). Moreover, norm perceptions may be more susceptible to change than attitudes due to their social nature. Monitoring and following what other members of reference groups think and do signals what beliefs and behaviors are prevalent and acceptable, thus providing an additional cue that may prove effective in interventions aimed at changing behaviors (Kallgren et al., 2000).

Despite their prejudiced attitudes, people may be less likely to discriminate against stigmatized groups due to concerns that other members of their referent group or institutions they respect would not condone such behavior. This is why, if the ultimate goal is changing prejudiced behavioral outcomes, scholars have suggested focusing on interventions that target norm perceptions rather than attitudes (e.g., Paluck, 2009). While changes in normative perceptions are not necessarily coterminous with changes in attitudes, attitude change through normative interventions can occur amongst more norm-conforming segments of population, such as right-wing authoritarians (Altemeyer, 2002).

Nonetheless, norm perceptions can have significant effects on the lived experiences of LGBTQ+ communities. Of course, the effects of norm perceptions depend on political and cultural context. For example, international norms concerning LGBTQ+ rights can be perceived by some segments of local populations as a foreign threat to the domestic concept of national identity. Such threat-based perceptions of international norms can mobilize active resistance accompanied by the maltreatment of LGBTQ+ individuals. In other contexts, the same norms can be less threatening, as they are more easily accommodated into domestic conceptions of national identity. In these cases, such norms could lead to more positive experiences for LGBTQ+ individuals (Ayoub, 2014).

Social norms can be descriptive or injunctive. Descriptive norms indicate what people actually do, while injunctive norms indicate what people should do (Cialdini, Kallgren, & Reno, 1991; Kallgren et al., 2000). The normative messages in this study are descriptive. In all three experiments, we rely on informational vignettes that describe only what people actually think or do as it relates to the acceptance of lesbian and gay persons. Using descriptive norms allows us to evaluate all three sources of normative information. It also allows us to evaluate whether a

prominent finding in the normative intervention literature applies to acceptance of lesbian and gay persons: presenting a norm by focusing on its prevalence (e.g., “many people think gay and lesbian individuals are a threat to society) can be counterproductive. If a norm is presented in such a manner, individuals may evaluate the negative behavior as common and typical, and therefore acceptable (Cialdini et al., 2006). Similarly, warnings about the prevalence of stereotypes can result in their normalization rather than condemnation (Duguid & Thomas-Hunt, 2015). This may be particularly true in contexts hostile to the norm.

### **Valence of persuasive messages**

How a message is presented -- its valence framing -- matters. A host of empirical research suggests that negative framings elicit stronger reactions than positive ones (Baumeister et al., 2001). Research also shows that valence frames impact the degree to which respondents process and scrutinize normative messages (Smith & Petty, 1996). For social norms and related interventions, a positive signal -- e.g., a message that indicates or affirms the presence of a given norm -- is likely to change perceptions in the positive direction. This seems to be true regardless of whether the norm itself is normatively beneficial or normatively detrimental. Conversely, a negative signal will have the opposite effect. When a message indicates the rejection or rarity of a norm, individuals are more likely to conclude that the norm is uncommon.

In the context of this study, we predict that positively framed messages (i.e., those of acceptance) will lead individuals to believe that society is becoming more accepting. Conversely, we expect negatively framed messages (i.e., those of rejection) to render individuals less likely to believe that the norm of tolerance is widespread. Importantly, existing research has yet to address whether the source of a normative message affects these predictions. For example, do positive normative signals from institutions have the same effect as positive signals from personal



narratives? Does a message about an equal employment policy for LGBTQ+ individuals lead respondents to believe that society is becoming more tolerant in the same way as a personal story about family acceptance does? For the summary information source, we employ equivalence framing and manipulate the “presentation of logically equivalent information” to approximate positive and negative frames (Cacciatore, Scheufele, & Iyengar, 2016, p. 7). By analyzing all three sources of normative information, and by varying the valence of the message from these sources, we can identify how method of delivery and valence interact.

Importantly, little work has examined these predictions in contexts hostile to the norm in question. How does the valence of a given normative message interact with hostile public opinion and institutional rules? Can positive messages overcome these antagonistic stances and still convince respondents that society is becoming more tolerant? Are the effects of negative messages exacerbated by an unsympathetic society? We believe that our research context, the Slovak Republic, offers a unique opportunity to answer these questions. If messages of acceptance lead individuals to believe that Slovak society is becoming more accepting, we can be reassured that interventions may work in (some) hostile environments.

### **Normative messages and point of view**

Narrative stories about individual behavior can inform individuals about prevailing social norms. Braddock and Dillard (2016) define a narrative as a “cohesive, causally linked sequence of events that takes place in a dynamic world subject to conflict, transformation, and resolution through non-habitual, purposeful actions performed by characters” (p. 21). These stories, however, can be communicated in a variety of ways. Kalla and Broockman (2020) focus on both the type and method/medium of communication, for example. First, they suggest that the exchange of narratives is more effective in changing attitudes than solely the one-sided

conveyance of information. Second, they find that narrative exchange interventions are just as effective when delivered in face-to-face interpersonal conversation, over the phone, or when delivered through electronic means where “canvassers showed voters a video narrative about a third party but did not supply their own narratives nor elicit individuals’ narratives” (p. 418).

Often, the actual person communicating the normative message matters as well. The source of the message can influence its persuasiveness amongst the target audience (Wilson & Sherrell, 1993). A host of research suggests that social referents -- important individuals embedded within and across social networks -- cue individuals about the prevailing norms in a given social environment (Paluck & Shepherd, 2012; Paluck, et al., 2016). Thus, the characteristics of social referents can have an impact on social perceptions, independent of the valence of the normative message.

When communicating a normative message through personal narratives, the messenger is the person conveying the information within the text. In this regard, a story’s point of view -- the “formal feature that determines the relationship between the reader and the story’s character(s)” (Christy, 2018, p. 2) -- may influence the persuasiveness of the message. Existing research suggests that the effect of point of view is conditional on the salience of group membership. In contexts where delineations between outgroups and ingroups are not as strong, narratives using the first-person singular (e.g., I) are more likely to persuade (Nan, Futerfas, & Ma, 2017); however, in contexts characterized by firm boundaries between social groups, the third-person singular (e.g., she) may be more effective (Kaufman & Libby, 2012). These studies have largely focused on attitude change, and few examine social norm perception directly. We investigate the effect of point of view on social norm perception by comparing the use of the first-person singular versus the third-person singular in a personal narrative. Given the rigid group

boundaries between LGBTQ+ and heterosexual individuals in the Slovak Republic, we expect the third-person point of view to elicit greater perceptions of tolerance in Slovak society.

### **Normative messages and group-centrism**

How individuals react to and evaluate policies is partly a function of whom said policies benefit (Nelson & Kinder, 1996). On the one hand, policies may be completely group-centric, i.e., they exclusively benefit one social group. On the other hand, policies may be universal, meaning that they benefit everyone equally. A given social group is unlikely to support a policy that exclusively benefits another group (Alesina, Baqir, & Easterly, 1999). Likewise, support for policies also declines when beneficiaries are identifiable as members of an unpopular group (Hurwitz & Peffley, 2005). Conversely, policies that deflect attention from individual groups (ones framed in more universal terms) decrease the salience of group differences, and are more likely to garner support (Lawrence, Stoker, & Wolman, 2013). Thus, individual attitudes about laws, court rulings, or regulations depend on where these policies fall on the group-centrism/universalism spectrum. However, these findings are largely about attitudes; does social norm perception function similarly?

To test, we modify a normative message coming from an institution. Specifically, we modify whether a corporate policy is framed as beneficial for all, or just LGBTQ+, employees. Tankard and Paluck (2017) showed that institutions can help guide individuals in updating their perception of a social norm. Here, we build on this research and test whether the group-centrism of an institutional choice moderates its effect on social norm perception. Following the literature on attitudes, we predict that when the policy is framed in universal terms, individuals will be more likely to perceive tolerance towards lesbian and gay individuals as the prevailing social norm.

**Research context: the situation of LGBTQ+ individuals in Slovakia**

A major advantage of our study is that we test shifts in perceptions of social norms in a hostile context. In contrast to the most member states, where a consensus on tolerance and support of LGBTQ+ issues is emerging, the tolerance and acceptance of LGBTQ+ individuals in Slovakia is one of the lowest in the European Union (EU) and the numbers are getting worse (Smith, Son, & Kim, 2014; van den Akker, van der Ploeg, & Scheepers, 2013) In Special Eurobarometer 493 (2019), 69 percent of Slovaks disagreed with the statement that “gay, lesbian and bisexual people should have the same rights as heterosexual people”. In 2015, this number was 64 percent. This is the highest level of disapproval for the equal rights of LGBTQ+ individuals in the European Union, where the average was 24 percent (European Commission, Directorate-General for Justice and Consumers, Directorate-General for Communication, & Kantar, 2019). This intolerance translates to discriminatory experiences: 82 percent of surveyed LGBTQ+ individuals identify “prejudice, stereotypes, lack of understanding, ignorance” as the most pressing problem they face, seconded by “lack of general equality and acceptance, and missing legal rights” (66.7 percent) (Kuruc & Jablonická Zezulová, 2017, p. 52).

These attitudes stand in contrast to the “liberating potential” of EU membership (Rhodes-Kubiak, 2015, p. 69). High standards concerning human rights protections and anti-discrimination policies were hallmarks of EU policies during the accession period. However, these standards did not create an effective institutional signal, and failed to steer attitudes and normative perceptions towards greater acceptance. On the contrary, these efforts actually provoked political backlash. Opponents described the EU’s efforts as forceful impositions of “decadent” legal norms, which endanger the normative traditions, national identities, and public beliefs of new EU member states, including Slovakia (Ayoub, 2014; Lorencova, 2013; ). This

political pushback came to a head in 2014 when the Slovak parliament amended the constitution to define marriage as “a union between a man and a woman.” This amendment effectively rendered legislative initiatives concerning same-sex marriage unconstitutional. Unfortunately, backlash is not limited to Slovakia. Other EU member states have seen similar efforts to curtail LGBTQ+ rights. For example, Polish municipalities have attempted to institute “LGBTQ-Free Zones”, and the Hungarian government has recently passed a constitutional amendment to limit adoption by same-sex couples.

Hostile contexts, like Slovakia, are particularly important cases for testing shifts in perceptions of social norms. Public opinion and legal rules are hostile, and in the process of becoming even more adversarial. Thus, for positively valenced messages, public opinion is moving in the opposite direction of the suggested norm. On the other hand, for negatively valenced messages, public sentiment reinforces the intended signal. Thus, if we find differences in normative perceptions in Slovakia, it is reasonable to expect that such interventions would work in friendlier contexts as well. Even more importantly, these countries are the ones in most need of effective interventions. Given negative public sentiment, discriminatory practices, and adversarial institutional signals, shifting social norm perceptions towards acceptance can help improve the day-to-day lives of many LGBTQ+ individuals.

### **Present research**

We evaluate our claims through three online, between-subjects, randomized experiments. Each experiment focuses on one source of normative information: Experiment 1 employs individual behavior; Experiment 2, summary information; and Experiment 3, an institutional signal. Each of these experiments uses either negative or positive valence frames to present information about tolerance of lesbian and gay individuals. In addition, Experiment 1

manipulates the point of view of the narrative depicting individual behavior and Experiment 3 manipulates the group-centrism of the institutional signal (a corporate policy). These experiments were conducted with representative samples of the Slovak population. We recruited participants from a panel managed by a Slovak market research firm. All participants completed the surveys online using their personal devices and were compensated for their participation. We conducted Experiments 1 and 2 between August 5th and 22nd, 2016; and Experiment 3 between June 8th and June 16th, 2017.

We built our research design on the premise that communicators choose to communicate with positively or negatively valenced communication frames, from first- or third-person points of view, and with universal or group-centric policy messages in order to achieve greater tolerance of lesbian and gay persons. To summarize our hypotheses, we predict that positively-valenced frames (vs negatively-valenced), third-person point of view (compared to first-person), and universal (as opposed to group-centric) framing will result in greater perceptions of tolerance amongst our respondents. All analyses are conducted with manipulation check failures excluded; however, all results are robust to their inclusion.<sup>3</sup>

### **Experiment 1**

Experiment 1 uses individual behavior, presented through a vignette, to convey information about a social norm. We test two complementary hypotheses about: (1) the valence framing of the normative message, and (2) the point of view (first-person versus third-person). First, we predict that information about accepting individual behavior towards a lesbian person will lead to more positive normative perceptions of tolerance in Slovak society. Second, we hypothesize that presenting this message in the third-person point of view will lead to a more positive perception of the communicated social norm than when the message is conveyed from a

first-person point of view. To test these hypotheses, we used a 2x2 design, where we separately manipulated the valence frame and the point of view of the vignette.

## **Method**

### ***Participants***

We implemented this experiment with a representative sample of 842 Slovaks (392 male; age = 15-79,  $M = 41.6$ ,  $SD = 15.8$ ). We used an a-priori rule of thumb to have at least 200 participants in each condition. A slightly higher number of responses (842) were collected to obtain a representative sample. Post-hoc sensitivity analysis for fixed, special, main effects and interactions in ANOVA with  $\alpha = .05$ , numerator  $df = 1$  and four groups showed that we had an 80% chance of detecting a main effect as small as  $f = 0.1$ .

### ***Materials and procedure***

After providing informed consent, participants read one of four versions of a hypothetical interview. The interview was about a lesbian identifying individual, Zuzana. Within the interview, we manipulated whether Zuzana had been accepted or rejected by her family and peers due to her sexual orientation, and whether the interview was with Zuzana herself, or with one of her colleagues.<sup>1</sup> Specifically, the interview reported either a resolved (positive frame) or an unresolved (negative frame) conflict between Zuzana and her family and friends. The interview focused on Zuzana's feelings, as well the sentiments of those around her. In the positive condition, peers indicated that they felt accepting and at ease about Zuzana's sexual identity. In the negative condition, these individuals reported problems and unresolved issues.

After the manipulation, participants answered four social norm perception questions regarding the perceived evaluations and attitudes of the majority of people in Slovakia towards Zuzana (e.g., "According to the majority of people in Slovakia, Zuzana should be accepted in the

way she is). Instead of asking participants about their personal views and opinions, we asked them to express how, in their opinion, the majority of people in Slovakia would judge the lesbian woman and her story. Responses were on a scale from 1 (*completely disagree*) to 5 (*completely agree*). To counterbalance their direction, we included two positively and two negatively formulated questions. Negatively formulated questions were reversed prior to analysis and the mean score of the four questions was used in the analysis (Cronbach's  $\alpha = .81$ ). These questions were followed by two questions about the perceived attitudes of the majority of people in Slovakia towards same-sex partnerships and marriages (e.g., "According to the majority of people in Slovakia, the state should legally recognize registered partnerships between same-sex couples, such as Zuzana and her partner"). We included these questions to detect possible spill-over effects.<sup>2</sup> Since the manipulation targeted normative perceptions of social acceptance or rejection and since it was not directly concerned with normative perceptions of same-sex partnerships and marriages, we did not expect to find significant differences between groups for these two questions. Participants also answered two manipulation checks asking who was interviewed and about the attitudes of family and friends towards Zuzana.<sup>3</sup> Finally, participants answered socio-demographic questions about their education, nationality, left-right self-classification, self-identification on cultural and ethical issues (as a liberal or a conservative-minded person), voting preferences, religion, frequency of attendance at religious services, and social status.

## **Results**

At least 83 percent of participants in all four conditions answered the two manipulation check questions correctly, suggesting that the intended manipulation was successful.<sup>4</sup> Results indicated that the positively framed message of acceptance led to more positive normative



perceptions of Zuzana compared with the message of rejection. Manipulating point of view did not have any significant effect on respondent evaluations (Figure 1 and Table 1 report the number of observations, means and standard deviations per experimental group, further details are reported in Supplemental Information). These observations were confirmed by a two-way ANOVA and a Bayesian analysis of variance, using the `anovaBF` function in the `BayesFactor` package (Morey et al., 2018). We found a significant main effect of valence (acceptance vs. rejection),  $F(1, 838) = 43.95, p < .001, \omega^2 = .05, 95\% \text{ CI } [0.03, 0.08], \text{BF}_{10} = 1 * 10^8$ , a non-significant main effect of point of view (first-person point of view vs. third-person point of view),  $F(1, 838) = 0.13, p = .72, \omega^2 \approx .00, \text{BF}_{01} = 12.5$ , and non-significant interaction of the two factors,  $F(1, 838) = 1.73, p = .19, \omega^2 = .001, \text{BF}_{01} = 0.25$ . The valence of the message continued to have a significant effect on normative perceptions after adjusting for the effects of covariates,  $F(1,809) = 50.46, p < .001, \omega^2 = .05, 95\% \text{ CI } [0.03, 0.09]$ . Table 3 in the Supplemental Information presents detailed results.

An ordinal logistic regression analysis did not identify any spill-over effects. Neither different messages ( $B = -.07, SE = 0.06, p = .25, OR = 0.93, 95\% \text{ CI } [0.83, 1.05]$ ), nor point of view ( $B = .05, SE = 0.06, p = .47, OR = 1.05, 95\% \text{ CI } [0.93, 1.18]$ ) affected the degree to which participants agreed that the majority of people think that the state should recognize same-sex registered partnerships. Similarly, neither different messages ( $B = .08, SE = 0.06, p = .18, OR = 1.08, 95\% \text{ CI } [0.97, 1.22]$ ), nor point of view ( $B = -.04, SE = 0.06, p = .49, OR = 0.96, 95\% \text{ CI } [0.85, 1.08]$ ) changed whether participants agreed that majority of people think that a ban on same-sex marriages should be revoked.

Insert Figure 1 here

Insert Table 1 here

## **Discussion**

To summarize, Experiment 1 focused on individual behavior as a normative signal. In the experiment, we found that positively valenced messages (as opposed to negatively valenced messages) led respondents to perceive society as more inclined towards the social norm of tolerance of a lesbian person. In other words, positive stories about acceptance, even when focusing on a sole individual, lead respondents to believe that society as a whole is more tolerant. The experiment did not find any evidence that point of view affects perceptions of social norms. Importantly, this null finding has practical implications for interventions. It may not be necessary for stigmatized individuals to share their own stories. This is important for three reasons. First, it reduces the burden placed on stigmatized groups to be their own advocates. Second, it reduces potential backlash that can result from proximal contact between outgroup members and those who hold especially entrenched prejudices. Third, having someone else tell the story can demonstrate the integration of stigmatized individuals in valued social relationships (e.g., in family, church, workplace), underscoring their recognition and normative acceptance

## **Experiment 2**

In Experiment 2, we focus on summary information as a signal of social norms. Presumably “the most straightforward manipulation of a perceived norm” (Tankard & Paluck, 2016, p. 189), summary information about a group is a frequently used source of normative information in the social norm perception literature (Cialdini et al., 1991; Cialdini et al., 2006). Often using quantitative information, these summaries inform individuals about the stances of other referent group members. Here, we test whether differently framed, though logically

equivalent, summary information influences normative perceptions of LGBTQ+ tolerance in Slovakia. We predict that positively framed summary information will lead to more positive normative perceptions of gays and lesbians than negatively framed summary information .

## **Method**

### ***Participants***

433 Slovaks participated in this experiment (207 male; age = 15-85,  $M = 41.8$ ,  $SD = 16.1$ ). Again, we aimed to have 200 individuals in each experimental group; and again, we exceeded this number to achieve representativeness. Participants from Experiment 1 were not eligible to take part in this experiment. Post-hoc sensitivity analysis for an independent sample  $t$ -test with  $\alpha = .05$  showed that we had 80% chance of detecting an effect as small as  $d = 0.27$  (two-tailed). This effect size is below the median of effect sizes identified in recent meta-analyses (in communication research: median of  $r = .18$ , equal to  $d = 0.36$  (Rains, Levine, & Weber, 2018), in social psychology:  $d = 0.36$  (Lovakov & Agadullina, 2021)), suggesting our sample size was sufficient for capturing even relatively small effects.

### ***Materials and procedure***

After providing informed consent, participants were randomly assigned to read one of two news articles about the stances of the Slovak public on the lesbian, gay, and bisexual people, with a particular focus on public attitudes towards equal rights and same-sex partnerships. Both versions of the article used the same real-world opinion polling data, but the articles differed in the way the data were presented. One version of the article reported the headline using a negative rejection frame: "A clear majority still rejects registered partnerships in Slovakia." The other headline was framed in terms of acceptance: "Every third Slovak supports registered partnerships." After the manipulation, participants answered the same four questions as in

Experiment 1; however, “Zuzana” was replaced with “gays and lesbians.” Response scale construction mirrored that of Experiment 1 as well. A mean score of the four questions was used as the dependent variable (Cronbach’s  $\alpha = .86$ ). The four main questions were followed by two questions about the perceived attitudes of most people in Slovakia towards registered partnerships and marriages of same-sex couples.

## Results

Participants assigned to the public acceptance article had more positive perceptions of acceptance as a prevailing social norm than participants assigned to the public rejection article (Figure 2 and Table 2). However, this difference was not statistically significant,  $t(431) = -1.67$ ,  $p = .10$ . A Bayes factor analysis confirms this lack of difference -- the data were two times more likely to be observed under the assumption of the null model of no manipulation effect,  $BF_{10} = 2.44$ .

An ordinal regression analysis did not show an effect of experimental condition on attitudes towards same-sex marriages and registered partnerships. Different messages did not affect the degree to which participants agreed that majority of people think that the state should recognize same-sex registered partnerships ( $B = .15$ ,  $SE = 0.17$ ,  $p = .39$ ,  $OR = 1.16$ , 95% CI [0.83,1.62]). Similarly, different messages failed to change the degree to which participants agreed that majority of people think that a ban on same-sex marriages by the state should be revoked ( $B = .08$ ,  $SE = 0.17$ ,  $p = .64$ ,  $OR = 1.08$ , 95% CI [0.77,1.51]).

Insert Figure 2 here

Insert Table 2 here

## Discussion

When it comes to the presentation of logically equivalent summary information, valence does not seem to affect perceptions of social norms. Respondents who read a positively framed headline about the Slovak population's level of support for registered partnerships did not perceive social norms to be any more accepting than those who read the negatively framed headline. Given the logical equivalence of the two headlines, this result is not surprising -- both groups were presented with the exact same information. It seems that the objective data within the normative signal overpowers any possible valence effects, especially if that data suggests that the majority is not tolerant. However, it is important to note that this null result may not hold for all logically equivalent presentations of information. In the experiment, we juxtaposed a "clear majority" with "every third Slovak". This is only one way to present the same information. More specific depictions of summary information -- e.g., comparing "49 percent" to 51 percent" -- or more general depictions -- e.g., "more than half" versus "less than half" -- could evoke different reactions. Some studies use manipulations with embellished or strongly one-sided data to test similar claims. While more likely to identify significant effects, such designs sacrifice external validity. Further research could re-test this hypothesis by identifying the extent of divergence necessary for valence frames to make a difference.

Thus, these results do not suggest that framing does not matter. Instead, they indicate that it may simply be more difficult for valence framing to sway opinions when it comes to the presentation of logically equivalent summary information. Given the contingencies involved in framing summary information, interventions may be most effective when they focus on presenting only relevant, objective information that supports their aims.

As in Experiment 1, we also found little evidence for persuasive effects of normative messages on attitudes towards same-sex partnerships and marriages. These findings are in line with previous research that questioned the convergence between social acceptance of homosexuality and support for same-sex marriage (Yeo & Chu, 2018).

### **Experiment 3**

In Experiment 3, we focus on institutional signals of norms. We build on existing research showing that institutional signals can help individuals update their perceptions of a social norm. There are several mechanisms through which an institution can send a signal: through the decisions and guidance they issue; through the default choices they set; or through innovation when they introduce novel methods and procedures through which target groups become recognized. For example, “institutions that have recently included “transgender” as an option in addition to “male” and “female” on a form may lead group members to infer that transgender people are more numerous in the group and more accepted by the group” (Tankard & Paluck, 2017, p. 195). In the present experiment, we focus on a large multinational company operating in Slovakia and its equality policies towards employees. Again, we investigate the effects of framing on perceptions. We also investigate the role of group-centrism in affecting respondents’ perceptions of social norms.

### **Method**

#### ***Participants***

A priori power analysis showed that to detect a small effect size of  $f = 0.15$  per factor, assuming  $\alpha = .05$  and power = 0.95, we would need a sample size of 580. We recruited 894 participants in Slovakia. 276 participants were excluded from the analysis after choosing either “don’t know” or “I didn’t read the text” in manipulation checks. Thus, our final sample included

618 participants (281 male; age = 15-80,  $M = 41.9$ ,  $SD = 16.2$  years). Post-hoc sensitivity analysis for fixed, special, main effects and interactions in ANOVA with  $\alpha = .05$ , numerator  $df = 1$ , and four groups showed that we had 80% chance of detecting a main effect as small as  $f = 0.11$ .

### *Materials and procedure*

Using a 2x2 factorial design, we randomly assigned respondents to one of four different vignettes. Each vignette consisted of a fictional interview with a chief executive in charge of a Slovak branch of a large multinational company employing thousands of people in Slovakia. In each vignette, the executive describes a new company policy meant to foster equality in the workplace. The first manipulation concerns valence framing: the interview describes employees responding either positively or negatively to the policy. The second manipulation concerns the policy's beneficiaries: the executive describe the policy's intended target group as either all employees or solely gay and lesbian employees.

We predict that the positive frame condition and universal condition will render respondents more likely to perceive Slovak society as accepting, compared to the negative frame and group-centrism conditions. This research design and analysis plan have been preregistered at AsPredicted.<sup>5</sup>

After providing informed consent, participants read one of four versions of the hypothetical interview. Participants then answered four questions regarding the perceived evaluation and attitudes of most people in Slovakia about the acceptance of equal rights at the workplace - two questions asked about the company covered in the interview (e.g. "The majority of people in Slovakia would approve of the company's policy for equal treatment of gays and lesbians"), and two about the issue in general ("The majority of people in Slovakia would

approve of the equal treatment of employees with a different sexual orientation”). Responses were made on a scale from 1 (*completely disagree*) to 5 (*completely agree*). To counteract possible suggestive effects, two questions were formulated positively and two negatively. Negatively formulated questions were reversed and a mean score of the four questions was used (Cronbach’s  $\alpha = .68$ ). After answering these questions, participants answered two questions where participants expressed their agreement or disagreement about what the majority of people in Slovakia thought about the company’s specific pro-equality policy, and pro-equality policies in general. We created a score from these questions with possible values of -2, 0 and 2. Participants then answered two manipulation check questions asking about the employees’ reactions to the company’s pro-equality policy and about the beneficiary of these policies.

## Results

We observed that an institutional signal that positively (vs. negatively) framed a pro-equality corporate policy led to more positive normative perceptions of this policy. Manipulating the group-centrism of the policy did not lead to statistically significant differences in normative perceptions (Figure 3 and Table 3). A two-way ANOVA and a Bayesian analysis of variance, confirmed a significant main effect of the valence frame (acceptance of the policy vs. rejection of the policy),  $F(1, 614) = 11.80, p < .001, \omega^2 = .02, 95\% \text{ CI } [0, 0.04], \text{BF}_{10} = 27$ , a non-significant main effect of group centrism (all employees vs. LGBTQ+ employees only),  $F(1, 614) = 0.64, p = .42, \omega^2 \approx .00, \text{BF}_{01} = 8.3$ , and a non-significant interaction of the two factors,  $F(1, 614) = 0.53, p = .46, \omega^2 \approx .00, \text{BF}_{01} = 0.16$ . The significant finding for valence frames maintained after adjusting for the effects of pre-registered covariates (gender, age, education, sexual orientation, municipality size, political party preference, ideological self-identification),  $F(1, 578)$



= 10.5,  $p = .001$ ,  $\omega^2 = .01$ , 95% CI [0, 0.04]. See Table 4 in the Supplemental Information for detailed results.

We used ordinal logistic regression to determine the effect of institutional signals and group-centrism on the summed score of the two questions measuring approval of the company's policies specifically, and pro-equality policies more generally. Results indicate that valence frames did not have a significant effect on the normative perceptions of participants. Participants who read the text stressing rejection of the pro-equality policy were not more likely to disagree that pro-equality opinion is a prevailing social norm in Slovakia,  $B = .14$ ,  $SE = 0.08$ ,  $p = .06$ , OR = 1.15, 95% CI [0.99, 1.34]. The analysis did not show a significant effect of group-centrism,  $B = .04$ ,  $SE = 0.08$ ,  $p = .6$ , OR = 1.04, 95% CI [0.9, 1.2], nor a significant interaction effect between the two factors.

Manipulation check failure rates indicate that participants had difficulty recognizing the group-centrism of the policy. While at least 67% of participants in all four conditions correctly identified the correct valence frame, only 17% and 24% of participants in “only LGBTQ employees” conditions correctly answered that the policies were aimed at the minority specifically. Participants in the “all employees” conditions did not have a problem with the manipulation, with 75% and 91% answering correctly (see Tables 5 and 6 in the Supplemental Information for detailed results by a combination of factors and questions).

Insert Figure 3 here

Insert Table 3 here

## **Discussion**

Results from Experiment 3 indicate that the valence of institutional signals matters for how individuals perceive social norms. Positive valence frames -- when employees accepted the policy -- led to higher perceptions of tolerance as a social norm than when the policy was framed negatively (i.e., when employees rejected it). Interestingly, the group centrism of the policy had little effect on perceptions of social norms. However, this result could be due to the inability of respondents to correctly identify lesbian and gay employees as the sole beneficiaries of the policy; thus, it should be treated with caution. Practically, these findings suggest that messages about positive reactions to policies promoting tolerance within workplaces (and other institutions) are effective at shifting perceptions of societal norms. Thus, to boost perceptions of tolerance, interventions could focus on examples of tolerant practices from specific, recognized institutions.

#### **Meta-analytic effect of valence frames**

To examine the overall effect of valence framing on social norm perception, we perform a meta-analysis of all three experiments using the *metafor* R package (Viechtbauer, 2010). For Experiments 1 and 3 respectively, we pool respondents to create two groups, respondents exposed to positive framing and respondents exposed to negative valence framing. Since there was no other factor tested in Experiment 2, we keep the initial groupings. We calculated the standardized mean difference (Hedge's  $g$ ) and its variance for each of the respective comparisons.<sup>6</sup> A random effects model showed that positive valence, compared to negative valence, led to more positive normative perceptions. However, the effect is relatively small: Hedge's  $g = 0.31$ ,  $SE = 0.09$ , 95% CI[0.14, 0.48],  $p < .001$ . As a robustness check, we estimated a fixed effects model, which yields a similar conclusion: Hedge's  $g = 0.33$ ,  $SE = 0.05$ , 95% CI [0.24, 0.42],  $p < .001$ .

### **Summary and Concluding Discussion**

Through three different experiments -- each focusing on one potential source of normative signals -- we found relatively strong support for the relationship between valence framing and perceptions of social norms. When information about a norm is conveyed using positive frames, individuals are more likely to perceive the social norm as prevalent than when the normative message is negatively framed. This is true when the normative message is presented through accounts of individual behavior or through institutional signals. It is not the case, however, when the norm is presented through summary information.

In addition to valence framing, we tested two other communicative aspects of normative messages: point of view (Experiment 1) and group centrism (Experiment 3). We expected the third-person point of view to increase perceptions of tolerance as it introduces distance between the respondent and the stigmatized individual. Furthermore, having “someone like them” recount the story could render respondents more disposed to a favorable reaction. Similarly, we expected respondents to show higher perceptions of tolerance when normative messages were framed in universal, rather than group-centric terms.

The results did not support either of these predictions. For point of view, this suggests that normative interventions may not have to rely on individuals from a marginalized group to deliver the message -- having someone else tell their stories may be enough. For group-centrism, the null result was particularly surprising given the extensive literature on group-based policy evaluations (e.g., Nelson & Kinder, 1996; Lawrence et al., 2013). However, this finding must be treated with caution. In the two group-centric conditions, respondents generally failed to identify the beneficiaries of the policy (LGBTQ+ employees). In other words, respondents failed to

perceive the corporate policy as group centric, suggesting more explicit manipulations may be necessary to correctly prime respondents.

Importantly, we tested our claims in a context hostile to the norm of LGBTQ+ acceptance. Hatzenbuehler (2014) provides thorough evidence that structural stigma -- whereby institutions, policy, or public opinion impose constraints on the well-being of a stigmatized group -- has serious consequences on the mental and physical health of LGBTQ+ individuals. Similarly, a study conducted in five Eastern European countries found that institutional sexual stigma -- legal regulations that denigrate and discriminate against sexual minorities -- promotes internalized homophobia, undermines in-group identification, and suppresses the collective action of sexual minorities (Górska, Bilewicz, & Winiewski, 2017; Wessel, 2017). Negative public opinion, feelings of social rejection, and legal discrimination against LGBTQ+ individuals in Slovakia and other Eastern European countries, create a hostile and challenging environment for interventions meant to improve perceptions of tolerance. The fact that we find positive results in spite of this context is promising. If such messages work in Slovakia, they are likely to work elsewhere as well.

Several limitations of the present research are worth noting. First, the dependent variables do not include any attitudinal and behavioral measures that could serve as more ecologically valid tests of the relationship between attitudes, behavior, and social norm perception (Hetzl, 2011). Future research should address this shortcoming by introducing attitudinal and behavioral variables to explore potential pathways between norms, attitudes, behaviors, and population characteristics (e.g., authoritarian predisposition) that make individuals more responsive to social norm appeals (Altemeyer, 2002).

Second, the three experiments focused on different targets. Though the vignettes in each experiment explicitly focused on LGBTQ+ Slovaks, the first experiment concerned a lesbian woman, the second broadly concerned homosexual couples, and the third concerned homosexual employees at a multinational firm. For the purposes of this study, the different targets corresponded to different sources of normative information (e.g., it is difficult to present summary information about an individual). However, lesbian, gay, and other LGBTQ+ individuals experience related but unique forms of attitudinal hostility, discrimination, and normative stigma (see Worthen (2013) for a review). Given the multifaceted and intersectional nature of sexual prejudice, each of these targets may evoke different reactions from respondents. Thus, we believe that future research could investigate whether normative messages focused on different target groups have differential effects on social norm perceptions. For example, a relevant extension of our first experiment would be to see if a vignette that described the situation of a gay man, rather than a lesbian woman, had different effects on respondent perceptions.

A final point worth considering is a shortcoming of most experimental work: the durability of effects. In our designs, we exposed respondents to vignettes and measured their attitudes shortly thereafter. Without conducting a longitudinal repeated-measures study, we cannot definitively establish whether these effects persist in the long term. This is a particularly important avenue for further research in places, like Slovakia, where social norms are moving away from tolerance. In these contexts, institutional signals run against the message of the intervention, and thus may mitigate its long-run impact.

Focusing on messages of positive, social acceptance as opposed to negative, social rejection generates more favorable normative perceptions of LGBTQ+ individuals. Sharing

personal stories about acceptance or emphasizing positive institutional signals shapes respondents' views of the world around them. We believe that these changes can have positive downstream effects on individual behavior towards lesbian and gay individuals. In fact, supportive social environments in the family or at the workplace can also have beneficial effects on the well-being of LGBTQ+ individuals (Ryan, Legate, Weinstein, & Rahman, 2017). Narratives communicate societal transformations as well as resolutions of conflict (Braddock & Dillard, 2016); in this way, they suggest the favorable direction in which a social norm is moving.

These results also have substantive implications for normative interventions and advocacy campaigns. If the goal of persuasive communication is to increase the recognition and acceptance of the LGBTQ+ community (or any other stigmatized category of people), telling stories solely about their problems, e.g., the rejection they struggle with, may be counterproductive. In contrast, telling stories about how their problems were solved, e.g., how they became (however painfully) accepted, might improve the persuasive power of normative appeals. This evidence lends further support for theories emphasizing the persuasive power of social norm perceptions (Prentice, 2012; Tankard & Paluck, 2016). From a practical point of view, our findings offer insight on effective communication for campaigns designed to increase public acceptance of minority groups. Most importantly, they indicate that content and message are the most important factors to consider when crafting normative interventions. Other communicative aspects meant to bolster the persuasiveness of a message -- like point of view or group centrism -- seem to matter less.

### Endnotes

<sup>1</sup> For full survey instruments, see <https://osf.io/2m9e8/>

<sup>2</sup> In addition, participants answered 12 questions regarding the quality, frequency, and valence of their direct, extended, and vicarious contact with gays and lesbians. We will report the findings about these variables in a different paper. All other measures, manipulations and exclusion in all three experiments are disclosed and reported.

<sup>3</sup> We present results for all experiments with manipulation check failures excluded. However, all results presented are consistent to their inclusion. See output of an analysis (.html) included in the OSF directory available online at <https://osf.io/2m9e8/>

<sup>4</sup> See Tables 1 and 2 in Supplemental Information for manipulation check success rates within each condition and by question.

<sup>5</sup> Pre-registration file is available online at <https://osf.io/2m9e8/>

<sup>6</sup> Full results are available in the Supplemental Information (Table 7).

### **Acknowledgments**

This work was supported by the Slovak Research and Development Agency under contract no. APVV-14-0531, by the Society for the Psychological Study of Social Issues: Local- and State-Level Policy Work Award, and by the project Together for All Families funded by the Open Society Initiative for Europe. They were not involved in any stage of the research process.

### **Declaration of interest**

Authors have no conflicts of interest to disclose.

### **Data availability**

All supplemental information, data sets, R code, materials used in this research and pre-registration protocol for Experiment 3 are available at: <https://osf.io/2m9e8/>



## References

- Alesina, A., Baqir, R., & Easterly, W. (1999). Public goods and ethnic divisions. *The Quarterly Journal of Economics*, *114*(4), 1243–1284. <https://doi.org/10.1162/003355399556269>
- Allen, M., Poggiali, D., Whitaker, K., Marshall, T. R., & Kievit, R. A. (2019). Raincloud plots: A multi-platform tool for robust data visualization. *Wellcome Open Research*, *4*, 63. <https://doi.org/10.12688/wellcomeopenres.15191.1>
- Altemeyer, B. (2002). Changes in attitudes toward homosexuals. *Journal of Homosexuality*, *42*(2), 63–75. [https://doi.org/10.1300/J082v42n02\\_04](https://doi.org/10.1300/J082v42n02_04)
- Ayoub, P. M. (2014). With arms wide shut: Threat perception, norm reception, and mobilized resistance to LGBT rights. *Journal of Human Rights*, *13*(3), 337–362. <https://doi.org/10.1080/14754835.2014.919213>
- Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology*, *5*(4), 323–370. <https://doi.org/10.1037/1089-2680.5.4.323>
- Braddock, K., & Dillard, J. P. (2016). Meta-analytic evidence for the persuasive effect of narratives on beliefs, attitudes, intentions, and behaviors. *Communication Monographs*, *83*(4), 446–467. <https://doi.org/10.1080/03637751.2015.1128555>
- Cacciatore, M. A., Scheufele, D. A., & Iyengar, S. (2016). The end of framing as we know it ... and the future of media effects. *Mass Communication and Society*, *19*(1), 7–23. <https://doi.org/10.1080/15205436.2015.1068811>
- Christy, K. R. (2017). I, you, or he: Examining the impact of point of view on narrative persuasion. *Media Psychology*, 1–19. <https://doi.org/10.1080/15213269.2017.1400443>

- Cialdini, R. B., Demaine, L. J., Sagarin, B. J., Barrett, D. W., Rhoads, K., & Winter, P. L. (2006). Managing social norms for persuasive impact. *Social Influence, 1*(1), 3–15. <https://doi.org/10.1080/15534510500181459>
- Cialdini, R. B., Kallgren, C. A., & Reno, R. R. (1991). A focus theory of normative conduct: A theoretical refinement and reevaluation of the role of norms in human behavior. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 24, pp. 201–234). Academic Press. [https://doi.org/10.1016/S0065-2601\(08\)60330-5](https://doi.org/10.1016/S0065-2601(08)60330-5)
- Duguid, M. M., & Thomas-Hunt, M. C. (2015). Condoning stereotyping? How awareness of stereotyping prevalence impacts expression of stereotypes. *Journal of Applied Psychology, 100*(2), 343–359. <https://doi.org/10.1037/a0037908>
- European Commission, Directorate-General for Justice and Consumers, Directorate-General for Communication, & Kantar. (2019). *Special Eurobarometer 493 'Discrimination in the European Union. LGBTI' Annex*. <https://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/survey/getsurveydetail/instruments/special/surveyky/2251>
- Górska, P., Bilewicz, M., & Winiewski, M. (2017). Invisible to the state. Institutional sexual stigma and collective action of LGB individuals in five East European countries. *Group Processes & Intergroup Relations, 20*(3), 367–381. <https://doi.org/10.1177/1368430216684646>
- Hart-Brinson, P. (2016). The social imagination of homosexuality and the rise of same-sex marriage in the United States. *Socius: Sociological Research for a Dynamic World, 2*, 1–17. <https://doi.org/10.1177/2378023116630555>

- Hatzenbuehler, M. L. (2014). Structural stigma and the health of lesbian, gay, and bisexual populations. *Current Directions in Psychological Science*, 23(2), 127–132.  
<https://doi.org/10.1177/0963721414523775>
- Hurwitz, J., & Peffley, M. (2005). Playing the race card in the post-Willie Horton era: The impact of racialized code words on support for punitive crime policy. *Public Opinion Quarterly*, 69(1), 99–112. <https://doi.org/10.1093/poq/nfi004>
- Kalla, J. L., & Broockman, D. E. (2020). Reducing exclusionary attitudes through interpersonal conversation: Evidence from three field experiments. *American Political Science Review*, 114(2), 410–425. <https://doi.org/10.1017/S0003055419000923>
- Kallgren, C. A., Reno, R. R., & Cialdini, R. B. (2000). A focus theory of normative conduct: When norms do and do not affect behavior. *Personality and Social Psychology Bulletin*, 26(8), 1002–1012. <https://doi.org/10.1177/01461672002610009>
- Kaufman, G. F., & Libby, L. K. (2012). Changing beliefs and behavior through experience-taking. *Journal of Personality and Social Psychology*, 103(1), 1–19.  
<https://doi.org/10.1037/a0027525>
- Kuruc, A., & Jablonická Zezulová, J. (2017). *Celoslovenský LGBT prieskum: Správa o výsledkoch*. Iniciatíva Inakosť. <http://inakost.sk/wp-content/uploads/2018/05/Celoslovensky-LGBT-prieskum-2017-sprava.pdf>
- Lawrence, E., Stoker, R., & Wolman, H. (2013). The effects of beneficiary targeting on public support for social policies. *Policy Studies Journal*, 41(2), 199–216.  
<https://doi.org/10.1111/psj.12014>

- Lorencova, V. (2013). Taking off a cloak of invisibility: The clash of discourses about sexual difference in Slovakia. In N. Fejes & A. P. Balogh (Eds.), *Queer visibility in post-socialist cultures* (pp. 83–104). Intellect.
- Lovakov, A., & Agadullina, E. R. (2021). Empirically derived guidelines for effect size interpretation in social psychology. *European Journal of Social Psychology*.  
<https://doi.org/10.1002/ejsp.2752>
- Morey, R. D., Rouder, J. N., Jamil, T., Urbanek, S., Forner, K., & Ly, A. (2018). *BayesFactor: Computation of Bayes factors for common designs* (0.9.12-4.2) [Computer software].  
<https://CRAN.R-project.org/package=BayesFactor>
- Nan, X., Futerfas, M., & Ma, Z. (2017). Role of narrative perspective and modality in the persuasiveness of public service advertisements promoting HPV vaccination. *Health Communication, 32*(3), 320–328. <https://doi.org/10.1080/10410236.2016.1138379>
- Nelson, T. E., & Kinder, D. R. (1996). Issue frames and group-centrism in American public opinion. *The Journal of Politics, 58*(4), 1055–1078. <https://doi.org/10.2307/2960149>
- Paluck, E. L. (2009). Reducing intergroup prejudice and conflict using the media: A field experiment in Rwanda. *Journal of Personality and Social Psychology, 96*(3), 574–587.  
<https://doi.org/10.1037/a0011989>
- Paluck, E. L., & Shepherd, H. (2012). The salience of social referents: A field experiment on collective norms and harassment behavior in a school social network. *Journal of Personality and Social Psychology, 103*(6), 899–915. <https://doi.org/10.1037/a0030015>
- Paluck, E. L., Shepherd, H., & Aronow, P. M. (2016). Changing climates of conflict: A social network experiment in 56 schools. *Proceedings of the National Academy of Sciences, 113*(3), 566–571. <https://doi.org/10.1073/pnas.1514483113>

- Prentice, D. A. (2012). The psychology of social norms and the promotion of human rights. In R. Goodman, D. Jinks, & A. K. Woods (Eds.), *Understanding social action, promoting human rights* (pp. 23–43). Oxford University Press.  
<https://doi.org/10.1093/acprof:oso/9780195371895.003.0002>
- Rains, S. A., Levine, T. R., & Weber, R. (2018). Sixty years of quantitative communication research summarized: Lessons from 149 meta-analyses. *Annals of the International Communication Association*, 42(2), 105–124.  
<https://doi.org/10.1080/23808985.2018.1446350>
- Rhodes-Kubiak, R. (2015). *Activist citizenship and the LGBT movement in Serbia: Belonging, critical engagement, and transformation*. Palgrave Macmillan, New York.  
[https://doi.org/10.1057/9781137494276\\_4](https://doi.org/10.1057/9781137494276_4)
- Ryan, W. S., Legate, N., Weinstein, N., & Rahman, Q. (2017). Autonomy support fosters lesbian, gay, and bisexual identity disclosure and wellness, especially for those with internalized homophobia. *Journal of Social Issues*, 73(2), 289–306.  
<https://doi.org/10.1111/josi.12217>
- Smith, S. M., & Petty, R. E. (1996). Message framing and persuasion: A message processing analysis. *Personality and Social Psychology Bulletin*, 22(3), 257–268.  
<https://doi.org/10.1177/0146167296223004>
- Smith, T. W., Son, J., & Kim, K. (2014). *Public attitudes towards homosexuality and gay rights across time and countries*. The Williams Institute, UCLA School of Law.  
<https://williamsinstitute.law.ucla.edu/wp-content/uploads/public-attitudes-nov-2014.pdf>
- Tankard, M. E., & Paluck, E. L. (2016). Norm perception as a vehicle for social change. *Social Issues and Policy Review*, 10(1), 181–211. <https://doi.org/10.1111/sipr.12022>

- Tankard, M. E., & Paluck, E. L. (2017). The effect of a Supreme Court decision regarding gay marriage on social norms and personal attitudes. *Psychological Science*, 28(9), 1334–1344. <https://doi.org/10.1177/0956797617709594>
- van den Akker, H., van der Ploeg, R., & Scheepers, P. (2013). Disapproval of homosexuality: Comparative research on individual and national determinants of disapproval of homosexuality in 20 European countries. *International Journal of Public Opinion Research*, 25(1), 64–86. <https://doi.org/10.1093/ijpor/edr058>
- Viechtbauer, W. (2010). Conducting meta-analyses in R with the metafor package. *Journal of Statistical Software*, 36(3). <https://doi.org/10.18637/jss.v036.i03>
- Wessel, J. L. (2017). The importance of allies and allied organizations: Sexual orientation disclosure and concealment at work. *Journal of Social Issues*, 73(2), 240–254. <https://doi.org/10.1111/josi.12214>
- Wilson, E. J., & Sherrell, D. L. (1993). Source effects in communication and persuasion research: A meta-analysis of effect size. *Journal of the Academy of Marketing Science*, 21(2), 101–112. <https://doi.org/10.1007/BF02894421>
- Worthen, M. G. F. (2013). An argument for separate analyses of attitudes toward lesbian, gay, bisexual men, bisexual women, MtF and FtM transgender individuals. *Sex Roles*, 68(11–12), 703–723. <https://doi.org/10.1007/s11199-012-0155-1>
- Yeo, T. E. D., & Chu, T. H. (2018). Beyond homonegativity: Understanding Hong Kong people's attitudes about social acceptance of gay/lesbian people, sexual orientation discrimination protection, and same-sex marriage. *Journal of Homosexuality*, 65(10), 1372–1390. <https://doi.org/10.1080/00918369.2017.1375363>

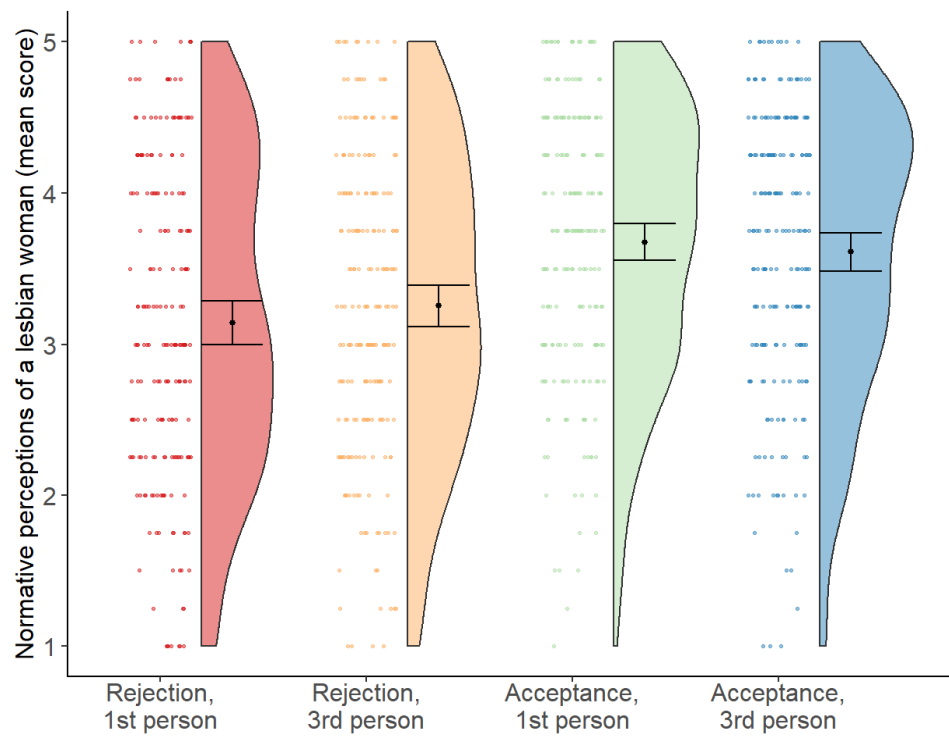


Figure 1. Distributions, means, and 95% confidence interval of the main dependent variable in respective conditions. Plots were prepared using the raincloud theme by Allen et al. (2019).

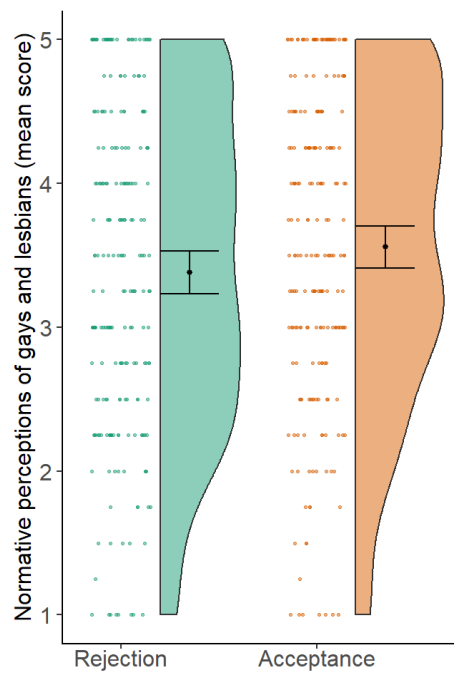


Figure 2. Distributions, means and 95% confidence interval of the main dependent variable in respective conditions.



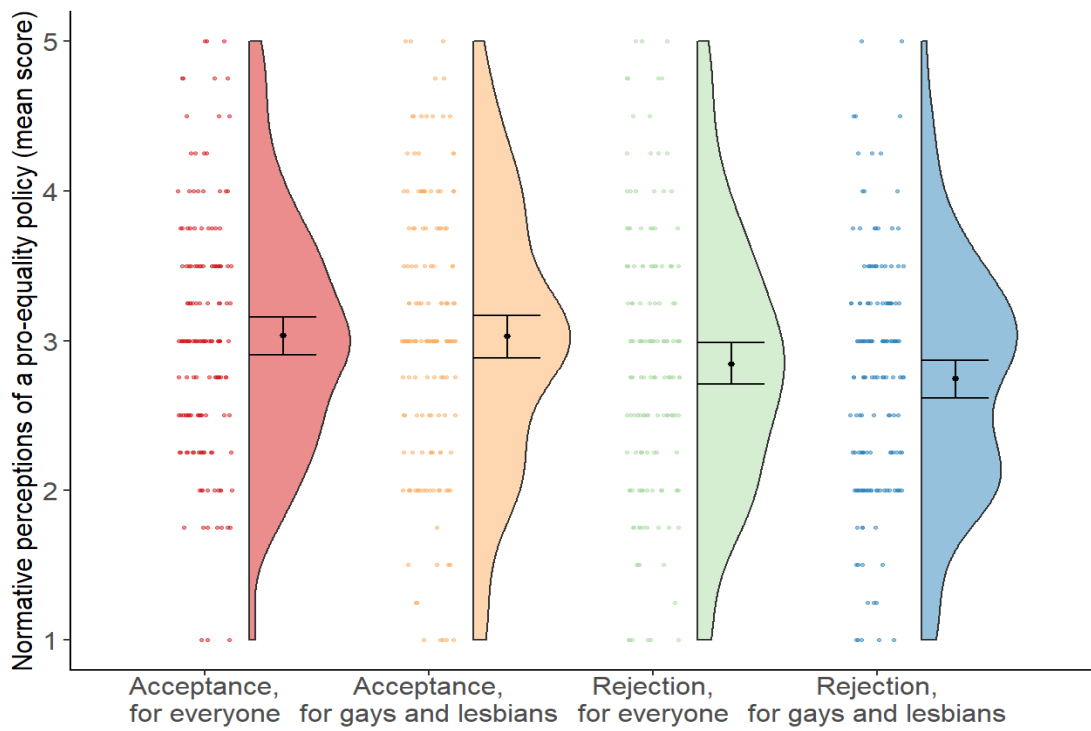


Figure 3. Means and 95% confidence interval of the main dependent variable in respective conditions.

**List of figures**

Figure 1. Distributions, means, and 95% confidence interval of the main dependent variable in respective conditions. Plots were prepared using the raincloud theme by Allen et al. (2019).

Figure 2. Distributions, means and 95% confidence interval of the main dependent variable in respective conditions.

Figure 3. Means and 95% confidence interval of the main dependent variable in respective conditions.

Table 1

*Descriptive statistics for Experiment 1 conditions for main dependent variable - normative perceptions.*

Group	N	Mean	SD
Rejection, 1 <sup>st</sup> person	206	3.14	1.05
Rejection, 3 <sup>rd</sup> person	212	3.25	1.01
Acceptance, 1 <sup>st</sup> person	211	3.67	0.9
Acceptance, 3 <sup>rd</sup> person	213	3.61	0.93

Table 2

*Descriptive statistics for Experiment 2 conditions for main dependent variable - normative perceptions.*

Group	N	Mean	SD
Rejection	217	3.38	1.12
Acceptance	216	3.56	1.08

Table 3

*Descriptive statistics for Experiment 3 conditions for main dependent variable - normative perceptions.*

Group	N	Mean	SD
Acceptance, for everyone	155	3.03	0.81
Acceptance, for gays and lesbians	156	3.03	0.9
Rejection, for everyone	154	2.85	0.9
Rejection, for gays and lesbians	153	2.84	0.82

**List of tables**

Table 1. Descriptive statistics for Experiment 1 conditions for main dependent variable - normative perceptions.

Table 2. Descriptive statistics for Experiment 2 conditions for main dependent variable - normative perceptions.

Table 3. Descriptive statistics for Experiment 3 conditions for main dependent variable - normative perceptions.