

Beyond Virtue Signaling: Perceived Motivations for Pronoun Sharing

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Abstract

Sharing one's pronouns when introducing oneself is an emerging practice intended to prevent assumptions of what pronouns to use when referring to others. This practice may make people comfortable sharing their pronouns so that they are not misgendered and may signal inclusiveness to transgender and nonbinary (TGNB) people. What shapes people's perceptions of the motivation behind pronoun sharing? Three preregistered experiments conducted in the United States ($N=8,219$) reveal that people perceive three underlying motivations for pronoun sharing when they learn that someone shared their pronouns in a workplace introduction: *reputation signaling* (trying to enhance their reputation), *norm signaling* (authentically attempting to influence others to adopt a new norm), and *rule following* (conforming to an existing norm). We also show that features of social context such as the sharer's TGNB identity and the normativeness of the action influence which motivations observers infer. In general, we find that perceptions of more authentic and collective benefit-oriented *norm signaling* are higher when the sharer is a member of a minority (e.g., a transgender person, or someone sharing their pronouns at a workplace in which it is non-normative). However, belonging to a group whose values are strongly aligned with trans-inclusivity (i.e., working at an LGBTQ nonprofit that commonly uses pronouns) also leads to perceptions of authentic norm signaling, even though someone who shares their pronouns is not a minority in that context. This research provides novel evidence of social perceptions of trans-inclusive behavior.

In an episode of the Netflix TV show *One Day At A Time*, the teenage protagonist Elena brings home a group of new friends before they head to a protest. They introduce themselves to Elena's family with their names and pronouns ("Hi, I'm Dani and my pronouns are 'she' and 'her'. 'I'm Syd and my pronouns are 'they' and 'them'."). Elena's mother is perplexed: "I'm Penelope, and my thoughts are 'Huh?' And 'What?'"

Increasingly, people are introducing themselves along with their personal pronouns rather than assuming that others will infer their pronouns based on their appearance (Pew Research Center, 2019). For some, the association between their gender presentation and personal pronouns may seem obvious (e.g., a feminine woman who uses she/her pronouns). But this presumed association marginalizes some transgender and nonbinary (TGNB) people and even some cisgender people. Many people with marginalized gender identities see the explicit sharing of pronouns as a way to disrupt the assumption that pronouns, gender identity, and gender presentation must align (Earp, 2021). Previous research shows that trans-inclusive practices create an affirming space for TGNB people (Brown et al., 2020; Case et al., 2009; Knutson et al., 2021; MacNamara et al., 2017; Mennicke & Cutler-Seeber, 2016). For example, including pronouns in employee bios serves as an important identity-safety cue for LGBTQ+ people, signaling that they will be welcomed and respected in the workplace (Johnson et al., 2021). This nascent TGNB equity practice is one of the most salient declarations of acceptance of others' gender identity that people may encounter in their day-to-day lives.

Like Penelope, however, not everyone is familiar with the practice of sharing pronouns. In some spaces, sharing pronouns is taken for granted; in others, it is counternormative, though perhaps

becoming less so. How do people understand a behavior like pronoun sharing, the norm status of which is context-specific and in flux? And how do these perceptions help or hurt the adoption of this nascent TGNB equity practice to create a more inclusive environment? In the present research, we investigate third-person perceptions of the motivations of someone who shares their pronouns at a workplace meeting. Specifically, we examine how features of social context influence whether pronoun sharing is perceived as signaling a new norm to be followed (*norm signaling*), signaling the sharer's own reputational status (*reputation signaling*), or simply as conforming to an existing norm (*rule following*). We study the effect of TGNB identity, the meeting size, leadership status, and the normative status of the action on these perceptions. This work serves as a foundation for investigating people's willingness to engage in this behavior in the future.

How is pronoun sharing perceived?

The explicit purpose of sharing pronouns is to indicate how someone would like to be addressed. However, people do not always take actions at their face value. For example, one might think that someone who shares their pronouns in an introduction is “virtue signaling” (Bartholomew, 2015) — in other words, inauthentically performing virtuous behavior. Sharing pronouns might be cynically perceived as a low-cost signal of one's commitment to gender inclusivity and therefore a shortcut to enhancing one's reputation (Bird & Smith, 2005; Zahavi, 1975). Other examples of such perceptions include discussions of moral outrage on social media (Crockett, 2017), “slacktivism” (Kristofferson et al., 2014), and “do-gooder derogation” or putting down those engaging in pro-environmental behaviors (Minson & Monin, 2012; Sparkman & Attari,

2020). In this paper, we refer to this concept as *reputation signaling*. We aim to avoid the pejorative connotation affiliated with the colloquial use of virtue signaling, and focus more on the potential benefit to one's *reputation* that comes with being seen as the kind of person who would behave virtuously. People care about managing and enhancing their reputations (Barclay & Willer, 2007; Emler, 1990; Jones & Pittman, 1982; Kraft-Todd et al., 2020; Silver & Shaw, 2018), and these behaviors offer status benefits (Bai, 2017). Signaling commitment to group norms is one way of obtaining a higher reputation (Wice & Davidai, 2021).

However, there is a tension between these perceptions of *reputation signaling* and other possible motivations for engaging in a behavior like pronoun sharing. In addition to or instead of a concern for their own reputation, someone who shares their pronouns may be signaling a prescriptive expectation that others should share theirs as well, i.e. that it should be a normative action. We define this as *norm signaling*. Collective engagement in this kind of signaling is a powerful tool for social change through adopting prosocial norms (Tankard & Paluck, 2016). Alternatively, in contexts in which pronoun sharing is already common, someone who shares their pronouns may be seen not as signaling anything at all, but simply as following an existing norm (*rule following*).

What features of social context influence perceptions of pronoun sharing?

We study pronoun sharing in the context of the workplace because of the importance of workplace culture to TGNB individuals' quality of life and the diversity of social norms within and across workplaces. Here, various features of the social context may shape how people

perceive the tensions between *reputation signaling* and more authentic *norm signaling*.

Specifically, the present research focuses on five features that may influence perceptions of pronoun sharing: the sharer's leadership status, audience size, descriptive normativeness of the action, the sharer's gender identity (whether they are transgender or not), and the presence of a TGNB colleague.

Perceptions of *norm signaling* may arise when the sharer is perceived to be more likely to be earnest, having a personal stake in the values behind pronoun sharing, and invested in influencing the group's culture. For instance, the signaler's gender identity seems particularly important in the context of pronoun sharing. For TGNB individuals, sharing pronouns serves to ensure that they are not misgendered by others. In addition, they may have more of a personal stake in ensuring that pronoun sharing becomes a common practice (i.e. *norm signaling*) to ensure their own comfort and reduce the need to out themselves when they are the only people sharing their pronouns in a group setting. Similarly, when a TGNB person is present (vs. absent) in the audience, the signaler may be perceived as more likely to be *norm signaling*, because the importance of normalizing sharing pronouns might be more salient. Additionally, consider one's leadership status: leaders may be perceived as more likely to be *norm signaling* than workplace interns because of their role in modeling standards and shaping attitudes within their group (Avolio et al., 2004).

On the other hand, *reputation signaling* perceptions may arise when the action is particularly public, such as when it is unique or when the sharer holds a position of power. For instance, instead of being seen as *norm signaling*, leaders are also in the public eye and may therefore be

perceived as being more motivated to maintain or enhance their own reputation (Magee & Galinsky, 2008; Maner, 2017), as compared to a workplace intern. A large audience may also influence people to perceive the action as either *reputation signaling* (because of the highly public nature of the signal), *norm signaling* (because of the positive potential to influence many people) (Chwe, 2013), or both. Finally, if pronoun sharing is descriptively non-normative (it is not commonly practiced) at a particular workplace, observers may perceive the action as *reputation signaling* because the action might be seen as especially virtuous because it is unusual.

There may also be instances where pronoun sharing is not perceived as signaling at all but simply as conforming to an existing norm. If pronoun sharing is already descriptively normative (it's commonly practiced, e.g., occurs at a LGBTQ nonprofit), the action may be seen as *rule following*. *Rule following* would indicate simply conforming to the existing norm to *maintain* social status (rather than to gain further reputational benefits) or to contribute to ingroup harmony (Wenegrat et al., 1996; Wice & Davidai, 2021).

The current study

In this paper, we examine the underlying perceptions for the motivations of someone who publicly shares their pronouns in a workplace introduction. We also study how five features of social context influence perceptions of someone's motivations for sharing their pronouns. Specifically, we ask: a) do people perceive sharing pronouns differently when it is a descriptively normative vs. non-normative behavior? b) Do people perceive pronoun sharing

differently when it is done by a team leader vs. an intern? c) Does sharing pronouns in front of a few vs. many people shape perceptions of the sharer's motivations? d) Is there a difference between perceptions of the motivations of a transgender/nonbinary (TGNB) person vs. cisgender person who shares their pronouns? e) Does the presence of a TGNB colleague at the meeting influence perceptions of pronoun sharing?

Study 1: The effects of leadership status, audience size, and descriptive normativeness of the action on perceived motivations for pronoun sharing

In this study, we explore how the motivations of someone who shares their pronouns at the start of a workplace meeting are perceived by participants imagining themselves as third-party observers, i.e., they are not themselves part of the group in which the actor shares their pronouns. In three different between-subjects manipulations, we study how features of the social context—the descriptive normativeness of the action, the sharer's leadership status, and the size of the meeting— influence these perceived motivations.

Methods

Our preregistered hypotheses (https://aspredicted.org/3RF_V6G), which are based on findings from preliminary data (see **SI Sections G, H, I**), were as follows:

H1: In this exploratory hypothesis, we predict that an underlying factor structure of perceived motivations for sharing pronouns during an introduction at a workplace meeting will emerge.

H2: We predict that, at a workplace meeting, the workplace setting/descriptive normativeness of the action, the sharer's leadership status, and the number of people at the meeting, might influence perceptions of pronoun sharing as *norm signaling* (to influence others to adopt a norm) and *reputation signaling* (to make oneself look morally good). First, based on patterns in our preliminary data (see **SI Sections G, H, I**), we predict that when the signal is already descriptively normative (it takes place in an LGBTQ nonprofit and is commonly practiced) vs. non-normative, observers will be less likely to perceive the action as *reputation signaling*, but rather may perceive it as either *norm signaling* or as *rule following* to maintain social status. Second, we offer two sets of competing hypotheses about the influence of leader status on public virtue perception. On the one hand, leaders may be perceived as more likely than workplace interns to be *norm signaling* because of their role in setting standards for their organization. On the other hand, leaders also draw public attention and may therefore be perceived as being concerned about their reputation, as compared to an intern whose actions may go largely unnoticed. Third, we hypothesize that a large vs. small audience size may influence observers to perceive the action as either *norm signaling* (because of the positive potential to influence many people) or *reputation signaling* (because of the public nature of the signal), or both.

Participants

A total of 2,761 U.S. participants (1,467 females, 1,246 males, 29 non-binary, 14 unknown; Mean age = 40.18, *SD* = 12.94) recruited on Amazon mTurk (Arechar et al., 2017; Berinsky et al., 2012) completed this study in response to an ad for a "Psychology study (6-8 minutes)" and

were compensated \$0.97. All participants filled out an online survey designed on Qualtrics survey software.

Materials, Design, and Procedure

After reading and electronically signing a consent form, participants were given a pre-task attention check (see **SI Section B**) and then given a brief introduction to the phenomenon of people sharing their personal pronouns in different situations (adapted from <https://www.mypronouns.org/>, see **SI Section A** for full text and complete experimental instructions). Next, they were assigned to one of 7 conditions in which we manipulated different features of the social context in which the sharer shared their personal pronouns (see **SI Table 1**; see **SI Section A** for full text of vignettes). In each condition, participants read a vignette: a character named Jack attends a workplace meeting in which the team decides to start the meeting with a round of introductions because there are some new colleagues at the meeting. When it is Jack's turn (note that in all conditions, we keep Jack's place in the order of introductions ambiguous), he introduces himself with his name, role, and personal pronouns (e.g., "I'm Jack, I'm the social media manager and I use he/him pronouns").

We manipulated three factors independently: workplace setting/descriptive normativeness of the action (LGBTQ nonprofit where participants are told pronoun sharing is common vs. consulting firm where they are told it is not), leadership status (Jack was the team leader vs. an intern), and audience size (10 vs. 50 people present). We also included a control condition in which none of these factors was mentioned.

Participants then responded to 3 blocks of questions, in the following order:

- a) **Sharer motivation perception DVs:** All participants reported on their perceptions of the sharer's motivations by answering a series of 27 questions presented in randomized order, (e.g., "Is Jack motivated to share his pronouns to make other people think that he is morally good?"; see **Table 1** below for item labels). 15 of these questions were drawn from previous research (Bai, 2017; Blanton & Christie, 2003; Grubbs et al., 2019; Steg, 2016; Tamir & Thornton, 2018) (e.g., "Is Jack motivated to share his pronouns because he wants to gain status?"), and the remaining 12 were experimenter-generated through discussions and informal feedback (see **SI Table 3** for a complete list of DVs with the exact wording that participants saw and citations). Participants reported their perceptions on an unmarked slider scale (i.e., participants did not see the values on the slider) ranging from 1 (*not at all*) to 100 (*certainly*).

- b) **Behavioral intention and norm perception DVs (secondary DVs):** After rating their perceptions of the sharer's motivations, participants were asked to report on 4 behavioral intention measures and 3 measures of norm perception (See **SI Table 3** for the full text of these and (c) below).

- c) **Personal Values and Affinity for sharer (secondary DVs):** Participants then responded to 9 questions intended to measure their liking for the sharer, their personal beliefs about gender inclusivity, etc.

We focus on analyses of the sharer motivation DVs in this paper, but include analyses of our secondary DVs in **SI Sections D, E, and F**. We ran a preregistered correlation analysis and post hoc correlational mediation analyses to investigate the relationship between sharer motivation perceptions and behavioral predictions, norm perceptions, affinity for the sharer and personal values (see **SI Analyses 1c, 1d, 2c, 2d, 3b** for results).

Next, we once again showed participants all 27 of the possible motivations for Jack's behavior that we had presented earlier in the study, and asked them if they felt that we had missed any potential reasons for Jack's sharing of his personal pronouns. If participants indicated "Yes", we asked them to report which motivations they believed we hadn't covered in a text box. The purpose of these questions was to ensure that the range of possible motivations offered to participants was maximally inclusive by avoiding the exclusion of items representing other possible real-world factors.

Finally, participants were also asked to report on a number of demographic measures (see **SI Section B** for a description of these measures). They were then debriefed at the end of the survey.

Results

As per our preregistration, we excluded 142 participants who failed the pre-task attention check and 77 participants who reported paying low attention to the study in a post-task attention

measure (7.93% of total participants). Because of research suggesting that post-task attention checks introduce bias into estimates of treatment effects (Aronow et al., 2019), we report results without that exclusion criteria in **SI Analysis 1g**. Post-task attention check exclusions did not qualitatively change our results, and participants were not unevenly excluded across conditions due to the post-task attention check (see **SI Table 2**).

All continuous dependent variables were z-score standardized. All statistical analyses were conducted using R[1.3.1056] software. All data and analysis codes can be found at <https://osf.io/4qyzs/>.

H1: Based on preliminary data (see **SI Sections G, H, I**), we hypothesized that an underlying factor structure of perceived motivations for signaling behavior would emerge. We find that a 3-factor structure explains 50% of the variance in our 27 “sharer motivation perception” DVs using exploratory factor analysis with oblique rotation. Factor 1 explains 24% of the variance, and we interpret it as *reputation signaling* because of high loadings (> .4) by items such as *motive to gain status* and *motive to enhance reputation* (see **Table 1** for the factor loadings of each of the 27 items measuring sharer motivation perceptions). Factor 2 explains 18% of the variance, and we label it as *norm signaling* due to high loadings (> .4) by items such as *belief in the value of the action*, *motive to benefit others*, and *motive to signal that the action is the right thing to do*. Finally, Factor 3 explains 8% of the variance, and we interpret it as *rule following* because of high loadings (> .4) by items including *motive to follow a descriptive norm* and *motive to follow an injunctive norm*. (Note that we use abbreviated explanatory labels for these items; see **SI Table 3** for the exact wording of the items that participants saw). All motivation items except 3

(“Motive to make oneself feel respected and comfortable”, “Effort of the action”, and “Controversial nature of the action”) loaded uniquely and highly ($>.4$) onto one of the 3 factors (these 3 items loaded weakly, i.e. $<.4$, on all factors). These findings support our hypothesis of people’s perceptions of a few primary underlying motivations for public sharing of one’s pronouns. They suggest that people perceive public pronoun sharing as *reputation signaling* (to make oneself look morally good), *norm signaling* (to influence others to adopt a new norm), or as *rule following* (e.g., to conform to an existing norm).

TABLE 1 HERE

H2: We use a generalized structural equation model to fit a multivariate model to examine how the features of leadership status, audience size, and workplace setting/descriptive normativeness of the action influence perceptions of the sharer’s motivations.

In the workplace setting/descriptive normativeness manipulation (see **Figure 1**), we find that when the act of sharing pronouns was descriptively normative compared to non-normative, participants were significantly more likely to perceive Jack as *norm signaling* ($coeff = .10, z = 2.51, p = .012$), and significantly more likely to perceive him to be *rule following* ($coeff = .61, z = 14.70, p < .001$). We find no significant difference between the normative and non-normative conditions in perceptions of *reputation signaling* ($coeff = -.01, z = -.31, p = .753$). These results partially support our hypothesis that the descriptive normativeness of the action of public pronoun sharing influences perceptions of *reputation signaling* or *norm signaling*.

FIGURE 1 HERE

In the audience size manipulation (see **Figure 2**), we find that when the meeting size was small compared to large, participants were significantly more likely to perceive Jack as *reputation signaling* ($coeff = .09, z = 2.38, p = .017$). There was no significant difference between the conditions in which the meeting size was small vs. large in perceptions of *norm signaling* ($coeff = -.03, z = -.79, p = .427$) or *rule following* ($coeff = .06, z = 1.29, p = .199$). These results partially support our hypothesis that the size of the signal's audience influences perceptions of public pronoun sharing as *reputation signaling* or *norm signaling*.

FIGURE 2 HERE

Inconsistent with our hypothesis, we find no significant effect of leadership status on perceptions of *reputation signaling* ($coeff = .01, z = .33, p = .740$), *norm signaling* ($coeff = .04, z = 1.06, p = .291$), or *rule following* ($coeff = -.02, z = -.38, p = .707$) (see **Figure 3**).

FIGURE 3 HERE

In a preregistered analysis, we ran simple linear regressions to examine the influence of condition on sharer motivation perceptions and report those results in **SI Analysis 1a**. We also ran multiple regression analyses on the sharer perception factors and a set of covariates pre-specified in our preregistration (gender, race, and education level). The results of the simple

linear regressions are robust to controlling for these demographic variables, and the coefficients for the different conditions are reported in **SI Analysis 1b**.

Finally, 424 participants (16.68% of all participants included in analyses) responded “Yes” to the question about whether the experimenters had missed any other potential motivations for the actor’s pronoun sharing behavior (see **SI Analysis 1e** for details). Novel explanations provided by participants were incorporated into the study design for Study 2.

Study 2: The effect of TGNB identity on perceived motivations for pronoun sharing

This study aimed to replicate the factor structure found in Study 1 for perceived motivations of someone who shared their pronouns when introducing themselves at a workplace meeting. In addition, because the most common purpose of pronoun sharing is to prevent misgendering, we tested how the manipulation of features related to TGNB identity influenced perceptions of the sharer’s motivations. In two different between-subjects manipulations, we manipulated the gender identity of the sharer as well as the presence of a TGNB person at the meeting.

Methods

Our hypotheses, which are based on findings from Study 1 and from preliminary data (see **SI Sections G, H, I**) and can be found in the preregistration for Study 2

(https://aspredicted.org/Y7P_VPX), were as follows:

H1: As in Study 1, we predict that an underlying factor structure of perceived motivations for sharing pronouns during an introduction at a workplace meeting will emerge.

H2: We predict that, at a workplace meeting, the sharer's gender identity and the presence of a TGNB colleague influence perceptions of the sharer's act of sharing their pronouns. We predict that when the sharer is TGNB and introduces themselves with their personal pronouns, participants will perceive them as *norm signaling* rather than *reputation signaling*. Second, we hypothesize that when there is a TGNB person (who is not the sharer) present in the scenario, participants will perceive the sharer as more likely to be *norm signaling* and less likely to be *reputation signaling* than when there is not a TGNB person present, because the importance of normalizing sharing one's pronouns might be salient in the former condition.

Participants

A total of 1,255 U.S. participants (656 females, 571 males, 17 non-binary, 9 unknown; Mean age = 41.89, $SD = 57.37$) recruited on Amazon mTurk completed a study in response to an ad for a "Psychology study (8-10 minutes)" and were compensated \$1.20. All participants filled out an online survey designed on Qualtrics.

Materials, Design, and Procedure

The study design and procedures were the same as in Study 1. However, instead of the features of the social context manipulated in Study 1, we manipulated features related to the TGNB

identity of the sharer or another colleague present at the meeting. Participants were assigned to one of 5 conditions.

In two of the conditions, we manipulated the gender identity of the sharer: in the “cisgender” condition, participants learn that Jack is a cisgender man who introduces himself with “he/him” pronouns, and in the “transgender” condition, Jack is described as a transgender person who introduces themselves with “they/them” pronouns. In another two of the conditions, we manipulated the presence of a TGNB person in the room: in the “TGNB present” condition, there was another colleague who introduced themselves with “they/them” pronouns (while Jack uses “he/him” pronouns), whereas in the “TGNB absent” condition, all other colleagues introduced themselves with either “he/him” or “she/her” pronouns. Finally, as in Study 1, we included a “control” condition in which no other contextualizing information was offered other than that the sharer was attending a workplace meeting and introduced himself with his personal pronouns (“he/him”). For the full text of the vignettes used in this study, see **SI Section A**.

All DVs were the same as those used in Study 1; however, we included two additional sharer motivation perception DVs and modified one existing DV to clarify its meaning (see **SI Table 3**) based on participants’ free responses to a question asking about other possible motivations for the sharer’s behavior in Study 1, as well as two DVs intended to measure perceptions of social signaling from previous literature (Steg, 2016). We also removed two “sharer motivation perception” items that did not load onto any of the three factors observed in Study 1 (“Effort of the action” and “Controversial nature of the action”). Finally, we included an additional, experimenter-generated secondary DV measuring participants’ belief in the importance of gender

inclusivity more broadly, outside the context of pronoun sharing. See **Table 2** below for DV item labels and **SI Table 3** for a complete list of DVs with the exact wording that participants saw.

Results

As per our preregistration, we excluded 60 participants who failed the pre-task attention check (5.02% of total participants).

All continuous dependent variables were z-score standardized.

H1: We hypothesized that an underlying factor structure of perceived motivations for signaling behavior would emerge. Because we added new items in this study, we did not conduct a confirmatory factor analysis and instead conducted another exploratory factor analysis. We find that a 3-factor structure explains 50% of the variance in our 30 “sharer motivation perception” DVs using exploratory factor analysis with oblique rotation. Factor 1 explains 22% of the variance, and we interpret it as *reputation signaling* because of high loadings ($> .4$) by items such as *motive to gain status* and *motive to enhance reputation* (see **Table 2** for the factor loadings of each of the 30 items measuring sharer motivation perceptions). Factor 2 explains 19% of the variance, and we label it as *norm signaling* due to high loadings ($> .4$) by items such as *belief in the value of the action*, *motive to benefit others*, and *motive to influence others to behave similarly*. Finally, Factor 3 explains 9% of the variance, and we interpret it as *rule following* because of high loadings ($> .4$) by items including *motive to follow a descriptive norm* and *motive to follow an injunctive norm*. All but 3 out of 32 total DVs from Studies 1 and 2

loaded onto the same factors (see **SI Table 14** for a comparison of factor loadings from the 2 studies). These findings support our hypothesis of a consistent set of perceived underlying motivations for public sharing of one's pronouns.

TABLE 2 HERE

H2: We use a generalized structural equation model to fit a multivariate model to examine how the features of TGNB identity influence perceptions of the sharer's motivations.

Consistent with our preregistered hypothesis, in the sharer gender identity manipulation (see **Figure 4**), we find that the transgender sharer compared to the cisgender sharer is perceived as significantly less likely to be *reputation signaling* ($coeff = -.28, z = -5.69, p < .001$) and *rule following* ($coeff = -.17, z = -2.76, p = .006$), and significantly more likely to be *norm signaling* ($coeff = .30, z = 4.72, p < .001$).

FIGURE 4 HERE

Inconsistent with our preregistered hypothesis, we find no significant effect of the presence of a TGNB colleague on perceptions of *reputation signaling* ($coeff = -.04, z = -.88, p = .379$), *norm signaling* ($coeff = .09, z = 1.89, p = .059$), or *rule following* ($coeff = .07, z = 1.38, p = .168$) (see **Figure 5**).

FIGURE 5 HERE

In a preregistered analysis, we also ran simple linear regressions to examine the influence of condition on sharer motivation perceptions and report those results in **SI Analysis 2a**. We also ran multiple regression analyses on the sharer perception factors and a set of covariates pre-specified in our preregistration (gender, race, and education level). The results of the simple linear regressions are robust to controlling for these demographic variables, and the coefficients for the different conditions are reported in **SI Analysis 2b**.

We also ran a preregistered correlation analysis and post hoc correlational mediation analyses to investigate the relationship between sharer motivation perceptions and behavioral predictions, norm perceptions, affinity for the sharer and personal values (see **SI Analyses 2c, 2d** for results).

Finally, 182 participants (15.23% of all participants included in analyses) responded “Yes” to the question about whether the experimenters had missed any other potential motivations for the actor’s pronoun sharing behavior (see **SI Analysis 2e** for details). No novel explanations for the sharer’s behavior were provided, as determined by a manual coding of the responses.

Study 3: Confirmatory factor analysis of perceived motivations for pronoun sharing

This study aimed to confirm the factor structure found in Studies 1 and 2 for perceived motivations of someone who shared their pronouns when introducing themselves at a workplace meeting. In addition, we aimed to replicate our findings of the effects of condition on sharer motivation perceptions in Studies 1 and 2. We manipulated the features of sharer leadership

status, audience size, descriptive normativeness of the action, sharer's gender identity, and the presence of a TGNB colleague. We also eliminated confounds that we identified in the manipulations of descriptive normativeness and sharer's gender identity in the previous two studies (as detailed in Materials, Design, and Procedure below).

Methods

Our hypotheses, which are based on findings from Studies 1 and 2 and can be found in the preregistration for Study 3 (https://aspredicted.org/KT8_GSY), were as follows:

H1) We hypothesize that a 3-factor structure of perceived motivations for signaling behavior will emerge, such that people perceive public pronoun sharing as *norm signaling* (to influence others to adopt a new norm), *reputation signaling* (to make oneself look morally good), or as *rule following* or being simply externally motivated (e.g., to conform to an existing norm).

H2) When the agent is transgender vs. cisgender, participants will perceive them as more likely to be *norm signaling* and less likely to be *reputation signaling* and *rule following*.

H3) When pronoun sharing is descriptively normative vs. when it is not, participants will perceive the agent as more likely to be *norm signaling* and *rule following*, and less likely to be *reputation signaling*.

H4) When the meeting has 10 people vs. 50 people, participants will perceive the agent as more likely to be *reputation signaling*.

H5) The leadership status of the agent and the presence of a transgender/nonbinary (TGNB) colleague will not influence perceptions of *reputation signaling*, *norm signaling*, or *rule following*.

Participants

A total of 4,405 U.S. participants (2,508 females, 1,795 males, 72 non-binary, 18 unknown; Mean age = 39.74, $SD = 45.41$) recruited on Amazon mTurk completed a study in response to an ad for a “Psychology study (8-10 minutes)” and were compensated \$2.00. All participants filled out an online survey designed on Qualtrics.

Materials, Design, and Procedure

The study design and procedures were the same as in Studies 1 and 2. Participants were assigned to one of 11 conditions manipulating the features of sharer leadership status, audience size, descriptive normativeness of the action, sharer’s gender identity, and the presence of a TGNB colleague.

The conditions manipulating sharer leadership status, audience size, and the presence of a TGNB colleague were the same as in Studies 1 and 2. However, we identified confounds in the

manipulations of descriptive normativeness of pronoun sharing and the sharer’s gender identity in the previous studies, which we eliminated in this study. In Study 1, the manipulation of the descriptive normativeness of pronoun sharing also involved changing the description of the sharer’s workplace. In the “normative” condition, the sharer worked in an LGBTQ+ nonprofit, whereas in the “non-normative” condition, the sharer worked at a financial consulting firm. Inferences about the political beliefs and gender identities of those who work at these organizations may influence perceptions of pronoun sharing, so in the current study, we eliminated mention of the workplace type in this manipulation. In Study 2, the manipulation of the sharer’s gender identity involved manipulating both whether the sharer was transgender or cisgender, and whether the sharer used the relatively less common “they/them” pronouns, or the more common “he/him” pronouns. In this study, we kept the sharer’s pronouns constant, and manipulated whether he was a cisgender or transgender man, both of whom used “he/him” pronouns. For the full text of the vignettes used in this study, see **SI Section A**.

All DVs were the same as those used in Study 2. See **Table 3** below for DV item labels and **SI Table 3** for a complete list of DVs with the exact wording that participants saw.

Results

As per our preregistration, we excluded 243 participants who failed the pre-task attention check (5.52% of total participants).

All continuous dependent variables were z-score standardized.

H1: We conducted a confirmatory factor analysis (CFA) to test whether a 3-factor structure of perceived motivations for signaling behavior emerged, such that people perceive public pronoun sharing as *norm signaling*, *reputation signaling*, or as *rule following*. In this CFA model ($\chi^2(400) = 14068.13$; $p < .001$. Comparative Fit Index (CFI) = .80, Tucker-Lewis Index (TLI) = 0.78. RMSEA = 0.09), we defined three factors: *reputation signaling*, *norm signaling*, and *rule following* (see **Table 3**). Items with factor loadings $>.4$ in the exploratory factor analysis conducted in Study 2 were selected as the items loading onto the three factors. The incremental fit indices of CFI and TLI indicate poor model fit; however, the absolute fit index of RMSEA indicates acceptable model fit.

TABLE 3 HERE

We use a generalized structural equation model to fit a multivariate model to examine how the five features manipulated in this study influence perceptions of the sharer's motivations.

H2) Consistent with our preregistered hypothesis and with findings from Study 2, in the sharer gender identity manipulation (see **Figure 6**), we find that the transgender sharer compared to the cisgender sharer is perceived as significantly less likely to be *reputation signaling* ($coeff = -.18$, $z = -4.58$, $p < .001$) and *rule following* ($coeff = -.16$, $z = -3.59$, $p = .006$), and significantly more likely to be *norm signaling* ($coeff = .25$, $z = 5.17$, $p < .001$).

FIGURE 6 HERE

H3) Consistent with our hypothesis and with findings from Study 1, in the manipulation of descriptive normativeness of pronoun sharing (see **Figure 7**), we find that when the act of sharing pronouns was normative compared to non-normative, participants were significantly more likely to perceive Jack as *rule following* ($coeff = .61, z = 14.70, p < .001$). Also as predicted, we find no significant difference between the normative and non-normative conditions in perceptions of *reputation signaling* ($coeff = -.01, z = -.31, p = .753$). However, inconsistent with our hypothesis and previous findings, participants were significantly more likely to perceive Jack as *norm signaling* ($coeff = .10, z = 2.51, p = .012$) when pronoun sharing was non-normative compared to normative.

FIGURE 7 HERE

H4) In the audience size manipulation (see **Figure 8**), inconsistent with our hypothesis, we find no significant difference between the conditions in which the meeting size was small vs. large in perceptions of *reputation signaling* ($coeff = -.03, z = -.72, p = .475$). As predicted, and consistent with findings from Study 1, we also find no significant difference between the two conditions in perceptions of *norm signaling* ($coeff = .05, z = 1.36, p = .174$). In an unpredicted effect, when the meeting size was small compared to large, participants were significantly more likely to perceive Jack as *rule following* ($coeff = .08, z = 2.04, p = .042$).

FIGURE 8 HERE

H5) We predicted that neither the leadership status of the agent nor the presence of a transgender/nonbinary (TGNB) colleague would influence perceptions of *reputation signaling*, *norm signaling*, or *rule following*.

We find no significant effect of leadership status on perceptions of *reputation signaling* ($coeff = .06, z = 1.51, p = .131$) or *norm signaling* ($coeff = .01, z = .16, p = .871$). However, inconsistent with our hypothesis and with findings from Study 2, when the sharer was the team leader vs. an intern, participants were more likely to perceive them as *rule following* ($coeff = .16, z = 3.78, p < .001$) (see **Figure 9**).

FIGURE 9 HERE

In the manipulation of the presence of a TGNB colleague at the meeting, we find no significant effect of the presence of a TGNB colleague on perceptions of *norm signaling* ($coeff = .04, z = .90, p = .367$) or *rule following* ($coeff = .00, z = -.05, p = .958$). However, we find an unpredicted effect of condition such that when there was a TGNB colleague present vs. absent, participants were more likely to perceive the sharer as *reputation signaling* ($coeff = -.09, z = -2.30, p = .021$) (see **Figure 10**).

FIGURE 10 HERE

FIGURE 11 HERE

Finally, 704 participants (16.91% of all participants included in analyses) responded “Yes” to the question about whether the experimenters had missed any other potential motivations for the actor’s pronoun sharing behavior (see **SI Analysis 3a** for details). No novel explanations for the sharer’s behavior were provided, as determined by a manual coding of the responses.

Discussion

Across three experimental studies ($N=8,219$), we consistently found three factors capturing participants’ perceptions of the motivations underlying an actor’s pronoun-sharing behavior: *reputation signaling*, *norm signaling*, and *rule following*. We thus present novel evidence of social perceptions of trans-inclusive behavior, as well as a method that may be used to test the replication of this pattern in other cases of socially mindful behaviors with ambiguous norm status (e.g., support for social justice movements, pro-environmental behaviors, etc.). Items that loaded on the *norm signaling* factor indicate that participants perceived the genuineness of the action, and the sharer’s belief in the value and importance of the action to go hand in hand with the sharer’s motives to influence others to share their pronouns, to benefit others with marginalized gender identities, to make oneself feel safe and comfortable, and to reflect personal and community values. We therefore suggest that the *norm signaling* factor represents perceptions of authenticity and a motive for collective benefit through normalizing pronoun sharing. In contrast with this “collective-oriented” factor, the *reputation signaling* and *rule following* factors appear to be more “self-oriented,” with an emphasis on self-promotion and status maintenance respectively. Items that loaded on the *reputation signaling* factor include motives to enhance one’s reputation, to gain status and power, to attract attention, and to look

morally good. Finally, the *rule following* factor included motivations to conform to an existing descriptive and prescriptive norm and the sharer's belief that their colleagues were on the same page as them about trans-inclusivity.

In addition, we tested the impact of five features of social context on these perceived motivations: leadership status of the sharer (Studies 1 and 3), audience size (Studies 1 and 3), workplace setting/descriptive normativeness of the action (Studies 1 and 3), the sharer's gender identity (Studies 2 and 3), and presence of a TGNB colleague (Studies 2 and 3).

Consistent with our hypotheses, we found a robust effect of the sharer's gender identity (Studies 2 and 3), such that perceptions of *reputation signaling* and *rule following* are significantly higher when the sharer is cisgender vs. transgender, whereas perceptions of *norm signaling* are significantly higher when the sharer is transgender vs. cisgender. In Study 2, the transgender person used gender-neutral "they/them" pronouns, and in Study 3, we changed this condition to instead describe a transgender man who used "he/him" pronouns to avoid the confound of gender-neutral pronouns and possibly inferred non-binary identity. The effects of gender identity on perceptions of the sharer's motivations remained consistent across both studies. This suggests that participants view the transgender agent as less focused than the cisgender agent on self-promotion or status maintenance and more authentically motivated to benefit themselves as well as the collective. This may be because of the inference that transgender people have more of a personal stake in normalizing pronoun sharing. However, future research might also investigate why a personally motivated action, in the case of a transgender person sharing their pronouns, does not result in perceptions of entirely self-preserving motivation.

In the manipulation of descriptive normativeness of pronoun sharing (Studies 1 and 3), we found differences in the effect of normative status of pronoun sharing on perceived motivations based on whether or not we specified the nature of the workplace to the participants. In both studies, consistent with our prediction, participants thought the sharer was more likely to be *rule following* when pronoun sharing was already descriptively normative, suggesting that the sharer may only be conforming to an existing norm to maintain the status quo. Both studies also showed no effect of the descriptive normativeness of pronoun sharing on *reputation signaling* perceptions, inconsistent with our original hypothesis. In the case of *norm signaling* perceptions, however, in Study 1, participants thought the sharer was significantly more likely to be *norm signaling* when they worked in an LGBTQ nonprofit where pronoun sharing was common vs. a consulting firm where it wasn't. But the effect of condition on *norm signaling* was in the opposite direction in Study 3, which manipulated only the descriptive normativeness of pronoun sharing with no mention of the nature of the workplace: participants thought the sharer was significantly more likely to be *norm signaling* when pronoun sharing wasn't descriptively normative at that workplace vs. when it was. When an action isn't already common, it may be that the uniqueness of the action indicates to people that someone who engages in pronoun sharing is authentically signaling the value of that action. However, it is possible that learning that the sharer works at an LGBTQ nonprofit also results in such a perception even though pronoun sharing is common at this workplace, because of participants' inferences that the values of an employee at an LGBTQ nonprofit aligns with the action. Future research might investigate this link between workplace affiliation and perceptions of *norm signaling* in the context of behaviors that align with the values of that workplace. Manipulations of other features of social

context such as the audience size, sharer's leadership status, and presence of a TGNB colleague, showed inconsistent results that did not replicate across studies, and would require further investigation in future research.

An important broad pattern in these results is that perceptions of *norm signaling* are significantly higher when the sharer is either a member of a minority, or belongs to a group whose values are strongly aligned with trans-inclusivity. That is, we found that participants perceived the sharer as significantly more likely to be *norm signaling* when the sharer was a member of a gender minority (transgender vs. cisgender; Studies 2 and 3) or a numerical minority (pronoun sharing was not common vs. common in that workplace; Study 3). This effect does not seem to extend to people who are in the minority but hold a position of power, i.e., there was no significant effect of leadership status on *norm signaling* perceptions. However, we also found that the sharer was perceived as significantly more likely to be *norm signaling* when they worked at an LGBTQ nonprofit, even though pronoun sharing was common, than at a consulting firm where it was not common. These results suggest that when someone shares their pronouns publicly in situations such as a workplace meeting, there is a higher likelihood that they will be perceived as having an authentic belief in the value of pronoun sharing, as well as a motive to benefit others as well as oneself, if they are in a minority position. Alternatively, it takes a strong signal of alignment with the value behind the action, such as working for an LGBTQ nonprofit that is likely to value trans-inclusivity, to be perceived as *norm signaling*. Therefore, for someone who does not occupy a minority position due to the markedness of their gender identity or the non-normativeness of their action, it may be necessary to show a strong commitment to the values behind the action in order to be perceived as authentically *norm signaling*. Future research might

study what other ways there are of demonstrating one's strong alignment with the trans-inclusive values behind pronoun sharing, in addition to working at an LGBTQ nonprofit.

Finally, these results are an important first step in understanding whether different perceptions of signaling behavior are associated with different behavioral outcomes and norm perceptions.

Perceptions of the behavior as *reputation signaling* might influence people to either discount the behavior, or to adopt it because the signaler sees it as having value for their own reputation. For instance, because people discount prosocial behavior when they view it as *reputation signaling* (Barclay & Willer, 2007; Kraft-Todd et al., 2020), so too might people discount pronoun sharing and therefore fail to adopt the behavior themselves when they believe the signaler does not genuinely believe in the value of the behavior. Alternatively, people who perceive pronoun sharing as *reputation signaling* may simultaneously infer that the signaled behavior is becoming more normative and decide to start sharing their pronouns themselves (Sparkman & Walton, 2017). Perceptions of *norm signaling* might also influence behavior in different ways. On the one hand, when people perceive pronoun sharing as *norm signaling*, they may be more likely to engage in the behavior and perceive it as normative. On the other hand, people who make *norm signaling* perceptions may also hesitate to adopt the behavior because they resist persuasion from someone who is trying to be “morally better” (Bonetto et al., 2019; Monin, 2007; Sparkman & Attari, 2020). In our supplementary analyses (see **SI Analyses 1c, 1d, 2c, 2d, 3b**), we found that *norm signaling* and *rule following* were positively correlated with participants' behavioral predictions and norm perceptions. That is, when participants saw sharers as *norm signaling* or *rule following*, they were more likely to report that they themselves would share their pronouns, and they predicted that others would too. Participants were also more likely to understand

pronoun sharing as descriptively and injunctively normative in these cases. *Reputation signaling* perceptions were negatively correlated with these behavioral predictions and norm perceptions. This suggests that perceptions of both authentic, collective-oriented motivations and status maintenance motivations are associated with a greater likelihood that the behavior in question will become normative, whereas perceptions of self-promotion motivations are associated with predictions that the behavior will not catch on. It is for future work to test whether perceptions of *reputation signaling* and *norm signaling* could causally impact people's likelihood of engaging with the signaled behavior.

Limitations and future directions

Despite the replication of our factor structure of perceived motivations for pronoun sharing across the three studies, measured using exploratory factor analysis (EFA) in Studies 1 and 2 and confirmed using a confirmatory factor analysis (CFA) in Study 3, the EFA models did not account for a large portion of the variance in our data, and Study 3's CFA model based on the EFA item loadings from Study 2 showed poor overall and incremental fit, and only adequate absolute fit. This suggests that while we have identified consistent and replicable underlying factors for perceived motivations for pronoun sharing, there may be other motivations that our items did not cover. Although we offered participants the opportunity to share other possible motivations they could think of for the sharer's behavior and incorporated their responses into our items in Studies 2 and 3, participants may have been primed to think primarily about the possible motivations outlined in the already available items. Additionally, the EFA model in Study 2 neither explained a larger portion of the variance in the data nor included more factors

than the EFA model in Study 1, despite the addition of new participant-generated items. This suggests that other types of motivational inferences may not have been salient to participants in our studies. Therefore, future studies might collect free response data from participants about possible motivations for the sharer's behavior prior to presenting the sharer motivation perception DVs, in order to access alternative explanations and explore the variance not captured by the models in the present research.

In these studies, we relied exclusively on hypothetical scenarios and decisions, where participants may not behave the way they would in real life (FeldmanHall et al., 2012). Because of the limited nature of our stimuli, the results of these studies cannot be generalized to other contexts beyond workplace settings where employees share their pronouns. Additionally, these findings cannot be generalized to cultural contexts outside the United States, because of cultural differences in person perception (Freeman et al., 2009) as well as different understandings of and practices related to gender nonconformity (e.g., Hossain, 2017; Zamfira et al., 2018). These cultural differences extend to differences in (or the absence of) gendered pronouns in many languages other than English. Future work might investigate participants' responses and behavior in multiple cultural contexts across a wider range of real-life scenarios, within groups that participants are members of, as opposed to contexts where participants are third-party observers. We suggest a few directions for such research that extends beyond our vignette-based approach: Future studies might test whether perceptions of *reputation signaling*, *norm signaling* or *rule following* can be influenced by features of the perceiver's own personality, social identity, political values, and past behavior. For instance, if the perceiver of the action feels threatened because they had not previously participated in the action, they might be motivated to interpret

the signal less generously than someone who does not feel any such threat to their self-integrity. Past work on “do-gooder derogation” shows that people are sometimes motivated by threats to self-integrity to derogate moral exemplars (Minson & Monin, 2012; Monin et al., 2008). In addition, future studies might explore a wider range of stimuli in naturalistic contexts in which people share their pronouns, such as in an email signature or a Twitter bio. Finally, the methods used in the present research can be extended to study whether the same perceptions of *reputation signaling*, *norm signaling*, and *rule following* emerge in a range of contexts in which someone might signal their commitment to a prosocial cause (e.g., Indigenous land acknowledgements or donating to a social justice organization).

Additionally, our manipulation of gender identity was not comprehensive -- in real life, people are not often told whether someone is transgender or not. We are gendered by ourselves, and by other people and institutions in many ways (Butler, 1990; Dembroff, 2019). People make inferences about gender identity based on visual appearance, names, the sound of one’s voice, choice of dress, and many other context cues. How would these cues influence people’s perceptions of someone who shares their pronouns when they aren’t sure of the person’s gender identity? Future research might include visual and/or audio stimuli that show people who vary in these features as well. Furthermore, since the cisgender agents in all of our stimuli used only “he/him” pronouns, future studies might test whether perceptions of cisgender agents who use “she/her” pronouns instead differ in the same way. Finally, future work might also study perceptions of those who use neopronouns (e.g., “ze/zir”, “xe/xem”, etc.), since such pronouns are far less frequently used and may be perceived differently as a result.

Finally, it is important to note that the results of this study do not support a prescriptive argument for normalizing the sharing of pronouns. While it is often beneficial for everyone to know what pronouns to use to refer to each other, not all people are comfortable with sharing their pronouns, and some don't use pronouns at all. Someone may not want to be out as transgender, or someone may still be figuring out what pronouns they want to use (Earp, 2021). The purpose of this study is to illuminate the ways in which people in the United States currently perceive the act of sharing one's pronouns and how their perceptions are influenced by different features of social context. These results also suggest a model of measuring motivational inferences that may be expanded to other newly emerging socially conscious behaviors.

References

- Arechar, A. A., Kraft-Todd, G. T., & Rand, D. G. (2017). Turking overtime: How participant characteristics and behavior vary over time and day on Amazon Mechanical Turk. *Journal of the Economic Science Association*, 1–11. <https://doi.org/10.1007/s40881-017-0035-0>
- Aronow, P. M., Baron, J., & Pinson, L. (2019). A Note on Dropping Experimental Subjects who Fail a Manipulation Check. *Political Analysis*, 27(4), 572–589. <https://doi.org/10.1017/pan.2019.5>
- Avolio, B. J., Gardner, W. L., Walumbwa, F. O., Luthans, F., & May, D. R. (2004). Unlocking the mask: A look at the process by which authentic leaders impact follower attitudes and behaviors. *The Leadership Quarterly*, 15(6), 801–823. <https://doi.org/10.1016/j.leaqua.2004.09.003>
- Bai, F. (2017). Beyond dominance and competence: A moral virtue theory of status attainment. *Personality and Social Psychology Review*, 21(3), 203–227. <https://doi.org/10.1177/1088868316649297>
- Barclay, P., & Willer, R. (2007). Partner choice creates competitive altruism in humans. *Proceedings of the Royal Society B: Biological Sciences*, 274(1610), 749–753. <https://doi.org/10.1098/rspb.2006.0209>
- Bartholomew, J. (2015, April 18). The awful rise of “virtue signalling.” *The Spectator*.
- Berinsky, A. J., Huber, G. A., & Lenz, G. S. (2012). Evaluating Online Labor Markets for Experimental Research: Amazon.com’s Mechanical Turk. *Political Analysis*, 20(3), 351–368. <https://doi.org/10.1093/pan/mpr057>

- Bird, R. L. B., & Smith, E. A. (2005). Signaling Theory, Strategic Interaction, and Symbolic Capital. *Current Anthropology*, 46(2), 221–248. <https://doi.org/10.1086/427115>
- Blanton, H., & Christie, C. (2003). Deviance Regulation: A Theory of Action and Identity. *Review of General Psychology*, 7(2), 115–149. <https://doi.org/10.1037/1089-2680.7.2.115>
- Bonetto, E., Varet, F., & Troïan, J. (2019). To resist or not to resist? Investigating the normative features of resistance to persuasion. *Journal of Theoretical Social Psychology*, 3(3), 167–175. <https://doi.org/10.1002/jts5.44>
- Brown, C., Frohard-Dourlent, H., Wood, B. A., Saewyc, E., Eisenberg, M. E., & Porta, C. M. (2020). “It makes such a difference”: An examination of how LGBTQ youth talk about personal gender pronouns. *Journal of the American Association of Nurse Practitioners*, 32(1), 70–80. <https://doi.org/10.1097/JXX.0000000000000217>
- Butler, J. (1990). *Gender Trouble* (2nd ed.). Routledge. <https://doi.org/10.4324/9780203902752>
- Case, K. A., Stewart, B., & Tittsworth, J. (2009). Transgender across the Curriculum: A Psychology for Inclusion. *Teaching of Psychology*, 36(2), 117–121. <https://doi.org/10.1080/00986280902739446>
- Chwe, M. S.-Y. (2013). Rational Ritual: Culture, Coordination, and Common Knowledge. In *Rational Ritual*. Princeton University Press. <https://doi.org/10.1515/9781400846436>
- Crockett, M. J. (2017). Moral outrage in the digital age. *Nature Human Behaviour*, 1(11), 769–771. <https://doi.org/10.1038/s41562-017-0213-3>
- Dembroff, R. (2019). Beyond Binary: Genderqueer as Critical Gender Kind. *Philosopher's Imprint*. <http://philsci-archive.pitt.edu/16317/>
- Earp, B. (2021). *On Sharing Pronouns*. 109, 107–115.
- Emler, N. (1990). A social psychology of reputation. *European Review of Social Psychology*,

I(1), 171–193.

- FeldmanHall, O., Mobbs, D., Evans, D., Hiscox, L., Navrady, L., & Dalgleish, T. (2012). What we say and what we do: The relationship between real and hypothetical moral choices. *Cognition*, *123*(3), 434–441. <https://doi.org/10.1016/j.cognition.2012.02.001>
- Freeman, J. B., Rule, N. O., & Ambady, N. (2009). The cultural neuroscience of person perception. In J. Y. Chiao (Ed.), *Progress in Brain Research* (Vol. 178, pp. 191–201). Elsevier. [https://doi.org/10.1016/S0079-6123\(09\)17813-5](https://doi.org/10.1016/S0079-6123(09)17813-5)
- Grubbs, J. B., Warmke, B., Tosi, J., James, A. S., & Campbell, W. K. (2019). Moral grandstanding in public discourse: Status-seeking motives as a potential explanatory mechanism in predicting conflict. *PLOS ONE*, *14*(10), e0223749. <https://doi.org/10.1371/journal.pone.0223749>
- Hossain, A. (2017). The paradox of recognition: Hijra, third gender and sexual rights in Bangladesh. *Culture, Health & Sexuality*, *19*(12), 1418–1431. <https://doi.org/10.1080/13691058.2017.1317831>
- Johnson, I. R., Pietri, E. S., Buck, D. M., & Daas, R. (2021). What’s in a pronoun: Exploring gender pronouns as an organizational identity-safety cue among sexual and gender minorities. *Journal of Experimental Social Psychology*, *97*, 104194. <https://doi.org/10.1016/j.jesp.2021.104194>
- Jones, E. E., & Pittman, T. S. (1982). Toward a general theory of strategic self-presentation. *Psychological Perspectives on the Self*, *1*(1), 231–262.
- Knutson, D., Matsuno, E., Goldbach, C., Hashtpari, H., & Smith, N. G. (2021). Advocating for transgender and nonbinary affirmative spaces in graduate education. *Higher Education*. <https://doi.org/10.1007/s10734-020-00673-5>

- Kraft-Todd, G. T., Kleiman-Weiner, M., & Young, L. (2020). *Differential virtue discounting: Public generosity is seen as more selfish than public impartiality*.
<https://doi.org/10.31234/osf.io/zqp7>
- Kristofferson, K., White, K., & Peloza, J. (2014). The Nature of Slacktivism: How the Social Observability of an Initial Act of Token Support Affects Subsequent Prosocial Action. *Journal of Consumer Research*, 40(6), 1149–1166. <https://doi.org/10.1086/674137>
- MacNamara, J., Glann, S., & Durlak, P. (2017). Experiencing Misgendered Pronouns: A Classroom Activity to Encourage Empathy. *Teaching Sociology*, 45(3), 269–278.
<https://doi.org/10.1177/0092055X17708603>
- Magee, J. C., & Galinsky, A. D. (2008). Social Hierarchy: The Self-Reinforcing Nature of Power and Status. *Academy of Management Annals*, 2(1), 351–398.
<https://doi.org/10.5465/19416520802211628>
- Maner, J. K. (2017). Dominance and Prestige: A Tale of Two Hierarchies. *Current Directions in Psychological Science*, 26(6), 526–531. <https://doi.org/10.1177/0963721417714323>
- Mennicke, A., & Cutler-Seeber, A. (2016). Incorporating Inclusivity: How Organizations Can Improve the Workplace Experiences of Trans* People Across the Trans* Spectrum: A US Perspective. In T. Köllen (Ed.), *Sexual Orientation and Transgender Issues in Organizations: Global Perspectives on LGBT Workforce Diversity* (pp. 513–523). Springer International Publishing. https://doi.org/10.1007/978-3-319-29623-4_30
- Minson, J. A., & Monin, B. (2012). Do-Gooder Derogation: Disparaging Morally Motivated Minorities to Defuse Anticipated Reproach. *Social Psychological and Personality Science*, 3(2), 200–207. <https://doi.org/10.1177/1948550611415695>
- Monin, B. (2007). Holier than me? Threatening social comparison in the moral domain. *Revue*

Internationale de Psychologie Sociale, 1, 53–68.

Monin, B., Sawyer, P. J., & Marquez, M. J. (2008). The rejection of moral rebels: Resenting those who do the right thing. *Journal of Personality and Social Psychology, 95*(1), 76–93. <https://doi.org/10.1037/0022-3514.95.1.76>

Pew Research Center. (2019). About one-in-five U.S. adults know someone who goes by a gender-neutral pronoun. *Pew Research Center*. <https://www.pewresearch.org/fact-tank/2019/09/05/gender-neutral-pronouns/>

Silver, I. M., & Shaw, A. (2018). Pint-Sized Public Relations: The Development of Reputation Management. *Trends in Cognitive Sciences, 22*(4), 277–279. <https://doi.org/10.1016/j.tics.2018.01.006>

Sparkman, G., & Attari, S. Z. (2020). Credibility, communication, and climate change: How lifestyle inconsistency and do-gooder derogation impact decarbonization advocacy. *Energy Research & Social Science, 59*, 101290. <https://doi.org/10.1016/j.erss.2019.101290>

Sparkman, G., & Walton, G. M. (2017). Dynamic Norms Promote Sustainable Behavior, Even if It Is Counternormative. *Psychological Science, 28*(11), 1663–1674. <https://doi.org/10.1177/0956797617719950>

Steg, L. (2016). Values, Norms, and Intrinsic Motivation to Act Proenvironmentally. *Annual Review of Environment and Resources, 41*(1), 277–292. <https://doi.org/10.1146/annurev-environ-110615-085947>

Tamir, D. I., & Thornton, M. A. (2018). Modeling the Predictive Social Mind. *Trends in Cognitive Sciences, 22*(3), 201–212. <https://doi.org/10.1016/j.tics.2017.12.005>

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>

Wenegrat, B., Abrams, L., Castillo-Yee, E., & Romine, I. J. (1996). Social norm compliance as a signaling system. I. Studies of fitness-related attributions consequent on everyday norm violations. *Ethology and Sociobiology*, 17(6), 403–416. [https://doi.org/10.1016/S0162-3095\(97\)82225-X](https://doi.org/10.1016/S0162-3095(97)82225-X)

Wice, M., & Davidai, S. (2021). Benevolent Conformity: The Influence of Perceived Motives on Judgments of Conformity. *Personality and Social Psychology Bulletin*, 47(7), 1205–1217. <https://doi.org/10.1177/0146167220963702>

Zahavi, A. (1975). Mate selection—A selection for a handicap. *Journal of Theoretical Biology*, 53(1), 205–214.

Zamfira, A., Montlibert, C. de, & Radu, D. (2018). *Gender in Focus: Identities, Codes, Stereotypes and Politics*. Verlag Barbara Budrich.

Tables

Table 1. Perceived motivation factor loadings in EFA model in Study 1. Factor loadings based on an exploratory factor analysis with varimax rotation for 27 items testing participants’ perceptions of the sharer’s motivations ($N = 2,542$). Items in this table are explanatory labels for original DVs; see **SI Table 3** for the exact wording of these items that study participants saw.

Item	Reputation		
	Signaling	Norm Signaling	Rule Following
Motive to gain status	0.85		
Motive to enhance reputation	0.82		
Motive to make others like oneself	0.82		
Motive to make peers think highly of oneself	0.80		
Motive to make superiors think highly of oneself	0.77		
Motive to attract attention	0.74		
Motive to benefit oneself	0.74		
Motive to gain power	0.70		
Motive to look morally good	0.68		
Motive to make others want to interact with oneself	0.63		
Motive to avoid social cost	0.46		
Belief in the importance of the action		0.85	
Belief in the value behind the action		0.84	
Motive to benefit others		0.79	
Genuineness of action		0.75	
Likelihood that agent will engage in similar behavior in the future		0.68	
Impact of action		0.60	

Motive to signal that the action is the right thing to do	0.53
The action being morally good	0.51
Likelihood that agent's colleagues will engage in similar behavior in the future	0.50
Motive to follow a descriptive norm	0.70
Motive to follow an injunctive norm	0.58
Belief that colleagues are on the same page about gender inclusivity	0.54
Motive to display competence at one's job	0.41

Note. Factor loadings <.4 are suppressed. See **SI Table 8** for table with unsuppressed factor loadings. Three items that did not have factor loadings >.4 on any of the factors (*Effortfulness of action*, *Controversial nature of action*, and *Motive to make oneself feel respected and comfortable*) are not included in this table, but can be found in **SI Table 8**.

Table 2. Perceived motivation factor loadings in EFA model in Study 2. Factor loadings based on an exploratory factor analysis with varimax rotation for 30 items testing participants' perceptions of the sharer's motivations (N = 1195). Items in this table are explanatory labels for original DVs; see **SI Table 3** for the exact wording of these items that study participants saw. * = DV that did not load onto the same factor as in Study 1.

Item	Reputation		
	Signaling	Norm Signaling	Rule Following
Motive to enhance reputation	0.84		
Motive to gain status	0.82		
Motive to make superiors think highly of oneself	0.82		
Motive to make peers think highly of oneself	0.81		
Motive to make others like oneself	0.81		
Motive to look morally good	0.71		
Motive to gain power	0.68		
Motive to make others want to interact with oneself	0.67		
Motive to benefit oneself	0.66		
Motive to attract attention	0.65		-0.43
Motive to display competence at one's job*	0.52		
Motive to avoid social cost	0.51		
Belief in the importance of the action		0.79	
Belief in the value behind the action		0.78	
Likelihood that sharer will engage in similar behavior in the future		0.76	
Genuineness of action		0.73	
Motive to benefit others		0.69	

Motive to reflect social identity	0.62	
Motive to influence others to behave similarly	0.60	
Impact of action	0.56	0.43
Motive to remain consistent with past actions	0.56	
Motive to reflect personal values	0.54	
Motive to signal that the action is the right thing to do	0.52	
Motive to reflect community values	0.52	
Motive to make oneself feel respected and comfortable	0.52	
Motive to follow an injunctive norm		0.58
Motive to follow a descriptive norm		0.57
The action being morally good*		0.55
Likelihood that sharer's colleagues will engage in similar behavior in the future*		0.50
Belief that colleagues are on the same page about gender inclusivity		0.48

Note. Factor loadings <.4 are suppressed. See **SI Table 13** for unsuppressed factor loadings.

Table 3. Perceived motivation factor loadings in CFA model in Study 3. Standardized factor loadings based on a confirmatory factor analysis with 30 items testing participants' perceptions of the sharer's motivations (N = 4,405). Items in this table are explanatory labels for original DVs; see **SI Table 3** for the exact wording of these items that study participants saw.

Item	Reputation		
	Signaling	Norm Signaling	Rule Following
Motive to enhance reputation	0.84		
Motive to gain status	0.84		
Motive to make peers think highly of oneself	0.84		
Motive to make others like oneself	0.83		
Motive to make superiors think highly of oneself	0.82		
Motive to look morally good	0.70		
Motive to attract attention	0.69		-0.34
Motive to gain power	0.68		
Motive to benefit oneself	0.67		
Motive to make others want to interact with oneself	0.65		
Motive to avoid social cost	0.55		
Motive to display competence at one's job	0.46		
Belief in the importance of the action		0.87	
Belief in the value behind the action		0.85	
Genuineness of action		0.80	
Motive to benefit others		0.80	
Likelihood that agent will engage in similar behavior in the future		0.68	

Motive to signal that the action is the right thing to do	0.57
Motive to influence others to behave similarly	0.55
Motive to remain consistent with past actions	0.51
Motive to make oneself feel respected and comfortable	0.49
Motive to reflect social identity	0.48
Motive to reflect personal values	0.45
Impact of action	0.43
Motive to reflect community values	0.43
Likelihood that agent's colleagues will engage in similar behavior in the future	0.64
Belief that colleagues are on the same page about gender inclusivity	0.61
Motive to follow an injunctive norm	0.58
Motive to follow a descriptive norm	0.53
The action being morally good	0.53

Figures

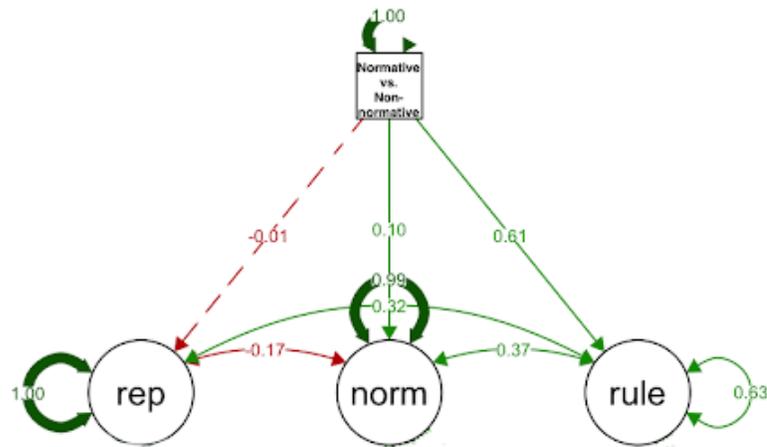


Figure 1. SEM visualization of perceptions of *reputation signaling*, *norm signaling*, and *rule following* in the workplace setting/descriptive normativeness manipulation. The node labeled “rep” stands for “*reputation signaling*”, “norm” stands for “*norm signaling*”, and “rule” stands for “*rule following*”. Edge labels indicate standardized parameter estimates. Green edges represent positive relationships and red edges represent negative relationships. Dotted edges indicate insignificant effects and solid edges indicate significant effects.

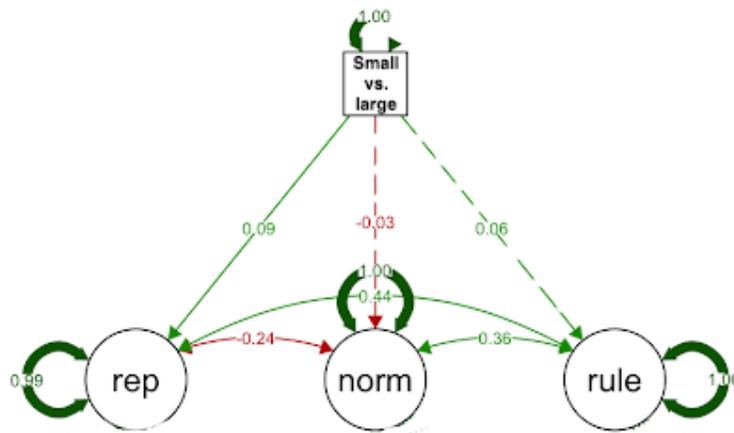


Figure 2. SEM visualization of perceptions of *reputation signaling*, *norm signaling*, and *rule following* in the audience size manipulation. The node labeled “rep” stands for “*reputation signaling*”, “norm” stands for “*norm signaling*”, and “rule” stands for “*rule following*”. Edge labels indicate standardized parameter estimates. Green edges represent positive relationships and red edges represent negative relationships. Dotted edges indicate insignificant effects and solid edges indicate significant effects.

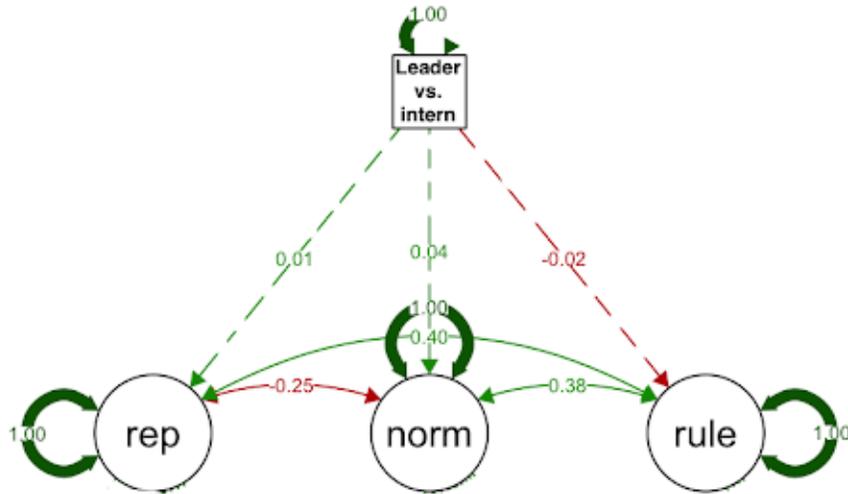


Figure 3. SEM visualization of perceptions of *reputation signaling*, *norm signaling*, and *rule following* in the leadership status manipulation. The node labeled “rep” stands for “*reputation signaling*”, “norm” stands for “*norm signaling*”, and “rule” stands for “*rule following*”. Edge labels indicate standardized parameter estimates. Green edges represent positive relationships and red edges represent negative relationships. Dotted edges indicate insignificant effects and solid edges indicate significant effects.

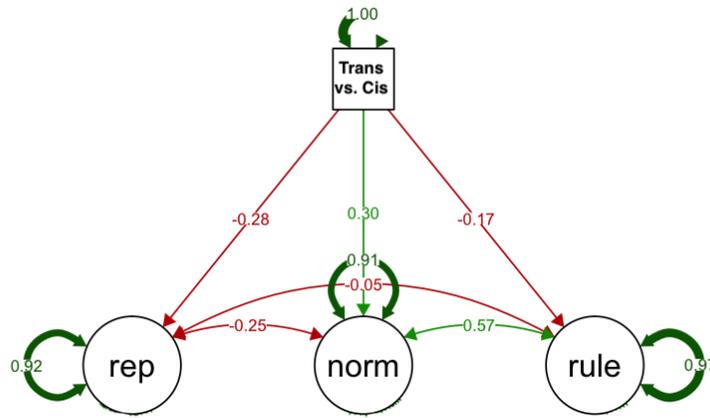


Figure 4. SEM visualization of perceptions of *reputation signaling*, *norm signaling*, and *rule following* in the sharer gender identity manipulation. The node labeled “rep” stands for “*reputation signaling*”, “norm” stands for “*norm signaling*”, and “rule” stands for “*rule following*”. Edge labels indicate standardized parameter estimates. Green edges represent positive relationships and red edges represent negative relationships. Dotted edges indicate insignificant effects and solid edges indicate significant effects.

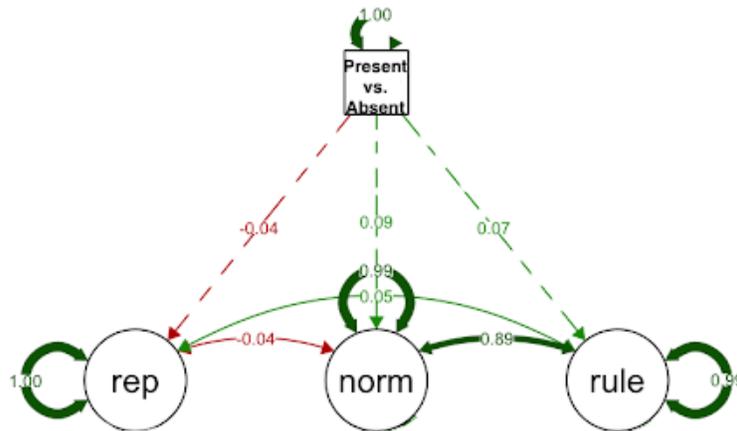


Figure 5. SEM visualization of perceptions of *reputation signaling*, *norm signaling*, and *rule following* in the TGNB colleague presence manipulation. The node labeled “rep” stands for “*reputation signaling*”, “norm” stands for “*norm signaling*”, and “rule” stands for “*rule following*”. Edge labels indicate standardized parameter estimates. Green edges represent positive relationships and red edges represent negative relationships. Dotted edges indicate insignificant effects and solid edges indicate significant effects.

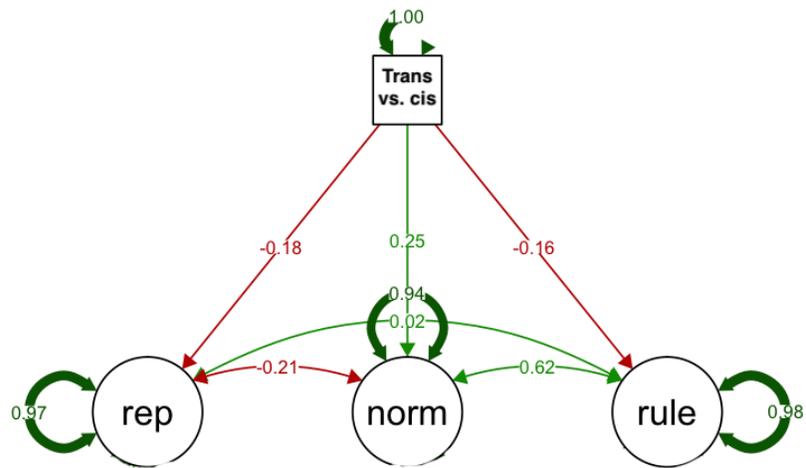


Figure 6. SEM visualization of perceptions of *reputation signaling*, *norm signaling*, and *rule following* in the sharer gender identity manipulation. The node labeled “rep” stands for “*reputation signaling*”, “norm” stands for “*norm signaling*”, and “rule” stands for “*rule following*”. Edge labels indicate standardized parameter estimates. Green edges represent positive relationships and red edges represent negative relationships. Dotted edges indicate insignificant effects and solid edges indicate significant effects.

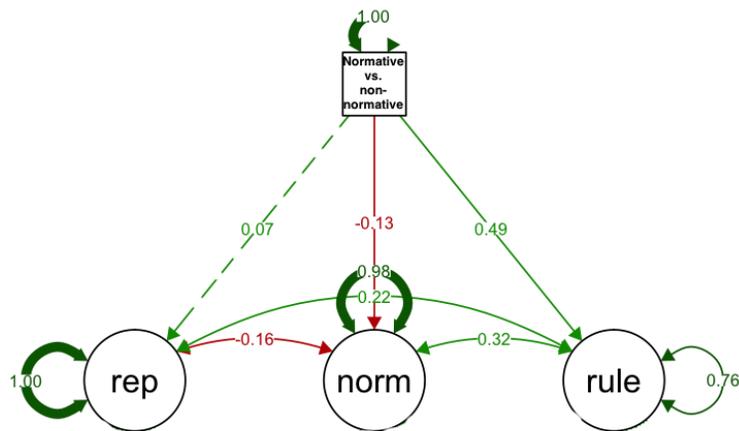


Figure 7. SEM visualization of perceptions of *reputation signaling*, *norm signaling*, and *rule following* in the descriptive normativeness manipulation. The node labeled “rep” stands for “*reputation signaling*”, “norm” stands for “*norm signaling*”, and “rule” stands for “*rule following*”. Edge labels indicate standardized parameter estimates. Green edges represent positive relationships and red edges represent negative relationships. Dotted edges indicate insignificant effects and solid edges indicate significant effects.

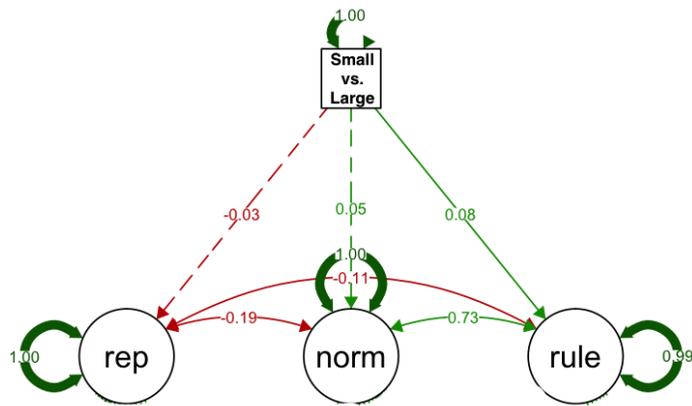


Figure 8. SEM visualization of perceptions of *reputation signaling*, *norm signaling*, and *rule following* in the audience size manipulation. The node labeled “rep” stands for “*reputation signaling*”, “norm” stands for “*norm signaling*”, and “rule” stands for “*rule following*”. Edge labels indicate standardized parameter estimates. Green edges represent positive relationships and red edges represent negative relationships. Dotted edges indicate insignificant effects and solid edges indicate significant effects.

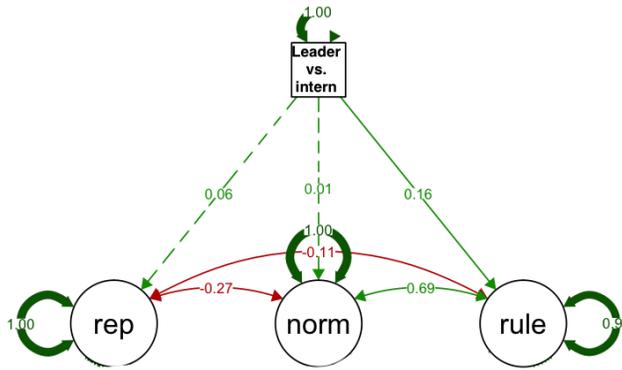


Figure 9. SEM visualization of perceptions of *reputation signaling*, *norm signaling*, and *rule following* in the leadership status manipulation. The node labeled “rep” stands for “*reputation signaling*”, “norm” stands for “*norm signaling*”, and “rule” stands for “*rule following*”. Edge labels indicate standardized parameter estimates. Green edges represent positive relationships and red edges represent negative relationships. Dotted edges indicate insignificant effects and solid edges indicate significant effects.

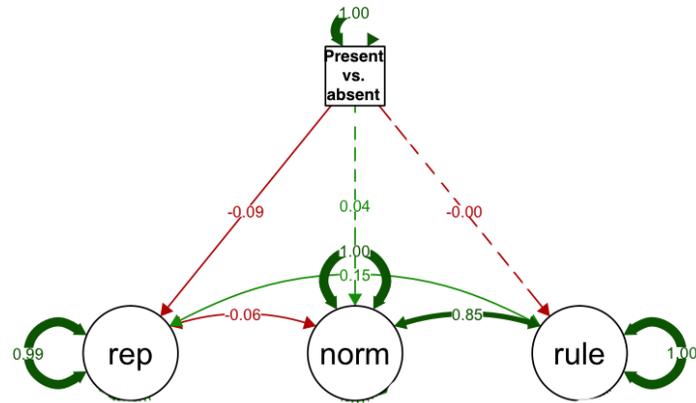


Figure 10. SEM visualization of perceptions of *reputation signaling*, *norm signaling*, and *rule following* in the presence of TGNB colleague manipulation. The node labeled “rep” stands for “*reputation signaling*”, “norm” stands for “*norm signaling*”, and “rule” stands for “*rule following*”. Edge labels indicate standardized parameter estimates. Green edges represent positive relationships and red edges represent negative relationships. Dotted edges indicate insignificant effects and solid edges indicate significant effects.

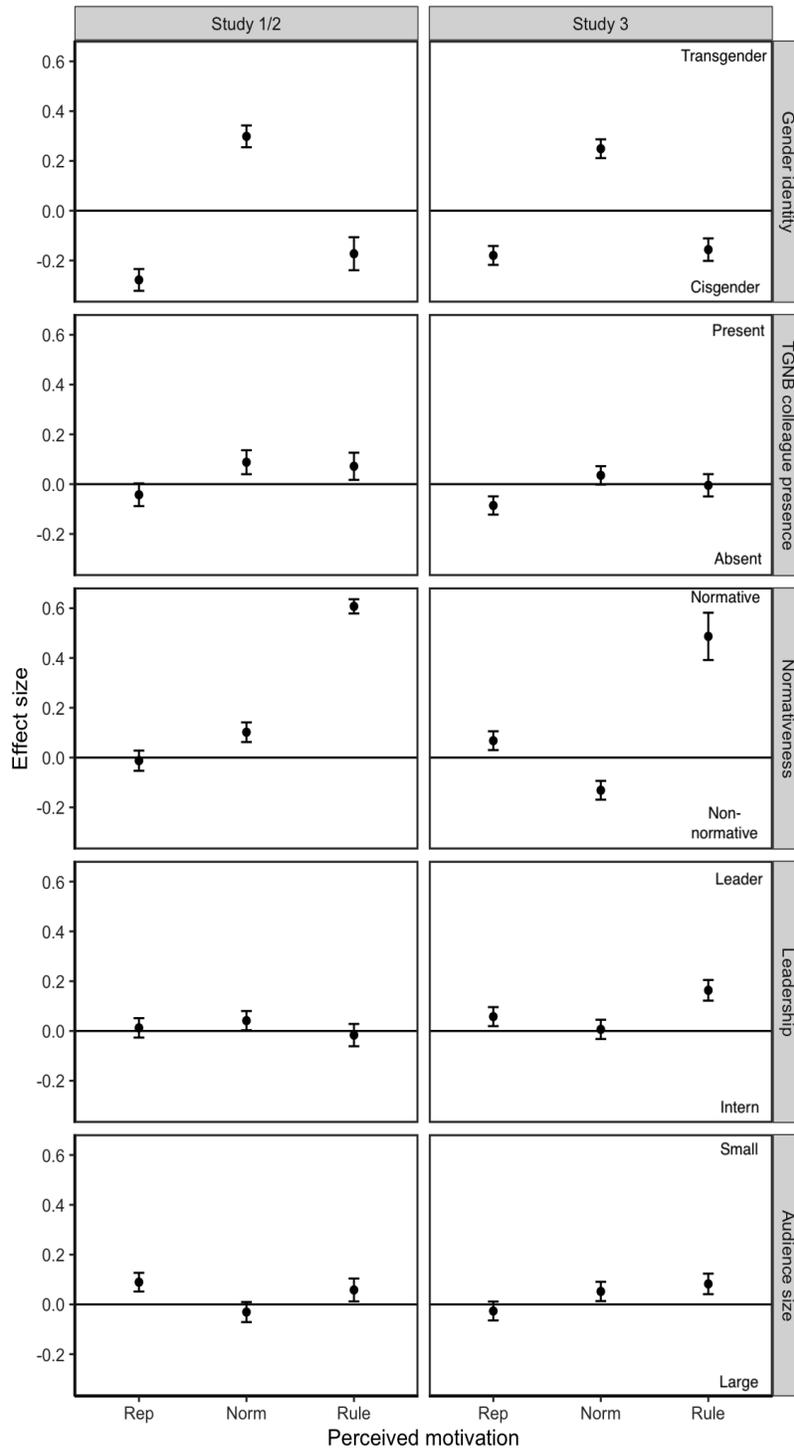


Figure 11. Standardized coefficients and SE bars for the effect of five features of social context on *reputation signaling* (labeled as “rep”), *norm signaling* (labeled as “norm”), and *rule following* (labeled as “rule”). These features were studied in Studies 1 (leadership status, audience size, and descriptive normativeness of the action) and 2 (sharer’s gender identity and presence of TGMB colleague), and tested again in Study 3.