

## Gossip about in-group and out-group norm deviations

Hiroataka Imada, Marika Rullo, Tim Hophthrow, Julie Van de Vyver & Hanna Zagefka

To cite this article: Hiroataka Imada, Marika Rullo, Tim Hophthrow, Julie Van de Vyver & Hanna Zagefka (2022): Gossip about in-group and out-group norm deviations, *Comprehensive Results in Social Psychology*, DOI: [10.1080/23743603.2022.2090327](https://doi.org/10.1080/23743603.2022.2090327)

To link to this article: <https://doi.org/10.1080/23743603.2022.2090327>



© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.



Published online: 04 Jul 2022.



Submit your article to this journal [↗](#)



View related articles [↗](#)



View Crossmark data [↗](#)

## Gossip about in-group and out-group norm deviations

Hirota Imada <sup>a</sup>, Marika Rullo <sup>b</sup>, Tim Hothrow<sup>a</sup>, Julie Van de Vyver<sup>c</sup>  
and Hanna Zagefka<sup>d</sup>

<sup>a</sup>School of Psychology, University of Kent, Keynes College, Canterbury, UK; <sup>b</sup>Department of Educational, Humanities and Intercultural Communication, University of Siena, Siena Italy; <sup>c</sup>Department of Psychology, Durham University, Durham UK; <sup>d</sup>Department of Psychology, Royal Holloway, University of London, UK

### ABSTRACT

Gossip plays an essential role in our societies, and individuals gossip about others' behavior for various reasons. While previous studies have consistently demonstrated that individuals are more willing to gossip about norm deviations, existing research has understudied the potential role of the group membership of gossip target (i.e. a person who is gossiped about) and gossip recipient (a person who is gossiped to) on the tendency to instigate gossip about norm deviation. We conducted a study ( $N = 1038$ ) in which we orthogonally manipulated the group membership of a gossip target and a gossip recipient as well as types of target behavior (normative, negative norm deviation, and positive norm deviation), and tested several preregistered hypotheses regarding the willingness to gossip and gossip motivations. We found that individuals were more willing to gossip about negative and positive norm deviations compared to normative behavior regardless of the group membership of a gossip target and recipient, except when they consider gossiping about in-group negative norm deviation toward an out-group member. Gossip motivations substantially varied depending on the valence of norm deviation and the group membership.

### ARTICLE HISTORY

Received 9 March 2021

Accepted 6 June 2022

### KEYWORDS

Gossip; social norm; in-group; out-group; norm deviation

Gossip, the exchange of information about absent others (Foster, 2004), is ubiquitous (Giardini & Conte, 2012), and individuals are known to spend more than 60% of their social conversations on gossiping (Dunbar, 2004; Dunbar et al., 1997; Emler, 1994). Individuals base various social behaviors (e.g. helping and cooperation) on reputation information transmitted via gossip. As such, gossip plays a pivotal role as a tool for reputation management, and it is known to help us maintain cooperation (Beersma & Van Kleef, 2011; Feinberg et al., 2014; Imada, Hothrow et al., 2021; Piazza & Bering, 2008; Sommerfeld et al., 2007; Wu et al., 2016).

Gossip differs from other types of social conversations in that it conveys not only others' behavior but also reputational information about them. As such, gossipers communicate information about what an absent person actually did as well as how they perceived the act. In fact, Dores Cruz et al. (2021) found that roughly 60% of gossips contained reputational information of others (e.g. trustworthiness, warmth,

competence, and dominance). Such dissemination of reputational information has been identified to facilitate reputation systems, which sustain and promote cooperation in groups via allowing individuals to selectively interact with those with a good reputation (Feinberg et al., 2012). Various lab-based studies have demonstrated that individuals use gossip to make diverse social decisions, including whom to ostracize (Feinberg et al., 2014), whom to work with as a partner, and whether to trust others (Bozoyan et al., 2016). Furthermore, Dores Cruz et al. (2021) analyzed a number of instances of gossips in daily lives and reported that individuals indeed based helping and confronting behaviors toward others on reputation information about them that they obtained from gossip. Therefore, previous studies suggest that gossip works as an essential source of reputation information about others and contributes to maintaining cooperation in groups, both in labs and in the field.

In terms of gossip content, previous studies have found that individuals are particularly motivated to gossip about norm deviations (Beersma & Van Kleef, 2012; Feinberg et al., 2012). Norms refer to collective ideas about approved and disapproved behavior and guide a wide range of social behaviors (Cialdini & Griskevicius, 2010). As such, information about who follows norms helps individuals with selective social interactions; namely, it guides them to identify non-cooperators whom they should avoid and punish as well as altruists with whom they would like to form a coalition. Feinberg et al. (2012) have shown that individuals are urged to gossip about non-cooperators. In addition, Peters et al. (2017) had participants watch a short video that involved norm deviations and found that they were more likely to discuss both positive and negative non-normative behaviors with others compared to normative behaviors.

Prior research has also addressed why individuals tend to talk about norm deviations. Previous studies have identified various motivations for gossip (Beersma & Van Kleef, 2012; Dores Cruz et al., 2019; Hartung et al., 2019), and some studies have found that gossip about norm violators is driven mainly by the desire to protect gossip recipients from being exploited (Beersma & Van Kleef, 2012; Feinberg et al., 2012). As such, this type of gossip is referred to as prosocial gossip, and those with prosocial orientation are more likely to engage in it (Feinberg et al., 2012). Beersma and Van Kleef (2012) have also revealed that prosocial gossip is not only encouraged by a protection motive but also information sharing/gathering and, more importantly, intention to negatively affect norm violators. Previous studies have also suggested that individuals would use gossip as an indirect punishment toward norm violators (Eriksson et al., 2021; Molho et al., 2020). Furthermore, Peters et al. (2017) revealed that gossiping about norm deviations led to increased social cohesion between individuals sharing the gossip. Taken together, existing findings suggest that gossip about non-normative behavior would have multiple roles, and there would be diverse motives behind it.

Despite the ample evidence that norm deviation is one of the common subjects of gossip, existing research has understudied the potential role of group membership in shaping gossip about norm deviation, predominantly focusing on norm deviations by members of their own group (e.g. Beersma & Van Kleef, 2012). Social norms tend to be group-specific (e.g. Legros & Cislighi, 2020), but societies often have diverse groups, e.g.

different ethnic, racial, religious, and linguistic groups (Patsiruko et al., 2012). In addition, some social norms are shared by different groups (Eriksson et al., 2021). Accordingly, individuals, especially those who live in a heterogeneous community, can witness an out-group member violating a norm that they themselves follow (e.g. Winter & Zhang, 2018). Thus, it is of vital importance to elucidate the tendency to gossip about norm deviations by out-group members, and the present research aims to examine whether the tendency to instigate gossip about norm deviations would vary depending on the group membership of a deviant (i.e. gossip target).

In this article, we investigate gossip about out-group norm deviations in comparison to gossip about in-group norm deviations. More specifically, we will address the following questions; (1) whether the tendency to instigate gossip about norm deviation, as compared to gossip about normative behavior, holds when it is committed by an out-group member, (2) whether such tendency varies depending on group membership of recipients of gossip, and (3) whether the willingness to gossip about norm deviations and motivations behind it would vary depending on the group membership of gossip target and recipients. Accordingly, we had participants read a scenario in which an in-group or an out-group member displayed normative or non-normative behavior and indicate to what extent they would like to gossip about the behavior to an in-group or out-group member. In addition, we examined why they would and would not like to gossip.

Moreover, we investigate both positive and negative norm deviations to further extend previous findings, which only focused on negative in-group norm deviations (e.g. Beersma & Van Kleef, 2012). Therefore, this study followed a 3 (behavior: normative vs. positive norm deviation vs. negative norm deviation)  $\times$  2 (gossip target: in-group vs. out-group member)  $\times$  2 (gossip recipient: in-group vs. out-group member) design.

## Hypotheses and rationales

### *Willingness to instigate gossip*

#### *Negative norm deviation*

For in-group negative norm deviation, as demonstrated by Beersma and Van Kleef (2012), it is of vital importance for individuals to protect other in-group members from getting exploited by norm violators. In addition, negative gossip can function as indirect punishment (Eriksson et al., 2021; Molho et al., 2020). Thus, individuals should place significant value on negative norm deviation committed by an in-group member and, thus, they would be more willing to discuss it with other in-group members, compared to normative behavior.

When a gossip recipient is an out-group member, they would not like to tell out-group members about in-group norm violators; previous studies demonstrated that individuals were motivated to behave such that out-group members would positively think about their group (Hopkins et al., 2007; Van Leeuwen & Täuber, 2012). On the other hand, negative gossip toward out-group members might still function as indirect punishment to in-group norm violators, as this, at least, serves to disseminate negative reputation of them. It should be noted that transmission of negative reputation information to the out-

group is unlikely to result in negative reputational consequences such as ostracism (Mifune et al., 2010; Mifune & Yamagishi, 2015; Yamagishi & Mifune, 2008), and this would not be as efficient as gossip toward in-group members. Overall, there are two competing motivations: protection of group image and indirect punishment. One might outweigh and dominate the other, or they cancel each other. Given that the current empirical literature does not provide a sound basis to draw predictions, we explore whether individuals would be more willing to gossip about in-group negative deviation toward an out-group recipient compared to in-group normative behavior.

When a gossip target is an out-group member, we can expect that individuals would be more likely to gossip about negative norm deviation than normative behavior, regardless of the group membership of a gossip recipient. We assume that individuals would be motivated to transmit such gossip toward in-group members for several reasons; first, individuals would use such gossip as a means to have social enjoyment and/or foster social cohesion (Peters et al., 2017). Second, given that Schiller et al. (2014) showed that individuals were willing to punish out-group norm violators more harshly than in-group violators (but also see, Marques & Paez, 1994), they would utilize gossip to punish them so and be motivated to do so. Third, information about a negative norm violator could help other in-group members avoid getting exploited by the deviant (Feinberg et al., 2012), and such gossip can serve to protect in-group members. On the other hand, when a gossip recipient is an out-group member, we assume that individuals would gossip about negative out-group norm deviation primarily to punish the deviant (Eriksson et al., 2021; Molho et al., 2020). Therefore, individuals, overall, would be more willing to gossip about out-group negative norm deviation toward an in- and out-group gossip recipient than out-group normative behavior.

Taken together, we hypothesize that, compared to normative behavior, individuals would be more willing to gossip about negative norm deviation (1) when a gossip target is an in-group member and a gossip recipient is also an in-group member (Hypothesis 1) and (2) when a gossip target is an out-group member regardless of the group membership of a gossip recipient (Hypotheses 2 and 3). Importantly, we do not predict whether or not individuals would be more willing to instigate gossip about negative norm deviation when a gossip target is an in-group member and a gossip recipient is an out-group member (see, Table 1).

**Table 1.** Summary of hypotheses.

Hypothesis	Behavior	Target	Recipient	NI	SE	RB	P	GI	IG/IV	More or less willing to gossip?
Hypothesis 8	Negative	In	In	+	+	+	+		+	More (Hypothesis 1)
Hypothesis 9	Negative	In	Out	+				-	+	
Hypothesis 10	Negative	Out	In	+	+	+	+		+	More (Hypothesis 2)
Hypothesis 11	Negative	Out	Out	+					+	More (Hypothesis 3)
Hypothesis 12	Positive	In	In		+			+	+	More (Hypothesis 4)
Hypothesis 13	Positive	In	Out					+	+	More (Hypothesis 5)
Hypothesis 14	Positive	Out	In		+			-	+	Less (Hypothesis 6)
Hypothesis 15	Positive	Out	Out					-	+	Less (Hypothesis 7)

Note: NI: negative influence (indirect punishment); SE: social enjoyment; RB: relationship building; P: protection; GI: group image; IG: information gathering; IV: information validation. + and - indicate gossip motivations would encourage and discourage individuals to gossip, respectively. Hypotheses 1–7 pertain to whether negative/positive norm deviations are more or less likely to be gossiped about as compared to normative behavior. Hypotheses 8–15 are about which gossip motivation(s) predicts the willingness to gossip.

### *Positive norm deviation*

Previous studies have suggested that positive reputation information is particularly important for within-group selective social interactions (e.g. choosing a partner to cooperate; Hardy & Van Vugt, 2006; Roberts, 1998). Thus, communicating information about in-group members who have exhibited non-normative good behavior to other in-group members should be valuable. As such, we expect that individuals would be willing to gossip about positive in-group norm deviation toward in-group members compared to in-group normative behavior. By contrast, talking about such good deeds in their group toward out-group members would also help them demonstrate the quality of their group relative to the out-group (i.e. enhanced positive image of the in-group; e.g. Hopkins et al., 2007). Thus, regardless of the group membership of a gossip recipient, individuals would tend to instigate gossip about positive norm deviation by in-group members more than they would in-group normative behavior.

In contrast, out-group members who display extremely positive behavior would be a source of threats as it implies the superiority of the out-group (Tajfel & Turner, 1979). Individuals may utilize gossip about out-group norm deviation as a means to have social enjoyment with other in-group members, but, given that the maintenance of a positive group image is crucial and individuals often incur personal costs to enhance the positive image of their group, we expect that the motivation to refrain from discussing good deeds by out-group members would outweigh the social enjoyment they could get out of such gossip. Therefore, we expect people would be less willing to gossip about positive out-group norm deviation toward, regardless of the group membership of gossip recipients.

Overall, we hypothesize that compared to normative behavior, individuals would be more likely to gossip about positive in-group norm deviation regardless of the group membership of a gossip recipient (Hypotheses 4 and 5). In addition, we expect that they would be less likely to gossip about positive out-group norm deviation compared to normative behavior, irrespective of the group membership of a gossip recipient (Hypotheses 6 and 7). See, [Table 1](#) for a summary of hypotheses.

### *Motivations of gossip about norm deviations*

Additionally, we have a set of hypotheses related to motivations behind gossip about norm deviation. Previous studies have identified seven distinct gossip motivations: information gathering, information sharing, social enjoyment, relationship building, negative influence, and protection (Beersma & Van Kleef, 2012; Hartung et al., 2019). However, previous studies that examined different types of gossip motivations focused on interpersonal contexts, and the existing set of gossip motivations lacks a key intergroup gossip motivation: group image concern. As discussed earlier, previous studies consistently demonstrated that individuals incurred costs to increase the positive image of their group, especially from out-group members (Hopkins et al., 2007; Van Leeuwen & Täuber, 2012), and such concern for group image would be likely to motivate gossiping behavior. In this study, we will investigate how different gossip motivations, including group image concern and the other seven motives, influence the willingness to gossip. We summarize our hypotheses regarding gossip motivation in [Table 1](#), and we shall elaborate on these in the following paragraphs.

Beersma and Van Kleef (2012) found that information gathering and validation motives were consistently associated with gossip tendency across different contexts. Given that gossip, by definition, functions as a medium for reputation information exchange, we

assume that they would always be related to the willingness to gossip. Gossip driven by the negative influence motivation is referred to as indirect aggression (Beersma & Van Kleef, 2012; Richardson & Green, 1997), and people, especially those who live in a pathogen-rich area, see gossip as an appropriate way to punish norm violators (Eriksson et al., 2021; Molho et al., 2020). Thus, the negative influence (i.e. indirect punishment) motivation would be positively related to gossip about negative norm deviation.

Regarding the relationship-building motivation, Peters et al. (2017) found that individuals who discussed a third person's negative norm deviation developed social bonding between themselves. However, while gossip about positive norm deviation also seemed to increase social cohesion, the effect was not significant, suggesting that positive gossip might not be an efficient way to foster social bonding. Thus, we expect that the relationship-building motivation would be positively associated with the tendency to instigate gossip about negative norm deviation toward in-group members. Similarly, social enjoyment would be associated with gossip toward in-group members. This motivation refers to the willingness to simply have a good time with a gossip recipient (Beersma & Van Kleef, 2012), and we predict that this motivation would explain the gossip tendency toward in-group members.

Gossip can inform others about norm deviates and help them avoid interacting with them (Feinberg et al., 2012), and the motivation to protect others would drive such gossip. We expect that the protection motives would be positively associated with the willingness to gossip about negative norm deviation toward in-group members. Finally, the group image motive would encourage and discourage gossiping behavior that could promote and jeopardize the reputation of the in-group, respectively. Specifically, we hypothesize that it would be positively associated with gossip about positive in-group norm deviation, and it would be negatively associated with gossip about negative in-group norm deviation toward out-group members and gossip about positive out-group norm deviation.

## Method

### *Data availability and open science*

The data, study material, and analysis codes associated with the research are available at [https://osf.io/u3yxt/?view\\_only=062cbd431f114f61be315a0d56ba727d](https://osf.io/u3yxt/?view_only=062cbd431f114f61be315a0d56ba727d).

### *Participants and design*

This study followed a 3 (behavior: normative behavior vs. positive norm deviation vs. negative normative deviation)  $\times$  2 (gossip target: in-group vs. out-group member)  $\times$  2 (gossip recipient: in-group vs. out-group member) mixed design with the last condition being a within-subject factor. To address Hypotheses 1–7, we dummy-coded the first factor as follows: contrast 1: negative norm deviation – normative behavior; contrast 2: positive norm deviation – normative behavior. To investigate the gossip motivations, we ran regression analyses where the willingness to gossip was predicted by the six different gossip motivations for each condition. Using G\*power (Erdfelder et al., 2009), we conducted a priori power analysis, and it revealed that 156 participants would be sufficient to

detect a small-to-medium effect size of  $f^2 = 0.04$  for each regression coefficient with 80% power at  $\alpha = 0.05$  (one-tailed). As we did not find effect sizes in previous studies that we could use for the power analysis, we assumed to see small-to-medium effects (i.e. heuristics, Lakens, 2022). We chose one-tailed tests for the power analysis as we hypothesized the direction of the association between gossip motivations and the tendency to instigate gossip. However, because of the study design, the sample size we can have for each regression will be one-sixth of the total sample size, indicating that we would need  $156 \times 6 = 936$  participants to make sure we have sufficient power for each regression. Thus, we aimed to recruit 1050 participants from three universities in England to account for data exclusion. We used different out-groups for the three universities. For each university, we chose an out-group that was located near the university and considered to be academically competing.

### Procedure

After giving consent, participants were asked to read a story about a university student who works at a bar on their campus. In the vignette, we manipulated the group membership (university affiliation: in-group vs. out-group) of the student and their behavior at work (normative behavior vs. positive norm deviation vs. negative norm deviation). We modified Beersma and Van Kleef's (2012) vignette, and the scenario reads, "Imagine you have heard the following story about a [in-group or out-group] student working at a bar. The bar is located on [in-group or out-group] campus, and employees are mostly [in-group or out-group] students. In the bar, employees work in a team, and there is a common norm that team members help each other out with chores when needed. One of the most common-yet generally disliked-chores is doing dishes. The bar is always busy, and each employee usually does dishes three times a night. One of the employees, Worker X is a current [in-group or out-group] student. One night, Coworker X does [behavior manipulation]." For normative behavior, we filled in the last square bracket with "three times." For positive norm deviation, we had "six times, helping other employees." Finally, for negative norm deviation, we rewrote the last part of the scenario to "Coworker X does not do dishes at all, avoiding to do the unpleasant work." After participants read the scenario, they were presented with two attention check questions regarding (1) how many times other employees usually do dishes a night (more, less, or as many times as employees at the bar usually do) and (2) group membership of Worker X (i.e. gossip target). After the attention check questions, participants were asked to indicate how they perceived Worker X's behavior, using a scale ranging from 1 = *extremely negative* to 7 = *extremely positive*. This question served as a manipulation check question.

Then, participants were asked to imagine situations where they bumped into a group of in-group members or out-group members, and one of them started talking to themselves. More specifically, participants read the following vignette, "Imagine that, after hearing the story, you bumped into a group of [in-group or out-group] students, and one of them has started talking to you." They answered two questions assessing the willingness to gossip about Worker X (e.g. in the described situation, I would talk to the [in-group or out-group] student about Worker X) and 18 items measuring the motivation of the gossip. Example gossip motivation items included "to obtain knowledge about Worker X (information gathering/validation)," "to improve the relationship with the [in-group or out-group]

student (relationship building),” “to say negative things about Worker X (negative influence),” “to protect the [in-group or out-group] student from Worker X (protection),” “to have a good time (social enjoyment),” and “to protect the image of my university (group image).” Participants, therefore, answered 20 questions for each of the two situations (in-group gossip recipient and out-group gossip recipient). The order of the presentation of the scenarios was randomized and counterbalanced. Finally, they provided demographic information (sex, age, and nationality) and were debriefed.

## Measures

### *Willingness to gossip*

To measure the willingness to instigate gossip, we used two items from Beersma and Van Kleef (2012); “In the described situation, I would talk to the [in-group or out-group] student about Worker X” and “In the described situation, I would talk to the [in-group or out-group] student about the way in which Worker X was behaving.” Participants will answer them using a 7-point scale ranging from 1 = definitely not to 7 = certainly.

### *Gossip motivation*

We used the gossip motivation scale developed by Hartung et al. (2019). This consisted of a total of 18 items, and 6 different motivations (information validation, information gathering, relationship building, protection, social enjoyment, and negative influence) were each measured by three items. Participants answered them using a 7-point scale ranging from 1 = completely disagree to 7 = completely agree. We randomized the order of the items. In addition, we introduced three items measuring the group image concern motivation, based on Ashokkumar et al.’s (2019) motivation to protect group reputation scale (e.g. to protect the image of my university).

## Results: preregistered

### *Deviations from the preregistration*

We made minor changes and corrections to the preregistered analysis code, such as additional logical parameters in some functions. We report them in detail in the final analysis code (see analysis codes in the OSF repository). In addition, we would like to note here that we missed codes to test Hypotheses 3 and 7, and we wrote and added them after preregistration. Otherwise, we did not deviate from the preregistered analysis code, and we followed the preregistered analytic plan. We performed all analyses without preregistered data exclusions and report results in the OSF repository. Overall, results with and without data exclusion did not differ in meaningful ways. Following our preregistration and Rubin (2021), we did not implement  $p$ -value adjustments for our hypothesis testing.

### *Data exclusion and reliability analyses*

We collected participants from three British universities, using university online participant recruitment pools. Given that, from our prior experience, many students in these pools often sign up but do not end up completing surveys, we allowed more participants to sign

up and take our study than the target sample size. As a result, we had 1153 completed responses ( $M_{age} = 19.47$ ,  $SD = 3.00$ , 159 males, 976 females), exceeding the target sample size of 1050. Following the preregistration, we excluded participants based on two criteria: completion time and comprehension check questions. We first excluded participants whose study completion time was three median absolute deviations away from the median completion time (Leys et al., 2013; Miller, 1991). Then, we excluded those who failed to answer the comprehensive check questions correctly. This left us 1038 participants for the analyses, and a sensitivity power analysis indicated that we could detect an effect size of  $f^2 = .05$  (beta coefficients) with 90% statistical power (one-tailed). Following Flora (2020), we then conducted a confirmatory factor analysis for each gossip motivation subscale and computed  $\omega$ . All subscales showed satisfactory reliability,  $\omega_s > .82$ .

### Manipulation check

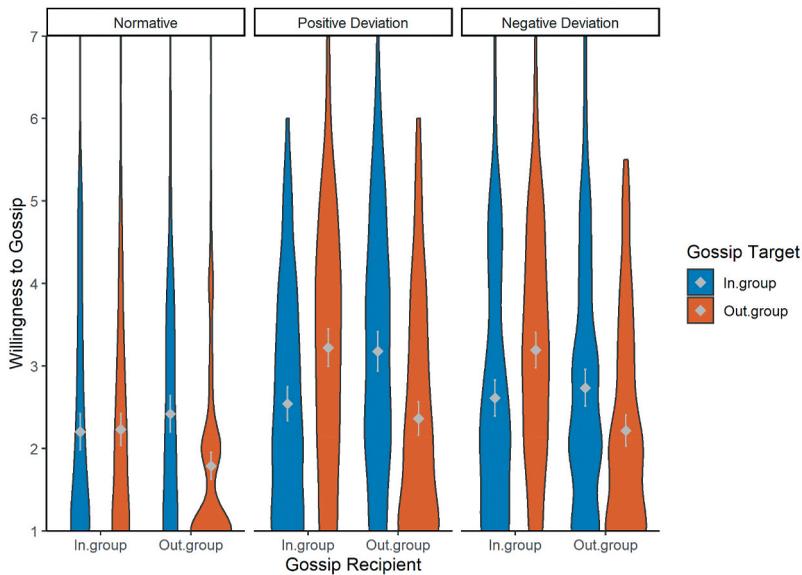
We conducted planned contrasts on an item measuring to what extent participants perceived Worker X's behavior as a manipulation check. It was revealed that participants in the negative norm deviation condition ( $N = 348$ ,  $M = 2.07$ ,  $SD = 0.76$ ) perceived the behavior significantly more negatively than those in the normative condition ( $N = 348$ ,  $M = 4.83$ ,  $SD = 1.04$ ),  $B = -2.76$ ,  $p < .001$ . Those in the positive norm deviation condition ( $N = 342$ ,  $M = 6.06$ ,  $SD = 1.09$ ) perceived it significantly more positively than those in the normative condition,  $B = 1.23$ ,  $p < .001$ . Thus, our manipulation was successful.

### Hypothesis testing: willingness to the gossip (H1–H7)

We took an average of the responses to the two items measuring the willingness to instigate gossip and used it as a main dependent variable (see, Figure 1). To test H1–H7, as explained earlier, we dummy-coded the behavior of the gossip target as follows: contrast 1: negative norm deviation vs. normative behavior; contrast 2: positive norm deviation – normative behavior. We conducted simple effect analyses, examining whether these contrasts would be significant in each of the following conditions: the in-group target  $\times$  in-group recipient (H1 and 4), the out-group target  $\times$  in-group recipient (H2 and 6), the out-group target  $\times$  out-group recipient condition (H3 and 7), and the in-group  $\times$  out-group recipient (H5). More specifically, we regressed contrasts 1 and 2 on the willingness to gossip in each condition. We also report results of preregistered pairwise comparisons using estimated marginal means.

#### **H1 and 4: gossip about in-group norm deviation toward an in-group member**

The regression model was significant,  $F(2, 496) = 4.03$ ,  $p = .02$ ,  $R^2 = .02$ . Individuals were willing to gossip about negative in-group norm deviation toward an in-group member ( $N = 176$ ,  $M = 2.61$ ,  $SD = 1.46$ ) compared to in-group normative behavior ( $N = 159$ ,  $M = 2.20$ ,  $SD = 1.40$ ),  $B = 0.41$ ,  $p = .01$ , *semi-partial correlation* ( $sr$ ) = .12. Similarly, individuals were more willing to gossip about positive in-group norm deviation toward an in-group member ( $N = 164$ ,  $M = 2.54$ ,  $SD = 1.32$ ) compared to in-group normative behavior,  $B = 0.34$ ,  $p = .03$ ,  $sr = .10$ . Thus, Hypotheses 1 and 4 are supported.



**figure 1.** Descriptive statistics for the willingness to gossip in each condition. Note: Diamonds and their error bars indicate means and 95% confidence intervals, respectively.

### ***H2 and 6: gossip about out-group norm deviation toward an in-group member***

We conducted the same analysis among those in the out-group gossip target condition and in the in-group gossip recipient condition,  $F(2, 536) = 29.09, p < .001, R^2 = .10$ . Individuals were significantly more willing to gossip about out-group negative norm deviation toward an in-group member ( $N = 172, M = 3.19, SD = 1.41$ ) compared to out-group normative behavior ( $N = 189, M = 2.23, SD = 1.34$ ),  $B = 0.96, p < .001, sr = .26$ . They were significantly more likely to gossip about out-group positive norm deviation toward an in-group member ( $N = 178, M = 3.22, SD = 1.51$ ) compared to out-group normative behavior,  $B = 0.99, p < .001, sr = .27$ . Hypothesis 2 is supported. However, while we predicted that individuals would be less willing to gossip about positive out-group deviation toward an in-group member, we obtained the effect of the opposite direction, and Hypothesis 6 is not supported.

### ***H3 and 7: gossip about out-group norm deviation towards an out-group member***

We conducted the regression analysis among those who were in the out-group gossip target and the out-group gossip recipient condition,  $F(2, 536) = 10.54, p < .001, R^2 = .04$ . Individuals were more willing to gossip about out-group negative ( $N = 172, M = 2.22, SD = 1.24$ ) and positive norm deviation ( $N = 178, M = 2.36, SD = 1.36$ ) toward an out-group member compared to out-group normative behavior ( $N = 189, M = 1.79, SD = 1.13$ ), contrast 1:  $B = 0.43, p < .001, sr = .14$ ; contrast 2:  $B = 0.57, p < .001, sr = .19$ . Thus, Hypothesis 3 is supported, but while we expected that individuals would be less likely to gossip about out-group positive deviation compared to normative behavior, we found the opposite effect, not supporting Hypothesis 7.

***H5: gossip about in-group norm deviation toward an out-group member***

We conducted the regression analysis among participants in the in-group gossip target and the out-group gossip recipient condition,  $F(2, 496) = 10.98, p < .001, R^2 = .04$ . Contrast 1 was not significant ( $B = 0.31, p = .05, sr = .09$ ), and, thus, individuals were not significantly more willing to gossip about negative in-group norm deviation toward an out-group member ( $N = 176, M = 2.73, SD = 1.47$ ) compared to in-group normative behavior ( $N = 159, M = 2.42, SD = 1.39$ ). Contrast 2 was significant, indicating that individuals were more willing to gossip about in-group positive norm deviation toward an out-group member ( $N = 164, M = 3.18, SD = 1.52$ ) compared to in-group normative behavior,  $B = 0.76, p < .001, sr = .20$ . Thus, Hypothesis 5 is supported.

**Hypothesis testing: gossip motivations (H8–H15)**

Following the preregistration, we carried out multiple linear regressions where the willingness to gossip was predicted by the six gossip motivations. We summarize the results in Table 2. Descriptive statistics of gossip motivations in each condition can be found in the supplementary results in the OSF repository. Overall, none of the hypotheses were fully supported.

***H8: gossip about in-group negative norm deviation toward an in-group member***

We predicted that all gossip motivations except for the group image motivation would be positively associated with the willingness to gossip about in-group negative norm deviation toward an in-group member. Yet, the results indicated that negative influence and protection motivations were the only two significant predictors of the willingness to gossip. We found that they were positively associated with the willingness to gossip.

***H9: gossip about in-group negative norm deviation toward an out-group member***

We hypothesized that the willingness to gossip about in-group negative norm deviation toward an out-group member would be positively associated with the negative influence and information gathering/validation motivations and negatively associated with the group image motivation. The analysis revealed that while the information gathering/validation motivations were positively associated with the willingness to gossip, the group image motivation and negative influence motivations were not significantly associated with it. In addition, we found that protection motivation was positively associated with the tendency to gossip.

***H10: gossip about out-group negative norm deviation toward an in-group member***

We hypothesized that all gossip motivations except for the group image motivation would be positively related to the willingness to gossip about out-group negative norm deviation toward an in-group member. We found that the negative influence and information gathering/validation were positively associated with the willingness to gossip, but the rest were not.



**Table 2.** Results of multiple regressions predicting the willingness to gossip.

		Regression coefficients $B$ (semi-partial correlation)									
Hypothesis	Behavior	Target	Recipient	$F$ statistics	$R^2$	NI	SE	RB	P	GI	IG/IV
H8	Negative	In	In	$F(6, 169) = 14.30^*$	.34	0.27(.18)*	0.07(.05)	0.13(.08)	0.19(.16)*	-0.02(-.01)	0.13(.09)
H9	Negative	In	Out	$F(6, 169) = 18.37^*$	.39	0.18(.12)	0.03(.02)	0.05(.03)	0.21(.18)*	0.11(.11)	0.26(.17)*
H10	Negative	Out	In	$F(6, 165) = 14.02^*$	.34	0.38(.25)*	0.02(.01)	-0.03(-.02)	0.09(.07)	-0.07(-.07)	0.35(.26)*
H11	Negative	Out	Out	$F(6, 165) = 7.95^*$	.22	0.25(.20)*	0.06(.05)	0.08(.06)	0.13(.12)	-0.09(-.10)	0.11(.08)
H12	Positive	In	In	$F(6, 157) = 4.64^*$	.15	-0.18(-.07)	0.17(.12)	-0.14(-.09)	0.07(.04)	0.24(.20)*	0.19(.14)
H13	Positive	In	Out	$F(6, 157) = 10.80^*$	.29	-0.04(.01)	0.18(.11)	-0.04(-.02)	-0.06(-.03)	0.24(.18)*	0.36(.23)*
H14	Positive	Out	In	$F(6, 171) = 9.29^*$	.25	-0.07(-.04)	0.27(.17)*	.002(.001)	0.23(.13)	0.04(.03)	0.28(.19)*
H15	Positive	Out	Out	$F(6, 171) = 6.10^*$	.18	-0.02(-.002)	0.17(.11)	-0.004(-.002)	0.21(.12)	0.12(.13)	0.10(.06)

Note: \* indicates  $p < .05$ . NI: negative influence; SE: social enjoyment; RB: relationship building; P: protection; GI: group image; IG: information gathering; IV: information validation.

***H11: gossip about out-group negative norm deviation toward an out-group member***

We expected that the negative influence and information gathering/validation would be positively associated with the willingness to gossip about out-group negative norm deviation toward an out-group member. While we found that the negative influence motivation was positively associated with the willingness to gossip, the information gathering/validation motivation was not.

***H12: gossip about in-group positive norm deviation towards an in-group member***

We predicted that the willingness to gossip about in-group positive norm deviation toward an in-group member would be positively associated with the social enjoyment, group image, and information gathering/validation motivations. We found that the group image motivation was positively related to the willingness to gossip, but the others were not.

***H13: gossip about in-group positive norm deviation toward an out-group member***

We hypothesized that the group image and information gathering/validation would be positively associated with the willingness to gossip about in-group positive norm deviation toward an out-group member. The analysis revealed that the group image motivation and information gathering/validation were positively associated with the willingness to gossip.

***H14: gossip about out-group positive norm deviation toward an in-group member***

We predicted that the social enjoyment and information gathering/validation would be positively associated with the willingness to gossip about out-group positive norm deviation toward an in-group member, and the group image motivation would be negatively associated with it. While we found that the social enjoyment and information gathering/validation motivations were positively associated with the willingness to gossip, the group image motivation was not significantly associated with it.

***H15: gossip about out-group positive norm deviation toward an out-group member***

Finally, we expected that the willingness to gossip about out-group positive norm deviation toward an out-group member would be positively and negatively associated with the information gathering/validation and group image motivations, respectively. Strikingly, none of the six gossip motivations were significantly associated with the willingness to gossip.

**Discussion**

In this research, we explored the willingness to gossip about norm deviations and motivations behind it, with the group membership of the gossip target and recipient being orthogonally manipulated. This well-powered preregistered study yielded valuable insights toward better understanding intergroup gossip; firstly, we have found that individuals are generally more willing to gossip about norm deviations compared to

normative behavior, regardless of the group membership of the gossip target and recipient. However, the willingness to gossip about negative norm deviation does not differ from that about normative behavior when the gossip target is an in-group member and the gossip recipient is an out-group member. Regarding gossip motivations, we have revealed that motivations behind gossip substantially vary depending on the group membership and the valence of norm deviation. Given that group memberships have a close bearing on actual social interactions, our study offers valuable insights into better understanding everyday gossip behavior and motivations. Below, we first discuss the implications of the findings and close with limitations and future directions.

Regarding the willingness to instigate gossip about norm deviation, previous studies have mainly focused on in-group negative norm deviations and demonstrated that individuals were more likely to gossip about it toward another in-group member compared to in-group normative behavior (Beersma & Van Kleef, 2012). We first replicated the finding and further extended it in several directions by examining the role of the valence of norm deviation and the group membership. Firstly, as expected, we have documented the increased willingness to gossip about negative norm deviation as compared to normative behavior when the gossip target was an out-group member. Yet, it is important to note that motivations behind gossips about in-group and out-group negative norm deviations are different. The gossip about in-group negative norm deviation toward another in-group member was driven by the desire to protect them from further exploitation (i.e. the protection motive) and punish the in-group norm violator (i.e. the negative influence motivation). While individuals' willingness to gossip about out-group negative norm deviation toward an in-group member was related to the punishment motive, it was not associated with the protection motive. These suggest that individuals utilize gossips to punish others regardless of the group membership of norm violators, but they do not necessarily expect in-group members to be vulnerable to exploitation by out-group norm violators. This interpretation seems to be in line with Yamagishi et al.'s (1999) claim that individuals do not expect out-group members to interact with and harm in-group members.

We have found that when a gossip recipient is an out-group member, individuals are no longer more willing to gossip about in-group negative norm deviation compared to normative behavior. While we predicted that the group image motivation would be negatively associated with gossip about in-group negative norm deviation toward an out-group member, we did not find support for it. It was rather related to the protection motivation. This suggests that they are motivated to protect out-group members from the in-group norm violator. This seems to be relevant to the previous studies suggesting that individuals are willing to compensate out-group members for wrongdoings by an in-group member (Costabile & Austin, 2018; Gino et al., 2009). Presumably, individuals gossip in advance so that they can avoid feeling guilt (Costabile & Austin, 2018) and paying costs for compensation (Gino et al., 2009), suggesting that the out-group protection motivation might be self-serving rather than altruistic.

We also investigated the willingness to instigate gossip about positive norm deviation, which has been relatively understudied in the current literature. Overall, as compared to normative behavior, individuals are more willing to gossip about positive norm deviations, regardless of the group membership. Regarding gossip motivations, we have shown that the desire to maintain a positive group image (i.e. the group image motivation) is related to gossips about in-group positive norm deviations irrespective of the group membership of

the gossip recipient. Our study is the first to identify the group image concern as a distinct motivation shaping intergroup gossip. Previous studies have demonstrated that individuals display a wider range of behaviors to maintain a positive group image (Ashokkumar et al., 2019; Costabile & Austin, 2018; Gino et al., 2009; Hopkins et al., 2007; Kahalon et al., 2019; Kardos et al., 2019; Shuman et al., 2018), and our study extends the literature by revealing that it is also related to gossip behavior.

Overall, these findings provide valuable insights into the role of gossip in modern societies that often consist of individuals who belong to different groups. Previous studies on reputation and intergroup behavior, especially intergroup discrimination (Balliet et al., 2014), have been based on the premise that each group has a distinct reputation system and network; Mifune and colleagues (Mifune et al., 2010; Yamagishi & Mifune, 2008), for instance, argued that individuals are more cooperative with in-group members than out-group members because maintaining a reputation in an out-group does not lead to reputational benefits such as indirect reciprocity. As such, findings from these studies have limited implications for how individuals behave in heterogeneous societies, where they can be observed by out-group members. We found that individuals are willing to gossip and communicate reputation information of in-group members and out-group members toward others regardless of their group membership. This suggests that reputational dynamics can transcend group boundaries and individuals may care about reputation of and from out-group members. Thus, people are interested in reputational information of those who belong to an out-group and willing to transmit reputational information of in-group members to out-group members. That being said, our findings are based on one simple scenario and it is sensible to further examine how transmission of reputational information takes place between different groups and how it contributes to shaping social behaviors in modern, heterogeneous societies.

In addition, there is a rich body of research on how people perceive and react to intergroup criticism (e.g. Ditrich et al., 2022; Hornsey & Imani, 2004; Hornsey et al., 2002; Saguy & Halperin, 2014). Saguy and Halperin (2014), for instance, found that Israeli Jews became more open to Palestinians' perspectives after informed about a Palestinian criticizing other Palestinians. On the other hand, Hornsey et al. (2002) found that individuals respond to such criticisms with defensiveness. These findings are complementary to our findings on the tendency to engage in intergroup gossip; further research combining our knowledge about how people perceive and use intergroup gossip will help us elucidate the role of intergroup exchange of reputation information in societies. While we examined to what extent and why individuals are willing to gossip about out-group norm deviations, we did not address their meta-perception about how such gossip is received and its potential consequences. Thus, synthesizing our work with the existing literature on intergroup criticism will advance our understanding of how intergroup gossip shapes intergroup relations in heterogeneous societies.

We would like to discuss several limitations and future directions of the study. Firstly, the norm deviation in the experimental vignette was not severe or morally charged. Molho et al. (2020) reported that the perceived wrongness of target behavior was positively related to gossip intention and behavior, suggesting that the more severe and morally wrong the negative norm deviation is, the more willing individuals would be to gossip about it. Thus, with scenarios with more intense and morally charged negative norm deviations, we may observe more acute associations between the

willingness to gossip and gossip motivations, such as the protection and group image motivations. When it comes to positive norm deviations, Parks and Stone (2010) suggested that those who display extremely positive behavior are punished by in-group members. Such a tendency is found to be particularly high when individuals compete to be chosen as a partner (Pleasant & Barclay, 2018). Thus, while we found that gossips about positive in-group norm deviation were not related to the punishment motivation, the punishment motivation may become a strong predictor of it when target behavior substantially and positively differs from normative behavior. Thus, manipulating the intensity of norm deviation would be a promising future direction.

Secondly, we used a university affiliation as a focal intergroup context, and it would be important to retest our hypotheses with different intergroup contexts. While the university affiliation involves academic rivalry and is known to trigger intergroup biases (Hackel et al., 2017; Ockenfels & Werner, 2014), there are diverse and often more competitive intergroup relations such as political and morally opposing groups (Imada, Codd et al., 2021; Weisel & Böhm, 2015). Previous studies found that intergroup competition increases within-group punishments (Rebers & Koopmans, 2012; Sääksvuori et al., 2011), and the punishment motivation would become more salient, and the willingness to gossip about negative norm deviation would increase when focusing on more competitive intergroup contexts. Thus, it would be desirable to attempt to replicate the findings with different intergroup contexts, e.g. morally- and politically charged relationships, to further qualify our results.

Thirdly, we examined how the seven gossip motivations shaped the willingness to gossip, but it may not be a comprehensive set of key gossip motivations. Since the gossip motivation scale was established (Beersma & Van Kleef, 2012), scholars have identified more gossip motivations and extended the scale (Dores Cruz et al., 2019; Hartung et al., 2019). In this research, we revealed group image concern as a novel gossip motivation influencing intergroup gossip. Therefore, there could be other important motivations for gossip, and future work that aims to identify an exhaustive list of gossip motivations driving everyday gossip behavior would further advance our understanding on what motivates (intergroup) gossip.

Lastly, we employed the experimental vignette with hypothetical individuals and relationships. While this allowed us to investigate intergroup gossip in an abstract setting where we can control for potential effects of relationships with gossip targets and recipients, our findings might not be able to fully explain intergroup gossip when actual acquaintances are involved. For instance, when an in-group gossip target is a close in-group member (i.e. a best friend), individuals may not be willing to gossip about the negative norm violation as much as they would when the target is a random in-group member; interpersonal connection may dictate the gossip tendency. Future studies should, therefore, qualify our findings by incorporating actual social relationships.

Finally, we would like to note that social identification (Tajfel, 1974; Tajfel & Turner, 1979; Turner, 1975) may be relevant to intergroup gossip. Tajfel, Turner, and colleagues argued that individuals who identify with the in-group were motivated to behave in a way they can establish a positively distinctive group identity. Their theory has guided numerous studies pertaining to intergroup processes, and the strength of social identification is known to moderate a wide range of intergroup behavior (for reviews, see, Hewstone et al., 2002; Hogg & Abrams, 1988). It can be expected that strong identification may amplify some gossip motivations, such as the group image motivation, which

can serve to achieve positive social identity distinctiveness. More relatedly, previous studies have revealed that individuals with strong social identification evaluated in-group norm violators more harshly than out-group norm violators (Marques et al., 2001; Marques & Paez, 1994). On the other hand, Packer (2014) found that high identifiers were less likely to express criticism toward their in-group with an out-group audience compared to low identifiers. These studies together suggest that high social identification leads to harsh evaluation of in-group negative norm deviations but does not necessarily lead to increased tendency to the gossip about it toward out-group members, which is, in fact, consistent with our finding that people are no longer more willing to gossip about it toward out-group members compared to in-group normative behavior. The integration of the social identity perspective into intergroup gossip research will open up another promising avenue toward understanding intergroup gossip, helping us better understand individual differences in the tendency to engage in intergroup gossip.

In summary, we investigated intergroup gossip and its motivations. We have shown that the previously documented tendency to instigate gossip about in-group positive norm deviation holds in diverse situations varying in the valence of deviation and the group membership. In addition, we have found that gossip motivations depend on the valence of the behavior and the group membership of the gossip target and recipient. Despite the limitations, our study offers valuable evidence about intergroup gossip and helps us better understand how gossip and reputation play a role in societies in which people who belong to diverse groups cohabit. As discussed, our research opens various promising avenues for future studies to further elucidate how intergroup gossip shapes intergroup behaviors.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

## ORCID

Hirota Iimada  <http://orcid.org/0000-0003-3604-4155>

Marika Rullo  <http://orcid.org/0000-0003-0642-5985>

## References

- Ashokkumar, A., Galaif, M., & Swann, W. B. (2019). Tribalism can corrupt: Why people denounce or protect immoral group members. *Journal of Experimental Social Psychology, 85*, 103874. <https://doi.org/10.1016/j.jesp.2019.103874>.
- Balliet, D., Wu, J., & De Dreu, C. K. W. (2014). Ingroup favoritism in cooperation: A meta-analysis. *Psychological Bulletin, 140*(6), 1556–1581. <https://doi.org/10.1037/a0037737>.
- Beersma, B., & Van Kleef, G. A. (2011). How the grapevine keeps you in line: Gossip increases contributions to the group. *Social Psychological and Personality Science, 2*(6), 642–649. <https://doi.org/10.1177/1948550611405073>.
- Beersma, B., & Van Kleef, G. A. (2012). Why people gossip: An empirical analysis of social motives, antecedents, and consequences. *Journal of Applied Social Psychology, 42*(11), 2640–2670. <https://doi.org/10.1111/j.1559-1816.2012.00956.x>.

- Bozoyan, C., Vogt, S., & Hamacher, K. (2016). The impact of third-party information on trust: valence, source, and reliability. *PLOS ONE*, *11*(2), e0149542. <https://doi.org/10.1371/journal.pone.0149542>.
- Cialdini, R. B., & Griskevicius, V. (2010). Social influence. In Finkel, E. J., Baumeister, R. F. (eds.), *Advanced social psychology: The state of the science* (pp. 385–417). Oxford University Press.
- Costabile, K. A., & Austin, A. B. (2018). A riot on campus: The effects of social identity complexity on emotions and reparative attitudes after ingroup-perpetrated violence. *Aggressive Behavior*, *44*(1), 50–59. <https://doi.org/10.1002/ab.21723>.
- Ditrich, L., Lüders, A., Jonas, E., & Sassenberg, K. (2022). You gotta fight! - Why norm-violations and outgroup criticism lead to confrontational reactions. *Cognition & Emotion*, *36*(2), 254–272. <https://doi.org/10.1080/02699931.2021.2002823>.
- Cruz, D., Terence, D., Balliet, D., Sleebos, E., Beersma, B., Van Kleef, G. A., & Gallucci, M. (2019). Getting a grip on the grapevine: Extension and factor structure of the motives to gossip questionnaire. *Frontiers in Psychology*, *10*(MAY), 1190. <https://doi.org/10.3389/fpsyg.2019.01190>
- Cruz, D., Daniel, T., Thielmann, I., Columbus, S., Molho, C., Wu, J., Righetti, F., de Vries, R., Koutsoumpis, A., van Lange, P., Beersma, B., Balliet, D., Cruz, T. D. D., Thielmann, I., Columbus, S., Molho, C., Wu, J., Righetti, F., Vries, R. E. D., Balliet, D. (2021). Gossip and reputation in everyday life. *Philosophical Transactions of the Royal Society B*, *376*(1838). <https://doi.org/10.1098/rstb.2020.0301>
- Dunbar, R. I. M. (2004). Gossip in evolutionary perspective. *Review of General Psychology*, *8*(2), 100–110. <https://doi.org/10.1037/1089-2680.8.2.100>.
- Dunbar, R. I. M., Marriott, A., & Duncan, N. D. C. (1997). Human conversational behavior. *Human Nature*, *8*(3), 231–246. doi:10.1007/BF02912493.
- Emler, N. (1994). Gossip, reputation, and social adaptation. In Goodman, R. F., Ben-Ze'ev, A. (eds), *Good gossip* (pp. 117–138). University Press of Kansas.
- Erdfelder, E., Faul, F., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G\*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, *41*(4), 1149–1160. doi:10.3758/BRM.41.4.1149.
- Eriksson, K., Strimling, P., Gelfand, M., Wu, J., Abernathy, J., Akotia, C. S., Aldashev, A., Andersson, P. A., Andrighetto, G., Anum, A., Arikan, G., Aycan, Z., Bagherian, F., Barrera, D., Basnight-Brown, D., Batkeyev, B., Belaus, A., Berezina, E., Björnstjerna, M., , ... and Van Lange, P. A. M. (2021). Perceptions of the appropriate response to norm violation in 57 societies. *Nature Communications*, *12*(1), 1481. <https://doi.org/10.1038/s41467-021-21602-9>.
- Feinberg, M., Willer, R., & Schultz, M. (2014). Gossip and ostracism promote cooperation in groups. *Psychological Science*, *25*(3), 656–664. <https://doi.org/10.1177/0956797613510184> .
- Feinberg, M., Willer, R., Stellar, J., & Keltner, D. (2012). The virtues of gossip: Reputational information sharing as prosocial behavior. *Journal of Personality and Social Psychology*, *102*(5), 1015–1030. <https://doi.org/10.1037/a0026650>.
- Flora, D. B. (2020). your coefficient alpha is probably wrong, but which coefficient omega is right? A tutorial on using r to obtain better reliability estimates. *Advances in Methods and Practices in Psychological Science*, *3*(4), 484–501. <https://doi.org/10.1177/2515245920951747> .
- Foster, E. K. (2004). Research on gossip: taxonomy, methods, and future directions. *Review of General Psychology*, *8*(2), 78–99. <https://doi.org/10.1037/1089-2680.8.2.78>.
- Giardini, F., & Conte, R. (2012). Gossip for social control in natural and artificial societies. *Simulation*, *88*(1), 18–32. <https://doi.org/10.1177/0037549711406912>.
- Gino, F., Ayal, S., & Ariely, D. (2009). Contagion and differentiation in unethical behavior: The effect of one bad apple on the barrel. *Psychological Science*, *20*(3), 393–398. <https://doi.org/10.1111/j.1467-9280.2009.02306.x>.
- Hackel, L. M., Zaki, J., & Van Bavel, J. J. (2017). Social identity shapes social valuation: Evidence from prosocial behavior and vicarious reward. *Social Cognitive and Affective Neuroscience*, *12*(8), 1219–1228. <https://doi.org/10.1093/scan/nsx045>.
- Hardy, C. L., & Van Vugt, M. (2006). Nice guys finish first: The competitive altruism hypothesis. *Personality and Social Psychology Bulletin*, *32*(10), 1402–1413. <https://doi.org/10.1177/0146167206291006> .

- Hartung, F.-M.-M., Krohn, C., & Pirschtat, M. (2019). Better than its reputation? Gossip and the reasons why we and individuals with “dark” personalities talk about others. *Frontiers in Psychology, 10* (MAY), 1162. <https://doi.org/10.3389/fpsyg.2019.01162>.
- Hewstone, M., Rubin, M., & Willis, H. (2002). Intergroup Bias. *Annual Review of Psychology, 53*(1), 575–604. <https://doi.org/10.1146/annurev.psych.53.100901.135109>.
- Hogg, M. A., & Abrams, D. (1988). *Social identifications: A social psychology of intergroup relations and group processes*. In *social identifications: A social psychology of intergroup relations and group processes*. Taylor & Frances/Routledge.
- Hopkins, N., Reicher, S., Harrison, K., Cassidy, C., Bull, R., & Levine, M. (2007). Helping to improve the group stereotype: On the strategic dimension of prosocial behavior. *Personality and Social Psychology Bulletin, 33*(6), 776–788. <https://doi.org/10.1177/0146167207301023>.
- Hornsey, M. J., & Imani, A. (2004). Criticizing groups from the inside and the outside: An identity perspective on the intergroup sensitivity effect. *Personality & Social Psychology Bulletin, 30*(3), 365–383. <https://doi.org/10.1177/0146167203261295>.
- Hornsey, M. J., Oppes, T., & Svensson, A. (2002). “It’s OK if we say it, but you can’t”: Responses to intergroup and intragroup criticism. *European Journal of Social Psychology, 32*(3), 293–307. <https://doi.org/10.1002/ejsp.90>.
- Imada, H., Codd, D., & Liu, D. (2021). Intergroup discrimination in cooperation among moral and non-moral groups. *Letters on Evolutionary Behavioral Science, 12*(1), 28–33. <https://doi.org/10.5178/lebs.2021.86>.
- Imada, H., Hophthrow, T., & Abrams, D. (2021). The role of positive and negative gossip in promoting prosocial behavior. *Evolutionary Behavioral Sciences, 15*(3), 285–291.
- Kahalon, R., Shnabel, N., Halabi, S., & SimanTov-NachlieliSimanTov-Nachlieli, I. (2019). Power matters: The role of power and morality needs in competitive victimhood among advantaged and disadvantaged groups. *British Journal of Social Psychology, 58*(2), 452–472. <https://doi.org/10.1111/bjso.12276>.
- Kardos, P., Leidner, B., Castano, E., & Lickel, B. (2019). The benefits of collective responsibility: How ingroup reputation concern motivates prosociality in intergroup contexts. *European Journal of Social Psychology, 49*(1), 93–109. <https://doi.org/10.1002/ejsp.2506>.
- Lakens, D. (2022). Sample Size Justification. *Collabra: Psychology, 8*(1). <https://doi.org/10.1525/COLLABRA.33267>
- Legros, S., & Cislighi, B. (2020). Mapping the social-norms literature: An overview of reviews. *Perspectives on Psychological Science, 15*(1), 62–80. <https://doi.org/10.1177/1745691619866455>.
- Leys, C., Ley, C., Klein, O., Bernard, P., & Licata, L. (2013). Detecting outliers: Do not use standard deviation around the mean, use absolute deviation around the median. *Journal of Experimental Social Psychology, 49*(4), 764–766. <https://doi.org/10.1016/j.jesp.2013.03.013>.
- Marques, J. M., Abrams, D., & Serôdio, R. G. (2001). Being better by being right: Subjective group dynamics and derogation of in-group deviants when generic norms are undermined. *Journal of Personality and Social Psychology, 81*(3), 436–447. <https://doi.org/10.1037/0022-3514.81.3.436>.
- Marques, J. M., & Paez, D. (1994). The ‘black sheep effect’: Social categorization, rejection of ingroup deviates, and perception of group variability. *European Review of Social Psychology, 5*(1), 37–68. <https://doi.org/10.1080/14792779543000011>.
- Mifune, N., Hashimoto, H., & Yamagishi, T. (2010). Altruism toward in-group members as a reputation mechanism. *Evolution and Human Behavior, 31*(2), 109–117. <https://doi.org/10.1016/j.evolhumbehav.2009.09.004>.
- Mifune, N., & Yamagishi, T. (2015). A test of the correlation between ingroup favoritism and fear of negative evaluation. *Research in Social Psychology, 31*(2), 128–134. [https://doi.org/10.14966/jssp.31.2\\_128](https://doi.org/10.14966/jssp.31.2_128)
- Miller, J. (1991). Short report: Reaction time analysis with outlier exclusion: bias varies with sample size. *The Quarterly Journal of Experimental Psychology Section A, 43*(4), 907–912. <https://doi.org/10.1080/14640749108400962>.
- Molho, C., Tybur, J. M., Van Lange, P. A. M., & Balliet, D. (2020). *Direct and indirect punishment of norm violations in daily life*, 11(1). Nature Communications. <https://doi.org/10.1038/s41467-020-17286-2>

- Ockenfels, A., & Werner, P. (2014). Beliefs and ingroup favoritism. *Journal of Economic Behavior and Organization*, 108, 453–462. <https://doi.org/10.1016/j.jebo.2013.12.003>.
- Packer, D. J. (2014). On not airing our dirty laundry: Intergroup contexts suppress ingroup criticism among strongly identified group members. *The British Journal of Social Psychology*, 53(1), 93–111. <https://doi.org/10.1111/bjso.12017>.
- Parks, C. D., & Stone, A. B. (2010). The desire to expel unselfish members from the group. *Journal of Personality and Social Psychology*, 99(2), 303–310. <https://doi.org/10.1037/a0018403>.
- Patsiurko, N., Campbell, J. L., & Hall, J. A. (2012). Measuring cultural diversity: Ethnic, linguistic and religious fractionalization in the OECD. *Ethnic and Racial Studies*, 35(2), 195–217. <https://doi.org/10.1080/01419870.2011.579136>
- Peters, K., Jetten, J., Radova, D., & Austin, K. (2017). Gossiping about deviance: Evidence that deviance spurs the gossip that builds bonds. *Psychological Science*, 28(11), 1610–1619. <https://doi.org/10.1177/09567976171716918>.
- Piazza, J., & Bering, J. M. (2008). Concerns about reputation via gossip promote generous allocations in an economic game. *Evolution and Human Behavior*, 29(3), 172–178. <https://doi.org/10.1016/j.evolhumbehav.2007.12.002>.
- Pleasant, A., & Barclay, P. (2018). Why hate the good guy? Antisocial punishment of high cooperators is greater when people compete to be chosen. *Psychological Science*, 29(6), 868–876. <https://doi.org/10.1177/0956797617752642>.
- Rebers, S., & Koopmans, R. (2012). Altruistic punishment and between-group competition: evidence from n-person prisoner's dilemmas. *Human Nature*, 23(2), 173–190. doi:10.1007/s12110-012-9136-x.
- Richardson, D. R., & Green, L. R. (1997). Circuitous harm. In Kowalski, R. M. (ed.), *Aversive Interpersonal Behaviors* (pp. 171–188). Springer US. [https://doi.org/10.1007/978-1-4757-9354-3\\_8](https://doi.org/10.1007/978-1-4757-9354-3_8)
- Roberts, G. (1998). Competitive altruism: From reciprocity to the handicap principle. *Proceedings of the Royal Society B: Biological Sciences*, 265(1394), 427–431. <https://doi.org/10.1098/rspb.1998.0312>.
- Rubin, M. (2021). When to adjust alpha during multiple testing: A consideration of disjunction, conjunction, and individual testing. *Synthese*, 199(3–4), 10969–11000. <https://doi.org/10.1007/s11229-021-03276-4>
- Sääksvuori, L., Mappes, T., & Puurtinen, M. (2011). Costly punishment prevails in intergroup conflict. *Proceedings of the Royal Society B: Biological Sciences*, 278(1723), 3428–3436. <https://doi.org/10.1098/rspb.2011.0252>.
- Saguy, T., & Halperin, E. (2014). Exposure to outgroup members criticizing their own group facilitates intergroup openness. *Personality & Social Psychology Bulletin*, 40(6), 791–802. <https://doi.org/10.1177/0146167214525475>.
- Schiller, B., Baumgartner, T., & Knoch, D. (2014). Intergroup bias in third-party punishment stems from both ingroup favoritism and outgroup discrimination. *Evolution and Human Behavior*, 35(3), 169–175. <https://doi.org/10.1016/j.evolhumbehav.2013.12.006>.
- Shuman, E., Johnson, D., Saguy, T., & Halperin, E. (2018). Threat to the Group's Group's Image Can Motivate High Identifiers to Take Action Against In-group Transgressions. *Personality & Social Psychology Bulletin*, 44(11), 1523–1544. <https://doi.org/10.1177/0146167218768800>
- Sommerfeld, R. D., Krambeck, H. J., Semmann, D., & Milinski, M. (2007). Gossip as an alternative for direct observation in games of indirect reciprocity. *Proceedings of the National Academy of Sciences of the United States of America*, 104(44), 17435–17440. <https://doi.org/10.1073/pnas.0704598104>.
- Tajfel, H. (1974). Social identity and intergroup behaviour. *Social Science Information*, 13(2), 65–93. <https://doi.org/10.1177/053901847401300204>.
- Tajfel, H., & Turner, J. (1979). An integrative theory of inter-group conflict. In W. G. Austin, & S. Worchel (Eds.), *The Social Psychology of Intergroup Relations* (pp. 33–47). January 1979. Monterey, CA: Brooks/Cole.
- Turner, J. C. (1975). Social comparison and social identity: Some prospects for intergroup behaviour. *European Journal of Social Psychology*, 5(1), 1–34. <https://doi.org/10.1002/ejsp.2420050102>.

- van Leeuwen, E., & Täuber, S. (2012). Outgroup helping as a tool to communicate ingroup warmth. *Personality and Social Psychology Bulletin, 38*(6), 772–783. <https://doi.org/10.1177/0146167211436253>.
- Weisel, O., & Böhm, R. (2015). “Ingroup love” and “outgroup hate” in intergroup conflict between natural groups. *Journal of Experimental Social Psychology, 60*, 110–120. <https://doi.org/10.1016/j.jesp.2015.04.008>.
- Winter, F., & Zhang, N. (2018). Social norm enforcement in ethnically diverse communities. *Proceedings of the National Academy of Sciences of the United States of America, 115*(11), 2722–2727. <https://doi.org/10.1073/pnas.1718309115>.
- Wu, J., Balliet, D., & Van Lange, P. A. M. (2016). Reputation management: Why and how gossip enhances generosity. *Evolution and Human Behavior, 37*(3), 193–201. <https://doi.org/10.1016/j.evolhumbehav.2015.11.001>.
- Yamagishi, T., Jin, N., & Kiyonari, T. (1999). Bounded generalized reciprocity: Ingroup boasting and ingroup favouritism. *Advances in Group Processes, 16*, 161–197.
- Yamagishi, T., & Mifune, N. (2008). Does shared group membership promote altruism?: Fear, greed, and reputation. *Rationality and Society, 20*(1), 5–30. <https://doi.org/10.1177/1043463107085442>.