

The Relative Effectiveness of Positive and Negative Gossip in Promoting Prosocial Giving: The Examination of the Valence of Gossip Content and Reputational Consequences

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Abstract: Gossip promotes prosocial behavior via reputational concern. However, the relative effectiveness of positive and negative gossip has been understudied. I examined to what extent positive and negative gossip promoted prosocial behavior when a potential consequence of gossip was positively framed (a third party offering a financial bonus) and negatively framed (a third party deducting a bonus). I found that gossip, irrespective of its valence, promoted generosity via reputational concern in both contexts. Yet, analyses suggested that positive gossip may have a stronger effect in promoting prosociality. The findings, together with previous findings, call for further investigation of the relationship between the effectiveness of positive and negative gossip in promoting prosociality and types of reputational consequences.

Key words: gossip, reputation, prosocial behavior, gossip valence.

Gossip, the exchange of information about absent others (Foster, 2004), is ubiquitous and found to influence various aspects of social lives. Individuals spend more than 60% of their social conversations in gossiping (Dunbar, 2004; Dunbar et al., 1997; Emler, 1994) and gossip surely affects various domains of interpersonal (Dores Cruz et al., 2021) and intergroup (Imada et al., 2022) relationships, as well as organizational structures (Martinescu et al., 2019). Gossip differs from other forms of mere social information sharing in that it conveys reputational information about others (Dores Cruz et al., 2021) and helps individuals identify, for instance, cooperative and selfish others. The transmission and exchange of reputational information via gossip guide individuals as to whether and

how much they should interact and cooperate with others (i.e., indirect reciprocity; Nowak & Sigmund, 1998, 2005). Consequently, the potential to be gossiped about induces reputational concern such that individuals are then willing to display prosocial behavior to maintain a positive reputation and benefit from it (for a review, see Wu et al., 2016b).

A number of previous studies have consistently demonstrated that gossip promotes different types of prosocial behaviors, such as cooperation (Dores Cruz et al., 2019; Feinberg et al., 2014; Shank et al., 2019; Sommerfeld et al., 2007, 2008; Wu et al., 2016a) and prosocial giving (Piazza & Bering, 2008; Wu et al., 2015, 2016c, 2019), as well as interpersonal trust (Bozoyan & Vogt, 2016; Fehr & Sutter, 2019; Feinberg et al., 2012;

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Fonseca & Peters, 2018); individuals are more prosocial when their behavior can be gossiped about. Gossip exerts influence via reputational concern (Beersma & Van Kleef, 2011; Wu et al., 2015, 2016c) and the impact of gossip holds across different contexts: even when gossip is not accurate (Fonseca & Peters, 2018), and when there is only a single recipient of gossip, rather than multiple recipients (Wu et al., 2016c). Moreover, Wu et al. (2016a) revealed that gossip is a more effective tool to maintain cooperation than punishment; more specifically, using an iterated public goods game with four rounds, they found that while punishment increased the level of cooperation in the last two rounds and overall decreased individual earnings, gossip sustained the level of cooperation across all rounds and increased individual earnings. Overall, there has been ample evidence that the potential to be gossiped about effectively drives individuals to display prosocial behavior via reputational concern.

However, past research has understudied the potential influence of gossip valence (positive or negative) on the prosociality-enhancing effect of gossip (Wu et al., 2016b), while there have been various studies looking at individual propensities for engaging in positive and negative gossip (Bosson et al., 2006; Davis et al., 2018; Dorez Cruz et al., 2021; Dunbar et al., 1997; Eckhaus & Ben-Hador, 2019; Levin & Arluke, 1985; Litman & Pezzo, 2005) and the influence of the use of positive and negative gossips on social relationships (Bosson et al., 2006; Farley, 2011; Hauke & Abele, 2020a, 2020b; McAndrew et al., 2007; Peters et al., 2017; Tassiello et al., 2018; Wyckoff et al., 2019). Previous studies, for instance, revealed that negative gossip decreased gossip targets' well-being (Peters & Kashima, 2014) and self-concept (Hauke & Abele, 2020a). Peters et al. (2017) found that individuals were more willing to gossip about negative norm violations (e.g., littering) than positive norm violations (e.g., picking up littered garbage), and that gossiping about the negative norm deviation fostered social bonding between individuals exchanging the gossip more than gossiping about positive violations. Nevertheless, despite the rich literature on gossip valence, there have been only a few studies on

gossip and prosocial behavior that incorporated the potential effect of gossip valence (Imada et al., 2021; Sommerfeld et al., 2007, 2008). Namely, the relative effectiveness of positive and negative gossip in fostering prosocial behavior has been understudied.

Using an iterated indirect reciprocity game, Sommerfeld et al. (2007) introduced gossip valence into the study of gossip and cooperation, and they demonstrated that individuals cooperated more with others who had been positively gossiped about compared to those who had been negatively gossiped about. Importantly, they manipulated the valence of which a cooperation partner had earned gossip. Thus, it still remained unclear whether the potential to be positively or negatively gossiped about would exert different levels of impact on cooperation (i.e., the relative strength of positive and negative gossip in promoting generosity).

Imada et al. (2021) was the first to directly examine the role of gossip valence and investigated whether positive and negative gossip would promote cooperation differently. In their study, participants first played a dictator game as a dictator and were instructed that they would play a trust game as a trustee. They manipulated gossip valence by varying instruction about whether and what a recipient of money in the dictator game would tell a trustor in the trust game. In the positive gossip conditions, the recipient would send an evaluative message about how kind, cooperative, and trustworthy the participants were to the trustor. In the negative gossip condition, "kind," "cooperative," and "trustworthy" were replaced with "mean," "selfish," and "untrustworthy." In the no-gossip condition, no information about participants would be sent to the trustor. They found that positive and negative gossip both promoted generosity in the dictator game, and the effect was mediated by reputational concern. They also tested an alternative explanation of the effect of gossip: expected future benefits. Consistently with previous experimental findings and theorizing (e.g., Wu et al., 2016b), they found that it is reputational concern rather than expected future benefits from generous behavior (i.e., trust from their partner in the trust game) that

explained the prosociality-enhancing effect of gossip; reputational concern is the key psychological underpinning of the effect of gossip in promoting prosociality.

While Imada et al. (2021) found that even though the consequences of earning a positive and negative reputation seemed to be different, the gossip valence did not matter when, at least, the reputational consequence was trust in the trust game. As noted in their discussion, however, the finding of Imada et al. (2021) might be limited to the situation in which their reputation earned through dictator giving could earn trust from another person in the trust game. I would like to also note that previous experimental studies on gossip, in general, predominantly focused on situations in which one's reputation earned through prosocial behavior could lead to positive consequences, for example, when gossip recipients can financially benefit them (Feinberg et al., 2012; Imada et al., 2021; Sommerfeld et al., 2007, 2008; Wu et al., 2015, 2019) with the exception of Feinberg et al. (2014) where gossip receivers could ostracize gossip targets.

Despite the empirical focus on situations involving positive reputational consequences, human life is rife with negative reputational consequences, such as ostracism and punishment (Mathew & Boyd, 2011; Nezelek et al., 2012, 2015; Williams, 2007). Thus, people experience a range of situations where they anticipate their behavior may lead to negative reputational consequences. When people expect negative reputational consequences, does their sensitivity to the potential to be positively and negatively gossiped about change?

Previous studies consistently found that people are, in general, reluctant to harm and punish others (Crockett et al., 2014; Everett et al., 2016, p. 201; Simunovic et al., 2013). In other words, people have a strong preference not to harm others, and there needs to be strong motivations or incentives in order for them to make negative impacts on others. As such, when people are aware that their behavior may lead gossip recipients to impose negative reputational consequences on them (i.e., harm them), they may conjecture that positive gossip about themselves would not incite the gossip recipients to harm

them. Thus, people may be more sensitive to the potential to be negatively (vs. positively) gossiped about when potential reputational consequences are negative. Overall, given that the sensitivity to positive and negative gossip may vary depending on the valence of reputational consequences, the relative effectiveness of gossip valence in promoting prosociality deserves further investigation.

In the present research, therefore, I exploratorily investigate the effectiveness of positive and negative gossip in promoting generosity across two situations: when one's reputation leads to positive and negative reputational consequences (i.e., reward and punishment). More specifically, in this research, I operationally defined positive and negative reputational consequences as a gossip recipient being able to reward and subtract bonus points from those gossiped about (i.e., participants).

Method

Participants and Design

The study followed a 2 (reputational consequence: positive vs. negative) \times 3 (gossip: positive gossip vs. negative gossip vs. no gossip) between-subject design. A priori power analysis (Erdfelder et al., 2009) revealed that 235 participants were required to detect a small-to-medium effect size of $\eta^2 = .04$ to have a statistical power of .80. Thus, I collected 240 British participants whose first language was English ($M_{\text{age}} = 35.85$ years, $SD = 12.75$ years, 130 female) via Prolific Academic.

Procedure

Participants were invited to take part in an online survey. After giving consent, participants first provided demographic information, such as age, nationality, and first language. I also introduced seven items from the Self-consciousness Scale (Scheier & Carver, 1985) for exploratory purposes.

Participants were then instructed that they would complete a decision-making scenario where they would be paired with another participant and could earn an extra bonus. The scenario consisted of three participants (Person A,

Person B, and Person C) and three parts (a dictator game, gossip transmission, and bonus decision). All participants received the same instruction about the dictator game that they were endowed with 100 lab points (1 point = £0.05) and should decide the division of the points between themselves (Person A) and a paired participant (Person B). I incentivized them by informing them that one participant would be randomly chosen to receive the actual payment of the money they earned in the study.

In the gossip transmission phase, I manipulated gossip valence; in the positive gossip condition, it was instructed that Person B, the receiver in the preceding dictator game, could tell Person C how kind, cooperative, and trustworthy Person A (participants) was. It was made clear that Person B was not allowed to say anything else. Contrastingly, participants in the negative gossip condition were told that Person B would tell how mean, selfish, and untrustworthy Person A was to Person C. In the no-gossip condition, Person B could not send any messages to Person C.

In the bonus decision phase, I manipulated the framing of reputational consequences. In the positive reputational consequence condition, Person C was given 100 lab points and asked to decide how many points they would like to give Person A as an extra bonus. By contrast, in the negative reputational consequence condition, Person A was given an additional 100 lab points as an extra bonus, and Person C could decide the final bonus points by subtracting any points from the 100 lab points. Thus, in both conditions, participants, as Person A, could earn from 0 to 100 lab points, but the framing of the bonus decision of Person C was different in the two conditions.

After reading the instruction about the three parts of the scenario, participants answered three comprehension questions regarding the scenario, and they could not proceed unless they provided the right answers to them. Then, participants indicated how many points they would like to give to Person B and finalized their dictator decision.

Lastly, I presented a reputational concern scale (adapted by Wu et al., 2015) and

measurement of expectations about the bonus point they could earn in the bonus decision phase, in randomized order. The former consisted of three items (e.g. “Possible talk by Person B about my decision played an important role when I made my choice”), and participants answered them using a 5-point scale ranging from 1 = *totally disagree* to 5 = *totally agree* ($\alpha = .74$). The measurement of expectation about the bonus point was slightly different in the positive and negative reputational consequence conditions. In the positive reputational consequence condition, I asked participants how many points they thought Person C would give to them. In the negative reputational consequence condition, I asked them how many points they thought Person C would subtract from their bonus points. For statistical analyses, I reverse-coded responses from participants in the latter condition such that they indicated the final bonus points they would earn in the bonus decision part. After completing these measures, participants were debriefed and thanked. I have uploaded study materials, data, and analysis codes at <https://osf.io/uy7h3/>.

Results

Prosocial Behavior

I conducted a 2 (reputational consequence: positive vs. negative) \times 3 (gossip valence: positive gossip vs. negative gossip vs. no gossip) between-subject analysis of variance (ANOVA) on prosocial giving. I found a significant main effect of gossip, $F(2, 235) = 7.48, p = .001, \eta_p^2 = .06$. The main effect of reputational consequence was not significant, $F(1, 235) = 3.23, p = .07, \eta_p^2 = .01$. The interaction was not significant, $F(2, 235) = 0.93, p = .40, \eta_p^2 = .007$. I followed up the significant effect of gossip valence by pairwise comparisons of estimated marginal means (EMM). All pairwise comparisons reported in the paper employed the Tukey method for p -value adjustment. Individuals in the positive gossip condition (EMM = 55.9, $SD = 2.17$) were more prosocial than those in the no-gossip condition (EMM = 44.0,

Table 1
Means and standard deviations of reputational concern and expectation

	Reputational Concern		Expected Bonus	
	Positive Consequence <i>M</i> (<i>SD</i>)	Negative Consequence <i>M</i> (<i>SD</i>)	Positive Consequence <i>M</i> (<i>SD</i>)	Negative Consequence <i>M</i> (<i>SD</i>)
Positive gossip	3.79 (0.89)	3.87 (0.86)	53.08 (23.89)	58.55 (26.77)
Negative gossip	3.63 (0.91)	3.65 (0.88)	43.80 (16.61)	60.90 (27.31)
No gossip	2.55 (1.02)	2.64 (1.08)	46.91 (24.91)	47.05 (35.61)

$SD = 2.18$). However, prosocial behavior in the negative gossip condition ($EMM = 49.60$, $SD = 2.20$) did not significantly differ from that in the positive gossip and no-gossip conditions, $t_s < 2.02$, $p_s > .10$. Overall, while the positive gossip promoted prosociality, the negative gossip did not.

Reputational Concern

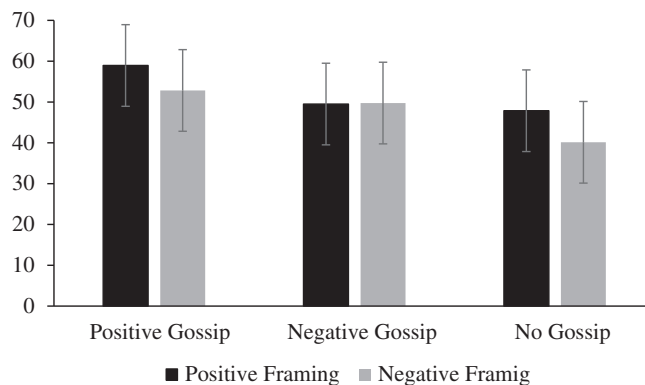
Previous theorizing suggests reputational concern plays a critical role in explaining the relationship between gossip and prosocial behavior. As such, we examined how the experimental manipulations influenced reputational concern. I conducted a 2 (reputational consequence: positive vs. negative) \times 3 (gossip valence: positive gossip vs. negative gossip vs. no gossip) between-subject ANOVA on reputational concern (see Table 1 for descriptive statistics). There was a significant main effect of gossip valence, $F(1, 235) = 39.90$,

$p < .001$, $\eta_p^2 = .25$. Follow-up pairwise comparisons revealed that those in the positive and negative gossip conditions experienced more reputational concern than those in the no-gossip condition, $t_s > 6.98$, $p_s < .001$. Yet, the difference between the positive and negative conditions was not significant, $t = .13$, $p = .40$. The main effect of reputational consequence and the interaction effect were not significant, $F_s < 0.30$, $p_s > .58$, $\eta_p^2 < .001$ (Figure 1).

Expectation About the Bonus Decision

Expected benefits from immediate prosocial behavior can be an alternative explanation of why gossip promotes prosociality, and it is important to consider in order to elucidate the theorized role of reputational concern in shaping the relationship between gossip and prosociality. I thus conducted a 2 (reputational consequence: positive vs. negative) \times 3 (gossip

Figure 1
Prosocial behavior by conditions.



valence: positive gossip vs. negative gossip vs. no gossip) between-subject ANOVA on the expected bonus (see Table 1 for descriptive statistics). The main effect of reputation consequence was significant, suggesting that individuals in the negative reputational consequence condition ($EMM = 55.50, SE = 2.42$) expected to receive more bonus than those in the other condition ($EMM = 47.90, SE = 2.39$), $F(1, 235) = 4.97, p = .03, \eta_p^2 = .02$. The main effect of gossip valence and the interaction term were not significant, $F_s < 2.30, p_s > .10, \eta_p^2 < .02$.

Mediation Analyses

Following previous studies (e.g. Imada et al., 2021; Wu et al., 2015), I built a mediation model to elucidate the psychological mechanisms underlying the effect of gossip. Namely, I dummy-coded gossip valence manipulation such that the no-gossip condition is treated as a reference, and I built a path model in which two dummy-coded variables (positive vs. no gossip and negative vs. no gossip) had direct and indirect effects on prosociality via reputational concern and expected bonus (see Figure 2). I bootstrap-tested the four indirect paths (5,000 bootstrap samples) in the path model and explored the relationship between the gossip treatments and prosocial behavior.

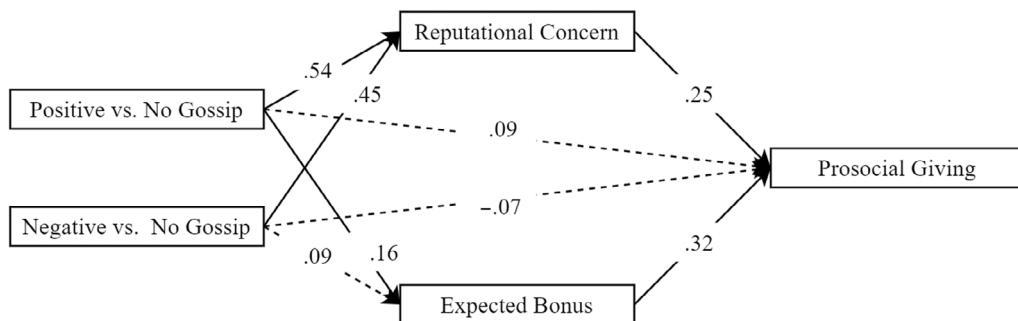
The direct paths from the dummy-coded variables to prosocial giving were not significant, $p_s > .28$. Yet, they indirectly increased prosocial giving via the increased reputational concern: positive gossip: $B = 5.79, 95\% CI [2.83, 9.83], p < .001$;

negative gossip: $B = 4.88, 95\% CI [2.30, 8.27], p = .001$. Contrastingly, the indirect paths via expected bonus were not significant, $|Bs| < 2.11, p_s > .08$. Thus, replicating the previous studies (e.g., Imada et al., 2021; Wu et al., 2015), gossip promoted prosociality via reputational concern rather than expected indirect benefits.

Discussion

The present research aimed to investigate the relative effectiveness of positive and negative gossip in two contexts: when the reputational consequence was positive (i.e., bonus point allocation by a third party) and when it was negative (i.e., bonus point deduction). The present study revealed that the potential to be positively, but not negatively, gossiped about promoted prosocial giving in the dictator game compared to when no gossip was available, regardless of the valence of reputational consequences. Yet, when psychological mechanisms were taken into account, I found that gossip, regardless of its valence, promoted prosocial giving via reputational concern. Overall, the study extended the previous literature by revealing that the valence of reputational consequences (financial reward or punishment) did not influence the relative effectiveness of positive and negative gossip in facilitating prosocial giving. This further suggests that the prosociality-enhancing effect of gossip potential is invariant across different contexts.

Figure 2
The path model.



Note. Dotted lines are non-significant path ($p > .05$), and coefficients are all standardized.

In Imada et al. (2021), participants in the positive and negative gossip valence conditions were more prosocial than those in the no-gossip condition. Yet, in the present study, negative gossip seemed to have a much weaker prosociality-driving effect than positive gossip. This difference may be attributed to the nature of the reputational consequences. Imada et al. (2021) instructed participants that gossip would be transmitted to a future interaction partner who would play a trust game as a trustor. In the present study, a gossip recipient unilaterally awarded or subtracted points from participants. The critical difference between trust in the trust game and the bonus allocation tasks (i.e., unilateral prosocial giving) is the form of exchange. In the trust game, in order for trustors to trust a trustee, they need not only the motivation to benefit the trustee (i.e., social preference) but also the expectation that the trustee would not betray them. Contrastingly, in prosocial giving, such an expectation is not a prerequisite. Although this is yet speculative, the results of the present study point to the possibility that people may intuit that while positive gossip would help others update both their social preferences and expectations, negative gossip mainly influences expectations. An anonymous reviewer offered an alternative explanation; they postulated that mutual interdependence between the individuals playing the trust game may imply a future long-lasting relationship. As a result, people may believe there are more stakes in the trust game than the one-shot prosocial giving game, and people were correspondingly more sensitive to earning a negative reputation via negative gossip. That being said, the present results do not offer sound explanations of why negative gossip was less influential than positive gossip in the study. Together with the findings of Imada et al. (2021), the present study calls for further investigation of the relationship between types of reputational consequences and gossip valence.

The present study has some limitations, leaving promising directions for future research. First, in this study, I operationally defined reputational consequences as a third-party gossip recipient giving or subtracting

monetary points. Similarly to Imada et al. (2021), they were thus financial. Nevertheless, reputational consequences (i.e., indirect benefits) can take various forms, such as ostracism, physical confrontations, receiving praises and insults, and being chosen as a partner for cooperative interactions. Since the present results suggested that the difference in the nature of reputational consequence (trust vs. prosocial giving) impacts the relative effectiveness of positive and negative gossip, it is sensible to comprehensively investigate when and how much positive and negative gossip promotes prosociality. It is worthwhile noting that previous studies on reputation and cooperation have not delved into investigating what kind of reputation(s) would best lead to different reputational consequences. Thus, future work disentangling the relationship between different reputational consequences and gossip valence may produce valuable insights into understanding how reputation guides cooperation in general.

Second, the generalizability of the findings might be limited, as a majority of participants were from Western cultures. The consideration for the potential cultural difference is particularly important, as previous studies suggested that the consequences of earning a negative reputation (e.g., social exclusion) might significantly vary across cultural contexts (Uskul & Over, 2017; Yamagishi et al., 2008). Thus, the potential influence of negative gossip might loom larger in some cultures than others. Accordingly, I suppose that cultural variables, such as tightness (Gelfand et al., 2011) and relational mobility (Oishi et al., 2015), might influence the expectation about to what extent positive and negative gossip would affect reputational consequences. Thus, future studies should include diverse samples to account for such factors.

Conflict of Interest

The author declares no conflicts of interest associated with this manuscript.

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(Received February 17, 2023; accepted June 22, 2023)