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Gossiping about Deviance: Evidence that Deviance Spurs the Gossip that Builds

Bonds

Kim Peters, Jolanda Jetten, Dagmar Radova & Kacie Austin

University of Queensland

Corresponding author:

Kim Peters

School of Psychology

University of Queensland

McElwain Building

St Lucia, QLD 4072

Australia

E-mail k.peters@uq.edu.au

Author Note

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Abstract

We propose that the gossip that is triggered when people witness behaviors that deviate from social norms builds social bonds. To test this possibility, we exposed unacquainted student dyads to a short video of everyday campus life that either did or did not include an incident of negative or positive deviance (dropping or cleaning litter). Study 1 showed that participants in the deviance conditions reported having a greater understanding of campus social norms than those in the control condition; they also expressed a greater desire to gossip about the video. Study 2 found that, when given the opportunity, participants did gossip about the deviance and this gossip was associated with increased norm clarification and (indirectly) social cohesion. These findings suggest that gossip may be a mechanism through which deviance can have positive downstream social consequences.

Word Count = 135

Key Words: Gossip; Deviance; Social Norms; Norm Clarification; Social Bonds.

Gossiping about Deviance

Evidence that Deviance Spurs the Gossip that Builds Bonds

Gossip — broadly defined as communication about the behavior of others (e.g., Peters & Kashima, 2015; Smith, 2014) — is what people generally do when they are together.¹ It may also be a reason that people come together in the first place. For instance, there is evidence that people who see behaviors that deviate positively or negatively from social norms (i.e., admirable or disgusting behaviors) are highly motivated to discuss these behaviors with others (Feinberg, Willer, Stellar & Keltner, 2014; Heath, Bell & Sternberg, 2001; Peters, Kashima & Clark, 2009). One person's deviance, then, seems to be the catalyst for other people's social interactions. To the extent this holds true, gossip may be a mechanism through which deviance has greater social implications than is typically recognized. So, while the existing literature has thoroughly explored the implications of deviance for the deviant (e.g., Kam & Bond, 2009), it has given less consideration to the downstream social implications of a deviant act. We explore these social implications by examining participants' desire to — and actual sharing of — gossip about an instance of positive or negative deviance that is witnessed in the laboratory.

We expect that gossiping about deviance will confer benefits on gossipers in the form of a clearer understanding of the prevailing social norms and an increased sense of cohesion. Consistent with this, theorists have on occasion suggested that the consequences of deviance may not be limited to derogation of a negative deviant

¹ The social transmission of information about people is central to lay conceptions of gossip (e.g., as contained within dictionary definitions), although information that is casual, unverified, negative or false is sometimes considered especially typical of gossip. By keeping an inclusive definition, we contribute to a framework that articulates the consequences of communicated social content in general.

(Jetten & Hornsey, 2014), or celebration of a positive deviant (although here, derogation is also possible; Heckert & Heckert, 2015). Indeed, Durkheim (1964) argued that deviants serve important social functions by drawing observers' attention to social norms. He suggested that this should, in turn, increase observers' sense of unity and shared perspective. In the gossip literature, too, a number of authors have suggested that gossip has the capacity to clarify social norms and increase cohesion (Baumeister, Zhang & Vohs, 2004; Ben-Ze'ev, 1994; Foster, 2004; Peters & Kashima, 2007; Rosnow, 2001; Wert & Salovey, 2004). However, there has been no consideration that deviance gossip may be particularly important in this regard, either theoretically or empirically.

In sum, then, based on Durkheim's classic work, we examine support for the following assertions about deviance and gossip. First, that people who observe another person act in a way that deviates positively or negatively from a social norm will have a greater desire to gossip about this act than one that is not deviant. Second, that to the extent that they actually engage in this gossip, observers should develop a clearer understanding of the relevant social norm. And third, that this clarity should provide the basis for cohesion in terms of gossipers' social bonds and sense of shared perspective. We put these expectations to their first test with two studies. In Study 1, we exposed participants to deviance in the lab and then measured their desire to gossip as well as their perceptions of norm clarification, social bonding and shared reality. In Study 2, we allowed participants to actually exchange gossip before measuring these same social consequences.

Study 1

Method

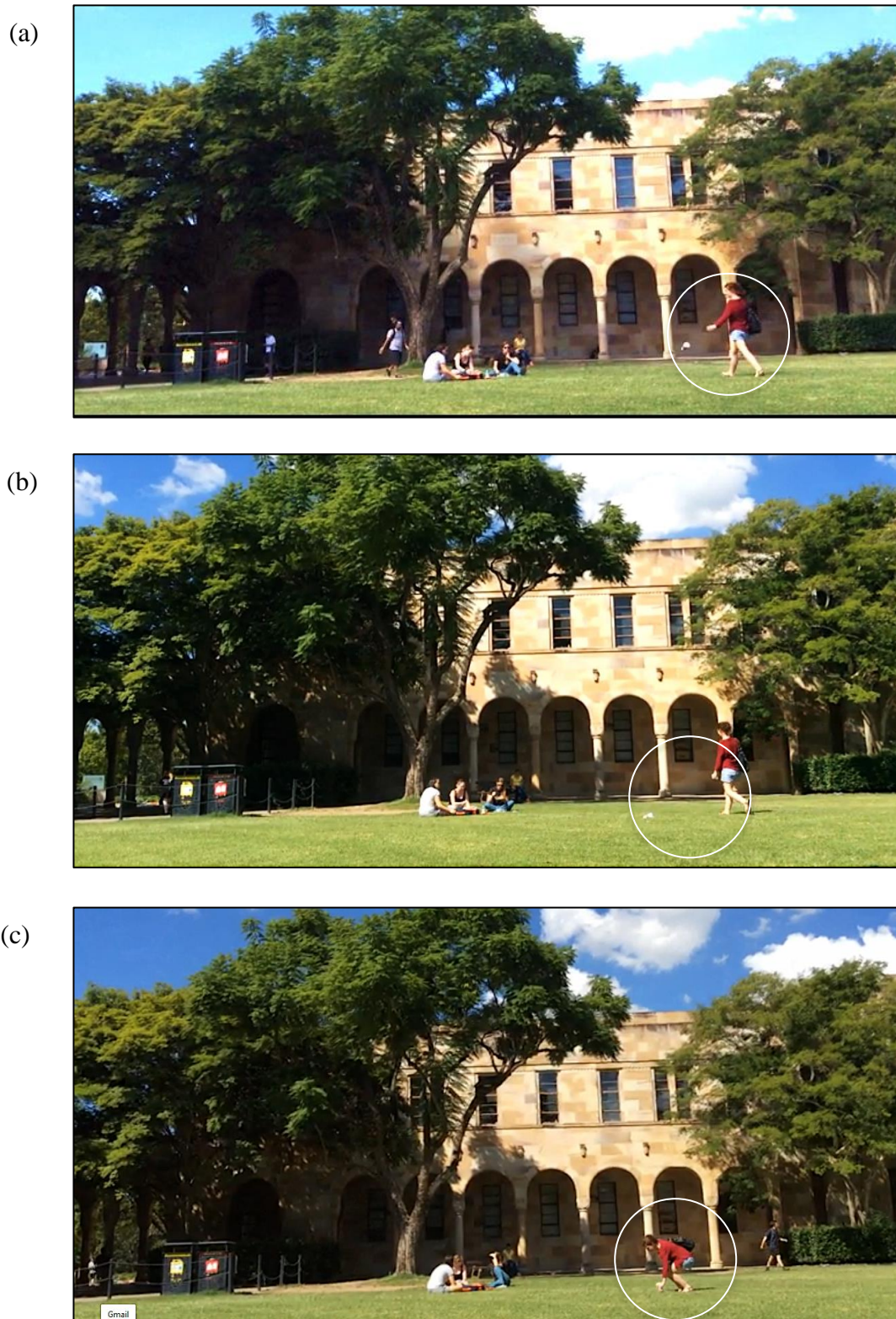
Participants

Participants were 114 unacquainted university students who participated in exchange for course credit. Participants averaged 20.92 years of age ($SD=5.60$). Most were female ($N=85$) and Australian ($N=82$). We aimed to exceed a sample of 50 dyads, as above this point multilevel models successfully converge (Maas & Hox, 2005). We fell just short of 20 dyads in each condition because of a high number of no-shows that coincided with the end of the university's research participation period. This study was approved by the authors' institutional human research ethics board (14/03/2016: no. 2014000387).

Procedure

Participants were recruited to take part in an experiment that purported to examine the way in which people communicate after exposure to different kinds of media. Respondent dyads were seated side-by-side in front of a computer screen and asked to refrain from talking to one another. They were told that they would watch a short video together and that after this they may also be asked to spend five minutes discussing it. Dyads were randomly shown one of three 2-minute videos: negative deviance $N=20$, positive deviance $N=18$, or control $N=19$. The videos were shot from a single perspective and captured students going about their daily lives in a recognizable and well-frequented campus courtyard.

The deviance behavior, which consisted of a female confederate walking from the right foreground toward a set of rubbish bins located 150m away in the left background, occurred approximately 50 seconds into the video (screen shots provided in Figure 1). In the negative deviance video, the confederate casually dropped an empty drink can partway through her journey. In the control video, the confederate walked past the same drink can. In the positive deviance video, the confederate stopped to pick up the drink can and deposited it in the rubbish bins.



Notes. a = negative, b = control, c = positive; circle overlays litter and confederate

Figure 1.

Screen shots of manipulated litter-related behavior in video.

After watching the video, each dyad was told that they would not in fact be required to discuss it. They were then asked to complete a questionnaire measuring perceptions of the video² and their partner on 7-point Likert scales (1=strongly disagree, 7=strongly agree). Deviance *discussion desire* was measured with three items ($\alpha = .86$): “I had a strong desire to share my feelings and opinions about the video that I watched”, “I would have liked my partner to share her / his feelings and opinions about the video that we watched”, and “I would have liked to spend time with my partner discussing our respective feelings and opinions on the topics we saw in the video”. *Norm clarification* was measured with six items ($\alpha = .84$): “This video informed me about the ways in which people generally behave”, “From this video, I have a clearer sense of the ways in which people should behave”, “As a result of this video, I have a better sense of the appropriateness of certain behaviors”, “This video gave me a clearer idea of what it means to be a student [at this university]”, “As a result of this video, I have learned about how I should behave”, and “This video motivated me to change the way that I behave”.

We also assessed the social cohesion of participants who had by this point spent about 10 minutes in close proximity. *Social bonding* was measured with three items (Peters & Kashima, 2007; $\alpha = .81$): “I have a social bond with my partner”, “I connect with my partner”, and “I trust my partner”. *Shared reality* was measured with five items (Stukas, Bratanova, Peters & Kashima, 2010; excluding the two reversed items resulted in a reliable scale: $\alpha = .72$): “I would not rely on my partner’s judgments of other people [reversed]”, “My partner is correct in the way in which he / she looks at the world”, “My partner and I have a similar impression of things”, “My partner and I are on the same wavelength”, and “My partner and I have different

² Supplementary materials describe participants’ video-related cognitions.

perspectives on the world [reversed]”.

After this, participants were told that the litter-related behaviors were contrived. As a manipulation and confound check, participants were asked to rate the salience and normativity of several behaviors captured by each video. These included the litter-related behaviors as well as two spontaneous behaviors that appeared in all three videos: (1) a group sitting on the lawn and (2) people taking a short cut across the lawn by hopping over a chain fence (see supplementary materials for screenshots). Participants rated the salience of the three behaviors captured by their version of the video (i.e., one litter-related and two spontaneous) and the normativity of all five behaviors (i.e., three litter-related and two spontaneous). To elicit the ratings, and minimize the effects of prior exposure, participants were presented with a screenshot for each behavior and asked to rate its salience and / or normativity. Behavior salience was measured with two items ($.28 \leq rs \leq .79$, all $p < .003$): “I clearly remember seeing [behavior] when I watched the video” and “I spent some time thinking about [behavior]”. Perceptions of the *descriptive* and *injunctive normativity* of the behaviors were each measured with three items (Smith, Louis, Terry, Greenaway, Clarke & Cheng, 2012; $\alpha s = .64$ to $.89$): “[Behavior] is typical of this university’s students”, “The majority of this university’s students [behavior] on a regular basis”, “[Behavior] regularly is important to the average student”, and “Typical students of this university approve of those who [behavior] on a regular basis”, “The majority of students at this university approve of [behavior] on a regular basis”, “The average student at this university supports [behavior] on a regular basis”.

Results

Deviance manipulation check

A repeated measures ANOVA of the ratings of the descriptive normativity of

the behaviors showed that participants perceived the negative ($M=2.27$, $SD=0.92$) and positive ($M=3.68$, $SD=1.23$) deviant behaviors as less typical of university students than the control behavior ($M=4.26$, $SD=1.01$) or either of the two spontaneous behaviors (sitting $M=5.47$, $SD=0.94$; hopping $M=4.39$, $SD=1.26$), $F(3.15, 355.89)=142.19$, $p<.001$, $\epsilon^2=.56$. Repeating this analysis for ratings of injunctive normativity showed that the negative deviance was seen as attracting less ($M=1.89$, $SD=0.99$), and the positive deviance as attracting more ($M=5.66$, $SD=1.02$), approval than the control behavior ($M=3.40$, $SD=1.26$) or spontaneous chain hopping ($M=4.58$, $SD=1.12$), $F(3.07, 346.50)=316.10$, $p<.001$, $\epsilon^2=.74$. Sitting on the lawn received the highest approval ($M=6.13$, $SD=0.81$). On average, therefore, the deviant litter-related behaviors were indeed perceived to deviate from social norms more than the control or spontaneous behaviors.

Salience confound check

To check whether participants in the deviance conditions were the only ones exposed to behaviors that were sufficiently attention grabbing to allow for later discussion, we compared the salience ratings in each condition with one-way ANOVA. Means and confidence intervals are provided in Table 1. These analyses revealed that the litter-related and spontaneous chain hopping behaviors were more salient in the deviance conditions than in the control, $F(2, 108)=68.25$, $p<.001$, $\epsilon^2=.56$ and $F(2, 111)=15.76$, $p<.001$, $\epsilon^2=.22$, respectively. Importantly though, the seated group attracted equally high salience ratings in the three conditions, $F(2, 111)=0.29$, $p>.250$, $\epsilon^2=.01$. Our finding that participants in the control condition were exposed to at least one highly salient behavior means that all participants, regardless of condition, have some basis for later discussion. This provides reassurance that the deviance manipulation is not confounded with the salience of potential discussion topics.

Table 1

Study 1 condition means with 95% confidence intervals

Variable	Negative Deviance	Control	Positive Deviance
<i>Saliency Ratings</i>			
Litter Behavior	6.41 [6.08, 6.75] ^a	3.22 [2.56, 3.89] ^b	6.51 [6.22, 6.81] ^a
Chain Hopping	5.28 [4.71, 5.80] ^a	4.18 [3.59, 4.89] ^b	6.25 [5.94, 6.56] ^c
Sitting Group	6.28 [6.05, 6.52]	6.17 [5.82, 6.43]	6.31 [6.03, 6.58]
<i>Social Ratings</i>			
Discussion Desire	4.44 [4.02, 4.86] ^a	3.72 [3.29, 4.15] ^b	4.27 [3.83, 4.71] ^{ab}
Norm Clarification	3.73 [3.40, 4.06] ^a	2.69 [2.35, 3.03] ^b	3.82 [3.47, 4.17] ^a
Social Bonding	2.75 [2.38, 3.12]	2.70 [2.32, 3.08]	2.86 [2.47, 3.25]
Shared Reality	3.78 [3.59, 3.97]	3.94 [3.74, 4.13]	3.97 [3.77, 4.17]

Notes. Dyad $N=57$; Participant $N=114$; Row means with different superscript letters are significantly different from one another at $p<.050$; social rating standard errors clustered within dyad.

The social consequences of mere exposure to deviance

Intraclass coefficients suggest that while the dyad level does not account for variance in ratings of discussion desire ($ICC=-.09$), it does for ratings of shared reality ($ICC=.17$), social bonding ($ICC=.20$) and norm clarification ($ICC=.21$). We therefore account for the multilevel structure of our data for the latter three variables.

To assess the consequences of exposure to deviance on discussion desire, we used OLS regression to regress participants' ratings onto two condition dummy variables (one representing the negative deviance condition with a value of 1, otherwise 0, another representing the positive deviance condition with a value of 1,

otherwise 0). Means and confidence intervals are provided in Table 1. The condition dummy variables accounted for 5 percent of the variance in discussion desire, $F(2,111)=3.05, p=.051$. As expected, participants in the deviance conditions expressed a stronger desire to discuss the video with their partner than control participants: negative $b=.72, t=2.38, p=.019$; positive $b=.55, t=1.76, p=.081$. Participants in the negative and positive deviance conditions did not differ from one another, $F(1,111)=0.32, p=.575$. This supports our claim that exposure to deviance may mobilize subsequent interactions among observers.

To assess the consequences of exposure to deviance on the remaining variables, we fitted 2-level random effects maximum likelihood regression models to participants' ratings (Rabe-Hesketh & Skrondal, 2012). This approach allowed us to contend with the potential loss of independence that was associated with the nesting of participants (level 1) within dyads (level 2). We allowed intercepts to vary in order to model the variance in ratings that could be attributed to differences between dyads. To our surprise, there was evidence that simply exposing participants to deviance affected their ratings of norm clarification, LR $\chi^2(2)=22.08, p<.001$, with participants in the deviance conditions reporting significantly higher norm clarification than participants in the control condition: negative $b=1.04, z=4.36, p<.001$; positive $b=1.13, z=4.62, p<.001$. Participants in the negative and positive deviance conditions did not differ from one another, $\chi^2(1)=0.14, p=.708$. Thus, it appears that observers do not need to gossip about a deviant act to gain a clearer understanding of local norms.

We were able to get some understanding of what aspect of the social norms may have been clarified by examining how normativity ratings for the three litter-related behaviors varied as a function of experimental condition. A 3 (behavior, within participants) X 3 (condition, between participants) mixed ANOVA revealed

that prior exposure conditioned the extent to which the behaviors were perceived to differ in terms of descriptive normativity, $F(3.22,178.69)=2.98$, $p=.030$, $\varepsilon^2=.03$, but not injunctive normativity, $F(3.55,197.21)=0.47$, $p>.250$, $\varepsilon^2=.00$. We used one-way ANOVA to compare descriptive normativity ratings across conditions for each behavior in turn. This revealed that participants in the positive deviance condition rated picking up litter as marginally more typical ($M=4.01$, $SD=1.08$) than participants in the negative deviance condition ($M=3.38$, $SD=1.18$), $F(2,111)=2.59$, $p=.079$, $\varepsilon^2=.05$. Participants in the negative deviance condition rated walking past litter as more typical ($M=4.50$, $SD=0.98$) than participants in the positive deviance condition ($M=3.94$, $SD=1.05$), $F(2,111)=3.14$, $p=.047$, $\varepsilon^2=.05$. Perceptions of the typicality of dropping litter did not vary, $F(2,111)=0.98$, $p>.250$, $\varepsilon^2=.02$. Thus, it seems that exposure to positive deviance was associated with increased expectations that students would not ignore (and may pick up) litter relative to exposure to negative deviance.

Unlike norm clarification, there was no evidence that exposure to deviance affected participants' social bonding, LR $\chi^2(2)=0.30$, $p>.250$, or sense of shared reality, LR $\chi^2(2)=1.89$, $p>.250$. There was also no evidence that deviance affected social bonding and shared reality *indirectly* through norm clarification. Specifically, generalized multilevel structural equation modeling (Rabe-Hesketh, Skrondal, & Pickles, 2004) of the impact of the deviance dummies on cohesion through norm clarification revealed that all indirect effects were non-significant (parameter standard errors computed with delta method; Oehlert, 1992): negative deviance on social bonding, $ab=.18$, $z=0.92$, $p>.250$; positive deviance on social bonding, $ab=.20$, $z=0.93$, $p>.250$; negative deviance on shared reality, $ab=.07$, $z=1.13$, $p>.250$; positive deviance on shared reality, $ab=.07$, $z=1.13$, $p>.250$. In Study 2, we will examine

whether exposure to deviance has consequences for social cohesion when (and to the extent that) participants actually gossip about the deviant act.

Study 2

Method

Participants

Participants were 130 unacquainted university students who participated in exchange for course credit. Participants were an average of 20.39 years old ($SD=4.94$). Most were female ($N=103$) and Australian ($N=86$). Data collection continued until there was a minimum of 20 dyads in each condition. We slightly exceeded these numbers because more students than expected showed up. We additionally excluded one negative deviance dyad as they had an undeclared pre-existing relationship. Therefore, for analytic purposes, $N=128$. This experiment was approved by the authors' institutional human research ethics board (16/04/2014; no. 2014000387).

Procedure

As in Study 1, participant dyads were recruited for an experiment on media and communication and randomly shown one of the three 2-minute videos of campus life: negative deviance $N=19$, positive deviance $N=22$, or control $N=23$. Respondents were led to expect that they would be asked to discuss the video, and after watching the video, each dyad was left alone in the room for 5-minutes. They were told that they were free to talk about any aspect of the video they wished to and that their conversation would be recorded for later analysis. At the end of the 5 minutes, the experimenter returned and asked respondents to complete a questionnaire about their perceptions of their conversation and partner. This included the Study 1 scales of *social bonding* ($\alpha=.76$) and *shared reality* (we again excluded the two reversed items

to form a reliable scale: $\alpha=.79$) and an amended version of the *norm clarification* scale (this time, participants rated how their *conversation* had clarified their understanding of norms; $\alpha=.90$).³

Results

Conversation coding

Two independent coders (the first author and a research assistant) rated each dyad's verbal expressions of approval and disapproval of the deviant (5-point scales: 0=none, 4=strong shared expressions). The ratings were reliable (approval $r=.80$, $p<.001$; disapproval $r=.81$, $p<.001$) and were averaged for each dyad. The coders also calculated the total length of time that participants spent discussing the following topics: litter and litter-related behavior, $r=.94$, $p<.001$, the seated group, $r=.97$, $p<.001$, people hopping over the chain, $r=.99$, $p<.001$, non-social topics, including the weather, buildings, trees and wildlife, $r=.88$, $p<.001$, and personal topics, including interests, background and plans, $r=.91$, $p<.001$. These times were also averaged.

Conversation content following exposure to deviance

The means and confidence intervals of the conversation codes are provided in Table 2. To examine whether participants' Study 1 discussion desire translated into actual gossip about litter-related behavior we ran OLS regression with dummy variables representing each of the deviance conditions (the control condition was the reference, see Study 1 for coding). The condition dummies predicted the length of time that dyads spent gossiping about deviance, $F(2,61)=12.19$, $p<.001$, and as expected, deviance dyads spent significantly longer talking about litter-related behavior than control dyads: negative $t(61)=4.93$, $p<.001$, $\varepsilon^2=.28$; positive $t(61)=2.03$, $p=.046$, $\varepsilon^2=.05$. Dyads in the negative deviance condition spent significantly longer

³ Supplementary materials describe participants' ratings of conversation content and manipulation salience, and additional codings that were made of the conversations.

talking about littering than dyads in the positive deviance condition, $F(1,61)=8.65$, $p<.005$.

We repeated this analysis for each dyad's expressed disapproval and approval of the deviant. The condition dummies significantly predicted expressions of disapproval $F(2,61)=29.45$, $p<.001$, with dyads in the negative deviance condition expressing significantly more disapproval than dyads in the control, $t(61)=6.90$, $p<.001$, $\varepsilon^2=.40$, or positive deviance conditions, $F(1,61)=43.09$, $p<.001$, $\varepsilon^2=.40$. The condition dummies also significantly predicted expressions of approval, $F(2,61)=12.04$, $p<.001$, $\varepsilon^2=.28$, and dyads in the positive deviance condition expressed significantly more approval than dyads in the control, $t(61)=4.07$, $p<.001$, $\varepsilon^2=.19$, or negative deviance conditions, $F(1,61)=19.65$, $p<.001$, $\varepsilon^2=.41$. Therefore, when given the opportunity, participants do indeed gossip about deviant behaviors; they also take the opportunity to derogate negative, and celebrate positive, deviants.

As is apparent from Table 2, these were not the only ways in which conversations differed across condition. Repeating the above analysis revealed differences in the time dyads spent discussing the seated group, $R^2=.11$, $F(2,61)=3.57$, $p=.034$, people hopping over the chain, $R^2=.08$, $F(2,61)=2.47$, $p=.093$, and non-social topics, $R^2=.19$, $F(2,61)=7.02$, $p=.002$. (There were no condition differences in personal disclosures, $R^2=.01$, $F(2,61)=0.22$, $p=.807$). In the analysis that follows, it is therefore important to ascertain that any social consequences of exposure to deviance can be attributed to deviance gossip specifically.

The social consequences of exposure to deviance

Intraclass coefficients point to the importance of accounting for dyad level variation in ratings of shared reality (ICC=.20), social bonding (ICC=.35) and norm clarification (ICC=.28). Therefore, to assess whether exposure to deviance has social

consequences when people gossip about it, we again fitted 2-level random effects maximum likelihood regression models to participants' ratings, using two dummy variables to represent the deviance conditions as before. Means and confidence intervals are provided in Table 2.

Table 2

Mean conversation codes and social ratings with 95% confidence intervals

Variable	Negative Deviance	Control	Positive Deviance
<i>Conversation Codes</i>			
Litter-related Time ¹	68.79 [49.65, 87.93] ^a	5.04 [-12.35, 22.44] ^c	30.36 [12.57, 48.15] ^b
Chain Hopping Time ¹	15.21 [8.05, 22.38]	6.65 [0.14, 13.17]	16.07 [9.41, 22.73]
Sitting Group Time ¹	35.05 [19.53, 50.57] ^{ab}	18.50 [4.39, 32.61] ^b	45.18 [30.76, 59.61] ^a
Non-Social Time ¹	9.66 [0.59, 18.73] ^a	32.35 [24.11, 40.59] ^b	25.05 [16.61, 33.47] ^b
Personal Time ¹	57.11 [25.23, 88.98]	65.20 [36.22, 81.31]	51.68 [22.06, 81.31]
Deviant Approval ²	0.05 [-0.36, 0.47] ^a	0.20 [-0.18, 0.57] ^a	1.30 [0.91, 1.68] ^b
Deviant Disapproval ²	2.13 [1.71, 2.55] ^a	0.17 [-0.21, 0.56] ^b	0.25 [-0.14, 0.64] ^b
<i>Social Ratings</i>			
Norm Clarification	3.95 [3.54, 4.36] ^a	2.93 [2.56, 3.30] ^b	3.54 [3.16, 3.92] ^a
Social Bonding	4.55 [4.22, 4.88]	4.55 [4.25, 4.85]	4.44 [4.13, 4.75]
Shared Reality	4.99 [4.70, 5.28]	5.17 [4.90, 5.44]	4.84 [4.57, 5.12]

Notes. Dyad $N=64$; Participant $N=128$; ¹ Time in seconds; ² Coded using 5-point response scale (0=none, 4=strong shared attitude); Row means with different superscript letters are significantly different from one another at $p<.050$

This analysis revealed that the model that included the condition dummy variables provided a significantly better fit of participants' ratings than their

conversation had clarified their understanding of the prevailing norms than the random effects only model, LR $\chi^2(2)=11.04, p=.004$. As expected, participants in the deviance conditions reported that their conversations led to a significantly greater improvement in their understanding of the prevailing norms than participants in the control condition: negative $b=1.02, z=3.42, p=.001$; positive $b=0.61, z=2.13, p=.033$. Participants in the deviance conditions did not differ, $\chi^2(1)=1.84, p=.175$.

As in Study 1, repeating this analysis did not provide any evidence that exposure to deviance directly affected participants' social bonding, LR $\chi^2(2)=0.26, p>.250$, or sense of shared reality, LR $\chi^2(2)=2.45, p>.250$. It is nonetheless possible that exposure to deviance affected social bonding and shared reality *indirectly* through norm clarification. We test this possibility in the meditational analysis that follows.

Deviance gossip and norm clarification mediate the impact of deviance exposure

To see whether the increased tendency to share deviance gossip (rather than some other topic) after exposure to deviance may be key to the effects observed above, we used 2-level random effects maximum likelihood regression models to regress participants' social ratings onto the conversation topic times in turn. The unstandardized regression coefficients for these models are provided in Table 3.

This analysis showed that the model that included the conversation topic times provided a significantly better fit of ratings of norm clarification than the model that constrained the topic parameters to zero, LR $\chi^2(5)=28.25, p<.001$. Importantly, the only significant predictor of norm clarification ratings was the amount of time participants spent sharing deviance gossip, $z=4.86, p<.001$. Although the different scale metrics mean that the unstandardized coefficients are small, they point to sizeable effects: an additional 83 seconds of deviance gossip translates into one scale point increase in norm clarification. Repeating this analysis for social bonding was

associated with a marginal improvement in model fit, LR $\chi^2(5)=10.38$, $p=.065$, and dyads who spent more time disclosing personal information felt significantly more bonded, $z=2.29$, $p<.022$. Repeating this analysis for shared reality did not improve model fit, LR $\chi^2(5)=3.49$, $p=.625$.

Table 3

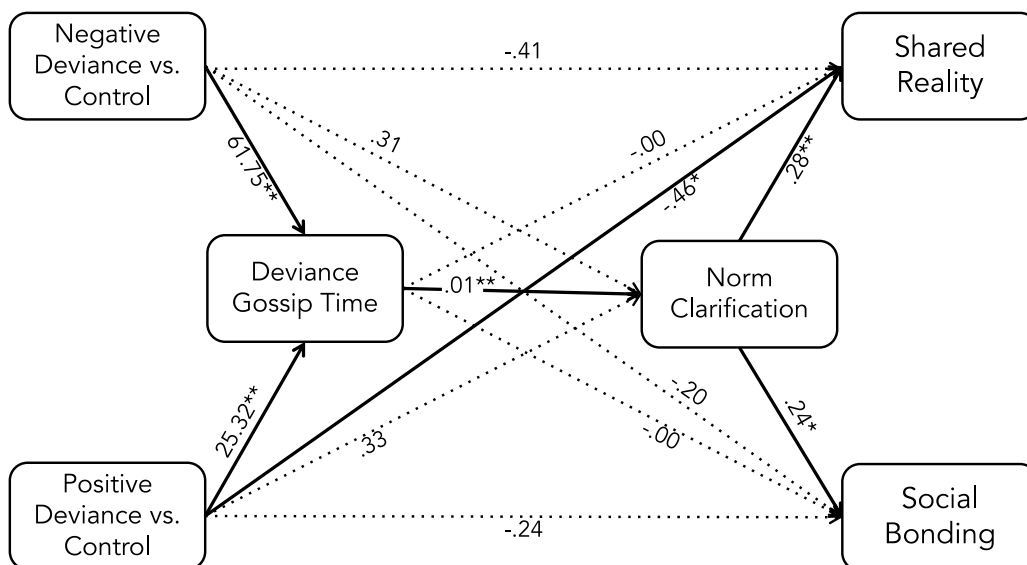
Unstandardised topic time coefficients with 95% confidence intervals.

Topic Time	Norm Clarification	Social Bonding	Shared Reality
Litter-related	.012** [.007, .017]	.003 [-.001, .008]	.002 [-.002, .006]
Sitting Group	-.001 [-.007, .006]	-.003 [-.009, .003]	.000 [-.006, .006]
Chain Hopping	-.005 [-.017, .009]	-.001 [-.013, .011]	.000 [-.010, .011]
Non-Social	-.004 [-.016, .007]	.004 [-.008, .013]	.008 [-.001, .018]
Personal	.002 [-.002, .005]	.004* [.001, .007]	.001 [-.002, .004]
Constant	3.128 [2.455, 3.801]	4.233 [3.609, 4.857]	4.688 [4.124, 5.252]

Notes. Conversation topic time measured in seconds; * $p<.050$, ** $p<.010$.

In our final analysis, we tested two meditational expectations. The first, based on the analysis above, that deviance gossip mediates the impact of exposure to deviance on norm clarification. And the second, that deviance gossip and norm clarification serially mediate the impact of exposure to deviance on cohesion. To run these tests analyses, we used generalized multilevel SEM to map the direct and indirect effects between the deviance condition dummies, litter gossip, norm clarification and the two social cohesion measures (random dyad level intercepts were included for the norm clarification and cohesion measures; delta method used to calculate standard errors for nonlinear transformed parameters; Oehlert, 1992).

The results of this analysis are depicted in Figure 2. As can be seen in this figure, after accounting for litter gossip time, exposure to deviance was no longer significantly associated with differences in perceived norm clarification relative to the control condition. The associated indirect effects of exposure to deviance on norm clarification through deviance gossip were indeed significant: negative deviance, $ab=.71$, $z=3.67$, $p<.001$; positive deviance, $ab=.28$, $z=2.43$, $p=.015$.



Notes. Numeric values are unstandardised regression coefficients; Deviance gossip time in seconds; Solid lines indicate significant paths, * $p<.05$; ** $p<.010$.

Figure 2.

Turning to social cohesion, Figure 2 replicates the earlier findings by showing that exposure to deviance does not boost shared reality or social bonding *directly* (indeed, positive deviance was a significant negative predictor of shared reality, pointing to a possible suppression effect). Importantly, though, there was evidence of

serial mediation, whereby exposure to deviance had indirect effects on cohesion through deviance gossip time and then norm clarification: negative deviance on shared reality, $ab=.20$, $z=2.27$, $p=.023$; positive deviance on shared reality, $ab=.08$, $z=1.86$, $p=.063$; negative deviance on social bonding, $ab=.17$, $z=2.11$, $p=.034$; positive deviance on social bonding, $ab=.07$, $z=1.77$, $p=.077$.

General Discussion

We provide evidence that one person's deviance can shape other people's social interactions. In particular, participants who were exposed to one of the deviance videos expressed a stronger desire to talk about the video than participants who saw the control video. When given the opportunity, almost all of the participants who saw the deviant act chose to spontaneously gossip about it. We were also able to show that in spurring people to gossip deviance may have beneficial social consequences. While we found that mere exposure to deviance was sufficient for norm clarification, our findings also suggest that deviance gossip may build these perceptions. In particular, the impact of exposure to deviance on a sense that a conversation created a clearer understanding of social norms was fully mediated by the length of time that participants spent gossiping about the deviant act. Further evidence for the importance of deviance gossip comes from our finding that exposure to deviance indirectly improved cohesion through norm clarification when (and to the extent that) participants were able to share deviance gossip.

Together these findings support our claim that gossip may be a mechanism through which deviance can have important downstream social consequences. In particular, while our research replicates the well-established finding that negative deviants are derogated and positive deviants celebrated (Heckert & Heckert, 2015; Kam & Bond, 2009; Marques, Yzerbyt & Leyens, 1988), it shows that the

consequences of deviance are not limited to the deviant (Jetten & Hornsey, 2014). In this way, our findings align with Durkheim's claim that deviants make an important contribution to the functioning of societies by drawing people's attention to, and clarifying their understanding of, the existing social norms. Our findings also align with his suggestion that this greater normative understanding supports societal unity. Importantly, our work builds on these ideas by specifying one mechanism through which deviance may have these effects.

At the same time, our work suggests that gossip may not be necessary for all downstream social consequences. Clearly, just witnessing deviance can change a person's understanding of the behaviors that are typical in a particular social context, which suggests that there is merit in considering the intrapersonal processes that may be sparked by a deviant act and their likely consequences. However, such *intra*-individual processes have spatial and temporal limits that gossip does not. The desire to share deviance gossip may lead people to indirectly expose others to the deviant event, so spreading information about the event through a social network. In this way, where deviance gossip does come into play, it has the potential for widespread social consequences. In future work, it is important to show that deviance gossip plays a causal role in processes such as these; among other things, it would support claims that the social fitness that accompanies gossip could underpin the evolution of syntactically complex language (e.g., Dunbar, 1996).

A final notable aspect of this study is our focus on positive as well as negative deviance. Although positive deviance is attracting increasing research attention, its consequences are poorly understood. In general, our findings support claims that positive and negative deviance may have similar consequences, at least in some domains (Ben-Yehuda, 1990). In particular, it seems that whether a behavior deviates

from a social norm positively or negatively, it throws the norm into sharp relief, conferring the attendant social benefits. At the same time, although participants found the positive and negative deviance equally salient, they spent about twice as long gossiping about the negatively deviant act. It is possible, therefore, that the gossip that clarifies social norms typically concerns negative deviance.

In a 1971 interview, Frank Zappa said, “I think that progress is not possible without deviation.” Our results certainly suggest that, without deviance, our conversations would be rather emptier and our social understanding somewhat weaker. They also suggest that to investigate the consequences of deviance for social change, it is important to consider the essential role that our daily gossip may play.

Author Contributions

K. Peters and J. Jetten developed the study concept and the study design. D. Radova and K. Austin recorded the videos and collected the Study 2 data. K. Peters collected the Study 1 data, performed the data analysis and interpretation and drafted the manuscript. J. Jetten provided critical feedback on the draft and contributed to its revision. All authors approved the final version of the manuscript for submission.

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