

Drinking Too Much and Feeling Bad About It? How Group Identification Moderates Experiences of Guilt and Shame Following Norm Transgression

Personality and Social
Psychology Bulletin
2014, Vol. 40(5) 617–632
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DOI: 10.1177/0146167214521836
pspb.sagepub.com


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Abstract

The role of reference group norms in self-regulation was examined from the perspective of transgressions. Results from four studies suggest that following the transgression of a reference group's norms, individuals who strongly identify with their group report more intense feelings of guilt, an emotion reflecting an inference that "bad" behaviors are perceived as the cause of the transgression. Conversely, weakly identified individuals reported more intense feelings of shame, an emotion reflecting an inference that "bad" characteristics of the person are perceived as the cause of the transgression. The studies also explored the differential relevance of the reference groups when assessing transgressive behaviors, the counterfactual thoughts individuals have about possible causes for the transgressions, and the motivational outcomes of guilt and shame using behavioral data. Results of the studies offer insights into self-regulation, maintenance of group norms, and offer implications for alcohol consumption interventions, such as social marketing campaigns.

Keywords

group norms, transgression, guilt, shame, alcohol consumption, self-regulation

Received July 6, 2012; revision accepted December 14, 2013

Problematic behaviors, such as binge drinking, drug use, and gambling, are at the root of multiple social problems that compromise the health and well-being of individuals and their efficient functioning in society. The way in which people assess whether their behavior is problematic or not is inextricably shaped by the norms they derive from the social groups to which they belong. When their problematic behaviors lead to the transgression of group norms, people are expected to "feel bad" and to respond by changing their future behavior to realign it with the group's norms.

The idea that people respond to a norm transgression by changing their behavior has guided many social institutions in the strategies they use to curtail problematic behaviors. For example, to reduce binge drinking among students, about half of American colleges have used interventions to communicate a normative message that alcohol consumption is less prevalent than most students believe (Wechsler et al., 2003). These social norm marketing interventions, however, have produced mixed results; some have been effective (e.g., Neighbors et al., 2011), while others have failed to yield observable changes (e.g., Russell, Clapp, & DeJong, 2005). Of greater concern are the boomerang effects found in studies where the prevalence of drinking actually increased

following the intervention about the non-normativeness of drinking (e.g., Werch et al., 2000). Clearly, there is a need to more fully comprehend the influence of norms (cf. Schultz, Nolan, Cialdini, Goldstein, & Griskevicius, 2007).

A consideration of the influence of emotions provides a more nuanced and perhaps effective view of the role of norm transgressions in the regulation of problematic behaviors. People experience different types of negative emotions when they transgress norms. Two of these emotions hold important and distinct implications in terms of their motivational impact on self-regulation (Tangney & Dearing, 2002). In some circumstances, transgressions can foster guilt; an emotion that arises from the perception that the likely cause of the transgression was "bad behavior." Feelings of guilt

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typically motivate the reparation of the transgression and, more generally, the self-regulation of problematic behaviors. In other circumstances, transgressions can foster shame, which is associated with the perception that the likely cause of the transgression is something “bad about the person.” Shame is often associated with a motivational tendency to withdraw, which may lead to problematic behaviors, such as substance abuse.

Social emotions, such as shame and guilt, have their genesis in social norms, which are acquired through the interaction of individuals with their social groups (Turner, 1991). The influence of norms, and in particular their role for how people perceive their actions, varies as a function of a group member’s degree of identification with the group whose norms are being used as a reference point (e.g., Terry & Hogg, 1996; see Smith & Louis, 2009; Turner, 1991). Accordingly, the overarching aim of the present research was to examine how the degree of identification with a group impacts the experience of guilt and shame following situations of group norm transgression.

The Dynamics of Guilt and Shame Within Groups

The perceived typical behavior of others, referred to as descriptive norms, motivates both private and public actions by informing individuals of what is likely to be adaptive or problematic behavior in a given situation (Cialdini, Kallgren, & Reno, 1991). In the context of reference groups, descriptive norms, the typical behavior of other members, comprise an essential reference point in situations when the group is behaviorally relevant—that is when the person interacts with other group members relatively often and the behavior is one associated with the group (Terry & Hogg, 1996). For example, when it comes to alcohol consumption by university students, their peers and friends from their university will be more behaviorally relevant compared with older adults in the workforce.

Guilt and shame are social emotions typically experienced when individuals transgress a behaviorally relevant norm in a given situation (Leary, 2000; Tangney & Dearing, 2002). The social identity approach to normative influence states that behaviorally relevant norms are inextricably shaped by reference groups and that the impact of norms varies as a function of a person’s level of identification with the group (Smith & Louis, 2009; Turner, 1991). From this perspective, individuals should experience some feelings of guilt and shame when they transgress a behaviorally relevant group norm. However, not all individuals will experience these emotions to the same extent across situations, and we argue here that group members’ social identification with their reference group will moderate their experience of social emotions.

Social identity is a key component of group-related cognitive and affective processes (Ashmore, Deaux, & McLaughlin-Volpe, 2004; Smith & Louis, 2009; Turner, Oakes, Haslam, &

McGarty, 1994; Van Bavel & Cunningham, 2011). Information about social groups, including their norms, is embedded in a rich cognitive network that will be more easily accessible to individuals who more strongly identify with the reference group to which the information relates. This cognitive network will include information such as behavioral scripts and exemplars that help define normative, as well as transgressive behaviors. In situations of transgression, this network plays an integral role in shaping how individuals will interpret the transgression. The differences between strongly and weakly identified group members in terms of the network of group-related information will influence how they feel about the transgression.

A concrete example of a norm transgression can best illustrate how group identification relates to social emotions. Imagine that Jo, a member of a student sports team, gets quite drunk because she did not join her teammates when they left the bar early. The group’s expectation was that team members typically drink in moderation and leave the bar together. Thus, Jo transgresses the group’s norms. If Jo strongly identifies with her team, its behavioral expectations will likely be cognitively salient, in particular those that she did not follow, and she is likely to feel guilty about her norm transgressive behavior (i.e., bad behaviors). Now, if Jo is weakly identified with her team, the cognitive network of the behavioral expectations associated with the team would be less salient, but she would still wake up with a hangover. It is our contention that weakly identified individuals would be more likely to focus on the personal self, instead of their social identity, and interpret transgressions in terms of personal attributes. Thus, a weakly identified Jo is likely to judge herself to be a “bad person” and is more likely to feel shame because of her transgression.

The Motivational Tendencies of Guilt and Shame Within Groups

A key distinguishing feature of guilt and shame revolves around a difference in cognitive appraisal of the perceived causes of transgressions. Central to this appraisal is the process of counterfactual thinking (Niedenthal, Tangney, & Gavanski, 1994), which occurs when individuals reflect on how a past event, particularly one that is non-normative, might have otherwise unfolded had some perceived causal factors been different (Roese, 1997). This process of mentally undoing the event allows individuals to identify possible causes for the transgressions (Niedenthal et al., 1994; Roese, 1997). For example, Julian is a college student who has a late night of heavy drinking during his final exam week. Julian can mentally undo the outcome by thinking “If only I hadn’t brought my credit card to the bar, then I wouldn’t have gotten hammered.” In this case, Julian would be more likely to experience guilt given that a specific action is the perceived cause of the outcome. By contrast, Julian could think “If only I wasn’t so dumb, then I wouldn’t have

gotten hammered.” In this case, Julian would be more likely to experience shame given that the perceived cause of the event is a negative personal characteristic.

Counterfactual thoughts are central to many of the self-regulatory functions of guilt and shame by motivating individuals as a function of the perceived cause they reflect. When feeling guilt, counterfactual thoughts help individuals identify potential behavioral causes (e.g., ability to purchase alcohol in a bar) that if altered could result in a more normative unfolding of events (Niedenthal et al., 1994; Roese, 1997). Julian, for example, could bring a limited amount of cash to the bar, which would facilitate moderate alcohol consumption. This process is integral to the reparative motivational tendencies of guilt, such as attempts to avoid the transgression in the future (Baumeister, Stillwell, & Heatherton, 1994; Cialdini & Goldstein, 2004; Frijda, 1994; Tangney & Dearing, 2002). For example, Amodio, Devine, and Harmon-Jones (2007) observed that guilt increased approach-motivation toward the reparation of norm transgressing acts in the context of prejudice. These reparative motivational tendencies associated with guilt contribute to motivate individuals to follow a more normal path the next time a similar situation occurs.

Conversely, shame is not conducive to reparative motivational tendencies. Shame is associated with withdrawal motivational tendencies (Tangney & Dearing, 2002). It involves self-condemnation, motivates withdrawal from social interactions and, sometimes, problematic behaviors, such as the over-consumption of alcohol. Dearing, Stuewig, and Tangney (2005), for example, observed that a proneness to experience shame was associated with increased alcohol consumption, while a proneness to experience guilt was associated with a decrease in drinking. These reparative and withdrawal motivational tendencies associated with guilt and shame, respectively, may provide insight into the behavioral responses of strongly and weakly identified group members in situations of norm transgression. Experiencing guilt may motivate strongly identified individuals to align their future behavior with the group’s norms following a norm transgression, while experiencing shame may not have such a functional influence for weakly identified individuals.

Alcohol Consumption and Group Norms

Problematic alcohol consumption remains a pressing issue for students and for society in general. The Center for Addiction and Mental Health estimates that 26% of Canadian university students struggle with binge drinking (Adlaf, Demers, & Gliksmann, 2005) and these numbers are mirrored in the United States (National Institutes of Health, 2002). Although the impact of norms on alcohol consumption is well established (see Prentice, 2008), an understanding of the processes underlying their influence is still debated. Given the mixed results of norm-based interventions aimed at curtailing

drinking, a more thorough understanding of the psychological processes underlying the impact of norms on self-regulation may provide much-needed insight in improving interventions to decrease alcohol consumption. Accordingly, alcohol consumption was selected as the target behavior to examine the hypothesized role of group identification in the experience of guilt and shame following a norm transgression.

Overview

The central hypotheses investigated were that following the transgression of a reference group’s norms: (a) group members will report increased feelings of guilt and shame, and (b) that these emotional experiences will be moderated by the degree to which group members identify with their group. More intense feelings of guilt were expected for individuals who strongly identify as group members—compared with weakly identified individuals, reflecting the ease with which they can mentally undo transgressions to identify behaviors that depart from the group’s norms and caused the transgression. It was also expected that weakly identified group members would report more intense feelings of shame—compared with strongly identified individuals, reflecting that they are more likely to perceive that some inherent personal characteristic caused the transgression.

It was further hypothesized that group identification would moderate the experience of guilt and shame following transgressions when the group is behaviorally relevant, while no moderation would be observed when it is not behaviorally relevant. The moderation of group identification was also expected for counterfactual thoughts, which are integral to the cognitive appraisal tied to experiences of guilt and shame. Concordant with their greater experience of guilt following norm transgression strongly identified group members were expected to report more counterfactuals targeting behaviors as the likely cause of the transgression. Similarly, concordant with their greater experience of shame following norm transgression, weakly identified group members were expected to report more counterfactuals targeting negative aspects of themselves as the likely cause of the transgression.

Finally, examining the motivational outcomes of these emotions, it was hypothesized that stronger group identification would be associated with a decrease in the likelihood that the norm transgressing behavior would be repeated following a transgression and that this decrease would be mediated the experience of guilt—reflecting its reparative motivational tendencies. While, based on prior work, it was expected that shame would motivate increased alcohol consumption following a norm transgression.

These hypotheses were examined across four studies dealing with alcohol consumption. Study 1 provided an initial experimental test of the hypothesized moderation of group identification on the experience of guilt and shame following a norm transgression. Study 2 aimed to replicate Study 1, and extend the results by examining the impact of

the behavioral relevance of group norms. Study 3 was designed to replicate Studies 1 and 2 and extend their results by examining counterfactual thoughts. Finally, Study 4 employed a longitudinal design to examine the motivational impact of the experience of guilt and shame on future alcohol consumption, and, in doing so, provided a conceptual replication of Studies 1, 2, and 3.

Study 1

Study 1 examined the moderation of group identification on the experience of guilt and shame when a norm transgression occurs through alcohol consumption. Following norm transgression (i.e., when alcohol consumption surpassed the norm) more intense feelings of guilt were expected when individuals strongly identified as group members, compared with more weakly identified individuals. More intense feelings of shame were expected when individuals weakly identified as group members, compared with more strongly identified individuals. The moderation of identification was not expected in situations where norms were not transgressed. Given that the behavior studied was alcohol consumption and that the population was university students, we selected “university friends and peers” as the behaviorally relevant reference group based on previous work (e.g., Johnston & White, 2003) and our own pilot test of 44 participants.

Method

Participants. Non-abstaining university students ($N = 110$; M age = 19.26; 63 women) who could recall having a drinking experience within the past month were recruited to participate in this study in exchange for course credit. The legal drinking age in the Canadian provinces where these studies were conducted (Ontario and Quebec) was 19 and 18 years, respectively.

Procedure. After providing consent, participants were randomly assigned to one of three conditions in which they were asked to recall a time where their alcohol consumption either: (a) surpassed the typical rate of their university peers and friends (*transgression*); (b) was congruent with the typical rate of their university peers and friends (*congruent*); (c) or a time where they had the opportunity to consume alcohol but did not do so (*restraint*). Participants were then asked to describe this event in an open-ended format and to complete closed-ended items, including a measure of guilt and shame. Unless otherwise specified, all items were rated on a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Measures

Group identification. Identification was assessed prior to the recall task as part of a larger questionnaire containing filler

items using the Cameron (2004) measure of identification (12 items; for example, In general, my university friends and peers are an important part of my self-image; $\alpha = .84$, $M = 5.01$, $SD = 1.02$).

Guilt and shame. Guilt and shame were assessed using items adapted from the state self-conscious emotion scale (Marschall, Sanftner, & Tangney, 1994). Participants rated the extent to which they experienced each emotion following the event they had recalled (Guilt, five items, $\alpha = .86$, for example, “I felt remorse, regret”; Shame, five items, $\alpha = .85$; for example, “I felt small”). The order of the guilt and shame measures was counterbalanced. No order effects were observed.

Alcohol consumption. Participants were asked to report the number of alcoholic beverages they consumed during their described event using an item adapted from Midanick (1994). They also were asked to report the amount of alcohol their university peers and friends typically consumed in similar situation. These items were counterbalanced and no order effects were observed.

Results

Alcohol consumption. The difference between participant’s alcohol consumption and the typical rate of their university peers and friends was used as manipulation check. A significant one-way ANOVA, $F(2, 107) = 214.46$, $p < .001$, revealed that the difference between participants’ alcohol consumption and the norm was higher in the transgression ($M = 3.31$) compared with the congruent condition ($M = 0.32$, $p < .001$), which in turn was significantly different from the restraint condition ($M = -5.06$, $p < .001$).

Guilt and shame. A mixed-linear model (generated using the lme4 R package; Bates, Maechler, & Bolker, 2011) was used to examine the influence of norm transgression and group identification on the experience of guilt and shame. Type of emotions was treated as a within-subject variable, and norm transgression as a between-subject variable (transgression, congruent, restraint), and identification (centered at the mean) as a continuous variable.

The model (Condition \times Emotion type \times Identification) revealed significant main effects for condition, $F(2, 104) = 58.35$, $p < .001$, and for type of emotion, $F(1, 104) = 4.46$, $p = .037$, along with a non-significant main effect of identification, $F(1, 104) = 0.02$, $p = .887$. These main effects were qualified by a two-way interaction between type of emotion and identification, $F(1, 104) = 13.43$, $p < .001$, while the condition and type of emotion and the condition by identification interactions were non-significant, respectively, $F(2, 104) = 0.84$, $p = .433$, $F(2, 104) = 0.13$, $p = .874$. All these effects were qualified by a significant three-way interaction between condition, type of emotion, and identification, $F(2, 104) = 9.67$, $p < .001$.

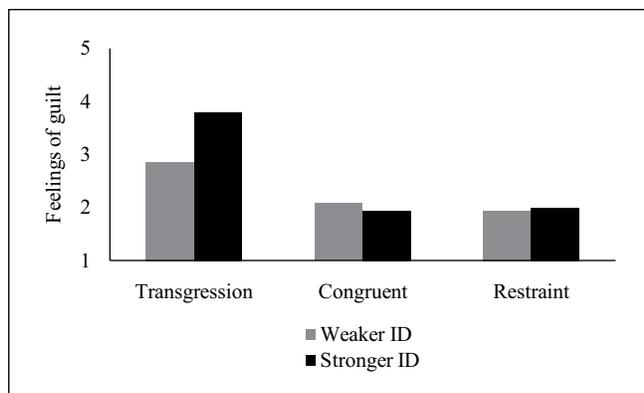


Figure 1. Mean level of guilt in relation to identification by condition for Study 1.

Note. ID = identification.

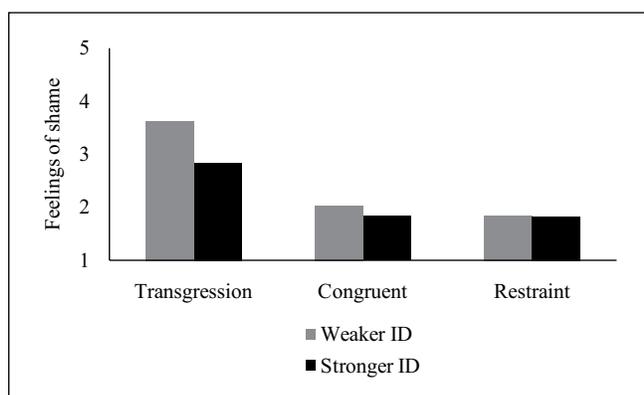


Figure 2. Mean level shame in relation to identification by condition for Study 1.

Note. ID = identification.

The three-way interaction was examined by type of emotions using simple slope analyses (Aiken & West, 1991). Analyses for guilt were done controlling for shame, while analyses focusing on shame were done controlling for guilt. Identification was fixed at +1 *SD* for strongly identified individuals and -1 *SD* for weakly identified individuals. As depicted in Figure 1, controlling for shame, following a norm transgression more intense feelings of guilt were observed when individuals were strongly identified as group members, compared with when they did not strongly identify as members, $\beta = .53, p < .001$. As depicted in Figure 2, controlling for guilt, following a norm transgression more intense feelings of shame were observed when individuals were weakly identified as group members compared with when they strongly identified as members, $\beta = -.52, p < .001$. It can also be observed in Figures 1 and 2 that identification did not moderate the experience of guilt and shame in situations where alcohol consumption occurs but was congruent with group norms and when alcohol consumption was restrained ($ps >$

.10). In both of these conditions, the reported levels of guilt and shame were low.

Discussion

Results of this first study provide a clear pattern suggesting that a norm transgression, involving drinking alcohol beyond the norm, differentially evoked feelings of guilt and shame for individuals differing in degree of identification. The moderating effects of group identification were not observed when the alcohol consumption of individuals was congruent with group norms or when they restrained from engaging in drinking.

Study 2

Study 2 aimed to replicate the moderation of identification on experiences of guilt and shame observed in Study 1, and to extend the findings by investigating a key assumption of the social identity approach to the influence of group norms. The degree of identification should impact the influence a group's norms when the group acts as a behaviorally relevant reference point (Smith & Louis, 2009). Terry and Hogg (1996, Study 2), for example, compared the moderation of group identification on the influence of group norms when a group served as a relevant or irrelevant reference point. Their results suggest that identification only moderates the influence of group norms on behavior when the group offers relevant reference point.

Following previous work examining this issue we targeted three groups (e.g., Terry & Hogg, 1996). University friends and peers (UFP) represented the relevant reference group. Family members of legal age to consume alcohol (FM) and students from another university (SAU) were selected because they are less relevant for the participants' alcohol consumption norms. The moderation of identification was expected to occur only when a social group is behaviorally relevant.

Method

Participants. Non-abstaining university students ($N = 102$; M age = 19.78; 52 women) who could recall having a drinking experience within the past month were recruited to participate in this study in exchange for course credit.

Procedure. Following the procedure used by Terry and Hogg (1996, Study 2), participants reported the perceived norms and degree of identification with a group behaviorally relevant to alcohol consumption during the school year (i.e., UFP) and with two groups not behaviorally relevant to alcohol consumption during the school year: FM (data of four participants were removed because their siblings attended the same university as them) and SAU. Participants also rated at this time the extent to which they perceived the group norm as

Table 1. Results of the Analyses of Study 2 Predicting Feelings of Guilt and Shame by Type of Group Investigated.

| | University peers | Other university | Family members |
|--|------------------|------------------|----------------|
| Conditions, $F(2, 96)$ | 40.89*** | 42.57*** | 38.90*** |
| Type of emotions, $F(1, 96)$ | 7.21** | 3.97* | 3.38 |
| Identification, $F(1, 96)$ | 0.11 | 0.80 | 1.95 |
| Condition \times Type of emotions, $F(2, 96)$ | 1.36 | 0.41 | 0.17 |
| Type of emotions \times Identification, $F(1, 96)$ | 18.09*** | 0.01 | 0.36 |
| Conditions \times Identification, $F(2, 96)$ | 0.04 | 1.53 | 0.20 |
| Conditions \times Type of emotions \times Identification, $F(2, 96)$ | 10.84*** | 0.35 | 0.47 |

* $p < .05$. ** $p < .01$. *** $p < .001$.

a relevant reference point for alcohol consumption. These were collected as part of a larger questionnaire completed prior to participant's completion of the study. The order of the groups was counterbalanced. No order effects were observed. The rest of the procedure was the same as in Study 1.

Measures

Group identification. The same measure as in Study 1 assessed identification with UFP ($\alpha = .86$, $M = 5.42$, $SD = 0.90$), FM ($\alpha = .85$, $M = 5.45$, $SD = 0.88$), and SAU ($\alpha = .83$, $M = 4.57$, $SD = 0.91$).

Guilt and shame. As in Study 1, guilt ($\alpha = .88$) and shame ($\alpha = .89$) were assessed using the Marschall et al. (1994) measure. The order of these measures was counterbalanced. No order effects were observed.

Alcohol consumption. The same item as in Study 1 was used to assess the number of alcoholic beverages participants consumed during the recalled event and the normative amount of alcohol consumption of each group.

Relevance of groups. A few items pertaining to the group processes involved in normative influence were also included. Among these, two items were included to verify that UFP were perceived as the most behaviorally relevant group (Is this group a relevant reference group for your alcohol consumption? Do you think this group provides a useful comparison point to evaluate your alcohol consumption? rated on a scale from 1 = *not at all* to 7 = *very much*). These two items were highly correlated for each of the three groups (UFP, $r = .91$, $p < .001$; FM, $r = .86$, $p < .001$; SAU, $r = .89$, $p < .001$) and were averaged to create a measure of the relevance for each reference group.

Results

Preliminary analyses. A significant repeated-measures ANOVA, $F(2, 202) = 24.32$, $p < .001$, suggested that UFP were perceived as a more relevant reference group for alcohol consumption ($M = 5.74$) compare with SAU ($M = 3.71$) and with FM ($M = 3.50$).

The difference between participant's alcohol consumption and the typical rate of each of the three groups were used as manipulation checks. A series of ANOVAs examining the transgression measure across the conditions revealed that in all three instances, participants reported having consumed more than the perceived norm in the transgression condition—UFP $M = 2.79$, $F(2, 99) = 103.67$, $p < .001$; FM $M = 3.97$, $F(2, 99) = 90.68$, $p < .001$; SAU $M = 1.68$, $F(2, 99) = 48.57$, $p < .001$ —compared with the other two conditions (congruent condition UFP $M = -0.44$, FM $M = 0.91$, SAU $M = -1.06$; restraint condition UFP $M = -4.97$, FM $M = -3.25$, SAU $M = -5.91$).

Emotions as function of the type of group. As in Study 1, a linear modeling approach was used to examine the influence of norm transgression and identification on the experience of guilt and shame for each type of group. Type of emotions was treated as a within-subject variable, norm transgression (transgression, congruent, restraint) as a between-subject variable and identification (centered at the mean) as a continuous variable. The results for each of the three models are presented in Table 1. As can be seen in Table 1, the three-way interaction was only significant for UFP. These results support the hypothesis that the relevance of the reference group impacts whether or not degree of identification influences the experience of guilt and shame.

Guilt and shame. The significant three-way interaction observed for UFP was examined by type of emotions using simple slope analyses (Aiken & West, 1991), as in Study 1. As in Study 1, controlling for shame, following norm transgression more intense feelings of guilt were observed for strongly identified individuals, compared with weakly identified individuals, $\beta = .54$, $p < .001$. Also replicating the results of Study 1, controlling for guilt, following norm transgression more intense feelings of shame were observed for weakly identified individuals compared with strongly identified individuals, $\beta = -.52$, $p < .001$. Identification did not moderate the experience of guilt and shame in situations where alcohol consumption occurs but is congruent with group norms and when it is restrained ($ps > .10$).

Discussion

Providing strong support for the notion that norm transgression differentially evokes feelings of guilt and shame for individuals differing in group identification, the results for Study 2 replicated those of Study 1. Extending Study 1, the results of Study 2 suggest that identification only impacts the experience of guilt and shame when groups provide a behaviorally relevant reference point for the behavior involved in the transgression. These findings are consistent with Terry and Hogg (1996) who observed that identification moderates the influence of group norms only when the group is a behaviorally relevant reference point.

Study 3

Study 3 aimed to replicate the results of Studies 1 and 2 and to examine the interpretation of the likely cause of the norm transgression by strongly and weakly identified group members by focusing on their counterfactual thoughts. Although norm transgression is common to guilt and shame, *a key distinguishing feature of their experience* is a difference in the appraisal of the likely cause of the norm transgression in terms of counterfactual thoughts (Niedenthal et al., 1994; Roese, 1997). Guilt is typically associated with counterfactuals that target negative behaviors as the likely cause of the transgression (e.g., If only I hadn't brought my credit card I would have drunk less at the bar). Conversely, shame, is typically associated with counterfactuals that target negative characteristics of the person as the likely cause of the transgression (e.g., If only I wasn't so dumb I would have drunk less at the bar).

Concordant with greater experience of guilt, strongly identified individuals were expected to report more counterfactuals targeting behaviors as the likely cause of the norm transgression, compared with weakly identified individuals. Concordant with greater experience of shame, weakly identified individuals were expected to report more counterfactual thoughts targeting negative aspects of themselves as the likely cause of the norm transgression, compared with strongly identified individuals. The focus here was placed on differences observed in the transgression condition. For methodological completeness, we did include the counterfactual task in the congruent and restraint conditions, for which we had no specific hypotheses. In these conditions, counterfactuals focused on causes as to why the participants limited or completely restrained their alcohol consumption (e.g., If only I wasn't the designated driver I would have drunk a couple of beers at the bar).

Method

Participants. Non-abstaining university students ($N = 84$; M age = 20.50; 40 women) who could recall having a drinking experience within the past month were recruited

to participate in this study in exchange for a monetary compensation (CAN \$10).

Procedure. The procedure was similar to the one used in Study 1. The only difference was the addition of a counterfactual listing task.

Measures

Group identification. The same measure as in Study 1 was used to assess group identification ($\alpha = .82$, $M = 5.12$, $SD = 0.93$).

Guilt and shame. As in Study 1, guilt ($\alpha = .85$) and shame ($\alpha = .87$) were assessed using the Marschall et al. (1994) measure. The order of these measures was counterbalanced. No order effects were observed.

Alcohol consumption. The same item as in Study 1 was used to assess the number of alcoholic beverages participants consumed during their recalled event and the normative amount of alcohol consumption.

Counterfactual thoughts were assessed by adapting a procedure introduced by Roese and Olson (1993). Participants were prompted, using a vignette, to generate counterfactual thoughts about their alcohol consumption (or limiting their alcohol consumption depending on the condition) during the recalled event using the sentence stem "If only . . ." Two blind coders coded counterfactuals as to whether the likely cause of the drinking (or restraint) was a negative behavior (e.g., "If only I had turned my friend down, I wouldn't have gone out drinking that night") or whether the target was a negative aspect of the person (e.g., "If only I was a better student, I would have stayed home instead of going to that beer bash"). Each counterfactual received only one code and could not be coded in both categories. Coders agreed on 86% of the categorizations. A third coder resolved discrepancies. Counterfactuals were added to generate a score for behavior and another score for personal characteristics for each participant.

Results

Alcohol consumption. As in Study 1, the difference between participant's own consumption and the norm was used as a manipulation check. A significant one-way ANOVA, $F(2, 81) = 144.52$, $p < .001$, revealed that the difference between participants' alcohol consumption and the norm was higher in the transgression condition ($M = 3.00$) compared with the congruent condition ($M = 0.44$, $p < .001$), which in turn was significantly different from the restraint condition ($M = -4.92$, $p < .001$).

Guilt and shame. The same analytical strategy as in Study 1 was used. The mixed-linear model revealed main effects of condition, $F(2, 78) = 48.25$, $p < .001$, and emotion type, $F(1, 78) = 8.63$, $p = .004$, while the main effect of

identification was non-significant, $F(1, 78) = 0.50, p = .481$. A significant two-way interaction was noted for Emotion type \times Identification, $F(1, 78) = 4.04, p = .048$. The Condition \times Emotion type and the Condition \times Identification interactions were not significant, respectively, $F(2, 78) = 1.07, p = .348$; $F(2, 78) = 0.19, p = .831$. All these effects were qualified by a three-way interaction between condition, emotion type, and identification, $F(2, 78) = 12.23, p < .001$.

As in the previous studies, the interaction was examined by type of emotions using simple slope analyses. The overall pattern of results was similar to the previous studies. When individuals strongly identified, norm transgression led to more intense feelings of guilt compared with when individuals weakly identified, $\beta = .55, p = .003$ —controlling for shame. When individuals weakly identified norm transgression led to more intense feelings of shame compared with when individuals strongly identified, $\beta = -.57, p = .002$ —controlling for guilt. Identification did not moderate the experience of emotions in the congruent and restraint conditions ($ps > .10$).

Counterfactuals were examined using a similar analytical strategy as above. The Condition (transgression, congruency, restraint) \times Type of counterfactual (behavior, person) \times Identification mixed-linear model revealed significant main effects for condition, $F(2, 78) = 17.15, p < .001$, and type of counterfactual, $F(1, 78) = 5.02, p = .028$, while no significant main effect for identification was observed, $F(1, 78) = 0.21, p = .645$. A significant two-way interaction was observed for the type of counterfactual by identification interaction, $F(1, 78) = 6.90, p = .010$. No significant type of counterfactual by condition or condition by identification interactions were observed, respectively, $F(2, 78) = 0.01, p = .993$; $F(2, 78) = 0.07, p = .934$. All of these effects were qualified by a three-way interaction of condition, type of counterfactual, and identification, $F(2, 78) = 4.78, p = .011$.

The three-way interaction was investigated by type of counterfactual using simple slope analyses. As depicted in Figure 3, in the norm transgression condition, when individuals strongly identified, they reported more counterfactuals involving behaviors as the likely cause of the transgression compared with when individuals did not strongly identify, $\beta = .39, p = .012$. As depicted in Figure 4, weakly identified individuals were more likely to report counterfactuals involving negative self-characteristics as the likely cause of the transgression compared with strongly identified individuals, $\beta = -.45, p = .010$. No significant effects were observed in the congruent and restraint conditions ($ps > .10$).

Discussion

Providing strong support for the hypothesized group influence on experiences of guilt and shame, the results of Study 3 replicated those of Studies 1 and 2. They further revealed that, as expected, in the norm transgression condition strongly identified individuals generated more counterfactual thoughts

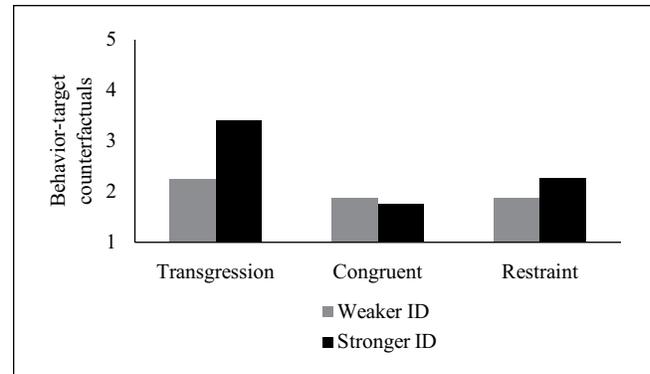


Figure 3. Study 3: Mean number of behavior-target counterfactuals in relation to identification by condition. Note. ID = identification.

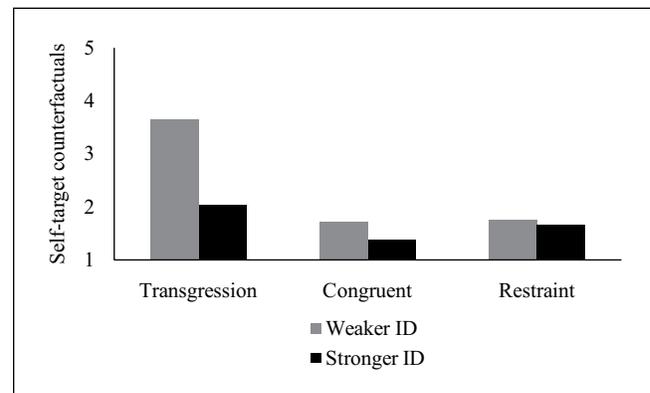


Figure 4. Study 3: Mean number of self-target counterfactuals in relation to identification by condition. Note. ID = identification.

involving behaviors as the likely cause of the transgression compared with weakly identified individuals. Conversely, weakly identified individuals generated more counterfactual thoughts involving negative self-characteristics as the likely cause of the transgression compared with strongly identified individuals.

It should be noted that the hypotheses regarding counterfactuals focused on experiences following a norm transgression. Lower numbers of counterfactuals were observed in the norm congruency and restraint conditions. This came as no surprise given that the counterfactuals generated in the restraint condition focused on causes as to why the person restrained his or her drinking. Importantly, the counterfactuals observed in the transgression condition did support the hypothesized moderation of identification.

Study 4

In addition to differences in the perceived likely cause of a norm transgression, experiences of guilt and shame can also be distinguished by their motivational outcomes. Guilt

typically increases motivation to repair transgressions and to regulate problematic behaviors—a function which shame does not share (see Tangney & Dearing, 2002). To provide further support for the hypothesized moderation of group identification in experiences of guilt and shame, Study 4 focused on the motivational outcomes in terms of regulation of alcohol consumption. Specifically, it was hypothesized that norm transgression, when drinking surpasses the norm, would result in decreased alcohol consumption on the part of strongly identified individuals and that this decrease would be mediated by the experience of guilt.

Shame, however, typically is associated with withdrawal motivational tendencies (Tangney & Dearing, 2002). In addition, in some circumstances proneness to experience shame has been associated with increased motivation toward transgressive behaviors, such as increased alcohol consumption (e.g., Dearing et al., 2005). Accordingly, we also expected that experiences of shame would be associated with increases in alcohol consumption.

To examine the motivational outcomes of emotions on future behavior by strongly and weakly identified group members Study 4 used a longitudinal design. This design also provided the opportunity to conceptually replicate the findings of Studies 1, 2, and 3, that norm transgression differentially evoked feelings of guilt and shame for individuals differing in group identification.

Method

Participants. Non-abstaining university students ($N = 152$; M age = 21.93; 84 women) completed the study.

Procedure. Participants completed measures of identification and norms and provided demographic information at Time 1. Participants were then instructed to complete a short online survey after the next time they consumed alcohol. Completion of this survey comprised Time 2. In this survey, participants described the event in which they consumed alcohol, reported the number of drinks they had consumed, and completed measures of guilt and shame. Finally, Time 3 was completed approximately 7 days after Time 2. Participants were asked to report if they had consumed alcohol during the 7 days following Time 2 and to indicate the quantity they had consumed.

Measures

Group identification. The same measure as in Study 1 was used to assess group identification ($\alpha = .84$, $M = 4.48$, $SD = 1.04$).

Guilt and shame. As in Study 1, guilt ($\alpha = .83$) and shame ($\alpha = .84$) were assessed using the Marschall et al. (1994) measure.

Alcohol consumption norm transgression. The same item as in Study 1 was used to assess the number of alcoholic beverages

participants consumed at Time 2 ($M = 5.62$, $SD = 3.70$) and the amount of alcohol their UFP typically consumed ($M = 5.82$, $SD = 2.33$). These items were counterbalanced and no order effects were observed.

Alcohol consumption at Time 3. Two items adapted from Midanick (1994) were used to assess alcohol consumption at Time 3. The first inquired about the frequency of their alcohol consumption during the 7 days following Time 2, while the second inquired about the number of drinks consumed each time; these were combining into a measure of the number of drinks consumed since Time 2.

Results

Overview of analyses. Path modeling analysis was conducted using LISREL 8.7 (Jöreskog & Sörbom, 2003). To provide consistency with the previous analyses, a variable was created representing the difference between the alcohol consumed and the perceived norm, labeled TRANS for transgression. To investigate the hypotheses, a model was generated by estimating directional paths from TRANS, identification, and their interactions (TRANS by identification) to predict the experience of guilt and shame at Time 2, and alcohol consumption at Time 3. The model also contained paths from guilt and shame to alcohol consumption at Time 3. In addition, as recommended by Fairchild and MacKinnon (2009), to avoid biasing the TRANS by identification interaction, we included interaction vectors between the predictor (TRANS) and each of the mediators (guilt and shame). Bidirectional paths between guilt and shame were also generated. An overview of the key paths generated is depicted in Figure 5.

To facilitate the interpretation of the model and to address multicollinearity concerns, all variables were standardized. A number of goodness-of-fit indices aided with the interpretation of the results. The χ^2 test, the incremental fit index (IFI; Bollen, 1989), the comparative fit index (CFI; Bentler, 1990), and the root mean square error of approximation (RMSEA; Browne & Cudeck, 1993) were examined. Values above .90 on the IFI and CFI (Hu & Bentler, 1995), and equal or below .10 for RMSEA (Browne & Cudeck, 1993) are typically interpreted as indicating an acceptable fit. The overall model had an acceptable fit, $\chi^2(14) = 20.62$, $p = .22$, IFI = .97, CFI = .97, RMSEA = .06.

Guilt and shame. As in previous studies, group identification was expected to moderate the experience of guilt and shame following norm transgression. Table 2 presents the standardized coefficients for each of the paths modeled. It can be observed in Table 2 that transgression was associated with an increase in reported guilt and shame. Identification was not significantly related to guilt or shame. The interaction of transgression and identification was a significant predictor of feelings of guilt and shame.

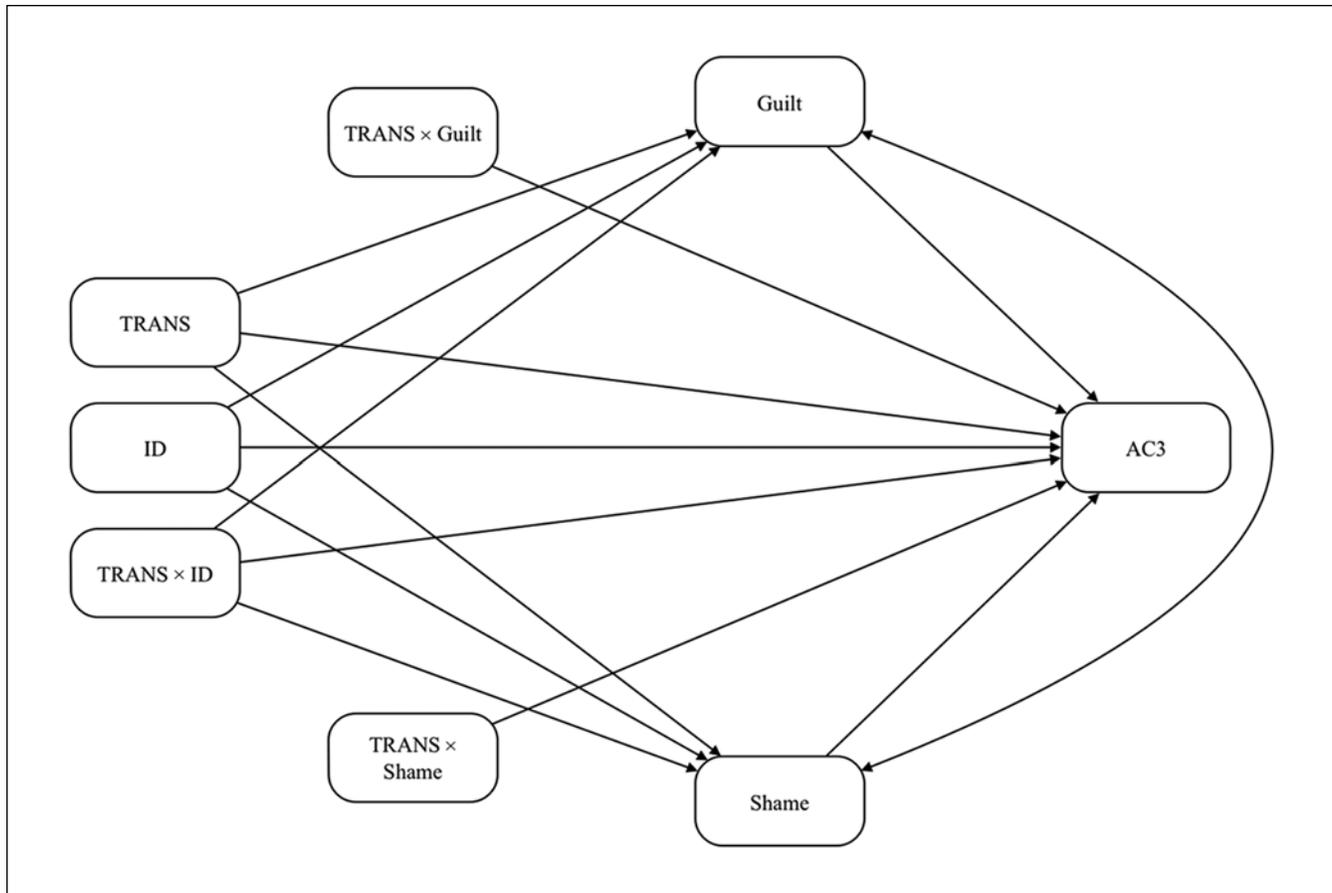


Figure 5. Study 4: Overview paths modeled to examine the hypothesized identification moderation on guilt, shame, and future alcohol consumption.

Note. ID = identification; TRANS = difference between alcohol consumed and the norm; AC3 = alcohol consumption at Time 3.

Simple slope analyses were conducted to examine the interaction. To maintain consistency with the results of the previous studies, simple slopes were examined by degree of transgression (+1 *SD* = higher; -1 *SD* = lower). Similarly, strong and weak identification estimates were set at +1 *SD* and -1 *SD*, respectively. It can be observed in Figure 6 that, controlling for shame, at high degrees of transgression of the perceived norm strongly identified individuals experienced more intense feelings for guilt compared with weakly identified ones, $\beta = .39, p < .001$. No difference in the experience of guilt was observed between strongly and weakly identified individuals at low degrees of norm transgression, $\beta = .06, p > .10$.

It can be observed in Figure 7 that, controlling for guilt, at high degrees of norm transgression weakly identified individuals experienced more intense feelings for shame compared with strongly identified ones, $\beta = -.28, p = .010$. No difference in the experience of shame was observed between weakly and strongly identified individuals at low degrees of norm transgression, $\beta = -.05, p > .10$.

Time 3 alcohol consumption. It was expected that as Time 2 alcohol consumption transgressed the perceived norm,

strongly identifying with the group would be associated with a decrease in future alcohol consumption, a decrease associated with the experience of guilt, which is associated with reparative motivational tendencies.

As presented in Table 2, norm transgression was associated with a significant decrease in alcohol consumption at Time 3, while group identification was not significantly associated with Time 3 consumption. It can also be observed in Table 2 that the interaction of transgression and identification significantly predicted Time 3 alcohol consumption. Finally, Table 2 also reveals that guilt was associated with a significant decrease in Time 3 alcohol consumption while shame was associated with a marginally significant increase in Time 3 alcohol consumption. The interactions of guilt and of shame with transgression were not significantly related to Time 3 alcohol consumption.

As with previous analyses, this interaction was examined using simple slopes by degrees of norm transgression. At high degrees of norm transgression, greater identification was associated with lower Time 3 alcohol consumption, $\beta = -.31, p = .012$. At low degrees of norm transgression, greater identification was associated with greater Time 3 alcohol consumption, $\beta = .22, p = .043$.

Table 2. Study 4: Standardized Coefficients for Norm, Time 2 Alcohol Consumption and Identification, Along With Their Interactions, Predicting Guilt, Shame, and Time 3 Alcohol Consumption.

| Variables | Guilt | Shame | Time 3 Alcohol consumption |
|--|--------|--------|----------------------------|
| Transgression of perceived norms (TRANS) | .40*** | .34*** | -.20* |
| Group ID | .09 | -.07 | .10 |
| TRANS by ID | .29** | -.24* | -.22* |
| Guilt | — | .53*** | -.31*** |
| TRANS × Guilt | — | — | -.13 |
| Shame | — | — | .16 [†] |
| TRANS × Shame | — | — | .09 |

Note. ID = identification.

[†] $p < .07$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Mediation of guilt. Given the reparative motivational tendencies associated with guilt, it was expected that the decrease in alcohol consumption at Time 3 by strongly identified individuals following a norm transgression would be mediated by their experience of guilt. This mediation was examined following the guidelines to examine moderated mediation suggested by Preacher, Rucker, and Hayes (2007). A requirement to examine mediation is that the predictor, in this case the interaction of transgression and identification, be related to both the mediator and the outcome variable. Fulfilling this requirement a significant interaction of transgression and identification was observed for guilt (i.e., mediator) and Time 3 alcohol consumption (i.e., outcome variable). In addition, the mediator should also be related to the outcome variable when the predictor is accounted for. Fulfilling this requirement, a main effect of guilt on Time 3 alcohol consumption was observed when the interaction was included in the model. Thus, we examined whether the difference in guilt observed as a function of degree of identification and transgression at Time 2 mediated the interaction of transgression and identification on Time 3 alcohol consumption. Supporting the hypothesized mediation of guilt, a Sobel (1982) test suggested that at higher degrees of norm transgression (i.e., +1 *SD*), the negative relationship between identification and Time 3 alcohol consumption was mediated by guilt, $z = -2.68$, $p = .007$. At lower degrees of transgression (i.e., -1 *SD*), however, the relationship between identification and alcohol consumption was not significant, and, accordingly, guilt was not observed to be a significant mediator, $z = 1.45$, $p = .147$.

Mediation of shame. We examined whether the increase in alcohol consumption at Time 3 by weakly identified individuals following a norm transgression would be mediated by the experience of shame. As with guilt, all the requirements were met, with the exception that there was only a



Figure 6. Study 4: Mean level of Guilt following as a function of degree of transgression of the perceived norm in relation to identification.

Note. The figure depicts the results estimated at as a function of a comparison relative to the perceived norm reported. Transgression is assumed to result at increased alcohol consumption relative to the perceived norm. ID = identification.

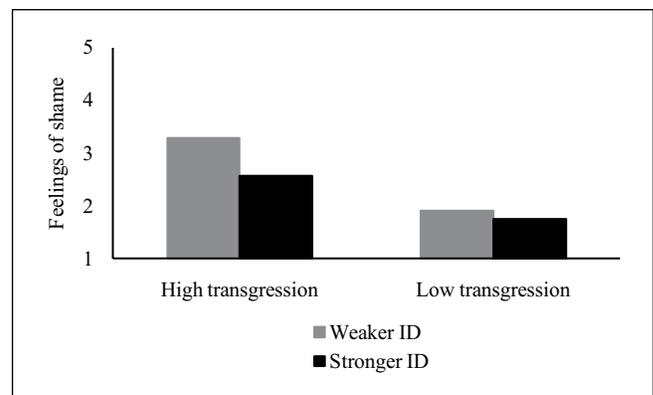


Figure 7. Study 4: Mean level of Shame following as a function of degree of transgression of the perceived norm in relation to identification.

Note. The figure depicts the results estimated at as a function of a comparison relative to the perceived norm reported. Transgression is assumed to result at increased alcohol consumption relative to the perceived norm. ID = identification.

marginally significant relationship between shame (the mediator) and Time 3 alcohol consumption (the outcome) when the predictor was accounted for ($p < .07$).

As with guilt, we examined whether the difference in shame observed as a function of degree of identification and transgression at Time 2 mediated the interaction of transgression and identification on Time 3 alcohol consumption. A Sobel test revealed that at higher degrees of norm transgression (i.e., +1 *SD*), the negative relationship between identification and Time 3 alcohol consumption was marginally significantly mediated by shame, $z = -1.71$, $p = .087$. At lower degrees of transgression (i.e., -1 *SD*), the relationship between identification and alcohol consumption was not

significant, and, accordingly, shame was not observed to be a significant mediator, $z = -1.33$, $p = .184$.

Discussion

The results of Study 4 offer strong support for the hypothesized moderation of identification on guilt and shame by replicating the pattern of results of Studies 1, 2, and 3 and by providing behavioral data. This behavioral data indicated that strongly identified individuals decreased their alcohol consumption following a situation of transgression. As expected, their increased experience of guilt mediated this decrease in alcohol consumption. Offering some support to the previously observed relationship between shame and alcohol consumption, it was observed that the increased alcohol consumption reported by weakly identified individuals was mediated by their increased experience of shame, although the results were marginally significant.

General Discussion

The present research examined how group identification shapes the emotional and motivational states of group members following the transgression of group norms. We wanted to examine if stronger group identification would be associated with greater feelings of guilt and motivate the individual to realign their future behavior to the group's norm. We also wanted to see if weaker group identification would be associated with feelings of shame and some of its negative outcomes.

A consistent pattern of results across our four studies provides strong support for the hypothesized moderation of group identification on experiences of guilt and shame in situations of norm transgression. In transgression situations, where alcohol consumption surpassed the descriptive norm of a behaviorally relevant group, strongly identified individuals reported more intense feelings of guilt compared with weakly identified individuals. Conversely, weakly identified individuals reported more intense feelings of shame compared with those who strongly identified. Examining further the nature of the moderating effect of identification on experiences of guilt and shame, the studies suggested that (a) the group needs to be behaviorally relevant for group identification to impact the experience of guilt and shame, (b) the moderation is observed for counterfactual thoughts, which are central to the experience of guilt and shame, and (c) the moderation is also observed on motivational outcomes of guilt and shame.

Norm Transgressions and Emotions in a Group Context

The norms people perceive from salient reference groups in a given situation provide necessary reference points that allow them to assess whether their behavior is appropriate or

problematic. When the actions of people transgress norms, one might intuitively expect that they would experience negative emotions that would motivate them to realign their future behavior with the norms. Results of the present studies, however, suggest that this process varies systematically depending on the level of group identification of the norm transgressor.

Strongly identified group members benefit from a rich and easily accessible network of information supporting group norms. When a transgression occurs, they can rely on this network of information to assess the unfolding of events that led to the transgression. They then should be able to easily identify instances of their group's normative behaviors and example of times they behaved normatively. The comparison of their transgressive behavior with these normative exemplars is likely to lead to feelings of guilt.

Weakly identified individuals, however, have a relatively sparse network of information about the normative aspects of their group's behavior and given that the group is not central to their sense of self, the group's norms will not be as accessible (Smith & Louis, 2009; Turner, 1991; Turner et al., 1994; Van Bavel & Cunningham, 2011). When faced with their transgressive behavior, they will have few normative comparative exemplars of behavior and they will be less likely to focus on their actions. For these individuals, the fall back strategy may be to focus on the personal self, rather than the collective group self, and to make personal attributions for their transgression (e.g., I am a bad person). Such dispositional attributions are likely to lead them to experience greater feelings of shame.

The present studies help explain how, over time, strongly identified individuals distinguish themselves from weakly identified individuals in their adherence to group norms. In addition, they offer avenues to understand the impact that the distinctive experience of strongly and weakly identified individuals can have on their well-being. For example, the experience of shame by weakly identified individuals may negatively impact their well-being by increasing the risk for depression and lower self-esteem, which have been associated with shame (Tangney & Dearing, 2002), as well as increased alcohol consumption, as suggested by our last study.

An Emotion-Focused Approach to Group Norms

Norms are the result of expectations acquired through the interaction of individuals in social groups (Turner, 1991). As such, the salience of groups in a given situation is key to determine the norms that will be relevant guides for behavior. Emotions that are associated with discrepancies between normative expectations and actual behavioral outcomes, such as guilt and shame, provide essential cues signaling these discrepancies. According to a social identity approach, normative influence varies as a function of group identification (Smith & Louis, 2009). Thus, the experience of emotions tied to normative discrepancies and their motivational outcomes could also vary as a function of group identification.

Individuals who are strongly identified with a group have a lot to gain from having the affective and cognitive processes that allow them to detect and respond efficiently to norm transgressions. The group is central to how they define themselves—contributing to their sense of self-worth and their experience of social belongingness. The results of our studies indicate that transgressive behaviors motivate a realignment of behavior with a more normative pattern to ensure the well-being of strongly identified group members.

A corrective process for strongly identified group members is also beneficial for the vitality and cohesion of social groups. They depend on strongly identified individuals to maintain norm-concordant behavior to maintain the group's norms over time. These members are often the more visible supporters of the group. If their actions do not collectively align toward a similar pattern, the group's vitality will suffer.

The process highlighted by the results of the present studies offer a complementary perspective to previous work on the link between emotions and norms. For example, Christensen, Rothgerber, Wood, and Matz (2004) focused on positive emotions experienced in situations of conformity to group norms. They observed that in some situations such conformity results in the experience of reinforcing positive emotions. Together, the results of Christensen et al. and those of the present studies suggest that positive and negative emotions that signal adherence and departure from norms may play an important role in the maintenance of group norms over time.

The present findings also suggest a process distinct from Hynie, MacDonald, and Marques (2006), who report that anticipated shame and guilt mediate the influence of norms on condom use. Their results suggest that the influence of anticipated shame and guilt operates by motivating individuals to avoid expected negative emotions. Our studies, as well as previous work by Niedenthal et al. (1994), suggest that actual experiences of guilt and shame are associated with the cognitive appraisal of events. Guilt and shame in their anticipated and actual forms may thus rely on different processes focusing on future events and interpretation of past events, respectively.

Implications for Self-Regulation

The results of the present studies also suggest another way of understanding what aspects of the self may be involved in self-regulation. Given that normative standards are a primary component of self-regulation and that they result from interactions of individuals in groups, it follows that aspects of the self that are tied to social groups should play an important role in self-regulation. The present studies illustrate that collective aspects of the self (i.e., group identity) help in eliciting the necessary normative standards for individuals to engage in self-regulation.

By examining the influence of group norms on emotions and motivation after a behavior has occurred, our work complements previous research, which has mainly focused on the influence of group norms before a behavior occurs. For example, Terry and Hogg (1996) observed that group norms had a stronger influence on behavioral intentions as group identification increased. We believe that, when it comes to behavioral intentions, group norms may have a weaker influence on the intentions of weakly identified individuals because group membership is less central to how they live their lives. When weakly identified group members are in a context in which the norms of the group provide a relevant reference point, however, these norms may affect the cognitive and affective processes that occur from that point on. Thus, the emotions that people experience after an event may be shaped by the reference group norms relevant to the behavior in that context, even if these people are weakly identified with that reference group.

These observations call for a need for a distinction of the functions of norms before and after events. Norms in their expectancy form (i.e., prior to an event) may serve as guides to behavior, while norms in their outcome form (i.e., post-event) may serve to assess behavior. These functions of norms should vary as a function of degree of identification. Group norms may comprise salient reference points for strongly identified individuals pre- and post-event, shaping intentions and their experience of social emotions, respectively. Norms may provide a less salient reference point to set intentions for weakly identified individuals, but they may influence their behavior following a norm transgressive event. Future work contrasting this potential distinction may provide valuable insights in understanding the role of norms in self-regulation, particularly for weakly identified individuals.

The differential effects of norm transgression were observable only when individuals transgressed the norm by acting in an unhealthy and dysfunctional way. These results suggest that the notion of a norm transgression may be tied to forms of behavior that are problematic for the well-being of individuals. Our results clearly indicate the fruitful potential for the study of guilt, and other social emotions to better understand the role of group identification in self-regulation.

The affective responses uncovered in the present studies may also contribute to understanding why weakly identified group members struggle to maintain close bonds to other members (Cameron, 2004). Our findings suggest that weakly identified individuals may be more likely to experience shame, which is associated to social withdrawal and exclusion. Future research may benefit from a closer examination of expectations of social exclusion and acceptance, and how these may be influenced by group identity. The potential outcomes of such research could be of considerable importance given that threats to social belongingness have been

associated with negative outcomes, such as depression and the experience of pain (MacDonald & Leary, 2005).

Implications for Interventions

The results of present studies offer some insight into the differing outcomes of norm-based interventions, such as those aimed at curtailing problematic alcohol consumption by students. These interventions often focus on promoting more conservative norms for problematic behaviors (e.g., using posters to tell students that their peers typically drink zero to two drinks when they go out to challenge the perception by students that their peers drink six or more drinks when they go out). Such interventions may be likely to evoke experiences of norm transgressions, particularly during the period that the recipients of the intervention adjust their behavior to a new normative message (e.g., now that I know that the norm is zero to two drinks, my four to five drinks seems like a lot compared with this new norm).

Results of the present studies suggest that individuals who strongly identify as group members may respond in a constructive manner to such interventions. Realizing that their actions transgress their newly calibrated normative standard they may be motivated to realign their behavior with this salient norm. This conclusion aligns with the results of Neighbors et al. (2011), who report that strongly identified students were more likely to benefit from a social norm marketing campaign focusing on alcohol consumption. Unfortunately, the current studies offer a less positive outlook for such interventions when individuals do not strongly identify as group members. Realizing that their actions transgress their newly calibrated normative standard may increase the experience of shame by weakly identified individuals, which would affect their well-being and perhaps even increase their alcohol consumption. This conclusion is rather troublesome considering that actual boomerang effects of alcohol-focused normative interventions have been documented (e.g., Russell et al., 2005).

Personalized norm feedback interventions, which provide each recipient of the intervention with feedback about the norm and about their typical behavior, have been observed to be effective strategies to reduce alcohol consumption (Carey, Scott-Sheldon, Carey, & DeMartini, 2007). The nature of the process by which the mere presentation of a comparison between one's actions and a norm motivates behavioral changes, however, remains to be explored. Investigating further the role of emotions, such as guilt, may provide better understanding of how these interventions motivate behavioral change.

Limitations and Future Directions

One of the boundary conditions for our current approach is that group members need to have some awareness that a transgression has occurred, which necessitates some knowledge

and accessibility to relevant normative information. A central assumption of our work is that strongly identified group members also have a richer, more complex and salient network of information comprising their perception of the group's norms. We based this assumption on past work drawn from social identity approaches (Ashmore et al., 2004; Smith & Louis, 2009; Terry & Hogg, 1996; Turner, 1991; Turner et al., 1994; Van Bavel & Cunningham, 2011), but we did not provide a direct empirical test of this assumption. Future work may wish to examine directly this assumption in the context of a norm transgression.

Other group processes than the varying salience of normative information may shape the joint influence of group identification and norms on emotions and motivation following a norm transgression. Past work has observed that the behavior of strongly identified individuals is more strongly influenced by group norms compared with weakly identified individuals (Smith & Louis, 2009). Extending these findings to the context of transgressions suggest that the strongly identified should transgress group norms less often compared with weakly identified individuals. One of the potential consequences of norm transgression is that norm transgressors may face cues of rejection from others. If weakly identified individuals transgress the group's norms more often, they may be more sensitive to cues of rejection, making them more prone to experience shame in such situations.

It may also be possible that the experience of shame by weakly identified group members stems from a differing appraisal of the target of harm. People experiencing guilt often focus on the harm done to others. From this perspective, the increased feelings of guilt on the part of strongly identified individuals may reflect a concern for the impact their behavior has on others in the group. By contrast, less concerned for other group members, weakly identified individuals may focus on the impact that the transgression had on them, and thus be more likely to experience self-focused feelings of shame.

Care should also be taken before drawing strong causal inferences from the results of the current research. Although Studies 1, 2, and 3 relied on random assignment of participants, the data collected were retrospective. Whereas Study 4 was prospective in nature, it relied on a longitudinal approach instead of an experimental one. Ethical concerns do place limits on the extent to which transgressions can be examined experimentally and prospectively in a laboratory setting, particularly when the focus is on alcohol consumption. Given these limits, our approach was to rely on methodological approaches that complement each others' strengths and weaknesses. We examined our proposed model targeting a specific issue, which is alcohol consumption by university students. The theoretical approach presented here remains to be tested further in other domains (e.g., procrastination, physical activity, "junk food") and groups (e.g., ethno-cultural groups, community groups, employees).

Conclusion

The present research aimed to examine the nature of the “bad feeling” people sometimes experience when they transgress norms. Focusing on guilt and shame, it was observed that their experience varies systematically depending on the extent to which individuals identify with the group whose norms were transgressed. Strongly identified individuals were more prone to feel guilt, reflecting concerns that something they did led to the norm transgression. Weakly identified individuals were more prone to feel shame, reflecting concerns that something bad about who they are led to the norm transgression. The feelings of guilt by strongly identified group members were further associated with a motivation to decrease the transgressive behavior in the future. People may feel bad when they drink too much, but that may not be a bad thing in and of itself.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: We thank the Social Sciences and Humanities Research Council of Canada for the financial assistance provided to the three authors, through a post-doctoral fellowship to the first author and standard research grants to the second and third authors.

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