Shame and the Motivation to Change the Self

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A central question of human psychology is whether and when people change for the better. Although it has long been assumed that emotion plays a central role in self-regulation, the role of specific emotions in motivating a desire for self-change has been largely ignored. We report 2 studies examining people's lived experiences of self-conscious emotions, particularly shame, in motivating a desire for self-change. Study 1 revealed that when participants recalled experiences of shame, guilt, or embarrassment, shame—and, to some degree, guilt—predicted a motivation for self-change. Study 2 compared shame, guilt, and regret for events and found that although shame experiences often involved high levels of both regret and guilt, it was feelings of shame that uniquely predicted a desire for self-change, whereas regret predicted an interest in mentally undoing the past and repairing harm done. Implications for motivating behavior change are discussed.

Keywords: behavior change, self-conscious emotion, shame, guilt, embarrassment, regret, motivation

What motivates people to seek out a therapist, make a major life change, or take a new moral direction in life after a transgression? Although personality theorists have long assumed that who we are remains relatively stable once we reach adulthood (James, 1890), people do sometimes make or experience profound and even sudden changes not only in their behavior but also in how they define themselves (Hayes, Laurenceau, Feldman, Strauss, & Cardaciotto, 2007; Robins, Noftle, Trzesniewski, & Roberts, 2005). Most often when these changes happen, people feel that the change was precipitated by a specific event and was something they personally played a role in bringing about (Heatherton & Nichols, 1994). The specific emotions that engender such motivation to change the self, however, have not been systematically examined. Our aim was to test the hypothesis that self-conscious emotions play a unique role in motivating a desire to change the self following a negative event. In two studies, we examined how experiences of shame in particular (as distinct from guilt, embarrassment, and regret) predict a motivation for self-change. The findings we present add to a growing body of literature highlighting previously unacknowledged benefits of shame for behavior and social relations.

Emotion theory has long assumed that negative emotions cue distinct action tendencies designed to regulate behavior with respect to currently relevant goals (Frijda, Kuipers, & ter Schure, 1989; Roseman, Wiest, & Swartz, 1994; Scherer & Wallbott, 1994). Much of this research, however, has focused on actions that are cued in a reflexive way, particularly to threats in one's immediate environment (Nesse, 1990; Scherer, 1984). However, emotions are also likely to play a role in long-term planning and goal pursuit as well (Carver & Scheier, 1990). In fact, some theorists argue that the conscious experience of emotion evolved to aid in self-regulation of behavior toward goals that might be more distant and abstract (Baumeister, Mele, & Vohs, 2010; Baumeister, Vohs, Dewall, & Zhang, 2007; Scherer, 1984). A motivation to achieve some future desired self seems to necessitate a long-term view of self-regulation and thus a broader perspective on the action tendencies that emotions can elicit.

Although the role of emotion in motivating self-change has not been systemically explored, there is some evidence that negative emotion and reflections on one's own identity are important. Heatherton and Nichols (1994) asked people to recall and write about an experience of self-change or about an experience of wanting to change and not being able to. Their coding of these successful and unsuccessful episodes of self-change yielded several interesting insights. Perhaps most notably, before experiencing a successful change in their lives, many participants first felt a crystallization of discontent (see also Baumeister, 1994), whereby many negative things suddenly seemed interrelated in a broader and more abstract way. Consistent with this gestalt sense of dissatisfaction, these participants reported feeling stronger negative emotions, felt they had control over their behavior, and also reported gaining a new sense of who they were. In other words, these data suggest that changes to one's life are more likely to be

successful when they are motivated by strong negative emotion and involve a change in one's sense of identity (see also Dunlop & Tracy, 2013). Heatherton and Nichols' (1994) study is remarkable in the holist view it gives of self-change, yet as Heatherton (2011) himself laments, it has received little attention or follow-up.

This prior research suggests that negative emotion clearly plays a role in motivating a desire to change oneself, but it is silent on which emotions compel these changes. A broad literature on posttraumatic growth following extreme stressors suggests that experiencing emotions like fear, sadness, or loss could cue an effort to change oneself (Helgeson, Reynolds, & Tomich, 2006). However, these emotions are more commonly felt in response to events that happen to oneself, rather than in response to one's own negative behavior. Given that a desire to change the self seems to require an abstract and conscious reflection on identity and goals for the future, and an acknowledgment of personal responsibility for negative events, we reasoned that self-conscious emotions like shame, guilt, embarrassment, and regret are the class of emotions that could be particularly relevant in motivating self-change.

In general, self-conscious emotions such as shame and guilt are evoked in situations where a person's behavior or traits are deemed discrepant from social or moral standards. Self-conscious emotions are often distinguished from other basic emotions as being secondary emotional experiences that require an appraisal of how a situation pertains to the self and are thought to play a basic role in self-regulation of moral behavior (Tangney, Miller, Flicker, & Barlow, 1996; Tracy & Robins, 2006). In addition, different self-conscious emotions have been distinguished from each other by their antecedent appraisals and the action tendencies they elicit (Tangney et al., 1996; Wicker, Payne, & Morgan, 1983). Although both shame and guilt can be experienced after one commits a moral transgression, guilt arises when a person focuses on what specifically he or she did wrong ("I did a bad thing"), often results when one has harmed an important relationship, and generally motivates reparative motivations including efforts to apologize for, fix, or undo the blameworthy act (Baumeister, Stillwell, & Heatherton, 1994; Schmader & Lickel, 2006; Tangney et al., 1996). In contrast, shame has a more dispositional focus in which people attend to negative aspects of the self ("I was a bad person") and has been linked to distancing motivations aimed at escaping the blameworthy event or hiding from public view (Tangney et al., 1996).

Thus, prior research suggests that self-conscious emotions elicit two broad ways to respond to one's own wrongful actions: (a) by approaching the situation and repairing any harm that has been done or (b) by avoiding it and trying to protect or preserve one's self-image. Given that guilt has been more often linked to approach tendencies and shame to avoidance tendencies, guilt is typically viewed as being more adaptive than shame (Schmader & Lickel, 2006; Sheikh & Janoff-Bulman, 2010; Tangney, Wagner, & Gramzow, 1992). However, this prevailing view of the action tendencies associated with these emotions is primarily about people's immediate response to the situation itself. If one is motivated to avoid experiencing shame or guilt in the future, then these emotions might also motivate a desire for long-term change to identity. For example, a student caught cheating on a test might be motivated to apologize and atone to the degree he feels guilty, or to try keep the incident a secret to the degree he feels ashamed. But distinct from these immediate responses to the situation at hand, he might also decide he must turn over a new leaf as a more honest student in the future. An initial goal in our first study was to identify whether a motivation to change the self can be measured as distinct from the motivations to distance oneself from the event or repair any harm that was done.

To date, there has not been a systematic comparison of the role that different self-conscious emotions play in motivating self-change as distinct from these other motivations. A case can be made for either shame or guilt being a signal that a broader course correction is needed in one's life. Both emotions result from equally strong judgments that one has violated a moral standard, feels responsible for their actions, and experiences anger and disgust at themselves as a result (Tangney et al., 1996; Smith & Ellsworth, 1985). However, one can also speculate about whether guilt or shame would be more likely to evoke a motivation to change the self. On the one hand, given that it is more often linked to adaptive and approach-oriented responses, we might expect guilt to be the driver of a proactive motivation to the change the self. For example, when asked to remember instances of interpersonal transgressions, people who report feeling guilty also report having learned an important lesson from these negative experiences (Stillman & Baumeister, 2010). Similarly, people who report feeling guilty after learning they might hold racial biases exhibit an immediate avoidance profile of frontal cortical activation, but after a delay, display more approach activation and are more likely to read information about how they might reduce their biases (Amodio, Devine, & Harmon-Jones, 2007).

On the other hand, it is also conceptually plausible that shame is the stronger predictor of a motivation for self-change. By definition, a desire to change the self (which is a more dramatic change than simply changing a specific type of behavior) should result from a perceived discrepancy between one's current and one's desired self (Higgins, 1987)—a discrepancy that has been shown to be associated with shame, rather than guilt (Tangney, Niedenthal, Covert, & Barlow, 1998). Recent evidence also reveals that shame can elicit approach-related motivations, in addition to avoidance-related motivations, particularly when approach-related actions serve to restore a positive self-image by improving on a past performance failure (de Hooge, Breugelmans, & Zeelenberg, 2008; de Hooge, Zeelenberg, & Breugelmans, 2010, 2011; Gausel & Leach, 2011; Welten, 2012). Finally, although never tested directly, Tangney and colleagues (1996, p. 1267) hypothesized that shame-driven withdrawal might be adaptive for the "necessary soul searching and reevaluation of values and standards for conduct" after a "serious malfeasance." For all these reasons, we might hypothesize that shame as compared to guilt would more strongly predict the motivation for self-change (as distinct from changing one's immediate behavior or repairing harm done in the present).

Although we a priori identified shame and perhaps to a lesser degree, guilt, as likely to motivate a desire for self-change, we designed the present two studies to examine these emotions as distinct from two other closely related emotions, namely embarrassment (in Study 1) and regret (in Study 2). Such comparisons allow us to rule out the possibility that any self-focused negative emotion would motivate a desire for self-change. Embarrassment is a close correlate of shame and measures of shame sometimes include items assessing embarrassment. Both shame and embarrassment elicit submissive nonverbal displays and distancing motivations, but embarrassment is particularly likely to be evoked for

violating social conventions rather than more deeply held moral codes (Keltner & Buswell, 1996). In addition, people rate themselves as less responsible for embarrassment experiences than for shame and guilt experiences (Smith & Ellsworth, 1985; Tangney et al., 1996). Based on such evidence, we did not expect that embarrassment would be related to a motivation to change the self after wrong-doing.

Past scholarship has also noted the potential overlap between the emotions of regret and guilt (Zeelenberg & Breugelmans, 2008). People feel regret when they believe that they have made a bad decision that led to negative outcomes for themselves or for others. As a result, regret is highly associated with feelings of self-blame (Connolly & Zeelenberg, 2002) and wanting to mentally undo an event (Roese, 1997). However, such counterfactual thinking is theorized to be quite functional (Epstude & Roese, 2008; Zeelenberg, 1999). Even lay perceivers view regret as an emotion that aids in making sense of past events and making better choices in the future—benefits that they associate more with regret and guilt than with shame (Saffrey, Summerville, & Roese, 2008). Moreover, research links regret specifically to missed opportunities for change or personal growth (Roese & Summerville, 2005), and in a study comparing guilt and regret, both emotions were related to a single item assessing a desire to improve oneself (Zeelenberg & Breugelmans, 2008). Together, this body of evidence makes regret an emotion that could plausibly motivate self-change.

We predicted, however, that regret would not be a central predictor of self-change. Although regret can be felt in response to situations that harm others and which elicit a sense of moral wrongdoing, it can also be felt in response to an undesirable outcome that stems from a simple lapse of judgment rather than a flawed sense of self (Zeelenberg & Breugelmans, 2008). This suggests that regret will have an asymmetric relationship to shame and guilt. Because all three occur when one's behavior leads to negative outcomes for oneself or others, instances of shame and guilt will also elicit regret. However, instances of regret will not necessarily entail shame or guilt because some instances of regret are for events that only harm the self and do not harm others or represent a moral wrongdoing. When each emotion is measured in a way that allows us to isolate its unique effect (by partialing out shared variance with other emotions), we hypothesized that shame and perhaps guilt will be more strongly associated with the motivation for self-change than will regret. Although people may generate counterfactuals about what they wished they had done differently when feeling regret, only emotions that shine a spotlight on discrepancies in the self, such as shame, should signal the greatest need for a more systematic change to one's self identity.

The Present Research

Building off of prior research (Heatherton & Nichols, 1994; Tangney et al., 1996), both of our studies used a narrative recall paradigm to elicit people's real emotional responses to their own lived experiences. As Heatherton and Nichols (1994) point out, this methodology has the advantage of reactivating intense emotions that are idiosyncratic to people's life history and which would be difficult if not impossible to induce in a laboratory setting. Whereas Heatherton and Nichols used this method to have people reflect back on successful changes in their lives, our approach was to manipulate the recollection of different types of

emotional experience to measure the unique relationship that each subjective emotional experience has on reported motivation to change the self.

In Study 1, we developed a brief scale to assess the motivation to change the self as distinct from the reparation and distancing motivations that have been previously associated with self-conscious emotions. In this study, we manipulated in a between-subjects design whether people recalled events that evoked shame, guilt, or embarrassment and tested a structural model of the unique profile of relationships between these emotions and the motivations for reparation, distancing, and changing the self. In Study 2, we used a within-subjects design to manipulate various self-conscious emotions and used multilevel modeling to test the unique predictive effect of feeling shame, guilt, or regret in motivating a desire for self-change.

Study 1

Our primary goal in Study 1 was to determine whether a motivation to change the self could be distinguished reliably from other motivations typically studied in research on self-conscious emotions, namely a motivation to distance oneself from an emotional event and a motivation to repair any damage that has been done (Schmader & Lickel, 2006; Tangney et al., 1996). Second, we sought to examine the relationships between shame, guilt, and embarrassment and the three studied motivations: change the self, repair, and distancing. We tested a model in which guilt was hypothesized to predict both a motivation to change the self and a motivation to repair the situation. Shame, in contrast, was expected to predict a more contradictory pairing of motivations: a motivation to change the self alongside a motivation to distance from the shame-inducing event. Shame was not expected to motivate repairing the immediate situation. We included embarrassment for comparison and expected it to motivate only a desire to distance oneself from the event.

Method

Participants. Participants were 174 students (116 female, two not reported) from a university in California. Median age was 20 years. Two additional participants who completed the survey were not included in analyses due to missing data on primary study variables.

Materials and procedure. First, participants were randomly assigned to an emotion condition in a between-subjects design and asked to write for five minutes about a time when they felt ashamed, guilty, or embarrassed. Participants were instructed to specifically describe what happened, how they responded, how they felt, and what they did afterward. After this task, participants answered a battery of surveys that included the questions of interest for the present study (the full list of measures can be obtained from the first author). Participants indicated how much they felt each of 23 different emotions during the event on a scale from 1 (*not at all*) to 9 (*very intensely*); this list contained the three self-conscious emotions: shame, guilt, and embarrassment that were the primary focus of the study. They then completed questions pertaining to their appraisals of the event and the motivations that were engendered by the event by rating their agreement with 24 items from 1 (*strongly disagree*) to 9 (*strongly agree*). The

motivation to distance oneself from the event (four items) or repair what was done (three items) were measured with reliable scales that were differentially predicted by shame and guilt, respectively, in prior research (Schmader & Lickel, 2006). For the purposes of the present research, we also created four items to assess the motivation to change oneself. The full list of items for each construct is provided in Figure 1. Finally, participants proceeded to complete a number of measures assessing dispositional tendencies (which are not examined in the current manuscript) and to answer demographic questions.

Results

Establishing change-the-self as a distinct motivation. The first goal of our analyses was to examine whether, following an experience of self-conscious emotion, the motivation to change the self is distinct from the motivation to either distance oneself from the event or the motivation to repair any harm that had been done. To examine this question, we used EQS6.1 (Bentler, 2008) to conduct a confirmatory factor analysis of the 11 motivation items for the entire sample. The initial model specified three correlated latent factors representing the motivation to change the self

Figure 1. Study 1: Standardized solution for the confirmatory factor analysis of motivation following self-conscious emotion. The double-headed arrows between factors indicate the correlations between the factors. The double-headed arrow between Items 2 and 3 of the distance factor indicates the correlation between their error terms. Item 1 of each factor is fixed to 1, and therefore no significance is provided. * $p < .05.$ *** $p < .001.$

(change self; four indicators), distance oneself from the event (distance; four indicators), and repair harm that was done (repair; three indicators). Each factor was identified by fixing one loading to 1. Because the data possessed significant multivariate nonnormality (standardized Mardia's multivariate kurtosis value was $Z = 6.60$), we report the robust Satorra–Bentler standard errors and test statistics (Bentler, 2008) but describe the maximum likelihood (ML) solution in Footnote 2.

An initial test of the model revealed that each item loaded significantly on its intended factor. To obtain a well-fitting model, however, two modifications were needed (see Figure 1)[1]. First, Item 3 on the Repair scale was allowed to cross-load on the change-self factor. This item assesses whether action was taken to repair the situation and not simply the motivation to repair (see Figure 1 for wording). This cross-loading is small but negative, indicating that people who actually tried to repair the situation (as opposed to those who were merely motivated to repair) were less likely to feel that they should change something about themselves. Although unpredicted, this path suggests that specific efforts to resolve situations that produce self-conscious emotion might alleviate any desire for long-term change of the self. Importantly, the negative direction of this cross-loading speaks against the possibility that the two approach motivations to change the self and repair the situation are redundant, helping to establish the discriminant validity of the change-self construct. The second modification was the addition of a correlated residual between two items on the Distance scale (Items 2 and 3) with similar wording—the words "hide" and "disappear"—that likely elevated their shared specific variance.

With these modifications, the final model had excellent fit by the robust ML solution (Comparative Fit Index [CFI] = .99, Nonnormed Fit Index [NNFI] = .98, root mean squared error of approximation [RMSEA] = .05 [.00, .07]; McDonald & Ho, 2002) and the robust Satorra–Bentler chi-square was not significant, $\chi^2(39) = 52.86$, $p = .068$.[2] The estimated factor loadings were strong for all three factors (ranging from .55 to .92), the factor correlations were small to moderate between change self and repair. The largest standardized residual was .16, which is a reasonably small value given $N = 174$ (see Figure 1 for full model). These analyses support our hypothesis that the desire to change the self is distinct from the motivations to distance oneself from or to repair an event following a wrongdoing. We therefore averaged scores on relevant items to create composite measures of
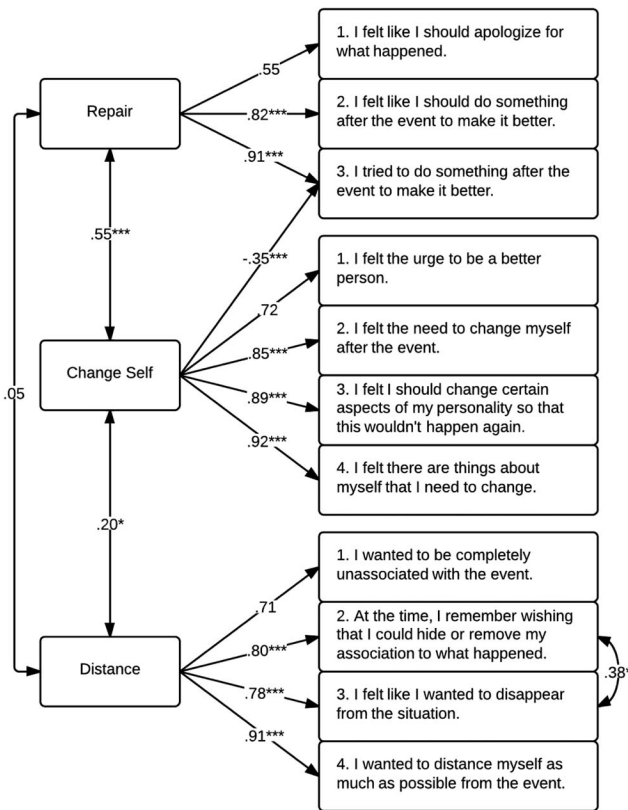
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[1] These modifications were arrived at by inspecting the Lagrange multiplier tests and standardized residuals and only including model modifications that were theoretically sensible. Without these modifications, the model yielded acceptable approximate fit (CFI = .97, NNFI = .96, RMSEA = .07 [.04, .09]; McDonald & Ho, 2002), with strong estimated factor loadings for all three factors (ranging from .50 to .94) and factor correlations that were small to moderate (ranging from .08 to .46). However, the robust Satorra–Bentler chi-square evaluating the overall goodness of fit was significant, $\chi^2(41) = 71.68$, $p = .002$.

[2] The regular ML solution fit statistics demonstrated acceptable fit, CFI = .98, NNFI = .97, RMSEA = .06 [.02, .08]; the chi-square for goodness of fit, however, was significant, $\chi^2(39) = 59.86$, $p = .020$.

distance (α = .89), repair (α = .72), and change self (α = .91), used in the primary path model below.

Testing a model of self-conscious emotions predicting motivation. Having established the distinctiveness of these three motivations, we next specified a path model to test the predictive effects of self-conscious emotions on the motivations.[3] To represent the manipulation of emotion, two dummy variables coding for experimental condition (comparing guilt to shame and comparing embarrassment to shame) served as exogenous variables predicting all three of participants' emotion ratings, which in turn predicted motivations. Residual correlations among the emotions, as well as among the motivations, were released. We tested our hypothesized model where guilt was allowed to predict both a desire to change the self and the motivation to repair the event, shame was allowed to predict both a desire to change the self and a motivation to distance oneself from the event, and embarrassment was allowed to predict only the motivation to distance oneself. Table 1 provides the bivariate correlations between each of the variables in the model. Note that the motivation to change the self was moderately correlated with both shame and guilt, but the bivariate correlation with embarrassment was much weaker.

We first summarize the results from the test of this original hypothesized model. Because the normalized Mardia's kurtosis estimate was trivial for this set of variables (Z = −1.07), we only report the outcomes of the regular, rather than robust, ML analyses. A test of this model yielded path coefficients that corresponded to our hypotheses; however, indices of fit, in particular the RMSEA and the chi-square value, fell short of conventional criteria for acceptable fit (CFI = .96; NNFI = .90; RMSEA =.10 [.05, .14], $\chi^2(11)$ = 28.43, p = .003). An inspection of the largest residuals and the Lagrange multiplier tests suggested that the effect of the embarrassment versus shame dummy variable on change self was not fully mediated by the induced emotions. Including the direct path from this dummy to change self resulted in a final model with excellent fit by both the approximate and exact indices of fit (CFI > .99; NNFI = .99; RMSEA =.03 [.00, .09], $\chi^2(10)$ = 11.24, p = .34). This final model, along with the standardized solution, is shown in Figure 2.

The estimated path coefficients in the final model were all significant and consistent with predictions. First, we note that our manipulation had the intended effect on the emotion ratings. Participants asked to recall guilt (rather than shame) experiences reported more guilt (.15) and less shame (−.36) and embarrassment (−.18). Similarly, participants recalling experiences of embarrassment reported feeling greater embarrassment (.22), and less shame (−.37) and guilt (−.49) than did those recalling experiences of shame. Of greatest relevance to our hypotheses were the path coefficients from emotion ratings to motivation. Guilt ratings were strongly predictive of the motivation to repair the event (.51) but were also weakly predictive of a motivation to change the self (.18). In contrast, shame ratings were predictive of motivations to both distance from the event (.25) and to change the self (.33), with both of these paths being of similar moderate strength. Finally, embarrassment was predictive of the motivation to distance oneself from the event (.23).[4] The inclusion of the direct path from embarrassment versus shame dummy variable to change self (−.30) suggests that whereas the effect of the experimental induction to recall guilt (as compared with shame) experiences on motivation was largely mediated by the emotional experiences, the

effect of recalling embarrassment (compared to shame) experiences on motivation was only partially mediated by participants' self-reported emotional experience.

Discussion

Study 1 provided strong support for a model where shame and guilt (but not embarrassment) predicted a motivation to change the self. There was also evidence that shame, as compared to guilt, elicits a combination of motivations to change the self but also to distance oneself from the emotion-eliciting situation. Guilt, in contrast, showed a more consistently adaptive profile of motivations in the final model, predicting a desire to change the self as well as to repair the event. The findings of Study 1 are thus consistent with past evidence that guilt does not strongly predict distancing motivations (Schmader & Lickel, 2006) and provide additional support for the potentially adaptive benefits of shame.

Model testing also revealed that the induction to recall embarrassment (as compared with shame) experiences affected motivation in a way that was only partially mediated by participants' emotion ratings. A moderately sized direct negative relationship between embarrassment versus shame and the change-self factor remained significant. This direct relationship suggests that some other feature of these events plays a role in predicting the degree to which recalling shame-inducing experiences elicits a greater motivation to change the self than recalling embarrassment-inducing experiences. Instances of embarrassment may, for example, be more likely to reflect accidental mishaps instead of wrongs that implicate the self. As such, embarrassment-inducing events might be qualitatively less likely to evoke a motivation to change the self, apart from the experience of self-conscious emotions, per se.

Study 2

In Study 2, we wanted to further examine the relationship between shame and guilt emotions and the motivation to change the self in comparison to another possible emotional correlate of these experiences: regret. Regret is experienced when one is unhappy with an outcome of a decision one has made. Past research has linked regret to a self-improvement motive (Zeelenberg & Breugelmans, 2008) and theorists have touted the functional nature of regret for drawing attention to missed opportunities and aiding in future decision making (Roese & Summerville, 2005; Connolly & Zeelenberg, 2002). Thus, the observed relationships found in Study 1 could actually be due to the feelings of regret often experienced alongside shame and guilt. Alternatively, regret could

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[3] The path model eliminates one additional participant with missing data on a key variable.

[4] An ordinary least squares regression in which shame, guilt, and embarrassment were entered simultaneously as predictors of changing the self also revealed that guilt (β = .34, p < .001) and shame (β = .32, p < .001) were both significant unique predictors, whereas embarrassment was not (β = .03, p = .740). Additionally controlling for overall emotional intensity (β = .26, p = .001), which was significantly lower in the embarrassment condition as compared to the guilt and shame conditions, resulted in the same conclusions with shame (β = .23, p = .008) and guilt (β = .27, p < .001), but not embarrassment (β = .00, p = .976), significantly predicting change self.

Table 1
Summary of Bivariate Correlations of the Variables Included in the Path Model of Study 1

	Dummy 1	Dummy 2	Guilt	Shame	Embarrassment	Repair	Change self	Distance
Dummy 1	—							
Dummy 2	−.47***	—						
Guilt	.38***	−.56***	—					
Shame	−.18*	−.20**	.44***	—				
Embarrassment	−.28***	.30***	−.02	.47***	—			
Repair	.14†	−.30***	.51***	.30***	.04	—		
Change self	.10	−.46***	.48***	.48***	.17*	.40***	—	
Distance	−.14†	.12	.01	.35***	.36***	.02	.20**	—

Note. For all correlations, $n = 173$. Dummy 1 is the comparison of guilt (coded as 1) to the average of embarrassment or shame (each coded as 0). Dummy 2 is the comparison of embarrassment (coded as 1) to the average of guilt or shame (each coded as 0).

have its own independent relationship to the motivation for self-change.

We hypothesized, however, that the motivation for self-change would be more strongly predicted by shame and guilt than by regret, especially when taking into account the shared variance among these subjective emotional experiences. One aspect of our reasoning is the hypothesis of an asymmetric relationship among these emotions. We expect that shame and guilt inducing events will be associated with relatively high levels of regret, whereas regret-inducing events will (on average) be associated with only moderate levels of shame and guilt. A similar asymmetry is reported by Zeelenberg and Breugelmans (2008) for regret and guilt, but prior research has not compared regret and shame. Because of these asymmetries, we further hypothesized that regret would have no relationship to the motivation to change the self when controlling for feelings of shame and guilt. Thus, although regret induces counterfactuals about behavior, we hypothesized that the motivation to change the self should require an emotional experience of shame or guilt that signals a sense of personal flaws or harm to others.

An additional goal of Study 2 was to further refine our measurement of change the self. Because negative events might generally induce a desire for things to be different, we wanted to more clearly assess individuals' motivation to change *the self in future* as distinct from wanting to change the situation, their specific behaviors, or things in the past. Thus, we developed new items for

use in this study that more clearly assess the motivation for self-change. For comparison purposes, we also included measures of wanting to mentally undo the past and repair the present. Based on our theorizing and the findings of Study 1, we predicted that shame ratings—and perhaps to a lesser extent guilt ratings—should be related to the motivation to change the self. In contrast, regret was expected to be more associated with a desire to undo the past rather than change oneself for the future. Feelings of guilt, based on prior research, might be most associated with wanting to repair the immediate aftermath of the event.

Finally, our approach in Study 2 also changed from a focus on analyzing between-person variability in the motivation to the change the self to examine within-person variability in this motivation in response to different emotional states. Results of Study 1 could have occurred not because state experiences of shame motivate a desire for self-change, but rather because individuals prone to experience shame are also prone to desire self-change. To get a better sense of how state experiences of shame correspond to state experiences of the motivation to change the self, we employed multilevel modeling to analyze variation in self-reported emotion and motivation in response to different events nested within person. To test our predictions about the relationship of subjective emotional experience and motivation, we aimed to create variability in people's ratings of emotional experience by asking participants to recall four types of self-conscious emotional events: shame, guilt, regret, and embarrassment in a within-person design. Although our interest was in people's subjective ratings of shame, guilt, and regret across all of these events, embarrassment events were included to ensure greater variability in people's emotion ratings and reported motivation to change the self.

Method

Participants. Fifty-three participants completed the survey through Amazon's Mechanical Turk and were paid $0.30 for their participation. Five participants failed questions gauging whether they were paying attention (Oppenheimer, Meyvis, & Davidenko, 2009). Six additional participants failed to write about or rate at least one of the emotions and were therefore excluded from subsequent analyses. Thus, the final sample consisted of 42 participants (median age = 26.5 years; 62% male; 79% White; all but one participant born in the United States).

Procedure and measures. After reading the consent form, participants were asked a standard battery of demographic
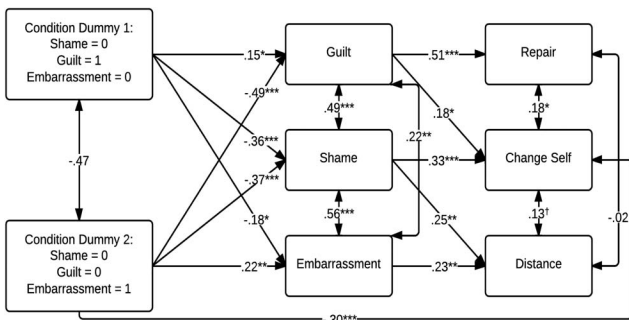

Figure 2. Study 1: Standardized solution for the path model of self-conscious emotions predicting motivations in response to a negative event. Double-headed arrows between each pair of emotions and each pair of motivations indicate correlations between their error terms. † $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

questions, and their attention to instructions was also assessed (Oppenheimer et al., 2009). Participants were then asked to remember a series of emotional events and to answer questions about each of those events (with order of emotion randomized). All dependent measures described below were asked for each of the recalled events (i.e., fully nested). The emotions we focused on in this study were shame, guilt, and regret, but participants were also prompted to remember a time when they felt embarrassed to ensure greater variability. After remembering each event and describing it in a few sentences, participants were asked to rate their emotional reactions to four emotion items—shame, guilt, regret, and embarrassment—on a scale ranging from 1 (*not at all*) to 9 (*very intensely*). For each recalled event, a question about general intensity of the emotional experience was also included on a scale from 1 (*it hardly affected me*) to 9 (*it affected me a great deal*).

To compare general characteristics of the events people recalled, for each recalled event we also asked participants to indicate "who was primarily responsible for causing the event to occur" and "who experienced the most negative consequences from this event." The answers for both of those questions ranged from -4 (*I was/did*) to $+4$ (*somebody else was/did*). In addition, moral self-blame was measured with two questions: (a) "The event made me feel like a bad person" and (b) "I felt like I did something that was morally wrong," rated on a 1 (*strongly disagree*) to 9 (*strongly agree*) scale. As these two moral blame questions were correlated .70 or higher for each of the events, responses to the two items were averaged together within each event.

Our primary measure of the motivation to change the self was a composite of five items. For each recalled event, all participants rated the extent to which they wanted to "change something about who they are as a person in the long run" (rated on a 9 point scale from *strongly disagree* to *strongly agree*). Their rating to this face valid item was averaged with four other 9-point semantic differential scales that asked people who had reported any desire for change[5] to rate the degree to which they wanted to (a) "change myself" versus "change the consequences," (b) "change something about me" versus "change something about the situation," (c) "change myself" versus "change my behavior," and (d) "change the past" versus "change the future." These various phrasings allowed us to further specify for participants our interest in a motivation to change the self in particular (as distinct from other types of change motivation). The composite of these five items (after reverse scoring the aforementioned a, b, and c) showed good scale reliability within each of the emotional events recalled (Cronbach's αs = .76–.83); consequently, we combined these five items to form a single composite for the motivation to change the self within each of the recalled events. Thus, we had separate self-change composites for each recalled event, allowing us to test the relationship between the felt emotions and the motivation to change the self across events. To test secondary predictions, we also included two single-item measures assessing participants' motivation to "change the consequences of what happened by doing something to make things better" (change/repair the present) and "change what happened by undoing what had been done in the past" (change the past) for each recalled event.

Results

Manipulation checks.   We first examined the extent to which recalling each emotional event induced each of the four emotions as intended. A series of four one-way repeated-measures ANOVAs for each self-reported emotion across the four recalled events revealed four significant omnibus tests, Fs > 10.83, ps < .001. As seen in Figure 3, the highest rated emotion in each condition was always the type of emotion that participants were asked to recall. For example, participants reported significantly higher levels of shame when asked to recall shame events than any other kinds of emotional event, all ps < .01. This was also the case for regret and embarrassment, all ps < .05. Ratings for guilt were also higher in the guilt condition than in the regret and embarrassment condition (ps < .001); the only exception was that ratings of guilt were only marginally higher when participants recalled guilt as compared to shame experiences, p = .101, pointing to the often found overlap between these experiences (Schmader & Lickel, 2006).

Asymmetries between emotions.   In addition to serving as a manipulation check, these emotion ratings were also analyzed to test for evidence of asymmetry between shame, guilt, and regret (the main emotions that will be the focus of our analysis below). More specifically, we predicted that shame and guilt events would both include relatively high ratings of regret, but that regret events would not necessarily include high ratings of either shame or guilt. Focused pairwise comparisons revealed evidence of the predicted asymmetry between shame and regret. People reported significantly more regret when they remembered a shame event than shame when they remembered a regret event, $t(39)$ = 4.22, p < .001, d = .81. Furthermore, shame events elicited somewhat equivalent ratings of shame and regret feelings, $t(40)$ = 1.94, p = .060, d = .26; whereas regret events elicited much greater feelings of regret than shame, $t(40)$ = -6.13, p < .001, d = -1.34.

In contrast, there was less evidence for an asymmetry between regret and guilt. People did not experience significantly more regret when recalling guilt events than guilt when recalling regret events, $t(41)$ = 1.24, p = .224, d = .24. In addition, the differences between feelings of regret and guilt when people recalled guilt versus regret were both significant, although the effect size for the difference between feelings of guilt and regret was smaller when people recalled guilt, $t(41)$ = 4.19, p < .001, d = .65, than when they recalled regret, $t(41)$ = -5.25, p < .001, d = -1.02.

In sum, these analyses suggest that any asymmetry in the experience of guilt and regret is less pronounced than the asymmetry between shame and regret. Because shameful experiences include relatively strong feelings of regret—which has a known relationship to counterfactual thought, mental undoing, and self-improvement—this leaves open the possibility that regret and not shame is the emotional driver of a motivation to change the self. Therefore, to test our hypothesis that it is the experience of shame and not regret that uniquely predicts the motivation to change the self, we used multilevel modeling to model the unique predictive relation-

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[5] Because these items presumed at least some motivation to change, we provided participants with the opportunity to select "not applicable" if they deemed that they were not motivated to change in either direction of the semantic differential scale. Thus, for some participants, their motivation to change the self score was based on an average of fewer than five items.
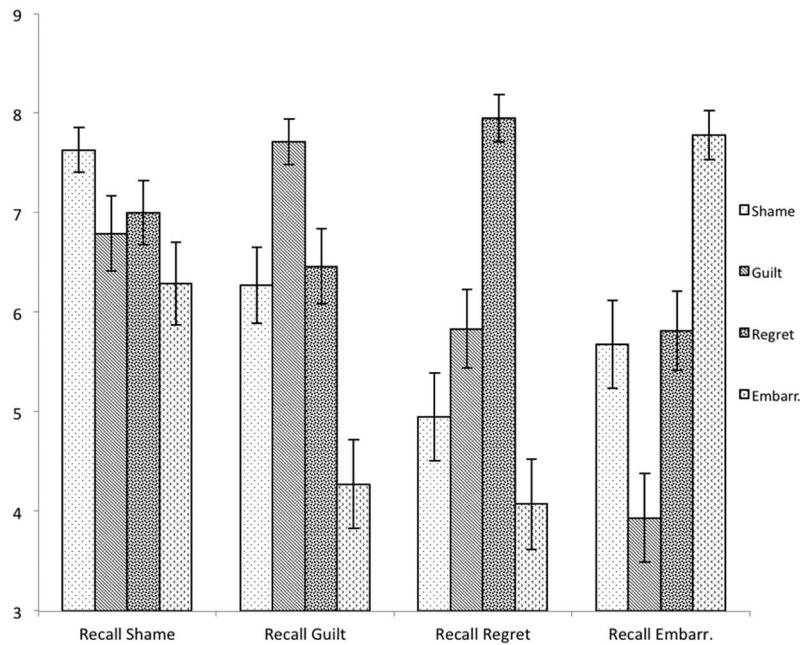
Figure 3. Study 2: Reported emotions in each emotion recall condition.

ships of shame, regret, and guilt ratings on the motivation to change the self.

Predicting the motivation to change the self. We used multilevel modeling to predict motivation to change the self from self-reported emotions across the four recalled events; as described in the Method section, both the motivation to change the self and the emotions were measured separately for each of the four recalled events and were therefore nested within subjects. We employed SPSS 21 (using mixed-model syntax) to run all reported mixed models below. For all of the models we report, we used restricted maximum likelihood estimation, treated predictors as fixed effects, and allowed only the intercept to vary as a random effect at the person level.

We first examined the extent to which each emotion in isolation predicted the motivation to change the self in a series of four separate analyses. These analyses revealed that shame ($\beta = .30$, $p < .001$), regret ($\beta = .24$, $p = .001$), and guilt ($\beta = .25$, $p < .001$) each had a highly significant relationship to motivation to change the self, whereas embarrassment was only weakly predictive ($\beta = .12$, $p = .037$). Furthermore, given that embarrassment ratings were highly predicted by shame ratings ($\beta = .56$, $p < .001$) but not by either guilt ($\beta = -.16$, $p = .058$) or regret ($\beta = .16$, $p = .132$), we suspected that any relationship between embarrassment and change the self existed largely because of shared variance between ratings of shame and embarrassment. Indeed, an analysis testing shame and embarrassment as simultaneous predictors confirmed that shame ($\beta = .29$, $p < .001$) and not embarrassment ($\beta = .01$, $p = .866$) predicted motivation to change the self. Having ruled out any unique relationship of embarrassment with the motivation to change the self in these initial analyses, we then tested our hypotheses about the relative roles of shame, guilt, and regret in our primary analysis.[6]

Our model had three episode-level predictors, no interactions, and only the intercept varied at the person level. These analyses

allowed us to pinpoint the unique effect of each emotion rating on each of the measured motivations in separate analyses, given some degree of covariation among emotion ratings. As seen in Table 2 (Model 1), and replicating the results in Study 1, we found that shame was a significant independent predictor of the motivation to change the self, whereas guilt and regret were not.[7] In addition, the estimated residual of this model was significant (see Table 2, Model 1), indicating that there is significant variance in the motivation to change the self across the four recalled events that is not explained by the three emotions included as predictors in the model. This significant residual suggests that there are characteristics of the event other than the three focal emotions under investigation that also predict people's motivation to change the self. The random intercept was also significant, indicating that participants' average motivation to change the self across the four recalled events varied significantly around the grand mean of all participants on the motivation to change. This finding shows (not surprisingly) that people's propensity to want to change them-

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[6] Although our initial analyses indicated that embarrassment did not predict motivation to change the self after controlling for shame, we also ran a kitchen sink model predicting motivation to change the self from all four emotion ratings simultaneously. This analysis with shame ($\beta = .15$, $p = .073$), guilt ($\beta = .13$, $p = .079$), regret ($\beta = .11$, $p = .163$), and embarrassment ($\beta = .07$, $p = .311$) also supports the hypothesis that shame has the largest coefficient predicting motivation to change the self.

[7] Because ratings of the emotions were correlated, it could be argued that a model that puts all three emotions in competition with one another is an unfair test of their relative role in predicting motivation for change. Therefore, we ran three additional MLM models predicting motivation to change the self from only two emotions simultaneously: (Model 1) shame ($\beta = .25$, $p < .001$) and regret ($\beta = .15$, $p = .038$); (Model 2) shame ($\beta = .22$, $p = .002$) and guilt ($\beta = .15$, $p = .025$); and (Model 3) guilt ($\beta = .19$, $p = .002$) and regret ($\beta = .14$, $p = .071$). These analyses show a somewhat stronger role for guilt and regret, but consistently revealed shame to be the most robust predictor of the motivation to change the self.

Table 2
Fixed Effects on the Motivation to Change the Self Using Multilevel Modeling

	Estimate	SE	df	t	p
			Model 1		
Fixed effects					
Intercept (β_{00})	1.92	.57	147.73	3.40	.001
Shame ratings (β_{1j})	.20	.07	149.46	2.97	.004
Guilt ratings (β_{2j})	.10	.07	144.17	1.53	.127
Regret ratings (β_{3j})	.11	.08	155.45	1.51	.134
				Wald Z	
Random effects					
Intercept (u_{0j})	1.26	.46		2.76	.006
Residual (ε_{ij})	2.91	.37		7.78	<.001
			Model 2		
	Estimate	SE	df	t	p
Fixed effects					
Intercept (β_{00})	2.11	.56	148.97	3.80	<.001
Moral blame (β_{1j})	.36	.08	149.16	4.63	<.001
Target of harm (β_{2j})	−.08	.06	158.56	−1.35	.178
Shame ratings (β_{3j})	.14	.07	147.71	2.09	.038
Guilt ratings (β_{4j})	−.08	.08	154.41	−.98	.327
Regret ratings (β_{5j})	.08	.07	153.50	1.10	.274
				Wald Z	
Random effects					
Intercept (u_{0j})	1.09	.41		2.68	.007
Residual (ε_{ij})	2.61	.34		7.68	<.001

Note. SE = standard error. Equations ($i = episode\ level$; $j = person\ level$): Model 1: $Change\text{-}Self_{ij} = \beta_{00} + \beta_{1j}Shame_{ij} + \beta_{2j}Guilt_{ij} + \beta_{3j}Regret_{ij} + u_{0j} + \varepsilon_{ij}$. Model 2: $Change\text{-}Self_{ij} = \beta_{00} + \beta_{1j}Blame_{ij} + \beta_{2j}Harm_{ij} + \beta_{3j}Shame_{ij} + \beta_{4j}Guilt_{ij} + \beta_{5j}Regret_{ij} + u_{0j} + \varepsilon_{ij}$.

selves varies depending on other person-level variables (e.g., personality characteristics, demographic factors) that are beyond the scope of the current investigation.

We next examined emotions as predictors of motivation to mentally undo the past and to repair the immediate effects of the event. In contrast to the findings for motivation to change the self, in a model with the same parameters investigated in our primary model but with the motivation to mentally undo the past as the predicted variable, only regret significantly predicted the desire to undo the past ($\beta = .55$, $p < .001$), whereas shame ($\beta = .01$, $p = .860$) and guilt ($\beta = −06$, $p = .443$) showed no relationship. Somewhat surprisingly, a similar pattern emerged with regards to the motivation to repair the immediate effects of the event (regret: $\beta = .27$, $p = .003$; shame: $\beta = .12$, $p = .148$; guilt: $\beta = .07$, $p = .356$).[8] Prior research has indicated that guilt should particularly predict this outcome, but in the present analysis, regret was a stronger predictor than guilt. Thus, regret was uniquely associated with wanting to undo what had already happened and also to take corrective action in the present, consistent with other accounts of the functionality of regret. These favorable outcomes for regret indicate that regret's failure to strongly predict a motivation to change the self in the prior analysis is not due to poor measurement or idiosyncrasies of the research design, but instead show a meaningful psychological differentiation of which emotions are most strongly linked to different motivations.

Ruling out alternative explanations. To rule out potential alternative explanations for shame's unique association with change the self-motivation, we next examined possible mean differences in participants' ratings of general affective intensity, personal responsibility, target of harm (self vs. another person), and moral blame. Any of these variables, if felt more strongly in response to shame events, could be the reason why we see a significant link between shame and change the self. For example, if people merely show a stronger motivation to change the self in response to negative events where they feel a sense of self-blame, and if shame events elicit greater self-blame, then it could be an artifact of the type of event (not the emotion, per se) that explains the greater relationship with self-change motivation.

First, a repeated-measures ANOVA revealed no condition differences in how emotionally intense people found recalling guilt, shame, regret, or embarrassment events, $F(3, 38) = 2.17$, $p = .107$. Thus, it is unlikely that a motivation to change the self is most strongly associated with shame simply because shame events involve more intense experiences. Similarly, there were no condition differences in how personally responsible people felt for causing the event, $F(2.48, 99.21) = 1.33$, $p = .270$. Regardless of

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[8] Examining undoing in an analyses using all four emotions show that regret had the strongest relationship ($\beta = .54$, $p = .001$) compared to shame $\beta = −.049$, $p = .614$), guilt, ($\beta = −.016$, $p = .854$) and embarrassment ($\beta = .003$, $p = .959$). Examining repair in an analyses using all four emotions show that regret had the strongest relationship ($\beta = .289$, $p = .001$) compared to shame ($\beta = .120$ $p = .230$), guilt, ($\beta = .088$ $p = .315$), and embarrassment ($\beta = .082$, $p = .259$).

the type of event they recalled, people generally associated responsibility for the event more with themselves (−4) rather than with others (+4; Ms = −2.93 to −1.88). There were, however, differences in the target of harm (oneself vs. another person), $F(3, 38)$ = 5.57, p = .003. In pairwise comparisons, recalling embarrassment induced significantly greater perceptions that the event resulted in harm to oneself (M_{emb} = −2.54) than recalling the other three types of emotional events (M_{shame} = −1.15, M_{guilt} = −0.32, M_{regret} = −1.37, ps < .05), which were not different from each other. Finally, there were also overall condition differences in moral blame, $F(3, 39)$ = 19.63, p < .001. Pairwise comparisons indicated that shame (M = 5.99) and guilt (M = 6.41) were viewed as equally morally blameworthy, p = .351, and both were significantly more blameworthy than regret (M = 4.95), ps < .05, and embarrassment events (M = 2.98), ps < .001, which were also different from one another, p < .001.

Because being prompted to recall different emotions produced event differences in the perceived target of harm and feelings of moral blame, we wanted to rule out the possibility that these condition differences in event characteristics created a spurious relationship between shame and the motivation to change the self. In a multilevel model predicting change the self, we entered target of harm and moral blame along with shame, guilt, and regret ratings measured across all four experimental conditions. Thus, this model (Model 2) had five episode-level predictors, no interactions, and only the intercept varied at the person level. As seen in Table 2, controlling for target of harm and moral blame did not change the overall pattern of relationships of the emotions to this motivation. Specifically, shame remained a significant predictor, whereas the effects of regret and guilt remained nonsignificant. In addition, as in Model 1, the random intercept and the residual remained significant indicating that there are both other person-level variables and event characteristics beyond the scope of the current investigation that may be important in predicting people's motivation to change the self. In short, the above analysis showed that shame was uniquely associated with the motivation to change the self above and beyond moral self-blame and harm to others, suggesting that the subjective experience of the emotion, per se, and not these appraisals of the event predict the desire to change oneself.

General Discussion

The goal of the present research was to better understand the role that emotions play in motivating self-change. Study 1 developed a measure of the motivation to change the self and compared this to the two motivations classically associated with self-conscious emotions, namely the motivation to distance from the event and the motivation to repair or apologize for the event (Tangney et al., 1996). Confirmatory factor analyses supported the hypothesis that motivation to change is distinct from either repair or distancing. Furthermore, structural equation modeling identified that shame, and to a lesser degree guilt, predicted a motivation to change the self. Study 2 further revealed that although shame and guilt events are generally accompanied by strong feelings of regret, the subjective experience of shame rather than regret predicted the motivation to change the self for the future. Thus, extending prior research on the negative affective experience associated with self-change (Heatherton & Nichols, 1994), the present pair of studies

provides consistent evidence that shame is a strong affective predictor of the self-change motivation. Other negative self-conscious emotions such as embarrassment and regret might signal that one's actions have brought about negative outcomes for oneself or others, and regret in particular motivates a desire to mentally undo the event, but neither of these emotions predict the same desire to change oneself as person.

The stronger association of shame relative to guilt in predicting the motivation for change the self is a particularly intriguing aspect of the current work, especially given the large body of research that generally identifies guilt as a more adaptive emotion than shame (e.g., Tangney et al., 1992). We theorize two reasons why shame may elicit stronger desire for lasting self-change than guilt. First, guilt's strong link to apology and reparation might, in some circumstances, moderate the extent to which people feel they need to change. If a person is able to repair the negative consequences of his or her action, the extent to which the event continues to create a feeling of personal or moral discrepancy—and, therefore, a motivation for change—may be reduced. In fact, one unpredicted but intriguing finding from Study 1 was that the repair item that assessed actual efforts at repair had a particularly strong negative cross-loading with the change the self items. Although this correlational result requires more experimental research, we hypothesize that one benefit of shame relative to guilt is that guilt makes it easier to "get off the hook" for the bad act through reparation and apology; shame might orient attention to longer lasting forms of change.

The second potential advantage of shame over guilt rests on its dispositional focus. Prior research (Niedenthal, Tangney, & Gavanski, 1994) indicates that guilt is particularly likely to be evoked by behavioral appraisals ("I did a bad thing"), whereas shame is linked to a dispositional appraisal ("I am a bad person"). Recent research on behavior change and control indicates that framing behavior in global terms can lead to more lasting forms of behavioral change (Bryan, Adams, & Monin, 2012; Bryan, Walton, Rogers, & Dweck, 2011). In one study, alcoholics who describe their road to sobriety as a redemptive process of becoming a new person were more likely to have remained sober several months later (Dunlop & Tracy, 2013). Although not focused on shame, per se, this work indicates that a dispositional framing of the self can under some circumstances be more effective at changing or regulating behavior than a behavioral focus. We suggest that shame itself is an emotion that draws our attention to dispositional flaws we might want to change.

Of course, an intriguing issue posed by our research is the question of why, if shame does motivate a desire for self-change, it sometimes predicts a recurring cycle of maladaptive behavior (Tangney et al., 1992). One possibility is that in addition to motivating a desire to change the self, shame may simultaneously elicit a motivation to suppress and deny that painful emotion and avoid situations where it is triggered. Indeed, people generally nominate shame as their most dreaded emotional experience (Izard, 1971). This motivation to avoid experiencing the pain of shame might rob people of the emotional experience that triggers specific actions and facilitates actual change. In other words, shame may be a paradoxical double-edged sword: It may both elicit a strong desire to change the self and simultaneously evoke avoidance-oriented responses that work at counterpurpose to that motivation for change. As a result, the motivation to change might

not always translate into actual change, particularly if people try to suppress or deny their emotional response.

Such theorizing suggests that future research is needed to examine the role of self-conscious emotions in different stages of personal change. Shame might have an important role to play in initiating change, but may become maladaptive if felt strongly throughout the change process or is accompanied by a strong belief that change is not possible. For example, research on addiction has identified different frames of mind that people have when approaching different components of the change process (West, 2005). People first begin to contemplate change when they experience ambivalence about whether or not the addictive behavior is under their control or is a positive aspect of life (e.g., DiClemente, 1994; Prochaska, DiClemente, & Norcross, 1992). We expect that experiencing shame (and perhaps guilt) might be a potent motivator for initiating such contemplation about change. However, as people actually begin the process of making a change, the emotion regulation demands of intense feelings of shame may create a self-regulatory burden that ironically results in a reduced capacity for controlling the behavior that is the focus of change. This might offer an explanation for why recovering alcoholics who exhibit a shame posture when describing the last drink they took are more likely to have relapsed several months later (Randles & Tracy, 2013). Thus, although our evidence clearly points toward shame as a significant motivator for change, more work is required to document when and under what circumstances these emotions are linked to actual attempts to change and people's success in doing so. A belief that change is possible, for example, might be an important moderator of the link between feelings of shame and actual change in the future.

Limitations

Several limitations of the present research are worth acknowledging. First, the paradigm used in the present studies relied on people's recollection of past emotional experiences. Although this approach is a quite effective way of understanding emotion by sampling events that are meaningful to people, recollections of past emotions can be biased by other cognitive schemas or metacognitions about the nature of emotion (Robinson & Clore, 2002). For this reason, we would encourage that future research use event sampling methodologies to examine these emotional experiences as they occur and use those contextualized reports to predict future behavioral outcomes. It is likely, however, that people sometimes embark on a new course of self-improvement only after a painful recollection of ways in which they feel guilty or ashamed of some past behavior. Indeed, given the appraisal processes involved in distinguishing shame from guilt, perhaps these emotional experiences become more distinct after recollection, a useful question for future research.

Furthermore, the items used to assess motivations to change the self, as well as repair and distance, should continue to be refined in future research. We drew from prior research (e.g., Schmader & Lickel, 2006) in developing these measures, but our confirmatory factor analysis in Study 1 revealed an unanticipated cross-loading suggesting that the motivation to repair the situation might suppress the motivation to change the self. In Study 2, we developed an additional set of self-change questions and replicated the link between shame and motivation to change-the-self discovered in

Study 1. However, it would be valuable to develop a broader scale assessing these motivations and validate those measures in multiple contexts and populations to assess their reliability and predictive validity. Research in clinical applications and behavior change would benefit from having a general instrument to use across different types of behavior.

It is also worth remembering that the studies reported here focus on Western samples and thus the generalization of these patterns to other cultural contexts remains to be examined. For example, although shame is often identified as the most dreaded emotional experience among Western samples, collectivist samples report more value in feeling and expressing shame, and shame seems to play a more functional role in regulating people's behavior toward conformity and social harmony (Li, Wang, & Fischer, 2004; Wong & Tsai, 2007). If this is the case, shame might predict more of an approach orientation and be an effective motivator of self-change in collectivist cultures as compared to individualist cultures. These cross-cultural examinations of shame and guilt would inform what aspects of these emotions are universal versus part of a particular cultural narrative about the function that emotion plays.

Conclusion

"The only shame is to have none," Blaise Pascal (2008) has been quoted as saying, and our research suggests that one reason for the resonance of this insight is that shame is an important motivator of a desire to change oneself for the better. Going beyond the wisdom of Pascal, however, we have also demonstrated that shame can simultaneously promote a motivation to change the self and distance oneself from the shame provoking stimulus, thus possibly compromising people's actual efforts to change the self. Exploring the psychological and behavioral results of the interplay of this newly documented desire to change the self with more well-documented motivations and emotion regulation strategies can be a fruitful ground for future research.

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