

# “What I did” versus “what I might have done”: Effect of factual versus counterfactual thinking on blame, guilt, and shame in prisoners <sup>☆</sup>

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## Abstract

The present study tested the prediction that counterfactual thinking would have a stronger amplificatory effect on guilt than on shame and that the effect would be mediated by self-blame. Ninety sentenced prisoners were instructed to think either counterfactually or factually about the role they played in the events leading to their capture, conviction, and sentencing prior to reporting on their level of self-blame, guilt, and shame. Compared to factual-focused prisoners, counterfactual-focused prisoners reported feeling more blameworthy and guiltier but not more shameful. The effect of thought focus on guilt was fully mediated by blame. The findings support an emotion-specific account of the emotional consequences of counterfactual thinking that implicate attributional judgment as an important mediating process.

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People often think counterfactually about alternatives to reality (for overviews, see Mandel, Hilton, & Catellani, *in press*; Roese & Olson, 1995), especially those that conjure up ways in which surprising or negative events might have turned out better (e.g., Sanna & Turley, 1996). These “reality-improving” *upward* counterfactuals (Markman, Gavanski, Sherman, & McMullen, 1993) are believed to serve a function in planning

(Mandel, 2003c; Roese, 1997) by allowing individuals to identify behaviors that may have impeded their performance or brought them misfortune in the past (Roese, 1994). Perhaps unsurprisingly, given this adaptive function, upward counterfactual thinking can influence a wide range of attributional judgments such as causality (e.g., Wells & Gavanski, 1989), preventability (e.g., Mandel & Lehman, 1996), and blame (e.g., Branscombe, Owen, Garstka, & Coleman, 1996), as well as emotional responses such as regret (e.g., Zeelenberg et al., 1998), dissatisfaction (e.g., Galinsky, Seiden, Kim, & Medvec, 2002), guilt, and shame (e.g., Niedenthal, Tangney, & Gavanski, 1994).

Most research on the emotional consequences of counterfactual thinking has taken a “valence-based” approach. This is exemplified by Kahneman and Miller’s (1986) emotional amplification hypothesis, which states that affective responses are contrasted away from the

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direction of the counterfactual evoked—namely, that upward counterfactuals amplify negative affect, whereas downward counterfactuals amplify positive affect. Although there is support for the idea that upward counterfactuals can amplify negative affect (Roese, 1997), valence-based accounts do not explain how counterfactual thinking may differentially influence specific emotions. Thus, there is a need for “emotion-specific” research (Lerner & Keltner, 2000), which examines the importance of construal processes in understanding the determinants and consequences of different emotions that share the same valence. Following such an approach, Zeelenberg and colleagues (for a review, see Zeelenberg & van Dijk, *in press*) have shown that although upward counterfactual thinking can amplify regret and disappointment, regret tends to follow from thinking about how one could have behaved differently, whereas disappointment tends to follow from thinking about how the outcome might have been better given that the actor behaved in the same manner. Underscoring the importance of self-other construal, Mandel (2003a) found that although *self-focused* emotional intensity (*viz.*, regret, shame, and guilt) was directly related to upward counterfactual availability, *other-focused* emotional intensity (*viz.*, distrust and anger) was not reliably related to counterfactual availability.

The present research builds on emotion-specific research by examining the differential effect of upward counterfactual thinking on guilt and shame. Both guilt and shame are associated with judgments of wrongdoing, and thus are important to understand because of their implications for moral and ethical behavior. Moreover, given their connection to perceived wrongdoing, it is of interest to examine how these emotions differentially relate to blame assignment. Guilt and shame belong to the family of negative “self-conscious” emotions and tend to be aligned with internal (self) rather than external (other/environment) attributions (Frijda, Kuipers, & ter Schure, 1989). In other respects, however, guilt and shame are believed to differ in their appraisal structure. Niedenthal et al. (1994) proposed that guilt is amplified by behavioral-self attributions (*i.e.*, something about “what I’ve done”), whereas shame is amplified by characterological-self attributions (*i.e.*, something about “who I am”). They further predicted that behavior-mutating counterfactuals are likely to amplify guilt, whereas character-mutating counterfactuals are likely to amplify shame.

Evidence for this “differential-focus” hypothesis has been mixed. Niedenthal et al. (1994) asked participants to imagine being in a situation that evoked comparable levels of guilt and shame and, then, to undo the outcome either by completing a behavior stem (“if only I had”) or a character stem (“if only I were”). Supporting their hypothesis, character-mutating participants reported feeling more shameful than behavior-mutating

participants. However, contrary to their hypothesis, mean guilt did not significantly differ between the two conditions. Furthermore, Tangney, Miller, Flicker, and Barlow (1996) found that participants’ responses to whether they blamed their “actions and behavior” versus their “personality and self” did not differ across shame and guilt experiences. Finally, Smith, Webster, Parrott, and Eyre (2002, Experiment 3) found that coders were no more likely to judge literary passages referring to shame as conveying a desire by protagonists to change aspects of their character than passages referring to guilt.

Whereas Niedenthal et al. (1994) proposed that counterfactual thinking influences both guilt and shame but in a differential manner depending on counterfactual content, we predicted that such thinking would have an effect on guilt but not on shame. The bases for our prediction are twofold: first, we hypothesized that the effect of upward counterfactual thinking on emotion is mediated by blame assignment. Consistent with this prediction, Zeelenberg, van der Pligt, and de Vries (2000) found that the magnitude of the actor effect (*i.e.*, the tendency, usually attributed to the mediating role of counterfactual thinking, for action to elicit more intense emotion than inaction) was predicted by the degree to which active versus passive actors were assigned responsibility for outcomes. In line with past research (*e.g.*, Branscombe et al., 1996; McCrae, 1992; Miller & Gunasegaram, 1990), we predicted that upward counterfactual thinking will influence blame assignment, and that variation in the severity of blame would, in turn, mediate the effect of counterfactual thinking on guilt.

Our second hypothesis was that blame would be more strongly related to guilt than shame. Although blame, guilt, and shame can each reflect a feeling or judgment of having done wrong, guilt is more likely than shame to incorporate judgments of wrongdoing in a reflective manner, which we argue would coincide with blame acceptance. Consider the definitions provided in the *New Oxford Dictionary*: guilt is defined as “a feeling of having committed wrong or having failed in an obligation” (2001, p. 817), whereas shame is defined as “a painful feeling of humiliation or distress caused by the consciousness of wrong or foolish behaviour” (p. 1708). In support of this distinction, Smith et al. (2002, Experiment 3) found that coders were twice as likely to infer attributions of self-blame from literary passages referring to guilt than from passages referring to shame. In a subsequent retrospective study, they found that guilt, but not shame, was directly related to a measure of blame and remorse. Thus, we predicted that blame and guilt would be directly related. In line with other studies (*e.g.*, Leith & Baumeister, 1998; Tangney, Wagner, Fletcher, & Gramzow, 1992), we predicted that the “painful feelings” of being caught in the spotlight associated with shame would result in shame being directly related to psychological distress, and more strongly so than guilt.

## The present study

Although there is a considerable amount of indirect evidence supporting the influence of upward counterfactual thinking on blame and emotion, there is little direct support for these effects. Experimental studies have tended to manipulate event normality (e.g., Kahneman & Tversky, 1982; McCrae, 1992) or actor focus (e.g., Branscombe et al., 1996) rather than counterfactual thinking per se. Direct experimental tests in compelling real-world contexts are all the more important in light of recent evidence showing that the effect of normality on counterfactual thinking documented in scenario studies can be negligible when variables such as level of explanation for events are controlled (Trabasso & Bartolone, 2003). Accordingly, in the present study, we provide a direct test of the effect of upward counterfactual thinking on blame, guilt, and shame in a compelling real-world context with participants whose lives were deeply influenced by the events we asked them to think about and for whom the concepts of blame, guilt, and shame were likely to be relevant.

The participants in our study were medium-security prisoners who were serving their sentence at the time of the study. Participants were asked to reflect on the events leading to their capture, conviction, and sentencing. However, the manner in which they were directed to think about these events was systematically manipulated. Counterfactual-focused participants were directed to think about how these outcomes probably would not have happened if only they had done something differently (in the behavior condition) or were a different sort of person (in the character condition), whereas factual-focused participants were directed to think about how these outcomes probably occurred because of something they did (in the behavior condition) or because of the sort of person they are (in the character condition). Thus, the present study provided an important contrast condition (i.e., factual thinking) for gauging the magnitude of the effect of counterfactual thinking on blame and emotion.

Our predictions were as follows: first, we predicted an effect of thought focus on blame assignment, such that counterfactual-focused participants would feel more blameworthy than factual-focused participants. Second, we predicted that blame would be significantly correlated with guilt, and that the blame-guilt relation would be significantly stronger than the blame-shame relation. Third, we predicted that counterfactual-focused participants would feel guiltier than factual-focused participants, and that this simple effect of thought focus would be mediated by blame. By contrast, we predicted that the simple effect of thought focus on shame would be weaker if not unreliable. Finally, we predicted that shame, but not guilt, would be directly related to distress.

## Method

### *Participants and design*

Participants were 90 sentenced adult male prisoners from a medium-security prison in the UK (mean age = 35.11 years,  $SD = 9.17$ ). Thirty-six percent were sentenced for an offence against the person (including murder, rape, and robbery), 31% for drug-related offences, 16% for property offences (including burglary, theft and handling stolen goods, and arson), 3% for fraud or forgery, and the remaining participants were sentenced for other offences or did not indicate their offence. The mean length of sentence was 5.15 years ( $SD = 3.11$ ) and the mean time already served was 2.31 years ( $SD = 2.39$ ).

Participants were randomly assigned to experimental conditions in a 2 (Thought Focus: counterfactual, factual)  $\times$  2 (Content Focus: behavior, character)  $\times$  3 (Stage: caught, convicted, sentenced) mixed design. The first two factors were manipulated between subjects and the last factor was manipulated within subjects.

### *Materials*

The survey was entitled “A study for sentenced prisoners.” The first section collected demographic information. The second section presented the 20-item distress subscale of the Custodial Adjustment Questionnaire (Thornton, 1987), which measures level of distress experienced by prisoners. Examples of items include “I worry a lot in here” and “I have reported sick in the last month.” For each item, participants indicated No or Yes (coded as 0 and 1, respectively). These values were averaged, and the scale had good reliability (Cronbach's  $\alpha = .71$ ). The third section encompassed the experimental manipulations and included measures of blame, guilt, and shame. Participants in the counterfactual condition first read, “After bad experiences, people sometimes can't help thinking about how things might have turned out better if only they” (in the behavior condition) “had done something differently” or (in the character condition) “were a different kind of person.” By contrast, participants in the factual condition read, “After bad experiences, people sometimes can't help thinking about how things turned out the way they did because of” (in the behavior condition) “something they had done” or (in the character condition) “the kind of person they are.” Participants were then instructed to think about the time when they were caught for their current offence, and then to complete a sentence stem that varied by experimental condition. Table 1 shows the sentence stems for each experimental condition.

Following the manipulations of thought focus and content focus, participants answered a series of questions by providing ratings on non-numerical 11-point scales that were anchored at each end. In the following

Table 1  
Sentence completion stems for each experimental condition

Thought focus	Content focus	Sentence stem
Counterfactual	Behavior	I probably wouldn't have been [*] if only I had...
Counterfactual	Character	I probably wouldn't have been [*] if only I were...
Factual	Behavior	I probably was [*] because I had...
Factual	Character	I probably was [*] because I am...

\* Depending on level of stage, the text was either *caught*, *convicted*, or *sentenced to prison* (these terms were italicized in the survey).

order, they were asked (a) how often they thought about being caught (*never* to *almost always*), (b) how much they thought they were to blame for being caught (*not at all* to *completely*), and (c) how much guilt they felt for being caught (*not at all* to *extremely*), and (d) how much shame they felt for being caught (*not at all* to *extremely*). We manipulated stage by repeating the entire part of the third section just described (pertaining to being caught) for “being convicted” and finally for “being sentenced to prison.” At each level of stage, the manipulations of thought focus and content focus were repeated with the relevant changes in content. That is, all references to “being caught” were changed to “being convicted” at the second stage and to “being sentenced to prison” at the third stage. Participants were assigned to the same thought focus and content focus conditions across stage.

### Procedure

A senior psychologist in prison service headquarters approached the governor of the prison on our behalf and explained the nature of the study. Two weeks before the study, the survey was piloted on 10 prisoners from the same prison, who were excluded from the main study. The purpose of the pilot study was to check for ease of understanding and to estimate the time required to complete the survey. For the main study, the second author and a principal officer working in the administration unit of the prison distributed surveys to approximately half of the prisoners in the prison while they were locked in their cells during one weekday afternoon and the prison staff were in a professional meeting (we chose this time so that prisoners would not be “under surveillance”). Prisoners were introduced to the researcher and the study, they were informed that participation was voluntary, anonymous, and that they would not suffer any negative consequences for not participating. Prisoners were also informed that the data was being collected for social science research purposes only. Completed surveys were placed in the central office of each residential unit or returned directly to the researcher when she returned to each residential unit later that day. The response rate was 56%, which is quite high for a self-completion postal-type survey.

## Results

### *Distress and thinking frequency*

We began by ruling out the possibility that participants randomly assigned to conditions differed a priori in terms of their levels of distress. A two-way (Thought Focus  $\times$  Content Focus) analysis of variance (ANOVA) revealed that none of the effects on distress was significant (smallest  $p > .21$ ). We also examined thinking frequency (i.e., how often they thought about being caught, convicted, and sentenced) as a function of stage, thought focus, and content focus. Although this measure followed the between-subjects manipulations, we did not expect a significant effect of either factor on thinking frequency, given that this measure probed for a frequency estimate of thinking in the past. As anticipated, the three-way ANOVA revealed that none of the main effects or interaction effects was significant (smallest  $p > .18$ , see Table 2 for descriptive statistics). Having established that the experimental groups of participants did not differ in terms of their distress and thinking frequency, we now test our key hypotheses.

### *Blame assignment*

Our first prediction was that prisoners who were directed to think counterfactually about being caught, convicted, and sentenced would assign greater blame to themselves than prisoners who were directed to think factually. A 2 (Thought Focus)  $\times$  3 (Stage) ANOVA revealed that the predicted main effect of thought focus was significant,  $F(1, 80) = 13.40$ ,  $MSE = 21.77$ ,  $p < .001$ , partial  $\eta^2 = .14$ . As predicted, prisoners assigned significantly more blame to themselves in the counterfactual condition ( $M = 9.37$ ) than in the factual condition ( $M = 7.14$ ). Neither the main effect of stage nor the interaction effect was significant,  $ps > .25$ .<sup>1</sup>

### *Guilt and shame*

#### *Correlational findings*

Consistent with past research (e.g., Mandel, 2003a), guilt and shame were strongly correlated ( $r[86] = .83$ ,  $p < .001$ ) and this relation remained significant after controlling for distress ( $r[83] = .80$ ,  $p < .001$ ). However, as predicted, the two emotions exhibited different patterns of correlation when each was examined controlling for the other. Controlling for shame, guilt was positively correlated with blame ( $r[83] = .47$ ,  $p < .001$ ), but not with distress ( $r[83] = .02$ ). By contrast, controlling for guilt, shame was positively correlated with distress ( $r[83] = .27$ ,

<sup>1</sup> Although we did not predict an effect of content focus on blame, we note that this factor did not have a significant effect on blame assignment,  $F < 1$ .



Table 2  
Means and standard deviations of dependent measures as a function of stage

Measure	Stage			M
	Caught	Convicted	Sentenced	
Distress	—	—	—	0.35 (0.21)
Thinking frequency	4.61 (2.99)	5.16 (3.26)	4.96 (3.49)	4.91 (3.25)
Blame	8.14 (3.64)	8.25 (3.37)	8.48 (3.21)	8.29 (3.41)
Guilt	6.01 (2.98)	5.93 (2.99)	6.16 (3.06)	6.03 (3.01)
Shame	5.96 (2.97)	5.82 (2.99)	5.70 (3.20)	5.83 (3.05)

$p < .02$ ) but negatively correlated with blame ( $r[83] = -.26, p < .02$ ). The difference between the partial correlations of guilt and shame with distress just achieved significance ( $z = 1.64, p = .05$ ), and the difference between the guilt-blame and shame-blame partial correlations was highly significant ( $z = 4.97, p < .00001$ ).

*Effect of thought focus and content focus*

Recall that Niedenthal et al. (1994) hypothesized that counterfactual thinking amplifies guilt and shame, but that whereas guilt tends to be amplified by a behavioral focus, shame tends to be amplified by a characterological focus. This suggests a main effect of thought focus on emotion and a content focus by emotion interaction effect. By contrast, we predicted a significant thought focus by emotion interaction effect such that the simple effect of thought focus on guilt would be significant and the simple effect of thought focus on shame would not (or would at least be attenuated). To test these hypotheses, we conducted a Thought Focus  $\times$  Content Focus  $\times$  Emotion Type  $\times$  Stage mixed ANOVA. The main effect of thought focus on emotion was significant,  $F(1, 68) = 4.37, MSE = 42.04, p = .040$ , partial  $\eta^2 = .06$ . However, this effect was qualified, as we predicted, by a significant interaction effect of thought focus and emotion type,  $F(1, 68) = 5.16, MSE = 2.95, p < .03$ , partial  $\eta^2 = .07$ . As shown in Fig. 1, the effect of thought focus on guilt was greater than the corresponding effect on shame. In fact, whereas the mean intensity of guilt was significantly greater in the counterfactual condition

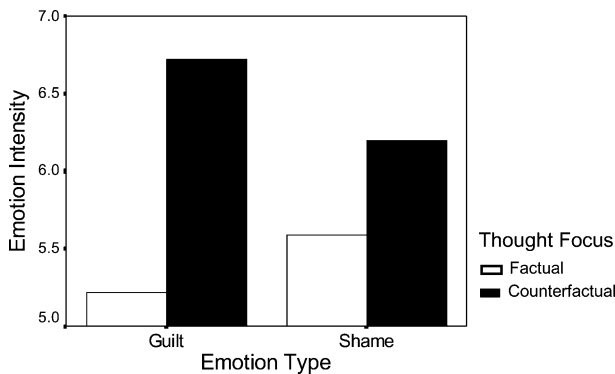


Fig. 1. Mean emotional intensity as a function of emotion type and thought focus.

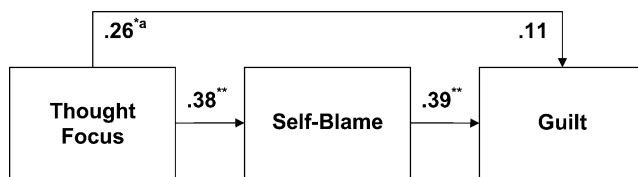
than in the factual condition [ $F(3, 70) = 3.23, p < .03$ , partial  $\eta^2 = .12$ ], the difference in mean intensity of shame was unreliable,  $F(3, 74) = 1.56, p > .20$ . All other effects in the ANOVA model were unreliable (smallest  $p > .15$ ).

Although the preceding analyses supported our predictions, they did not support the differential-focus hypothesis. That is, the content focus by emotion type interaction expected on the basis of that hypothesis was unreliable. To rule out the possibility that our manipulation of content focus was ineffective, we had two independent raters who were unaware of the experimental hypotheses code participants' sentence completions in terms of whether they focused on something behavioral (e.g., "if only I had run faster"), characterological (e.g., "if only I had been a smarter person") or both (a small proportion of responses could not be coded). Interrater agreement ranged from 77 to 80% across levels of stage, and agreement on the remaining cases was reached by discussion with the authors. Confirming the effectiveness of our manipulation, characterological completions were significantly more likely in the character condition and behavioral completions were significantly more likely in the behavior condition at each stage (for caught,  $\chi^2[3, N=90] = 13.92, p < .004$ ; for convicted,  $\chi^2[3, N=90] = 27.70, p < .001$ ; for sentenced,  $\chi^2[3, N=90] = 15.46, p < .002$ ). Collapsed across stage, 76% of the characterological completions were in the character condition and 71% of the behavioral completions were in the behavior condition.

Given the results of the preceding manipulation checks, the lack of support for the differential-focus hypothesis cannot be attributed to an ineffective manipulation of content focus. However, the coding of sentence completions permitted a test of this hypothesis in a manner that bypassed the manipulation altogether. At each stage, we examined the mean intensity of guilt and shame as a function of whether participants generated behavioral or characterological completions (regardless of the content-focus condition to which they were assigned). Table 3 presents the mean emotion ratings as a function of stage and the type of sentence completion that participants generated. As the table shows, both guilt and shame were, on average,

Table 3  
Means and standard deviations as a function of stage, emotion, and the type of sentence completion generated by participants

Stage	Emotion	Generated completion type		t	p
		Behavior	Character		
Caught	Guilt	6.42 (2.91)	5.44 (3.16)	1.33	>.18
Caught	Shame	6.41 (2.89)	5.66 (3.01)	1.08	>.28
Convicted	Guilt	6.58 (2.79)	5.02 (2.89)	2.19	<.04
Convicted	Shame	6.41 (2.94)	4.76 (2.75)	2.28	<.03
Sentenced	Guilt	6.67 (2.63)	5.84 (3.57)	0.92	>.36
Sentenced	Shame	6.22 (2.92)	5.45 (3.51)	0.93	>.35



\* $p < .02$ , \*\* $p < .001$ , two tailed.  
<sup>a</sup>Beta weight for unmediated relation.

Fig. 2. Mediator model of guilt.

rated as being experienced more intensely among participants who generated behavioral completions than among participants who generated characterological completions, although these differences attained statistical significance at the conviction stage only. Therefore, these analyses also do not support the differential-focus hypothesis.<sup>2</sup>

#### Mediator model of guilt

Our final prediction was that the effect of thought focus on guilt would be mediated by blame. As already noted, blame and guilt were significantly correlated, and both were influenced by thought focus. This pattern is consistent with the proposed model, but to firmly establish mediation, three conditions should be met (Kenny, Kashy, & Bolger, 1998). First, the predictor (i.e., thought focus) should significantly predict the criterion (i.e., guilt). Second, the predictor should significantly predict the hypothesized mediator variable (i.e., blame). Third, controlling for the mediator, the effect of the predictor should be significantly reduced. As shown in Fig. 2, each of these conditions was met. Meeting the first and second conditions for mediation, thought focus significantly predicted guilt and blame, respectively. Meeting the third condition for mediation, after controlling for blame, the predictive effect of thought focus on guilt was significantly reduced, Sobel  $z = 2.69$ ,  $p < .008$ . In fact, as Fig. 2 shows, the predictive effect of thought focus on guilt controlling for blame was no longer significant. Given the correlational nature of our data, we also tested what we regard as a theoretically less plausible model in which guilt mediates the effect of thought focus on blame. Guilt was in fact a significant mediator of this relation, Sobel  $z = 1.99$ ,  $p = .047$ . However, mediation in this model was only partial, with the predictive effect of thought focus remaining significant after controlling for guilt,  $\beta = .30$ ,  $p = .003$ . The present findings therefore provide stronger support for our prediction that the effect of thought focus on guilt is due to the mediating role of blame assignment.

## Discussion

The present study adds to the literature on emotion-specific consequences of upward counterfactual thinking in some important respects. First, we demonstrated that upward counterfactual thinking differentially influences guilt and shame independent of whether the content of such thoughts was behavioral or characterological. Whereas counterfactual-focused prisoners reported feeling guiltier than factual-focused prisoners, no reliable difference in feelings of shame was observed. Second, our findings provide the first demonstration that counterfactual thinking has a stronger amplificatory influence on self-blame than factual thinking. This difference in blame assignment was observed not in reference to a single hypothetical scenario but rather over a diverse set of personal histories of prisoners' regarding their compelling experiences about being caught, convicted, and sentenced to prison. Finally, our findings reveal the important role that blame assignment plays in mediating the effect of upward counterfactual thinking on feelings of guilt. Indeed, blame fully mediated this effect.

#### Counterfactual thinking and emotion

Our predictions concerning the differential impact of self-focused upward counterfactual thinking on guilt and shame differ somewhat from past accounts. While acknowledging that both emotions are self-focused, we suggest that shame is more closely related to feelings of being "caught in the spotlight"—an experience that is more likely to prompt psychological distress and a desire to escape from the situation rather than a desire to reflect on the situation in a potentially blame-implicating manner. In support of this idea, we found that shame (but not guilt) was directly related to distress (see also Leith & Baumeister, 1998; Tangney et al., 1992), but that shame was inversely related to self-blame. The fact that blame was negatively correlated with shame and positively correlated with guilt is all the more striking given the strong correlation between these two emotions. Nevertheless, this finding is consistent with other research showing that whereas guilt is related to blame internalization, shame is related to blame externalization (Tangney et al., 1992).

Our study also re-examined Niedenthal et al.'s (1994) hypothesis that guilt is amplified primarily by a behavioral focus, whereas shame is amplified primarily by a characterological focus. Contrary to the differential-focus hypothesis, however, our behavior-character manipulation did not interact with emotion type, even though manipulation checks indicated that the manipulation was effective. Although we do not claim that this distinction is without merit, the results of the present study and others (e.g., Smith et al., 2002; Tangney et al., 1996)

<sup>2</sup> We also note that the power to detect an effect of content focus for either emotion with a directional test and  $\alpha = .05$  was .98 for a large effect size ( $\gamma = .80$ ) and .77 for a medium effect size ( $\gamma = .50$ ).

indicate that robust support for the differential-focus hypothesis is presently lacking.

Zeelenberg and van Dijk (in press) proposed that regret is a “cognitive emotion” closely related to attributions of responsibility. We argue, similarly, that guilt is a cognitive emotion closely related to blame assignment. Given that guilt and regret share considerable variance—about 25% in Mandel (2003a)—and each shares roughly the same degree of variance with blame—again, roughly 25% in both cases in Mandel (2003a), we do not claim that regret is more strongly related to responsibility than with blame or that guilt is more strongly related to blame than responsibility. Rather, we view the two sets of findings as corroboratory and as supportive of the more general point that the types of cognitions that define emotions like regret and guilt are closely related to those that influence judgments of responsibility and blame. In each case, self-focused upward counterfactual thinking appears to play a key role. Building on research by Berndsen, van der Pligt, Doosje, and Manstead (2004) indicating that regret stems from construals of *intrapersonal* harm, whereas guilt stems from construals of *interpersonal* harm, we further suggest that counterfactual thinkers will experience regret when they focus on self-implicating ways of undoing negative intrapersonal consequences and they will experience guilt when they focus on self-implicating ways of undoing negative interpersonal consequences. This hypothesis could be profitably tested in future research.

#### *Counterfactual thinking and blame assignment*

The present findings also contribute to our understanding of the attributional consequences of counterfactual thinking. Although earlier studies have supported the hypothesis that upward counterfactual thinking influences blame by demonstrating that blame assignment is more severe under abnormal conditions (e.g., McCrae, 1992) or that the focus of counterfactual thinking influences blame (e.g., Branscombe et al., 1996), none has demonstrated as directly as the present study that upward counterfactual thinking influences blame assignment.<sup>3</sup> Given that participants in both the counterfactual and factual conditions of the present study were directed to focus on themselves and on the same stages of their involvement in the criminal justice process, the observed effect of thought focus on blame can-

not be attributed to a mere focus effect. Moreover, given that the factual-thinking directives were phrased in causal terms (e.g., “I probably was caught *because* I had...”), our study constituted a fairly conservative test of the idea that counterfactual thinking influences blame assignment. Indeed, given that several theories of blame assignment emphasize the importance of causal reasoning (e.g., Fincham & Schultz, 1981; Shaver, 1985), one might have predicted on the basis of these accounts, that blame would be even more severe in the factual condition.

Nor can the present findings be easily accounted for by norm theory (Kahneman & Miller, 1986). We see no reason to suspect that directives to think counterfactually should evoke content that is less normal than directives to think factually. Rather, building on earlier research (Mandel, 2003c; Mandel & Lehman, 1996; Morris, Moore, & Sim, 1999), we explain the effect of thought focus on blame in terms of the differential emphasis that counterfactual and factual thinking place on identifying self-focused means of preventing negative outcomes. Actors may blame themselves for failing to *prevent* a negative outcome even if they do not view themselves as the primary *cause* of the outcome (Alicke, 2000). Moreover, in hindsight, there are usually many more ways in which one can imagine having been able to undo a negative outcome than ways in which one was causally responsible for bringing it about. As Miller and Turnbull (1990) noted, people readily extrapolate from “might have done” thinking to blame-implicating “ought to have done” ascriptions. Our findings suggest that this “counterfactual fallacy” may be stronger than its factual counterpart.

Although the present findings corroborate past literature, they are also novel in that they directly reveal thought-focus effects on blame and emotion, which are worthy of future research attention. For example, it would be instructive to examine how much of the observed effect of thought focus is due to the process of directing participants to think counterfactually versus factually via manipulations of the text that participants are asked to read prior to the sentence-completion task and how much is due to the process of generating their own counterfactual or factual thoughts. As well, although the counterfactual prompts in the present study did not explicitly refer to a factual contrast case, future research could examine whether thought-focus effects are facilitated by greater contrast accessibility as others have proposed (e.g., Roese, 1997; Walsh & Byrne, in press).

#### *Implications for offender rehabilitation*

Our findings suggest that guilt may play a more productive role than shame in the process of offender rehabilitation. As we have noted, self-blame was directly

<sup>3</sup> Although Mandel (2003b) used a manipulation similar to the thought focus manipulation conducted in the present research, it did not yield a reliable effect on attributional judgments, including a measure of blame. That manipulation, however, was not as strong as the present one (e.g., participants were not asked to provide sentence completions). Accordingly, the present research constituted a stronger test of the effect of thought focus on blame.

related to guilt but inversely related to shame (see also Tangney et al., 1992), and distress was unrelated to guilt but directly related to shame. These findings suggest that, contrary to past opinion (Braithwaite, 1989), “shaming offenders” may be an ineffective, perhaps even detrimental, approach to offender rehabilitation. Indeed, Tibbetts (2003) found that whereas criminal offending correlates negatively with guilt proneness, it correlates positively with shame proneness. In light of these findings, our results demonstrating that self-focused upward counterfactual thinking in prisoners can intensify attributions of self-blame and feelings of guilt without significantly influencing feelings of shame, suggest that directing prisoners to think counterfactually about what they might have done differently to prevent their crime (and subsequent incarceration) may prove beneficial to them and to society.

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