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Looking into the crystal ball of our emotional lives: emotion regulation and the overestimation of future guilt and shame

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ABSTRACT

In the present study, we examined the impact of emotion regulation on the intensity bias in guilt and shame. Fifty-two undergraduates either forecasted their emotions and emotion regulation following a guilt- and shame-eliciting situation or reported their actual experienced emotions and employed emotion regulation. Results showed a clear intensity bias, that is, forecasters predicted to experience more guilt and shame than experiencers actually experienced. Furthermore, results showed that forecasters predicted to employ less down-regulating emotion regulation (i.e. less acceptance) and more up-regulating emotion regulation (i.e. more rumination) than experiencers actually employed. Moreover, results showed that the intensity differences between forecasted and experienced guilt and shame could be explained (i.e. were mediated) by the differences between forecasted and actually employed emotion regulation (i.e. acceptance and rumination). These findings provide support for the hypothesis that the intensity bias can—at least in part—be explained by the misprediction of future emotion regulation.

When people make decisions they often attempt to predict how the outcomes of these decisions will make them feel and then base their decisions on these forecasts. Ample research has shown, however, that people often overestimate the intensity of their future emotions—an *intensity bias* that has been demonstrated in a wide variety of populations and contexts (see Wilson & Gilbert, 2003, 2005, for overviews). For example, candidates taking their driver's licence exam overestimated both their disappointment after failing the exam and their happiness after passing it (Finkenauer, Gallucci, van Dijk, & Pollmann, 2007), romantic partners overestimated their unhappiness after the dissolution of their relationship (Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998), track athletes overestimated their negative emotions following an unsuccessful race (van Dijk, 2009; van Dijk, Finkenauer, & Pollmann, 2008), and following social exclusion, undergraduates expected to experience greater anger and sadness than they actually did (van Dijk, van Dillen, Seip, & Rotteveel, 2012).

One possible reason why people overestimate the intensity of their future emotions is that they fail to anticipate how emotion regulation will affect their future emotional experiences. If people fail to take into account that they often regulate responses to emotion-eliciting events in ways that attenuate their impact, this should result in an overestimation of the emotional intensity of these responses (cf. van Dijk et al., 2008, 2012; Wilson & Gilbert, 2003, 2005). The main objective of the current study therefore was to examine to what extent people take into account various emotion regulation strategies when predicting their future emotional experiences, and whether failures to accurately assess their influence contribute to people's forecasting biases.

Several studies provide initial support for the role of emotion regulation in people's overestimation of their future emotions. It has been shown, for instance, that individuals who generally use emotional processing coping strategies (e.g. reappraisal) recover more effectively from negative events, but fail to foresee this when asked to forecast their negative emotions, thereby increasing their intensity bias (Hoerger, Quirk, Lucas, & Carr, 2009). It has also been shown that forecasters predicted equally strong affective reactions to a news story about an accidental death of a child for which caretakers could be blamed as compared to a death for which no one could be blamed, while experiencers were actually less distressed by a blameworthy death than by a blameless one (Gilbert et al., 1998). Perhaps, a blameless accidental death is more difficult to explain and subsequently to regulate than a blameworthy one, but forecasters failed to foresee this. Our own research, moreover, showed that forecasters—as compared to experiencers—overestimated their anger following social exclusion, but underestimated their reappraisal of this event (van Dijk et al., 2012). This study showed that for experiencers greater reappraisal was associated with less experienced anger, whereas for forecasters predicted reappraisal was unrelated to the intensity of predicted anger. These studies suggest—in line with our hypothesis—that people might indeed overestimate the intensity of their future emotions because they fail to anticipate how emotion regulation will affect their future emotions.

Another finding in support of our hypothesis comes from research on emotional intelligence. For instance, it has been shown that individuals who performed well on a test of emotion management (a component of emotional intelligence) showed less bias in predicting their future emotions than those who performed poorly on this test (Dunn, Brackett, Asthon-James, Schneiderman, & Salovey, 2007). Possibly, individuals who are good in emotion management recognise better that emotions can be regulated and are likely to take this into account when forecasting their emotions, thereby decreasing their intensity bias.

In the present research, we aimed to provide further support for the role of emotion regulation strategies in the intensity bias. We examined this in the context of guilt and shame—two negative self-conscious emotions that are often experienced together but differ in their focus on either behaviour or self (Tangney, Stuewig, & Mashek, 2007). Guilt is elicited by the appraisal of an emotion-eliciting situation

as a failure of behaviour. It involves a negative evaluation of specific behaviour and is typically accompanied by feelings of tension, regret and remorse, and action tendencies to confess, apologise, and undo the consequences of the behaviour. Shame, on the other hand, is elicited by the appraisal of an emotion-eliciting event as a failure of self. It involves a negative evaluation of the global self and is typically accompanied by feelings of worthlessness and powerlessness, and action tendencies to deny, hide, or escape the shame-eliciting situation (Lewis, 1971; Tangney et al., 2007; Tracy & Robins, 2004).

Emotion regulation refers to "the process by which individuals influence which emotions they have, when they have them and how they experience and express these emotions" (Gross, 1998a, p. 275), and includes—amongst others—reappraisal, acceptance, suppression, and rumination. In the present research, we focus specifically on these strategies to test the hypothesis that the intensity bias can be explained by the misprediction of future emotion regulation. Reappraisal, suppression, and acceptance are emotion regulation strategies aimed at the down-regulation of negative emotions, whereas rumination tends to up-regulate negative emotions. Reappraisal involves cognitively transforming the perception of the situation to alter its emotional impact and research has indicated that reappraising a (potential) distressing situation attenuates negative emotions (Gross, 1998b; Gross & John, 2003; Lazarus & Alfert, 1964). Suppression refers to the intentional inhibition of expressive and/or experiential aspects of one's ongoing affective responses and has been shown to effectively reduce negative emotions (Braams, Blechert, Boden, & Gross, 2012; Dunn, Billotti, Murphy, & Dalgleish, 2009), as does acceptance (Braams et al., 2012), which refers to thoughts of resigning yourself to what happened. Lastly, rumination is "a mode of responding to distress that involves repetitively and passively focusing on symptoms of distress and on the possible causes and consequences of these symptoms" (Nolen-Hoeksema, 1991; Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008, p. 400), a strategy that usually enhances the intensity of negative emotions (Nolen-Hoeksema et al., 2008).

The current research

In our current research, we confronted participants with negative feedback about their performance on several self-relevant tasks (i.e. shame-inducing

feedback) and with feedback that due to their poor performance they disadvantaged another person (i.e. guilt-inducing feedback). Subsequently, participants were asked to report the intensity of their (experienced or forecasted) guilt and shame and the extent to which they (would) use four types of emotion regulation—reappraisal, suppression, acceptance, and rumination.

To safeguard our research—as much as possible—against potential methodological confounds, we used multiple stringent criteria in our study. First, asking participants to forecast their future emotions might affect their actual experienced emotions. Therefore, we used a between-participants design in which participants were randomly assigned to either a forecast or experience condition. Second, participants' mood might influence their forecasts and/or experiences of emotions. Therefore, we assessed participants' mood prior to the guilt- and shame-eliciting situation, which enables us to control for this potential influence. Third, forecasters and experiencers were both asked to report their emotions and emotion regulation in response to the specific focal event. Explicitly referring to the specific focal event in both the forecasting and experiencing questions prevents different interpretations of these questions (Levine, Lench, Kaplan, & Safer, 2012).

In our current research we tested three hypotheses. First, we hypothesised that forecasters predict to experience more guilt and shame than experiencers actually experience. Second, we hypothesised that forecasters fail to anticipate how they can regulate emotion-eliciting events in to attenuate their future impact. More specifically, we hypothesised that forecasters predict to employ less down-regulating emotion regulation (i.e. less reappraisal, less acceptance, and less suppression) and more up-regulating emotion regulation (i.e. rumination) than experiencers actually employed. Third, we hypothesise that the intensity differences between forecasted and experienced guilt and shame (i.e. the intensity bias) can be explained (i.e. are mediated) by the differences between forecasted and actually employed emotion regulation.

Method

Participants, design, and overview procedure

Fifty-two undergraduates were randomly assigned to either the forecast condition (*forecasters*, n = 28) or

experience condition (*experiencers*, n = 24).[1] Upon arrival at the laboratory, participants first gave informed consent and were asked to complete several questionnaires.[2] Subsequently, they were confronted with a guilt- and shame-eliciting situation and completed a questionnaire concerning the dependent variables. Upon completion of this questionnaire participants were fully debriefed, thanked, and rewarded for their participation. Our sample size was determined by the number of participants we could include in our study in one week. We did not exclude any data and report all manipulations and measures used in the study.

Mood assessment

To assess participants' mood before being confronted with the guilt- and shame-eliciting situation, they completed—using seven-point scales (1 = *not at all*; 7 = *very much*)—a 20-item measure of positive and negative affect (PANAS, Watson, Clark, & Tellegen, 1988; Cronbach's a = .76; M = 5.17, SD = 0.58).

Experimental manipulation: forecasting vs. experiencing a guilt- and shame-eliciting situation

Participants arrived at the laboratory individually and were greeted by a male experimenter and an alleged other female participant (in reality a confederate of the experimenter who was trained to interact with participants in a consistent way). *Experiencers* were asked to go, together with the alleged other participant, to another room to complete three different tasks. Upon arrival in the room, they received further instructions (see below). *Forecasters* were accompanied to an individual cubicle and asked to wait for further instructions from the experimenter. Subsequently, both experiencers and forecasters were confronted with the same guilt- and shame-eliciting situation. The crucial difference between experiencers and forecasters was that experiencers were confronted with the real situation, whereas forecasters were asked to read a very detailed description of the situation and asked to imagine it as vividly as possible. The experimenter was trained to verbally provide the exact same information to experiencers as forecasters read in the written description. Below we describe the most relevant elements of the situation (see Supplementary Online Materials for a full description of

the situation that forecasters were asked to read and that experiencers were actually confronted with).

Guilt- and shame-eliciting situation

After participants (read that they) went to another room, the experimenter explained to them that there would be three different tasks—a math task, a language task, and a puzzle task that tested spatial awareness—each of which would measure a different self-relevant skill. Participants were then told that if their joint average score was above 60% they both would earn €10 extra. However, if their joint average score was below 60% none of them would earn €10 extra, even if one of them had an individual score above 60%.

For experiencers, the situation continued with actually conducting the three tasks, whereas forecasters read a detailed description of these tasks (including specific information concerning the instructions and content of each task). Upon completion of the tasks participants received (or read about) individual feedback on their own performance, the performance of the (alleged) other participant, and whether or not they had earned the bonus. In this feedback, participants were told (or read) that the average score on these three tasks was 50% and that their score was well below this average (i.e. 34%)—feedback that likely elicits shame. Additionally, participants were told (or read) that the other participant had a score well above average (i.e. 82%). However, because their joint average performance was below 60% (i.e. 58%) none of them earned €10 extra—feedback that likely elicits guilt. Upon experiencing the guilt- and shame-eliciting situation (or vividly imagining it), participants were asked to complete the dependent variables in individual cubicles.

Dependent variables

All participants answered the same set of questions that were worded slightly differently for forecasters and experiencers. Forecasters were asked how they would respond to the situation, whereas experiencers were asked about their actual felt responses. All dependent variables were assessed on seven-point scales (1 = *not at all*; 7 = *very much*) using paper-and-pencil questionnaires.[3]

Guilt and shame

Guilt was assessed with seven items: "I feel guilty," "I feel if I did something wrong," "I should have acted differently during the task," "I feel responsible for the outcome of the task," "I let the other team member down," "I want to apologize to the other team member," and "I want to make up to the other team member" (Cronbach's $\alpha = .89$). Shame was also assessed with seven items: (1) "I feel ashamed," (2) "I feel worthless," (3) "I could sink into the ground," (4) "I would like to disappear into nothing," (5) "I feel bad about myself," (6) "I presented myself badly during the task," and (7) "I think the other team member sees me as incompetent" (Cronbach's $\alpha = .90$).

All items were based on earlier research on guilt and shame (e.g. Tangney et al., 2007) and tailored to fit the present situation and interspersed with five filler items (assessing positive feelings; e.g. "I feel proud") to avoid suspicion that we were interested in negative emotions only and that the negative feedback might not be real.

Reappraisal, suppression, acceptance, and rumination

All items were based on earlier work on emotion regulation (e.g. Braams et al., 2012; Gross & John, 2003; Nolen-Hoeksema et al., 2008; van Dijk et al., 2012), tailored to fit the present situation and interspersed with four filler items (e.g. "a puzzle task is not really my thing") to avoid suspicion that we were interested in regulation of negative events only.

Reappraisal was assessed with five items, "I think I learned something from the task," "Actually the task and the outcome of the task are not that important," "I think mostly about what I did well," "I try to see the positive side of the current situation," and "I try to think of something nice, something which has nothing to do with the current situation." Reliability analysis revealed that these five items had a low internal consistency (Cronbach's $\alpha = .32$), therefore we decided not to include these items in our analyses.[4] *Suppression* was assessed with two items, "I try to be as calm as possible" and "I try to control my emotions as best as I can" (Spearman's rho = .58, $p < .001$). *Acceptance* was also assessed with two items, "I can accept the current situation" and "I can live with the current situation" (Spearman's rho = .85, $p < .001$). *Rumination* was assessed with five items, "I think mostly about what I did wrong," "I think about how I would do things differently next time," "I think about how I can deal best with the current situation," "I will think a lot about the task and the outcome of the task," and "The task and the outcome of the task

will be on my mind for a long time" (Cronbach's $\alpha = .85$).

Results

Hypothesis 1 predicted that forecasters expect to experience more guilt and shame than experiencers actually do. A multivariate analysis of variance (MANOVA) with condition as independent variable and guilt and shame as dependent variables indeed showed a statistically significant multivariate difference between the forecasters and experiencers, $F(2, 49) = 10.40$, $p < .001$, $\eta_p^2 = .30$. Univariate one-way analyses of variance (ANOVAs) revealed that (i) forecasters indicated more guilt ($M = 5.70$, $SD = 0.97$) than experiencers ($M = 4.22$, $SD = 1.36$; $F(1, 51) = 20.97$, $p < .001$, $\eta_p^2 = .30$) and (ii) forecasters indicated more shame ($M = 5.26$, $SD = 1.12$) than experiencers ($M = 4.04$, $SD = 1.42$; $F(1, 51) = 11.80$, $p = .001$, $\eta_p^2 = .19$).[5]

Hypothesis 2 predicted that forecasters expect to use less down-regulating and more up-regulating emotion regulation than experiencers actually employ. This was also the case. A MANOVA with condition as independent variable and the indices for suppression, acceptance, and rumination as dependent variables showed a statistically significant multivariate difference between forecasters and experiencers, $F(3, 48) = 10.08$, $p < .001$, $\eta_p^2 = .39$. Univariate one-way ANOVAs revealed that whereas (i) forecasters ($M = 5.46$, $SD = 0.87$) and experiencers ($M = 5.08$, $SD = 1.03$) did not differ on suppression, $F(1, 51) = 2.09$, $p = .15$, $\eta_p^2 = .04$; (ii) forecasters indicated (close to statistically significant) *less* acceptance ($M = 4.39$, $SD = 1.36$) *than* experiencers ($M = 5.15$, $SD = 1.43$; $F(1, 51) = 3.76$, $p = .06$, $\eta_p^2 = .07$); and (iii) forecasters indicated significantly *more* rumination ($M = 5.46$, $SD = 0.77$) than experiencers ($M = 3.79$, $SD = 1.36$; $F(1, 51) = 30.43$, $p < .001$, $\eta_p^2 = .38$).

Hypothesis 3 predicted that the differences in forecasted and experienced guilt and shame are mediated by differences in forecasted and employed emotion regulation. To test for these mediations, we followed the recommendations of Preacher and Hayes (2008), who suggest using a bootstrapping procedure to compute confidence intervals around the indirect effects (i.e. the paths through the mediators). If zero falls outside an interval, mediation can be said to be present. We used the SPSS macros that Preacher and Hayes provide for this procedure. In these analyses, condition (forecasters vs.

experiencers) was the independent variable, guilt or shame were the dependent variables and suppression, acceptance, and rumination were the mediators. We used bootstrapped mediation analyses with 10,000 bootstrap resamples and bias-corrected and accelerated intervals.

A first analysis demonstrated that the effect of condition on guilt was mediated by acceptance (95% CI = [−.28, −.004]) and rumination (95% CI = [−.84, −.20]), but not by suppression (95% CI = [−.14, .02]). Moreover, the significant direct effect of condition on guilt ($\beta = −.74$, $t = −4.58$, $p < .001$) was reduced to non-significance ($\beta = −.17$, $t = −1.12$, $p = .27$) when the mediators were added to the model. A second analysis demonstrated that the effect of condition on shame was also mediated by acceptance (95% CI = [−.32, −.01]) and rumination (95% CI = [−.97, −.25]), but again not by suppression (95% CI = [−.04, .09]). Moreover, the significant direct effect of condition on shame ($\beta = −.61$, $t = −3.44$, $p = .0012$) was reduced to non-significance ($\beta = .06$, $t = 0.41$, $p = .68$) when the mediators were added to the model.

Taken together, these mediation analyses indicate that the differences in forecasted and experienced guilt and shame are mediated by the differences in forecasted and employed emotion regulation (i.e. acceptance and rumination) and provide support for our third hypothesis (see Figure 1 for relevant statistics concerning the effects of condition on the mediators and the direct effects of the mediators on guilt [top panel] and shame [bottom panel]).

Discussion

Supporting our hypotheses we found that, (i) forecasters predicted to experience more guilt and shame than experiencers actually did; (ii) forecasters predicted to employ less down-regulating (i.e. less acceptance) and more up-regulating (i.e. more rumination) emotion regulation strategies than experiencers actually did; and (iii) the intensity bias in guilt and shame was mediated by these differences in emotion regulation. This indicates that forecasters overestimate their future guilt and shame because they underestimate their future use of down-regulation strategies and overestimate their future use of up-regulation strategies.

The present findings support the contention that overestimating the intensity of future emotions can be explained—at least in part—by the misprediction
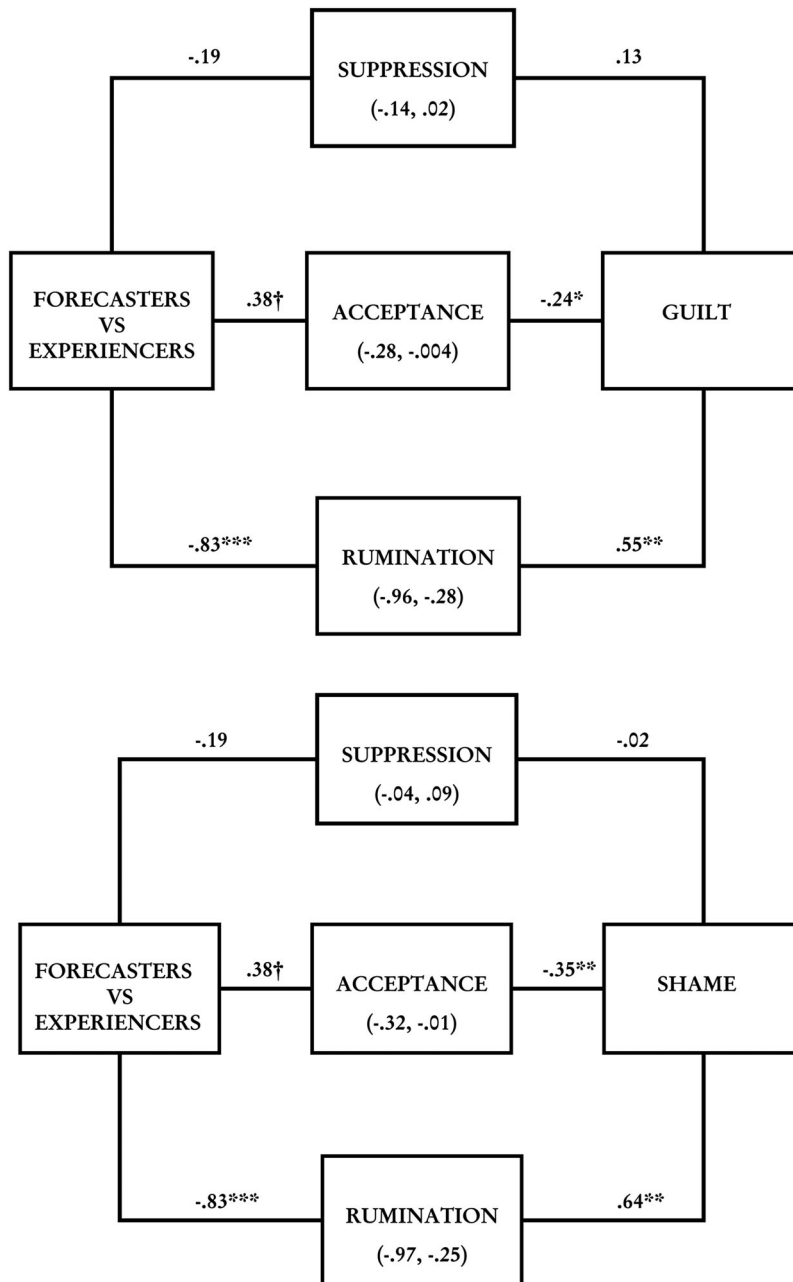
Figure 1. Bootstrapped mediation analyses with condition as independent variable, suppression, acceptance, and rumination as mediators and guilt (top panel) and shame (bottom panel) as dependent variables.
Note: Suppression, acceptance and rumination were entered simultaneously as mediators in the analyses. Numbers above the lines represent standardised beta coefficients, whereas numbers in the boxes represent 95% confidence intervals of the indirect effects. $^{†}p = .058$; $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$.

of future emotion regulation (see also, van Dijk et al., 2008; 2012; Wilson & Gilbert, 2003, 2005). In other words, people mispredict beforehand how they will cope with emotional events and this bias leads them to overestimate the intensity of future emotions. Moreover, the present findings are the first to demonstrate an intensity bias in negative self-conscious emotions.

Recently, Levine and her colleagues challenged the robustness of the intensity bias in affective forecasting (Levine et al., 2012; see for a comment, Wilson & Gilbert, 2013). They posit that many earlier demonstrations of the intensity bias are due to a methodological artefact and argue that the intensity bias is mainly due to participants' different interpretations of the forecasting and experiencing questions (i.e. they are asked to predict their emotions with specific reference to a focal event, but are later asked to report their experienced emotions without this reference). However, the present findings cannot be adequately explained by the reasoning of Levine et al. (2012), because in our research both forecasters and experiencers were explicitly asked to report their (forecasted) emotions with specific reference to a focal event. This—in addition to the use of several other stringent methodological criteria (i.e. the use of a between-participants design and the assessment of prior mood)—makes it highly unlikely that the present demonstration of the intensity bias was due to a methodological artefact.

In our view, people's failure to anticipate how various emotion regulation strategies affect their future emotions is a more powerful explanation of our present findings and likely also for other demonstrations of the intensity bias. This can, for example, explain why the intensity bias is typically larger for negative emotions than for positive emotions (e.g. Kermer, Driver-Linn, Wilson, & Gilbert, 2006; van Dijk et al., 2008). Although people are motivated to regulate any emotional event, they are especially motivated to regulate emotion-evoking events that are potentially threatening for their well-being (Wilson & Gilbert, 2003). Moreover, an explanation of the forecasting bias in terms of emotion regulation can also explain why there are individual differences in forecasting accuracy—that is, why individuals who are good in emotion management show less intensity bias (Dunn et al., 2007). Presumably, these individuals anticipate their actual emotion regulation more accurately.

Possible limitations and directions for future research

Our research provides clear support for an intensity bias in affective forecasting and the role of emotion regulation strategies therein, specifically of rumination and acceptance. Our findings are, however, less conclusive about the role of reappraisal and suppression

in participants' overestimation of their guilt and shame. Our earlier research suggested a role of reappraisal in the intensity bias (van Dijk et al., 2012), but due to the low internal consistency of the reappraisal items in the current study we could not examine this emotion regulation strategy in our hypothesis-testing analyses. Future studies could use different, preferably pre-tested, items to further examine the exact role of reappraisal in the intensity bias. Our research did not reveal any significant results concerning suppression. Why this is the case, we can only speculate. On possibility is, for example, that decreasing rumination is more effective in down-regulating guilt and shame than suppression. Both guilt and shame are negatively valenced, self-conscious emotions and both have been related to rumination (Tangney et al., 2007). It could also be the case that suppression is a form of regulation that comes relatively late in the emotion process and is particularly effective in modifying the behavioural response of emotions and perhaps less effective in attenuating the experience of emotions (Gross & John, 2003). Future research could also address these issues by examining whether certain emotion regulation processes have a stronger impact on the intensity bias than others and whether this impact differs for different specific emotions.

Conclusions and closing remarks

The present research indicates that people tend to overestimate the intensity of their future emotions because they are inaccurate in anticipating how they will cope with emotional events. Our current study is the first to demonstrate the intensity bias in guilt and shame and the first that examined the intensity bias in relation to both down- and up-regulating emotion regulation processes. The current findings advance our knowledge of affective forecasting by providing valuable insights in the role of emotion regulation in the intensity bias.

In closing, we want to remark that we do not argue that people *cannot* accurately predict their future emotions. We do, however, argue that they frequently mispredict their intensity. Sometimes people underestimate the intensity of their future emotions, but more often they overestimate their future emotions. Our present findings show—in line with earlier theorizing—that people's intensity bias can be due to their underestimation of the extent to which their emotion regulation processes help them to down-

regulate their emotions (van Dijk et al., 2008, 2012; Wilson & Gilbert, 2003, 2005). Affective forecasting inaccuracy can be regarded as an error, but ample research has shown that people are "objectively" inaccurate about a range of predictions. For example, people tend to be (unrealistically) optimistic and have (unwarranted) illusions of control, however, these errors and biases can serve important self-regulatory functions for people. People seem not to be wired psychologically to be accurate or happy, but to survive in a social world. Overestimating one's future emotions could therefore also serve a self-regulatory function (van Dijk et al., 2008; Wilson & Gilbert, 2003, 2005). For instance, it could motivate people to avoid negative events to prevent the experience of (anticipated) strong negative emotions or to approach positive events to achieve the experience of (anticipated) strong positive emotions. Thus, although turning a blind eye to our emotion regulation processes can be regarded as an error when we look in the crystal ball of our emotional lives, it is perhaps not such a grave one.

Notes

1. Because our confederate was female, we decided to include only female participants in our study.
2. Prior to their mood assessment, participants completed—as part of several different student projects—multiple questionnaires.
3. There were several missing values, these were replaced by either the mean of the whole sample (missing values on the PANAS) or the mean of condition participants were assigned to (remaining missing values).
4. Analyses conducted with the individual items separately yielded only a significant difference between conditions for the reappraisal item "Actually the task and outcome of the task are not that important". Forecasters indicated less reappraisal ($M = 3.64$, SD = 1.31) than experiencers ($M = 4.50$, SD = 1.38; $F(1, 51) = 5.25$, $p < .03$, $\eta_p^2 = .10$). However, given the psychometric difficulties with analyses of single items, this finding should be treated with caution.
5. All reported analyses were also conducted with mood as a covariate. Because these analyses yielded similar results, we only report the analyses without mood as a covariate.

Acknowledgements

Disclosure statement

References

Braams, B. R., Blechert, J., Boden, M. T., & Gross, J. J. (2012). The effects of acceptance and suppression on anticipation and receipt of painful stimulation. *Journal of Behavioral Therapy and Experimental Psychiatry*, *43*, 1014–1018.

Dunn, B. D., Billotti, D., Murphy, V., & Dalgleish, T. (2009). The consequences of effortful emotion regulation when processing distressing material: A comparison of suppression and acceptance. *Behaviour Research and Therapy*, *47*, 761–773.

Dunn, E. W., Brackett, M. A., Asthon-James, C., Schneiderman, E., & Salovey, P. (2007). On emotionally intelligent time travel: Individual differences in affective forecasting ability. *Personality and Social Psychology Bulletin*, *33*, 85–93.

Finkenauer, C., Gallucci, M., van Dijk, W. W., & Pollmann, M. (2007). Investigating the role of time in affective forecasting: Temporal influences on forecasting accuracy. *Personality and Social Psychology Bulletin*, *33*, 1152–1166.

Gilbert, D. T., Pinel, E. C., Wilson, T. D., Blumberg, S. J., & Wheatley, T. P. (1998). Immune neglect: A source of durability bias in affective forecasting. *Journal of Personality and Social Psychology*, *75*, 617–638.

Gross, J. J. (1998a). The emerging field of emotion regulation: An integrative review. *Review of General Psychology*, *2*, 271–299.

Gross, J. J. (1998b). Antecedent- and response-focused emotion regulation: Divergent consequences for experience, expression, and physiology. *Journal of Personality and Social Psychology*, *74*, 224–237.

Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, *85*, 348–362.

Hoerger, M., Quirk, S. W., Lucas, R. E., & Carr, T. H. (2009). Immune neglect in affective forecasting. *Journal of Research in Personality*, *43*, 91–94.

Kermer, D. A., Driver-Linn, E., Wilson, T. D., & Gilbert, D. T. (2006). Loss aversion is an affective forecasting error. *Psychological Science*, *17*, 649–653.

Lazarus, R. S., & Alfert, E. (1964). Short-circuiting of threat by experimentally altering cognitive appraisal. *Journal of Abnormal and Social Psychology*, *69*, 195–205.

Levine, L. J., Lench, H. C., Kaplan, R. L., & Safer, M. A. (2012). Accuracy and artifact: Reexamining the intensity bias in affective forecasting. *Journal of Personality and Social Psychology*, *103*, 585–605.

Lewis, H. B. (1971). *Shame and guilt in neurosis*. New York, NY: International University Press.

Nolen-Hoeksema, S. (1991). Responses to depression and their effects on the duration of depressive episodes. *Journal of Abnormal Psychology*, *100*, 569–582.

Nolen-Hoeksema, S., Wisco, B. E., & Lyubomirsky, S. (2008). Rethinking rumination. *Perspectives on Psychological Science*, *3*, 400–424.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*, 879–891.

Tangney, J. P., Stuewig, J., & Mashek, D. J. (2007). Moral emotions and moral behavior. *Annual Review of Psychology*, *58*, 345–372.

Tracy, J. L., & Robins, R. W. (2004). Putting the self into self-conscious emotions: A theoretical model. *Psychological Inquiry*, *15*, 103–125.

van Dijk, W. W. (2009). Affective forecasting and the impact bias in track athletics. *Journal of Social Psychology*, *149*, 243–248.

van Dijk, W. W., Finkenauer, C., & Pollmann, M. (2008). The misprediction of emotions in track athletics: Is experience the teacher of all things? *Basic and Applied Social Psychology*, *30*, 369–376.

van Dijk, W. W., van Dillen, L. F., Seip, E. C., & Rotteveel, M. (2012). Emotional time travel: Emotion regulation and the overestimation of future anger and sadness. *European Journal of Social Psychology*, *42*, 308–313.

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, *54*, 1063–1070.

Wilson, T. D., & Gilbert, D. T. (2003). Affective forecasting. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 35, pp. 345–411). New York, NY: Elsevier.

Wilson, T. D., & Gilbert, D. T. (2005). Affective forecasting. Knowing what to want. *Current Directions in Psychological Science*, *14*, 131–134.

Wilson, T. D., & Gilbert, D. T. (2013). The impact bias is alive and well. *Journal of Personality and Social Psychology*, *105*, 740–748.