Long term consequences of suppression of intrusive anxious thoughts and repressive coping

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Abstract

The current experiment employed a thought suppression paradigm to investigate whether repressors (\(N = 40\)) are more skilled in suppressing positive and anxious autobiographical thoughts than low anxious (\(N = 40\)), high anxious (\(N = 40\)), and defensive high anxious (\(N = 40\)) individuals, both immediately and over a longer time period (i.e., 7 days). Regardless of suppression instructions, repressors reported during their lab visit fewer target thoughts for their most anxious events than participants in the other three groups. However, over a 7 days period, repressors showed the highest number of intrusive thoughts about their anxious autobiographical events. Thus, our results demonstrate that repressive coping might be adaptive in the short run, but counterproductive in the long run.

Keywords: Thought suppression; Repressive coping; Intrusions; PTSD

Introduction

The concept of repression was propagated by Freud (1915/1957), who defined it on the one hand as an automatic defense mechanism banning ego-threatening memories or experiences from consciousness, and on the other hand, as an active process, including an intentional turning away (see also Erdelyi, 1990). Over the past century, many experimental studies have addressed the hypothesized features of repression, but none of them succeeded in finding solid evidence for the existence of repression as a fully automatic phenomenon (e.g., Holmes, 1990; McNally, 2003).

According to more recent interpretations, repression can best be considered as a trait, reflecting a habitual style of coping with aversive events. One of the most influential approaches to study repression as a trait was introduced by Weinberger, Schwartz, and Davidson (1979). These authors proposed a fourfold classification of individuals differentiated by their coping styles. According to their classification, individuals are said to have a repressive coping style when they are highly defensive (e.g., high score on the Marlowe–Crowne social desirability scale, MC; Crowne & Marlowe, 1960), but also low in trait anxiety (e.g., low score on the manifest...
anxiety scale (MAS); Taylor, 1953). These repressors are contrasted with low anxious (low anxiety, low defensiveness), high anxious (high anxiety, low defensiveness), and defensive high anxious (high anxiety, high defensiveness) individuals.

One recurrent research finding is that repressors’ defensive style goes hand in hand with a specific pattern of memory performance. A series of studies indicated that repressors have limited access to their childhood memories, but also to their more recent autobiographical memories. For instance, Myers and co-workers found that, relative to ‘nonrepressors’, repressors recalled significantly fewer negative autobiographical memories and took longer to retrieve such negative memories (Myers & Brewin, 1994; Myers & Derakshan, 2004). There are good reasons to believe that repressors’ coping style is not only associated with poor recall of negative autobiographical memories, but also with poor recall of experimentally presented negative material (e.g., Boden & Baumeister, 1997; Derakshan, Myers, Hansen, & O’Leary, 2004; Myers, Brewin, & Power, 1998).

In a pioneering study, Barnier, Levin, and Maher (2004) used the thought suppression paradigm (Wegner, 1994) to find out if repressors are superior to controls in intentionally suppressing emotional events from their past. The so-called ‘white bear’ studies of Wegner and colleagues (e.g., Wegner, Schneider, Carter, & White, 1987) yielded extensive evidence for the paradoxical nature of thought suppression. That is, these studies demonstrated that trying not to think about something actually increases the incidence of the unwanted target thoughts, particularly when subsequently mental control (i.e., trying to suppress a particular thought) is voluntarily given up (i.e., a post-suppression rebound). By using this paradigm, Barnier et al. (2004) investigated if repressors’ ability to strategically suppress thoughts of events from their past (proud or embarrassing events) would differ from low anxious, high anxious, and defensive high anxious individuals.

During an initial imagining period, participants were instructed to generate a recent proud or embarrassing event. Next, they were instructed either to avoid all thoughts of the target event or given permission to think of anything. Finally, in the expression period, participants were instructed to think of anything. During these periods, participants monitored their target thoughts. Results revealed that, for the proud event, all groups avoided target thoughts when instructed to suppress. However, for the emotionally negative embarrassing event, repressors reported fewer target thoughts than all other groups, even when not instructed to suppress. Moreover, irrespective of the instruction to suppress, repressors failed to show the typical post-suppression rebound effect. These findings suggest that repressors are natural suppressors, who are skilled in avoiding negative thoughts.

One could argue that some avoidance of negative or even trauma-related thoughts may be adaptive, particularly if such avoidance is used in a flexible way and not taken to an extreme (Erdelyi, 1990). When trauma-related thoughts and emotions are too overwhelming, disengaging from one’s thoughts and emotions might allow someone to gradually approach these cues. By this view, a repressive coping style may be regarded as an adaptive mechanism to deal with emotionally negative events. On the other hand, there is some evidence that avoidance of negative and trauma-related thoughts and emotions may lead to intrusive thoughts. In their dual presentation theory of posttraumatic stress disorder (PTSD; APA, 1994), Brewin, Joseph, and Dalgleish (1996) argued that individuals who prematurely inhibit the processing of an upsetting event have a tendency to display a repressive coping style. This style would promote PTSD, a condition that is far from adaptive (Rachman, 1994).

So far, no consensus has been reached about the function of avoiding versus attending to negative and trauma-related thoughts. Although a repressive coping style has been found to be related with adverse health outcomes (e.g., Burns, 2000; Myers, 2000a), no study has yet looked at the long term cognitive effects of repressive coping. Thus, it is conceivable that repressive coping is associated with immediate successful suppression (e.g., Barnier et al., 2004), but that in the long run it is contra productive in the sense that it leads to heightened levels of intrusive thoughts about negative target events. The present study aimed at investigating both short and long term effects of repressive coping on the frequency of thoughts about negative autobiographical events. Based on Barnier et al.’s (2004) study, the current experiment investigated thought suppression abilities of repressors, both for positive and negative-self referent material.

In order to relate our experiment to everyday thought control and clinical disorders (Rassin, Merckelbach, & Muris, 2000), we asked participants to recall the most positive event and the most anxious event they experienced during the last years. Unlike Barnier et al. (2004), we did not employ an embarrassing event since
it can be assumed that the use of an anxious event comes closer to repressors’ concerns. Moreover, given that emotional (especially negative) thoughts may be more difficult to avoid than neutral thoughts (e.g., Markowitz & Borton, 2002; McNally & Ricciardi, 1996), we used both positive and negative events. These self-relevant emotional autobiographical memories became the target for thought suppression. Note that this self-reference dimension is important in finding differences between repressors and nonrepressors when it concerns negative material (Myers, 2000b). Using a diary method, the long term effects of repressive coping were explored. More specifically, participants recorded the frequency of intrusions about the negative and positive events in the 7 days after the experiment.

Method

Participants

A total of 160 undergraduate students from the Maastricht University participated in this study. They were selected on the basis of their scores on the Marlowe–Crowne social desirability scale (MC; Crowne & Marlowe, 1960), and the Taylor manifest anxiety scale (TMAS; Bendig, 1956) from a pool of 409 undergraduates who completed the two scales during mass testing sessions. As outlined in Weinberger et al. (1979), participants were classified into four groups: repressors, low anxious, high anxious, and defensive high anxious groups. Tertiary splits were used to identify the four extreme scoring groups. Repressors scored 5 or under on the TMAS and 17 or over on the MC; low anxious participants scored 5 or under on the TMAS and 12 or under on the MC; high anxious participants scored 13 or over on the TMAS and 12 or under on the MC; defensive high anxious participants scored 13 or over on the TMAS and 17 or over on the MC. Unlike previous studies (e.g., Davis & Schwartz, 1987), we had no difficulties in recruiting defensive high-anxious participants, but this might have to do with the fact that our initial sample was fairly large. Each of the four groups consisted of 40 participants. There were 114 women and 46 men, with a mean age of 19.9 years (range: 18–57 years). The study was approved by the standing ethical committee of the Faculty of Psychology, Maastricht University.

Materials

During the thought monitoring tasks, target thoughts were recorded by means of a joystick button that participants had to press whenever they had intrusive thoughts about the target event. To record intrusions of the positive and negative autobiographical target events in the 7 day period following the experiment, participants were asked to use a tabular diary and to write down each intrusion’s content (e.g., Holmes, Brewin, & Hennessy, 2004).

Following Holmes et al. (2004), intrusive target thoughts were defined as ‘spontaneously occurring’ (not deliberate) memories about the positive and anxious autobiographical events. Participants were asked to carry the diary with them and record each relevant intrusion they had experienced. They were also asked to set aside a regular time each day to check whether they had completed their diary and to explicitly indicate when they had no intrusions. The total number of intrusions was calculated from the diary entries. During a follow-up session, participants were instructed, by means of a diary compliance scale, to rate to what extent they had been unable (or had forgotten) to record their intrusive memories in the diary (0 = not at all true, 10 = extremely true of me).

Procedure

Following the design of Barnier et al. (2004), the study involved two stages corresponding to the two autobiographical events. Each stage consisted of an imagining period, a suppression period, and an expression period. Autobiographical events were counterbalanced across participants so that half of them started with imagining a positive event, while the other half started with imagining an anxious event. Every participant performed the two stages of the study.
During the imagining period, participants were given 2 min to select and imagine the most positive or the most anxious event they had experienced during the last years. To encourage participants to think about these events, they were asked to write them down. Additionally, participants had to rate the valence (0 = very negative, 10 = very positive) and the clarity/vividness (0 = not at all clear/vivid, 10 = very clear/vivid) of their memory about the target event, as well as the distress (0 = not at all distressing, 10 = extremely distressing) and anxiety (0 = not at all anxious, 10 = extremely anxious) associated with it. During a subsequent suppression/non-suppression period, participants monitored their thoughts related to the autobiographical events (i.e., target thoughts) by means of a joystick during a 2 min period. Half of the subjects in each group received the instruction to suppress the target event (suppression condition) whereas the other half was told that they could think about anything, including the autobiographical target event (non-suppression condition). Next, an expression period followed during which all participants were given 2 min to think about anything, including the autobiographical target event. Throughout the suppression and expression periods, participants indicated the occurrence of each target thought by pressing the joystick. Following this, a mathematical filler task (easy addition and subtraction problems) had to be completed for a 5 min period. Subsequently, participants completed the second stage of the experiment by imagining, suppressing (or non-suppressing), and expressing the other autobiographical target event. Participants who had suppressed during the first stage of the experiment were now instructed to express the target thought and vice versa. Finally, participants were instructed in the use of the 7-day diary and in the ratings of distress and anxiety associated with the intrusions. At a 7 days follow-up session, participants returned to the lab and completed the diary compliance rating. Finally, participants were thanked and debriefed.

Results

Selected autobiographical events

A 2 (Anxiety: high versus low) × 2 (Defensiveness: high versus low) × 2 (Instruction: suppression versus non-suppression) × 2 (Valence: positive versus anxious events) Analysis of variance (ANOVA) of participants’ rating of the valence of the target events yielded a significant main effect of Valence: F(1, 152) = 91.22, p < 0.001, effect size r = 0.64. Participants rated their positive events as being very positive (M = 8.57, SD = 1.68) and their anxious events as being very negative (M = 2.31, SD = 1.15). A similar 2 × 2 × 2 × 2 ANOVA of ratings of clarity/vividness yielded non-significant results. Overall, participants rated their memories of the positive and anxious target events as being very clear and vivid (M = 9.01, SD = 1.47; M = 8.83; SD = 1.36, respectively).

A 2 (Anxiety) × 2 (Defensiveness) × 2 (Instruction) × 2 (Valence) ANOVA of participants’ rating of distress during the imagining period yielded a significant main effect of Valence, F(1, 152) = 53.21, p < 0.001, r = 0.48. A similar ANOVA of ratings of anxiety during this period also yielded a main effect of Valence, F(1, 152) = 41.21, p < 0.001, r = 0.43. In general, participants reported more distress and anxiety during the retrieval of the anxious target events (M = 5.17, SD = 1.89; M = 5.12, SD = 2.11, respectively) relative to the positive target events (M = 1.89, SD = 1.09; M = 1.01, SD = 1.07, respectively). Furthermore, since it could be feasible that repressors chose an autobiographical event that was not that negative, the valence (0 = very negative, 10 = very positive) of the memories was rated by two independent raters (inter-rater reliability for negative and positive events was 0.92 and 0.90, respectively). Univariate analyses indicated that repressors chose equally negative (in total, M = 1.89; SD = 1.01) and positive events (in total, M = 8.63; SD = 1.12) compared to the three other subgroups: all F’s < 1, ns.

In sum, all subgroups generated appropriate memories of positive and anxious events. These events differed in valence, but not in clarity and vividness. All participants reported higher levels of distress and anxiety during the imagining of the anxious target events relative to the positive target events.

Suppression period

Table 1 presents participants’ mean number of target thoughts during the suppression period for the anxious and positive events. A 2 (Anxiety) × 2 (Defensiveness) × 2 (Instruction) × 2 (Valence) ANOVA with
repeated measures on the last two factors yielded significant main effects for Anxiety, $F(1, 152) = 10.6$, $p = 0.001$, $r = 0.25$, Defensiveness, $F(1, 152) = 11.2$, $p = 0.001$, $r = 0.26$, and Instruction, $F(1, 152) = 43.0$, $p < 0.001$, $r = 0.47$, but not for Valence, $F(1, 152) = 2.2$, ns, $r = 0.11$. Furthermore, a significant interaction was found between Valence and Anxiety, $F(1, 152) = 23.4$, $p < 0.001$, $r = 0.37$, Valence and Defensiveness, $F(1, 152) = 15.9$, $p < 0.001$, $r = 0.31$, and between Anxiety and Defensiveness, $F(1, 152) = 14.8$, $p < 0.001$, $r = 0.30$. Furthermore, the critical interaction between Instruction, Anxiety, and Defensiveness was significant, $F(1, 152) = 14.9$, $p < 0.001$, $r = 0.30$.

To test the prediction that repressors are natural suppressors of negative material, who, irrespective of instructions, report fewer intrusive negative thoughts relative to the other subgroups and irrespective of instructions, we conducted follow-up $2$ (Anxiety) $\times$ $2$ (Defensiveness) $\times$ $2$ (Instruction) ANOVAs for the positive and anxious target events separately.

For the anxious events, the follow-up ANOVA yielded significant main effects for Anxiety, $F(1, 152) = 63.3$, $p < 0.001$, $r = 0.54$, Defensiveness, $F(1, 152) = 54.3$, $p < 0.001$, $r = 0.51$, and Instruction, $F(1, 152) = 87.8$, $p < 0.001$, $r = 0.61$. Also, a significant interaction was found between Instruction and Anxiety, $F(1, 152) = 11.3$, $p = 0.001$, $r = 0.26$, Instruction and Defensiveness, $F(1, 152) = 6.4$, $p = 0.012$, $r = 0.20$, and Anxiety and Defensiveness, $F(1, 152) = 61.4$, $p < 0.001$, $r = 0.54$. Furthermore, the critical interaction between Instruction, Anxiety, and Defensiveness was significant: $F(1, 152) = 4.2$, $p = 0.040$, $r = 0.16$. As expected within the thought suppression paradigm, individuals told to suppress ($M = 3.11$, SD = 1.47) reported fewer target thoughts than individuals not told to suppress ($M = 5.10$, SD = 2.43). Irrespective of instruction, repressors ($M = 1.65$, SD = 0.92) reported significantly fewer target thoughts for the anxious events than low anxious ($M = 4.88$, SD = 2.00), high anxious ($M = 4.90$, SD = 1.75), and defensive high anxious individuals ($M = 5.00$, SD = 2.04).

For the positive target event, the follow-up ANOVA yielded significant main effects for Instruction, $F(1, 152) = 12.2$, $p < 0.001$, $r = 0.27$, but not for Anxiety and Defensiveness, both $F$'s < 1.0, ns, both $r$'s < 0.03. Additionally, the critical interaction between Instruction, Anxiety, and Defensiveness failed to attain significance: $F(1, 152) = 0.13$, ns, $r = 0.03$. Again, as expected in this paradigm, individuals told to suppress ($M = 3.18$, SD = 2.09) reported fewer target thoughts than individuals not told to suppress ($M = 4.51$, SD = 2.65). Irrespective of instruction, repressors ($M = 3.65$, SD = 2.36) reported the same amount of target thoughts for the positive events compared to low anxious ($M = 4.08$, SD = 2.98), high anxious ($M = 3.75$, SD = 1.49), and defensive high anxious individuals ($M = 3.90$, SD = 2.84).

**Post-suppression rebound effect**

Post-suppression data for the 4 groups are shown in Table 2. A rebound effect is defined as an increase in the frequency of target thoughts from the suppression to the expression period. Hence, positive values indicate

<table>
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<th>Instruction</th>
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<tr>
<td><strong>Anxious event</strong></td>
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<tr>
<td>Repressors</td>
<td>1.51 (0.83)</td>
<td>1.81 (1.01)</td>
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<tr>
<td>Low anxious</td>
<td>3.76 (0.85)</td>
<td>6.02 (2.20)</td>
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<td>High anxious</td>
<td>3.52 (1.10)</td>
<td>6.31 (0.98)</td>
</tr>
<tr>
<td>Defensive high anxious</td>
<td>3.73 (1.63)</td>
<td>6.33 (1.53)</td>
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<td><strong>Positive event</strong></td>
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<td>Repressors</td>
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<td>4.26 (2.55)</td>
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<tr>
<td>Low anxious</td>
<td>3.33 (2.60)</td>
<td>4.87 (3.20)</td>
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<tr>
<td>High anxious</td>
<td>3.16 (1.39)</td>
<td>4.35 (1.39)</td>
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<tr>
<td>Defensive high anxious</td>
<td>3.22 (2.29)</td>
<td>4.60 (3.22)</td>
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an increase in frequency of target thoughts across these periods. A 2 (Anxiety) × 2 (Defensiveness) × 2 (Instruction) ANOVA with repeated measures on the last two factors yielded significant main effects for Instruction, \(F(1, 152) = 12.2, p<0.001, r = 0.27\), but not for Valence, \(F(1, 152) = 0.82, ns, r = 0.07\). We also found a significant interaction between Valence and Defensiveness, \(F(1, 152) = 4.06, p = 0.04, r = 0.16\), as well as a borderline significant interaction between Anxiety and Defensiveness, \(F(1, 152) = 3.02, p = 0.08, r = 0.14\). All other interactions remained non-significant, all \(F(1, 152)<1.0, all p's>0.22\).

A follow-up ANOVA performed on the rebound effect for the anxious target events yielded significant main effects for Anxiety, \(F(1, 152) = 7.7, p = 0.006, r = 0.22\), Defensiveness, \(F(1, 152) = 9.8, p = 0.002, r = 0.25\), and Instruction, \(F(1, 152) = 4.4, p = 0.040, r = 0.19\). As can be seen in Table 2, the latter reflects an overall rebound effect. However, the interaction between Instruction, Anxiety, and Defensiveness fell short of significance: \(F(1, 152) < 1, ns, r = 0.04\). Individuals told to suppress (\(M = 2.94, SD = 3.00\)) showed a larger increase in the frequency of target thoughts from the suppression to the expression period than individuals not told to suppress (\(M = 1.95, SD = 3.39\)). Irrespective of initial instructions, repressors exhibited a significantly smaller post-suppression rebound effect (\(M = 0.35, SD = 1.85\)) than low anxious (\(M = 3.23, SD = 3.04\)), high anxious (\(M = 3.15, SD = 3.53\)), and defensive high anxious individuals (\(M = 3.05, SD = 3.39\)).

A different pattern was found for positive autobiographical target events. Here, the follow-up ANOVA also yielded a significant main effect for Instruction, \(F(1, 152) = 8.6, p<0.005, r = 0.23\), again reflecting an overall rebound effect. The Anxiety and Defensiveness factors fell short of significance: both \(F's<1.0, ns, both r's<0.01\). Neither was there a significant interaction between Instruction, Anxiety, and Defensiveness, \(F(1, 152) = 0.06, ns, r = 0.01\). Irrespective of instructions, repressors (\(M = 2.10, SD = 4.67\)) showed a similar rebound effect for the positive events as low anxious (\(M = 2.07, SD = 3.32\)), high anxious (\(M = 2.00, SD = 4.82\)), and defensive high anxious individuals (\(M = 2.18, SD = 4.05\)).

### Intrusions during the 7 days period

All participants rated their compliance concerning the completion of their diary. A 2 (Anxiety) × 2 (Defensiveness) ANOVA on participants’ compliance ratings yielded nonsignificant results, \(F's<1.0, ns, r's<0.10\). The overall mean rating for diary compliance was 1.86 (SD = 1.94), indicating that participants believed they had recorded most of their intrusions.

A 2 (Anxiety) × 2 (Defensiveness) × 2 (Instruction) ANOVA of participants’ rating of distress during the 7 days period yielded significant main effects of Anxiety, \(F(1, 152) = 16.2, p<0.001, r = 0.27\), Defensiveness, \(F(1, 152) = 17.3, p<0.001, r = 0.30\), and Valence, \(F(1, 152) = 43.11, p<0.001, r = 0.45\). Moreover, a significant interaction effect was found between Valence, Anxiety, and Defensiveness, \(F(1, 152) = 16.9, p<0.001, r = 0.29\). A similar ANOVA of ratings of anxiety during this period yielded
main effects of Anxiety, \(F(1, 152) = 19.1, p<0.001, r = 0.33\), Defensiveness, \(F(1, 152) = 16.1, p<0.001, r = 0.28\), and Valence, \(F(1, 152) = 46.10, p<0.001, r = 0.48\). Also, a significant interaction effect was found between Valence and Anxiety, \(F(1, 152) = 14.7, p<0.001, r = 0.30\), and between Valence, Anxiety, and Defensiveness, \(F(1, 152) = 17.3, p<0.001, r = 0.32\).

In general, repressors reported more distress and anxiety when having intrusions of the anxious target events (\(M = 8.56, SD = 1.79; M = 8.66, SD = 1.11\), respectively) than low anxious (\(M = 5.13, SD = 1.79; M = 5.11, SD = 2.31\), respectively), high anxious (\(M = 5.17, SD = 1.79; M = 4.99, SD = 2.11\), respectively), and defensive high anxious individuals (\(M = 5.22, SD = 1.13; M = 5.12, SD = 2.01\), respectively). For the positive events, intrusions were equally rated in distress and anxiety across the four subgroups (in total, \(M = 1.73, SD = 1.01; M = 1.00, SD = 1.03\)).

Table 3 gives the mean frequencies of intrusions about the positive and anxious target events. A 2 (Anxiety) \(\times\) 2 (Defensiveness) \(\times\) 2 (Instruction) ANOVA with repeated measures on the last two factors yielded significant main effects for Anxiety, \(F(1, 152) = 7.19, p = 0.008, r = 0.21\), Defensiveness, \(F(1, 152) = 7.99, p = 0.005, r = 0.22\), Instruction, \(F(1, 152) = 3.9, p = 0.040, r = 0.15\), and Valence, \(F(1, 152) = 173.4, p<0.001, r = 0.73\). We also found significant interactions between Valence and Anxiety, \(F(1, 152) = 12.7, p<0.001, r = 0.28\), Valence and Defensiveness, \(F(1, 152) = 12.3, p<0.001, r = 0.27\), Anxiety and Defensiveness, \(F(1, 152) = 6.94, p = 0.009, r = 0.21\), and Valence, Anxiety, and Defensiveness, \(F(1, 152) = 12.99, p<0.001, r = 0.28\).

To test whether repressors, irrespective of instruction, would show avoidance of their anxious events in the 7 days following the experimental manipulation, follow-up 2 (Anxiety) \(\times\) 2 (Defensiveness) \(\times\) 2 (Instruction) ANOVAs for the positive and anxious target events were conducted separately.

For the anxious targets, the follow-up ANOVA yielded significant main effects for Anxiety, \(F(1, 152) = 13.2, p<0.001, r = 0.28\), Defensiveness, \(F(1, 152) = 13.6, p<0.001, r = 0.29\), and Instruction, \(F(1, 152) = 3.4, p = 0.050, r = 0.15\). As can be seen in Table 3, the latter effect reflects an overall long-term rebound effect. Moreover, the interaction between Anxiety and Defensiveness was significant, \(F(1, 152) = 13.2, p<0.001, r = 0.28\).

Regardless of instructions, repressors (\(M = 8.12, SD = 2.09\)) reported significantly more intrusions for the anxious events than low anxious (\(M = 4.85, SD = 2.51\)), high anxious (\(M = 4.85, SD = 3.90\)), and defensive high anxious individuals (\(M = 4.88, SD = 2.49\)). Overall, the majority of the intrusions (69%) were experienced during the first three days after the test session. The range of the intrusions was 0–12.

For the positive event, the follow-up ANOVA yielded nonsignificant effects for Anxiety, \(F(1, 152) = 0.71, ns, r = 0.07\), Defensiveness, \(F(1, 152) = 0.43, ns, r = 0.05\), and Instruction, \(F(1, 152) = 0.22, ns, r = 0.03\). Thus, for positive target events, there was no overall long-term rebound effect. Repressors (\(M = 1.93, SD = 2.01\)) did not differ significantly from low anxious (\(M = 2.35, SD = 1.81\)), high anxious (\(M = 2.32, SD = 1.59\)), and defensive high anxious individuals (\(M = 2.40, SD = 1.17\)) in terms of the frequency of

<table>
<thead>
<tr>
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<tr>
<td>Mean frequency (and standard deviations) of intrusions over 7 days for anxious and positive autobiographical target events</td>
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</tr>
<tr>
<td>Defensive high anxious</td>
<td>5.42 (1.90)</td>
<td>4.34 (2.92)</td>
</tr>
<tr>
<td><strong>Positive event</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repressors</td>
<td>2.05 (2.18)</td>
<td>1.80 (1.85)</td>
</tr>
<tr>
<td>Low anxious</td>
<td>2.46 (1.82)</td>
<td>2.27 (1.83)</td>
</tr>
<tr>
<td>High anxious</td>
<td>2.52 (1.76)</td>
<td>2.16 (1.42)</td>
</tr>
<tr>
<td>Defensive high anxious</td>
<td>2.33 (1.74)</td>
<td>2.56 (1.19)</td>
</tr>
</tbody>
</table>
intrusions for the positive autobiographical target events. Again, overall, the majority of the intrusions (64%) were experienced during the first three days after the test session. The range of the intrusions was 0–7.

Discussion

The aim of the present study was to examine whether repressors are more successful at suppressing anxious autobiographical events than are low anxious, high anxious or defensive high anxious individuals. Moreover, this was the first study to explore whether repressors would show fewer intrusive thoughts about these target events in everyday life, over a period of 7 days. Replicating findings from Barnier et al. (2004), we found that for the negative autobiographical events (in our case, their most anxious event), repressors reported the lowest number of target thoughts during the suppression period. This low frequency of negative target intrusions was independent of instructions to suppress or express, suggesting that repressors rely on suppression as a habitual coping style to handle short-term negative intrusions (Myers, 2000b). However, for the positive event, repressors exhibited a similar pattern of target intrusions as the other subgroups. Here, repressors only suppressed thoughts about the positive target events when instructed to do so. Contrary to Barnier et al. (2004), we did find a robust post-suppression rebound effect. That is, overall, participants reported more target thoughts about positive and anxious autobiographical targets from the suppression period to the expression period when they previously had been instructed to suppress these thoughts. It seems like the phenomenon of rebound can be variable, particularly for emotional material. With their instruction-independent low frequency of negative intrusions throughout all experimental stages, the group of repressors was the only exception to this pattern. The question arises whether this group’s low frequency of negative target intrusions during the experiment reflects genuine avoidance or unwillingness to report. The post-experimental (i.e., diary) data clearly argue against an interpretation in terms of unwillingness to report. That is, the post-experimental diary data indicated that, relative to the other three subgroups, repressors had the highest frequency of intrusive thoughts about their anxious autobiographical events. For the positive targets, all subgroups reported similar frequencies of intrusions. Also, it can be questioned whether the findings should be seen in the light of repressors’ choice for the anxious autobiographical events. It is possible that repressors initially chose an anxious event that they often thought of, but perhaps knew was controllable and hence associated with low levels of distress. Therefore, during the suppression task they would be able to control it easily, but during the 7 days they would return to thinking about it at the same rate as before it was subject to suppression. However, the evaluation of the emotionality of the chosen events by independent raters, as well as the heightened subjective distress and anxiety reported by the repressors during the 7 days period exclude this alternative.

Our results strongly suggest that repressive coping is a strategic style in the sense that it differentiates between negative and positive target intrusions. For positive targets we found, even in repressors, the typical rebound effect (i.e., low frequency of targets during suppression; heightened frequency during subsequent expression; Wegner, 1994). However, for negative targets, repressive coping seemed to overrule the rebound effect in the sense that repressors kept their intrusions throughout the experimental stages uniformly low. These findings support a connection between a repressive coping style and the avoidance of negative material. After all, a growing body of research indicates that repressors are extremely self-protective (e.g., Furnham & Traynar, 1999; Mendolia, Moore, & Tesser, 1996).

Meanwhile, it is difficult to argue on the basis of the current data that repressive coping is an adaptive strategy. While some authors (e.g., Tomarken & Keener, 1998) have conceptualized repressive coping as a trait that protects against psychopathology, others (Myers & Brewin, 1994; Myers et al., 1998) have stressed repressors’ deficit in retrieving negative autobiographical memories, and, accordingly, their vulnerability to certain forms of psychopathology.

Given that in our study, over a period of 7 days, repressors reported the highest frequency of intrusive thoughts about anxious target events recalled during the first session, we tend to agree with those authors who doubt whether a repressive coping style can be seen as an adaptive coping strategy for dealing with emotionally negative events. The most parsimonious interpretation of our data is that repressive coping enables individuals to avoid negative and trauma-related thoughts in the short run, but in the long run, repressive coping leads to intrusive thoughts about these negative targets. Note that such interpretation nicely
fits with work showing that in samples of traumatized individuals both intrusions about the trauma and avoidance of trauma cues predict so-called overgeneral memories, i.e., the tendency to describe autobiographical memories in a rather global way (Wessel, Merckelbach, & Dekkers, 2002; Kuyken & Brewin, 1995). More generally, our results can be linked to Brewin et al.’s (1996) dual presentation theory, which assumes that a repressive coping style may promote the development of PTSD symptoms because individuals with this style have a tendency to prematurely inhibit processing of the traumatic event. Although Palyo and Beck (2005) failed to find evidence for a link between repressive coping and PTSD, our data suggest that this issue warrants further study.

A methodological feature of the current study deserves some comment. That is, our study relied on what might be regarded as a relatively homogenous sample, namely undergraduates. Although numerous studies on repressive coping have used undergraduate students, it remains to be seen whether the immediate and long-term consequences of repressive coping found in this sample can be generalized to other populations.

Summing up, this study highlights important differences in how individuals handle emotionally negative autobiographical memories. Our results are in line with earlier findings suggesting that repressors are able to inhibit negative self-referent material, at least in the short run. To our knowledge, this is the first study indicating that in the long run, repressors suffer from intrusions related to anxious autobiographical events. Future studies may focus on this paradoxical characteristic of repressive coping in and outside the laboratory, and examine whether repressive coping is a risk factor for PTSD.

References


