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Repressive Coping, Emotional Adjustment, and Cognition in People Who Have Lost Loved Ones to Suicide

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Research indicates that a repressive coping style is psychologically protective against the stress of trauma, yet it is unclear whether this finding generalizes to suicide bereavement. Thus, we assessed cognitive ability and mental health among individuals who lost a loved one to suicide. The results indicate that repressive coping may be associated with greater emotional health during suicide bereavement. Interestingly, "repressors" also had lower scores on both cognitive tasks compared to "nonrepressors," but it is unclear whether their more recent loss accounts for this difference. These results are based on cross-sectional data, and should be interpreted with caution.

In the United States, 30,000 people die by suicide every year (National Vital Statistics Report, 2007). Although this attests to the prevalence of suicide, the number of people affected by suicide grows dramatically when we consider those left behind in its wake. Despite the large number of people who have lost a loved one to suicide, a group commonly referred to as survivors of suicide, investigators have primarily focused on suicidal behavior and risk factors for suicide. Accordingly, survivors of suicide have been seldom studied.

Losing a loved one to suicide is potentially traumatic. It is outside the realm of normal experience, it is shocking, and it can involve witnessing the death of a loved one. Survivors may experience considerable guilt, which predicts the development of posttraumatic stress disorder (PTSD) above and beyond other predictors of posttraumatic stress (e.g., McNally, 2003, p. 85). Kaltman and Bonanno (2003) noted that violent, self-inflicted death may heighten risk for PTSD among survivors, thereby increasing the severity of the grief course, trigger depression, and increase intrusive thoughts that sufferers may attempt to suppress. People cope in various ways, some of which may be more emotionally constructive compared to others, and one's coping response and emotional reactions to loss can affect long-term adjustment. Therefore, researchers need to identify variables that differentiate survivors who cope adaptively versus those who do not. One such variable may be the repressive coping style.

WHAT IS REPRESSIVE COPING?

The repressive coping style is defined by a combination of low scores on a measure of trait anxiety, most often the Taylor Manifest Anxiety Scale (MAS; Bendig, 1956) and high scores on the Marlowe-Crowne Scale (MC), a measure of defensiveness (Wein-

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berger, Schwartz,& Davidson, 1979). "Repressors" are distinguishable from individuals classified as "true low-anxious" (low trait anxiety and low MC scores); "high anxious" (high trait anxiety and low MC scores); and "defensive high anxious" (high trait anxiety and high MC scores). Some researchers believe that repressors tend to deny emotional disturbance despite evidence to the contrary, and tend to direct their attention away from threat-related information (Derakshan & Eysenck, 1997; Weinberger, 1990).

The Relationship Between Repressive Coping, Cognition, and Adjustment After Loss

Psychologists have endeavored to determine whether repressor coping either impedes or fosters emotional and cognitive health. According to Eysenck and Calvo (1992), highly trait anxious individuals worry more about their performance on a task than do those with low trait anxiety, and worry consumes working memory capacity and impairs performance on difficult tasks. Repressors perform indistinguishably from low anxious participants on demanding working memory tasks (Derakshan & Eysenck, 1998), thereby suggesting that repressive coping preserves cognitive capacity under stress.

Repressive coping may protect individuals from adverse emotional consequences in the wake of extremely stressful events. Ginzburg, Solomon, and Bleich (2002) found that repressors were less likely to develop PTSD after a heart attack than were those who did not use a repressive coping style. This effect was independent of the heart attack's severity or the patient's perception of life threat. Moreover, Bonanno, Znoj, Siddique, and Horowitz (1999) found that people who exhibited verbal-autonomic dissociation, a pattern of response characterized by low self-reported negative affect, and high physiologic arousal, showed few grief symptoms at the time of testing and at long-term follow-up. Autonomic dissociation is very similar to Weinberger et al.'s (1979) conceptualization of repressive coping in that both processes involve a disconnect between direct measures of affect (i.e., self-report) and more subtle, indirect measures (i.e., physiologic arousal, measure of defensiveness). Therefore, in the event of a traumatic loss, it may be emotionally adaptive to use a repressive coping style.

In a separate line of research, Brewin and Beaton (2002) found that working memory capacity is associated with higher intelligence, and with the occurrence of fewer intrusive thoughts, a symptom of PTSD. Moreover, high levels of intelligence are associated with diminished likelihood of developing PTSD in Vietnam veterans (Macklin et al., 1998).

Investigators have conducted lines of research on repressive coping and emotional and cognitive functioning separately, which is why the relationship between repressive coping, cognitive ability, and emotional adjustment is still unclear. To the best of the authors' knowledge, indicators of both cognitive capacity (e.g., working memory, intelligence) and emotional well-being have not been assessed in repressors who have experienced a trauma. In light of the relationship between mental health, working memory, intelligence, and repressive coping to PTSD, it is worthwhile to examine how these factors interrelate in the wake of a trauma.

More specifically, we do not know whether a repressive coping style is adaptive in suicide bereavement. Given that the loss of a loved one to suicide is potentially traumatic, the aforementioned research on repressive coping, adjustment, cognition, and trauma is highly relevant to suicide bereavement. If repressive coping can be adaptive, then it is important to determine whether it is helpful for individuals who have lost a loved one to suicide.

In this research, we recruited individuals who lost a loved one to suicide and examined variables distinguishing individuals who use a repressive coping style from those who do not. Our aim was to determine whether repressive coping is associated with milder grief, less severe symptoms of psychopathology and distress (e.g., depression, PTSD) higher cognitive functioning (i.e., intelli-

gence and working memory), and more adaptive coping relative to those who do not engage in repressive coping.

In accordance with findings from the literature, we predicted that repressors, relative to nonrepressors, should have greater working memory capacity and intelligence, would report less need to suppress intrusive thoughts, would exhibit less severe psychological symptoms and grief, and would employ more adaptive behavioral coping. Behavioral coping is distinct from repressive coping; the latter refers to a disposition (i.e., trait-like) active across diverse situations, whereas the former refers to coping attempts in a specific situation that may not be employed in other types of situations (e.g., someone may drink alcohol more to cope with the loss of a loved one, but they may not do that in response to stress at work).

METHOD

Participants

Fifty-three individuals who had lost a loved one to suicide participated. Participants included those who lost a spouse, a first-degree relative, a second-degree relative, or a friend. Although this diminishes the homogeneity of our sample, there is very little research in this area and we wanted to investigate loss to suicide more broadly, across different types of relationships (e.g., parent, child, spouse, sibling).

To recruit participants, we ran an advertisement in Craig's List, a web site for soliciting research participants. The majority of our sample (approximately 85%) was recruited through this method. We also recruited participants via letters of introduction to facilitators of support groups for people who have lost a loved one to suicide.

After all participants completed the study, we divided them into a repressor group and a nonrepressor group with two measures. The MC (Crowne & Marlowe, 1960) is a valid and reliable, true-false, 33-item scale measuring defensiveness (e.g., Crowne & Marlowe, 1964; Davis & Cowles, 1989). The items pertain to common human frailties and to uncommon positive traits. For example, the item "I have never intensely disliked anyone" is false for most people. A defensive person would feel reluctant even to admit mild shortcomings. The short form of the MAS (Bendig, 1956) is a 20-item, reliable, valid measure of anxiety-proneness.

Repressor and Nonrepressor Groups. Twenty-three individuals qualified for the repressor group. In accordance with Myers, Brewin, and Power's (1998) protocol, those who scored 8 or below on the MAS and 17 or above on the MC qualified as repressors. We excluded seven borderline repressors, defined as those who scored 10 or below on the MAS and 14 or above on the MC. Thirty individuals who were neither repressors nor borderline repressors qualified as nonrepressors.

Procedure and Apparatus

Participants first performed two cognitive tasks, then they completed a battery of questionnaires, which was followed by a 1-hour interview pertaining to their loved one's suicide and how the experience affected their lives. They received an honorarium of $60.

Questionnaires

To diagnose PTSD, the first author used the Posttraumatic Symptom Scale (PSS; Foa & Tolin, 2000), a semistructured interview with good reliability and validity that is designed to assess for the presence and frequency of posttraumatic stress symptoms and is divided into three sections based on symptom presentation (i.e., re-experiencing symptoms, avoidance, and arousal). We used the Center for Epidemiologic Studies Depression Scale (CES-D) to assess symptoms of depression (Radloff, 1977). The CES-D is a valid measure (e.g., O'Rourke, 2005) that differentiates between depressed and nondepressed individuals in community samples and requires them to state how often they experienced specific symptoms during the previous week. We used the Grief Experience

Questionnaire (GEQ) to assess grief severity (Barrett & Scott, 1989). It is a widely used, 55-item measure of different types of potential grief experiences after a loved one's suicide, such as feelings of responsibility, self-destructive behavior, general grief experiences (e.g., feeling too upset to make it through another day), and somatic reactions (e.g., Harwood, Hawton, Hope, & Jacoby, 2002). The Ways of Coping Questionnaire (Folkman & Lazarus, 1988) is a valid, reliable measure (e.g., Knussen, Sloper, Cunningham, & Turner, 1992) that contains eight subscales what assess different methods of coping (e.g., escape and avoidance coping, planful problem solving, distancing). Participants completed the coping subscales with regard to the suicide. The 15-item White Bear Suppression Inventory (Wegner & Zanakos, 1994) is a widely used, highly reliable and valid measure of the desire to suppress intrusive thoughts. Participants indicate the degree to which each item applies to them, ranging from *strongly disagree* to *strongly agree*.

Cognitive Tasks

Participants completed the Shipley Institute of Living Scale (Zachary, 1991), a measure of cognitive ability consisting of a verbal section and a nonverbal section. Individuals are allowed 10 minutes to complete each part, and the test manual enables conversion of scores to estimates of full-scale IQ. Participants also performed a two-back version of the Continuous Performance Test (CPT), a measure of working memory (Gray, 2001), which we administered on a MacIntosh laptop computer. The task involves a series of 10 black letters (i.e., b, c, d, f, g, h, j, k, l, m). In each trial, several copies of a particular letter (e.g., cccccc) are presented, and a different letter is shown for every trial (e.g., c for the first trial, k for the second trial, d for the third trial, etc.). The letters appear inside a white square, which appears in six different locations against a background of other mixed-up letters. For a given trial, each white square appears once for 500 milliseconds against the background of letters, and then the background of letters remains on the screen for 2,500 milliseconds after the square disappears. Participants must decide whether a current stimulus is the same as a stimulus that appeared two trials before. We administered a spatial and verbal version of the task to assess these modalities of working memory separately. The presentation of each version of the task was identical; only the instructions differed. Prior to each task, participants completed a practice trial, and we presented both oral and written instructions. Thirty percent of the trials in each task were targets (i.e., the current stimulus was the same as the stimulus presented two trials before), and 70% were nontargets (i.e., the current stimulus was not the same as the stimulus presented two trials before). We presented 12 trials of 10 boxes (a total of 120 trials) for each version of the task.

Spatial CPT. We instructed participants to decide whether the white box they were currently viewing was in the same location as the box they saw two trials ago. We told them to ignore the letter in the white box and attend only to the location of the box. Participants pressed "S" if the current box was in the same location on the screen as the box presented two trials before. They pressed "D" if the location of the current box was different from that of the box viewed two trials before. If the participant did not respond within 3 seconds, then the next trial was presented and the missed trial was scored as an incorrect response.

Verbal CPT. For the verbal CPT task, we told participants to decide whether the letter in the white box was the same letter they saw two trials previously. We instructed them to ignore the location of the box and to attend only to the letter inside the box. Participants pressed "S" if the letter in the box and the letter presented two trials before were the same, and they pressed "D" if the letter in the current box was different from the letter viewed two trials before.

Interview

The interview, designed by the first author, involved asking participants about their

loss and how it has affected their lives. For this article, we describe results concerning their attachment to the deceased, rated on a scale ranging from 1 (*not at all close*) to 10 (*extremely close*).

RESULTS

Participant Characteristics

The repressor group and the nonrepressor group did not differ by participant sex (repressor group = 35% male, 65% female; nonrepressor group = 27% male, 73% female) (χ^2 (1) = .41, p = .52); current age (repressors: M = 41, SD = 11.41; nonrepressors: M = 35.67, SD = 13.21; t(51) = 1.54, p = .13); occupation (χ^2 (4) = 4.52, p = .34); education (χ^2 (4) = 1.28, p = .87); ethnicity (χ^2 (3) = 2.85, p = .42); religion (χ^2 (4) = 7.57, p = .11); the sex of the deceased (repressor group = 70% males, 30% females; nonrepressor group = 70% males, 30% females) (χ^2 (1) = .001, p = .97); or the age of the deceased (repressors: M = 39.89, SD = 19.22; nonrepressors: M = 37.24, SD = 16.86; t(51) = .53, p = .56). The groups also did not differ across method of suicide (χ^2 (9) = 7.49, p = .59), the manner of discovery of the suicide (χ^2 (9) = 5.70, p = .77) or the relationship to the deceased (repressor group = 70% first-degree relative, 9% second-degree relative, 13% close friend, 9% lost more than one person; nonrepressor group = 57% first-degree relative, 30% second-degree relative, 7% close friend, 7% lost more than one person) (χ^2 (3) = 3.83, p = .28). Moreover, the degree of attachment to the deceased, as measured on a 1 (*not close at all*) to 10 (*extremely close*) scale did not differ between repressors (M = 7.3, SD = 2.5) and nonrepressors (M = 6.5, SD = 2.8), t(50) = 1.1, p = .26. However, significantly fewer repressors (40%) were single than were nonrepressors (70%), and significantly more repressors were widowed (17%) relative to nonrepressors (0%). Repressors (M = 36.2, SD = 13.3) were also older than were nonrepressors (M = 23.7, SD = 14.0) at the time they discovered the suicide, t(51) = 3.3, p = .002. Although it is possible that the age discrepancy may affect the results, this interpretation is unlikely because the age of an adult who has lost a loved one does not seem to affect the duration of grief (Nelson, 2001). Finally, the suicide was more recent for repressors (M = 4.8 years, SD = 5.6 years) than it was for nonrepressors (M = 12.9 years, SD = 12.0 years), t(43.3) = 3.2, p = .002.

Measures

Depression. Repressors (M = 9.7, SD = 6.5) were less depressed compared to nonrepressors (M = 20.5, SD = 11.6), t(47.2) = 4.3, p = .001, r = .53.

Posttraumatic Stress Disorder. There was no difference between the groups in severity of PTSD symptoms (repressors: M = 4.9, SD = 6.6; nonrepressors: M = 6.7, SD = 8.5; t(51) = .72, p = .24, r = .10). They also did not differ on the severity of PTSD reexperiencing symptoms (repressors: M = 1.4, SD = 2.0; nonrepressors: M = 1.8, SD = 2.6; t(51) = .68, p = .25, r = .09), avoidance symptoms (repressors: M = 2.2, SD = 2.9; nonrepressors: M = 2.9, SD = 3.9; t(51) = .74, p = .23, r = .10), or arousal symptoms (repressors: M = 1.3, SD = 2.9; nonrepressors: M = 1.8, SD = 2.7; t(51) = .60, p = .27, r = .08).

Grief. Contrary to expectation, the repressors had neither a lower total score on the GEQ, nor did they score lower than did nonrepressors on most subscales of the GEQ, including search for explanation, loss of support, stigmatization, guilt, responsibility, shame, rejection, self- destructive behavior, and unique reactions. Repressors did, however, score lower relative to nonrepressors on both the somatic reactions subscale and the general grief reactions subscale (Table 1).

Coping Styles. On the Ways of Coping Scale, repressors did not differ from nonrepressors on confrontive coping, distancing, self-controlling, seeking social support, accepting responsibility, or positive reappraisal. However, repressors scored lower than did nonrepressors on the escape avoidance subscale, and higher on the planful problem solving subscale (Table 2).

TABLE 1
Mean Scores on the Grief Experience Questionnaire (GEQ) for Repressors and Nonrepressors (1-tailed)

	Group									
	Repressor			Nonrepressor						
Grief Domains	*M*	*SD*	*n*	*M*	*SD*	*n*	*t*	*df*	*p*	*r*
Somatic Reactions	11.13	2.90	23	13.10	3.36	30	**2.24**	51	**.01**	**.30**
General Grief Reactions	13.35	2.71	23	15.70	4.27	30	**2.31**	51	**.01**	**.31**
Search for Explanation	15.22	3.50	23	16.17	4.92	30	.82	50.77	.21	.11
Loss of Support	11.26	4.53	23	13.03	5.82	30	1.21	51	.12	.17
Stigmatization	12.57	4.76	23	12.93	5.11	30	.27	51	.40	.04
Guilt	13.35	5.23	23	15.47	5.27	30	1.46	51	.08	.20
Responsibility	11.57	5.10	23	11.43	4.85	30	.10	51	.46	.01
Shame	13.87	3.95	23	13.97	5.54	30	.07	51	.47	.01
Rejection	12.48	5.18	23	14.35	5.01	30	1.33	51	.10	.18
Self-Destructive Behavior	9.09	2.29	23	9.73	4.18	30	.67	51	.25	.09
Unique Reactions	13.83	3.31	23	13.83	3.41	30	.01	51	.50	.001
Total GEQ	137.70	29.54	23	149.72	29.46	30	1.47	51	.07	.20

Note. r = effect size
Significant t tests, p values, and effect sizes in bold.

Thought Suppression. Repressors (M = 43.1, SD = 11.8) scored lower on the White Bear Thought Suppression Inventory relative to nonrepressors (M = 51.7, SD = 11.3), $t(51) = 2.7$, $p < .01$, $r = .35$.

Shipley Institute of Living Scale—WAIS-R Conversion. We converted the Shipley scores to full-scale IQ estimates. Contrary to our prediction, repressors (M = 106.7, SD = 8.1) had significantly lower IQ scores relative to nonrepressors (M = 111.7, SD = 7.3), $t(48) = 2.28$, $p = .01$, $r = .31$.

Working Memory. We hypothesized that repressors, relative to nonrepressors, would have more correct responses on the verbal and spatial CPTs. Analyses revealed

TABLE 2
Mean Proportion of Coping Styles Used by Repressors and Nonrepressors (1-tailed)

	Group									
	Repressor			Nonrepressor						
Coping Style	*M*	*SD*	*n*	*M*	*SD*	*n*	*t*	*df*	*p*	*r*
Confrontive Coping	.10	.04	23	.09	.05	30	.24	51	.41	.03
Distancing	.07	.05	23	.09	.08	30	1.47	51	.07	.20
Self-Controlling	.14	.06	23	.15	.08	30	.39	51	.35	.05
Seeking Social Support	.23	.08	23	.20	.10	30	1.30	51	.10	.18
Accepting Responsibility	.05	.05	23	.07	.07	30	1.08	51	.14	.15
Escape Avoidance	.10	.05	23	.13	.06	30	**2.03**	51	**.02**	**.27**
Planful Problem Solving	.14	.10	23	.10	.05	30	**1.93**	51	**.03**	**.26**
Positive Reappraisal	.17	.07	23	.16	.06	30	.55	51	.29	.08

Note r = effect size
Significant t tests, p values, and effect sizes in bold.

that repressors and nonrepressors performed differently on the verbal CPT, although the difference was opposite of the predicted direction. Repressors ($M = 73.9$, $SD = 19.0$) made fewer correct responses than did nonrepressors ($M = 83.0$, $SD = 8.8$), $t(49) = 2.26$, $p < .01$, $r = .31$. Repressors ($M = 69.0$, $SD = 31.0$) also made fewer correct responses than did nonrepressors ($M = 77.6$, $SD = 22.4$) on the spatial CPT, but this difference only approached significance, $t(47) = 1.64$, $p > .05$, $r = .23$).

Additional Analyses

First, we examined the relationship between Marlowe-Crowne scores and coping in more detail to determine whether that particular scale is associated with avoidance or positive re-framing of the loss. Analyses revealed that Marlowe-Crowne scores were negatively related to the escape and avoidance subscale, $r = -.34$, $p < .01$, and positively correlated with the positive reappraisal subscale of the Ways of Coping Questionnaire, $r = .28$, $p = .04$, which indicates that an elevated Marlowe-Crowne score is associated with attempting to cognitively reframe the loss, (i.e., trying to consider ways in which one has grown as a person as a result of the loss) rather than avoiding it.

Second, we conducted one-tailed, multivariate GLM analyses to assess group differences while controlling for the effect of time since the suicide. Results were the same with two exceptions: (1) escape-avoidance coping was marginally significant, $F(1, 51) = 2.1$, $p = .08$, and (2) nonrepressors ($M = 15.5$, $SD = 5.3$) scored higher on the guilt subscale of the GEQ compared to repressors ($M = 13.3$, $SD = 5.2$), $F(1, 51) = 3.2$, $p = .04$.

Third, we conducted bivariate and partial correlational analyses to investigate repressors' unexpected deficit in performance on both the Shipley and the CPT, relative to nonrepressors. Analyses revealed that scores on the MAS were not significantly related to Shipley scores, $r = .02$, $p = .88$, or to performance on either the verbal CPT (correct responses, $r = -.01$, $p = .93$) or the spatial CPT (correct responses, $r = -.12$, $p = .41$). However, MC scores were negatively associated with Shipley scores (i.e., cognitive ability), $r = -.30$, $p = .03$. Although the negative relationship between MC scores and the number of correct responses on the verbal CPT was not significant, $r = -.27$, $p = .053$, it is likely that this is related to low statistical power rather than to the absence of a relationship. Partial correlations revealed that the relationship between the Marlowe-Crowne scale and Shipley scores remained significant after we controlled for trait anxiety, $r = -.35$, $p = .01$, but not after we controlled for the time since the suicide, $r = -.25$, $p = .09$. This result suggests that time since the suicide at least partially mediated the relationship between MC scores and IQ.

DISCUSSION

Repressive Coping, Mental Health, and Behavioral Coping

This study is the first to address repressive coping in people who have lost loved ones to suicide. Our results suggest that repressors are coping more effectively with the loss of their loved one's suicide than are nonrepressors. Repressors may use productive, solution-focused strategies in coping with their loss. Moreover, they appear more able to maintain psychological health during suicide bereavement, as their relatively lower levels of depression and desire to suppress intrusive thoughts indicate. Repressors also seem to exhibit a more mild grief course for the most common symptoms in bereavement (i.e., general grief symptoms and somatic symptoms), which suggests that they are more able to cope with the general stress of bereavement than are nonrepressors. Moreover, the suicide was significantly more recent for repressors than for nonrepressors. It is possible that, compared to nonrepressors, those who use a repressive coping style after the suicide of a loved one feel better emotionally. Thus, the repressors may have felt ready to partici-

pate in the study earlier in bereavement. In contrast, nonrepressors, who may not be coping as well with their loved one's suicide, required more time to adjust to their loss before they were ready to participate in an emotionally taxing study on suicide bereavement. A few potential participants scheduled appointments, then declined at the last moment, saying that they did not feel ready because too little time had passed.

However, if repressors are responding more adaptively to their loved one's suicide, the question "why" remains. One possible explanation, based on Eysenck's (2000) theory, is that repressors have a positive interpretive bias that the Marlowe-Crowne may be measuring, which would make them more likely to assign benign meanings to unpleasant intrusive thoughts. This may explain why they report less of a desire to suppress thoughts, as the thoughts are less distressing to them. Such a bias may also protect against depression. Recent research has shown that nondepressed participants have a cognitive bias for positive information, whereas depressed participants do not (Deldin, Keller, Gergen, & Miller, 2001).

An alternative explanation is that, in accordance with the common conceptualization of repressive coping, the repressors in this study exhibited chronic inhibition of negative affect, but there was no evidence to support this view. The repressors certainly did not deny that the suicide had occurred, nor did they minimize the emotional pain it had provoked. To the contrary, they participated in an emotionally demanding study on suicide bereavement when the suicide was more recent for them than it was for the nonrepressors. This does not make sense if they avoid negative affect.

Repressive Coping and Cognition

Surprisingly, repressors exhibited greater difficulty with their working memory and complex problem-solving abilities. One reason this finding was unexpected is that the nonrepressor group primarily contained a mix of low-anxious and high-anxious individuals, and previous research indicates that repressors have similar working memory capacity as low-anxious individuals, and better working memory compared to high-anxious participants (Derakshan & Eysenck, 1998). Thus, the repressors should have performed at least as well as the nonrepressors.

The repressors in the aforementioned (e.g., Derakshan & Eysenck, 1998) study were not coping with the stress of a loved one's suicide, but why does this matter? Perhaps the repressors' closer proximity in time to their loved one's suicide is costly in terms of cognitive resources. The experience of losing a loved one to suicide is an emotionally devastating experience that can affect people's lives for years and can strain even the healthiest individual's cognitive capacity. Thus, if one's cognitive resources are diminished after a severe stressor, then performance on tasks requiring sustained attention and concentration will decline, even though they may be emotionally adjusting and functioning quite well. Although one could argue that the loss of a loved one to suicide 5 years ago is not a recent loss and should not diminish cognitive capacity, it is important to remember that 5 years was the average time elapsed since the suicide, and that the suicide was even more recent for several of the repressors.

What evidence bears on the above interpretation? Previous research indicates that negative life events and the recent nature of such events are associated with deficits in performance on a working memory task, whereas state anxiety is not associated with performance (Klein & Boals, 2001). Moreover, Klein and Boals found that as the difficulty of the task increased, the working memory deficit also became more pronounced. They reasoned that a negative life event acts as an extra task that competes for cognitive processing and impairs performance on harder tasks that demand more cognitive resources than would easier tasks. Given that the CPT was a difficult cognitive task and the repressors' loss was more recent, it is reasonable to infer that it interfered with the repressors' performance. It is likely that the same explanation can account for why the repressors exhibited

difficulty on the Shipley, as it required quick and complex problem solving.

However, if recency of a major stressful life event competed with cognitive demands on the tasks for the repressors, then why did they report less of a desire to suppress intrusive thoughts? Klein and Boals (2001) found that daily efforts to suppress intrusive thoughts about life events were associated with deficits on working memory tasks. However, the WBSI measures daily attempts to suppress thoughts, and it may measure a different form of intrusiveness than what is occurring during a complex, cognitively demanding task. Klein and Boals argued that recent negative life events impaired working memory beyond that of cognitive avoidance outside of the lab. Therefore, some individuals may chronically avoid stressful thoughts about a negative life event, and this consumes cognitive resources essential for cognitive tasks in the lab, whereas others may have experienced a recent negative life event that competes for these resources as they attempt to focus attention on a demanding laboratory task. The first case implies a more avoidant response to thoughts about stressful life events that occur outside as well as inside the lab, irrespective of the timing of the stressful event. In contrast, the second case indicates that the recent nature of the stressful event creates competition for cognitive resources between the laboratory task and thoughts about the life event, but such persons do not chronically inhibit such thoughts in their daily lives. Why, then, did repressors exhibit difficulty on these cognitive tasks when nonrepressors report more chronic thought suppression? Perhaps recency of the suicide consumed more resources than did a stable tendency to suppress unwanted thoughts.

Additional analyses provide evidence for the interpretation that time since the suicide affected performance. First, the Marlowe-Crowne, but not the Manifest Anxiety scale, was negatively associated with WAIS-R scores and with verbal working memory performance, although the correlation between MC scores and the CPT is small. This suggests that it is the MC, rather than the MAS (i.e., trait anxiety), that is associated with cognitive performance.

Second, the relationship between MC scores and WAIS-R scores becomes nonsignificant when we control for the effect of time since the suicide. Although the relationship between verbal working memory and MC scores approached significance, it becomes smaller and much less significant after we control for time. Thus, the relationship between the Marlowe-Crowne and cognitive ability is largely affected by the time since the suicide.

It is possible that the repressors were dishonest in their report on all of the measures, although this is unlikely. Again, if the repressors wanted to present themselves in a positive light and avoid negative information about themselves, then it is unclear why they volunteered for a study of people who lost loved ones to suicide, a death that is still unfortunately stigmatized, and were willing to discuss their loss so much sooner than were nonrepressors.

Caveats

All these conclusions are tentative for several reasons. First, the data are cross-sectional, so we do not know what the long-term effects are of repressive coping on adjustment to a loved one's suicide. Moreover, cross-sectional research cannot illuminate the bereavement course or the stability of repressive coping over time. Although some studies have documented a rise in repressive coping in response to life stressors (e.g., Zacharie, Jensen, Peederson, Jorgensen, & Lehbrink, 2004), repressive coping tends to be stable (e.g., Denollet, 1991), even in the context of stressful life events (Bonanno, Keltner, Holen, & Horowitz, 1995). There are many limitations inherent in a cross-sectional design, but such a study was a necessary first step, as it was important to determine whether a relationship existed between repressive coping and emotional adjustment before committing the time and monetary resources required for a prospective longitudinal design.

Second, we did not compare people

who lost loved ones to suicide against a control group of individuals who had lost loved ones through other types of death. Thus, we cannot determine whether the results are specific to suicide survivors.

Third, we recruited people who lost a variety of loved ones (e.g., father, brother, friend, spouse). Although it is useful to admit such diversity, it will also be helpful in future work to identify correlates associated with coping, mental health, and cognitive capacity in response to specific types of loss.

Finally, our participants were volunteers, and we cannot tell whether our results apply to the population of suicide survivors in general. However, even if we were to cold-call people who have recently lost a loved one to suicide using death certificate records, we would still have to contend with the possibility that individuals who agree to participate are different from those who do not. Nonetheless, it is true that our sample is composed of suicide survivors who volunteered to participate, which implies that they constitute a very proactive, accommodating group. Indeed, many of them stated that their reason for participating was to help other suicide survivors. Studying coping among survivors recruited through death records would address this question of generalizability.

Conclusions and Directions for Future Research

This study is the first to investigate repressive coping in people who have lost loved ones to suicide. The results indicate that the popular conception of repressors as chronic inhibitors of negative emotion with reduced emotional awareness should be reconsidered. Instead, the results provide support for the benefits of a positive re-interpretive bias on adjustment to the loss of a loved one to suicide, and a recent, longitudinal study on repressive coping and general, nonspecific bereavement supports this conclusion (Coifman, Bonanno, Ray, & Gross, 2007). Thus, future researchers should re-examine repressive coping during suicide bereavement by exploring whether our current method of classifying people with high MC scores and low trait anxiety scores as "repressors" is correct. Our results provide some indication, although this must be tested, that repressors can be more accurately classified as people who use a coping style characterized by positive reinterpretation of most situations, and that they are not repressing or chronically avoiding negative information. Moreover, the results provide some support for the emotional benefits for people who score high on the MC, and an interpretive bias may explain this. Thus, the use of a positive interpretive bias should be investigated in suicide bereavement. How does such a bias influence choices in coping and the grief course of suicide bereavement? Does a positive interpretive bias influence the search for meaning after suicide and, if so, how? Is there any negative outcome associated with it, and importantly, can people learn to develop such biases?

Moreover, researchers need to explore the cognitive deficits observed in people classified as repressors. Are such deficits associated with a positive interpretive bias? The results of this study provide some evidence that time since the suicide interacts with MC scores to impact cognitive performance. These results need to be replicated, however, as they were not expected. Future research should prospectively examine cognitive functioning and suicide bereavement to determine whether suicide bereavement impacts cognitive capacity (as opposed to other stressful life events occurring after the loss), and if so, how long this influence lasts. Although the presence of cognitive deficits among repressors, despite their greater emotional adjustment, may seem puzzling at first glance, we hypothesize that the discrepancy in cognitive performance only extends to especially demanding cognitive tasks, and will not appear in the context of more moderate or simple tasks, and therefore will not impact repressors' psychosocial or occupational functioning.

Suicide is a tragedy for those who die and for those who are left behind. It is vital

that researchers determine what factors are associated with healthy, adaptive coping to help those who, unfortunately, will lose a loved one to suicide in the future to handle intensely painful feelings and re-build their lives.

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