Short-Term Mood Repair Through Art: Effects of Medium and Strategy

Jennifer E. Drake, Katelyn Coleman, and Ellen Winner, Boston, MA

Abstract

This study examined the effects of expressive media (drawing versus writing) and emotion regulation strategy (coping by venting versus coping by distraction) on short-term mood repair. After inducing a sad mood in 40 participants, the researchers randomly assigned them to one of two conditions: drawing or writing. Mood valence was assessed before and after the activity, and participants reported whether they used the activity to vent or to distract themselves. Findings indicated that mood valence was significantly more positive after drawing than writing, and more positive when individuals reported using distraction rather than venting to regulate their emotions. Drawing in this study was a more effective means of immediate mood repair than writing; both activities repaired mood more effectively through distraction than through venting.

Introduction

Testimonials on the therapeutic power of creative work are commonplace among artists and writers. The author Graham Greene (1980) wrote that writing is “a form of therapy” and wondered how it was that “all those who do not write, compose, or paint can manage to escape the madness, the melancholia, the panic fear which is inherent in the human situation” (p. 285). Artists and writers seem to realize that creating art has the power to improve mood.

Clearly art making must improve mood by providing an avenue through which to regulate one’s emotions. Research has demonstrated individual differences in emotion regulation strategies, including the ways in which individuals repair negative affect (Gross, 2007; Gross & John, 2003; Larsen, 2000; Parkinson & Totterdell, 1999; Thayer, Newman, & McClain, 1994). Artists have described purging themselves of suffering by expressing their pain in their art (venting), but they also speak of how creating takes them away from ordinary life (distraction), as did Graham Greene (1980) when he spoke of “escape.”

Research on the writing process has uncovered the role of venting by showing that writing about emotional and stressful events has long-term health, cognitive, and affective benefits. Documented benefits include improved immune function (Pennebaker, Kiecolt-Glaser, & Glaser, 1988), elevated academic performance (Pennebaker & Francis, 1996), and a decrease in the number of visits to a physician (Pennebaker & Beall, 1986; Pennebaker, Colder, & Sharp, 1990). In one study, individuals who wrote after losing their job were more likely to find employment 3 months later (Spera, Buhrfeind, & Pennebaker, 1994). The benefits of writing about stress also extend to persons diagnosed with depression; depressed individuals characterized as being likely to suppress their emotions had fewer depressive symptoms 6 months after expressive writing (Gortner, Rude, & Pennebaker, 2006).

Although writing about a stressful event has long-term benefits, writing may be less beneficial than drawing for short-term mood repair. In a 2004 study, Pizarro assigned participants to one of three conditions: writing about a stressful event, drawing about a stressful event, or drawing a still life from observation. Participants in both drawing conditions reported lower negative affect (Gross, 2007; Gross & John, 2003; Larsen, 2000). Among the many strategies proposed to regulate mood, two seem particularly related to art making: venting, by which one expresses negative feelings; and distraction, by which one expresses positive or neutral feelings in order to forget negative feelings (Gross, 2007; Gross & John, 2003; Larsen, 2000; Parkinson & Totterdell, 1999; Thayer, Newman, & McClain, 1994).

Editor’s Note: Doctoral candidate Jennifer E. Drake, MA, Katelyn Coleman, BA, and Ellen Winner, PhD, are in the Department of Psychology, Boston College. Dr. Winner is also affiliated with Project Zero, Harvard Graduate School of Education. Correspondence concerning this report may be addressed to the first author at drakejc@bc.edu
Pennebaker and Beall (1986) found that individuals who wrote about stressful or traumatic events (venting) had fewer visits to a health center 6 months later than those who wrote about the facts of the trauma or those who wrote about everyday events (distraction). However, Lischetzke and Eid (2003) found venting to be beneficial only when individuals perceived themselves as competent in mood regulation. Geen, Quanty, and Berkowitz (1977) reviewed the literature and concluded that venting does not improve mood. Venting seems to be related to rumination; Bushman (2002) has shown that rumination when angry serves to increase anger. In his study Bushman induced anger and then asked participants to either hit a punching bag or sit quietly. Among those in the punching bag condition, half the participants were asked to think about the person who had angered them (rumination); the other half were asked to think about something positive (distraction). Those who ruminated as they hit the punching bag grew angrier and more aggressive than both the participants who distracted themselves as they hit the bag and the participants who sat quietly. However, this study did not actually allow a comparison of coping strategies (venting versus distraction). Such a comparison would have had to look at the effect of hitting the punching bag (venting) versus sitting quietly thinking about something positive (distraction).

Recent research has shown distraction to be an effective way of coping with negative affect. Engaging in a cognitively demanding task (e.g., a math problem) decreased negative affect after a negative mood induction (van Dillen & Koole, 2007). This effect has also been demonstrated with the use of humor. Strick, Holland, van Baaren, and van Knippenberg (2009) found that individuals’ moods improved to a greater degree when viewing humorous stimuli that involved high rather than low cognitive demands. These studies demonstrate that distraction from a negative mood can occur when individuals engage in cognitively demanding tasks. As theorized by van Dillen and Koole (2007), such tasks distract us by loading our working memory and “preventing mood-congruent processing” (p. 715).

The goal of the present research study was to compare the mood repair effects of drawing versus writing, and to determine whether mood is more effectively repaired when the medium (either drawing or writing) is used to vent negative feelings or to distract oneself from negative feelings. Previous research has demonstrated that drawing has positive short-term mood repair benefits (Dalebroux et al., 2008; DePetrillo & Winner, 2005). However, whether this mood repair occurs by venting or by distraction is not yet clear. DePetrillo and Winner (2005) reported that drawing improved short-term mood more than did copying geometric shapes (an activity that does not allow for self-expression), and mood improved equally for those who vented by drawing negative images and those who distracted themselves by drawing positive images. Dalebroux et al. (2008) replicated the finding that art making improves short-term mood to a greater degree than a control activity but failed to replicate the equivalence of venting versus distraction as coping strategies. Mood improved most for those who used drawing as a means to distract themselves rather than to vent their feelings; mood improvement in the venting condition was no greater than mood improvement in the control condition.

In our study, we hypothesized that (a) the activity of drawing would have a more positive effect on short-term mood valence than the activity of writing, and (b) participants who use drawing or writing to distract from sad ideation rather than to vent their sadness would show the greatest mood valence improvement.

Method

Participants

The participants were 40 undergraduates enrolled in a college in the U.S. Northeast (23 women and 17 men) ranging from 18 to 22 years of age. Participants were recruited from psychology classes and received one research credit as part of a course requirement. The sample consisted primarily of students from middle- to upper-middle-class, well-educated families. The study was approved by the college’s Institutional Review Board and all participants provided written informed consent.

Materials and Procedure

The participants first completed a version of the Russell, Weiss, and Mendelsohn (1989) Affect Grid as modified by Goldstein (2009). The Affect Grid is a one-item self-report scale that measures two dimensions of mood: (a) valence, as ranging from pleasantness to unpleasantness; and (b) arousal, as ranging from activation to deactivation. This measure has been found to be reliable and valid in assessing mood (Russell et al., 1989). Each participant rated his or her mood “as it is right now” (mood rating Time 1) by placing a single mark anywhere on the Affect Grid. In the modified version, scores range from -9 to 9 on both axes, allowing participants to report a negative valence. Only valence was examined in this study because there was no theoretical reason to expect arousal to be affected by art making and in two previous studies no effect of art making on arousal was demonstrated (Dalebroux et al., 2008; DePetrillo & Winner, 2005).

The participants then watched a 5-minute clip from the movie The Laramie Project, a documentary about the murder of a young man who was tortured and killed for being openly gay. The clip was intended to induce a negative mood and in previous research was found to be effective (Goldstein, 2009). In the video clip, the young man’s father speaks at the sentencing of his son’s murderer and describes his son’s death, the publicity that surrounded it, and the family’s opinion of the death penalty. To ensure that the video clip would induce a sad mood, four pilot participants rated how sad the film clip was on a 7-point scale with 1 indicating a low degree and 7 indicating a high degree of sadness. The pilot participants rated the film clip as sad (M = 5.25, SD = .96).

After viewing the clip, the experimenter asked the participants to rate their mood again using the Affect Grid.
(mood rating Time 2). The experimenter then randomly assigned the participants to one of two conditions: writing or drawing. There were 20 participants in each condition with no difference in sex distribution across conditions ($\chi^2 = .102, p = .749$). In the writing condition, participants were given paper and pen and were told: “Use the next 10 minutes to write about anything you would like. You will be able to take it with you when you leave.” In the drawing condition, participants were given a white sheet of paper and a fine point black marker. Due to our desire to control for the use of color, participants in both the writing and drawing conditions received a writing instrument of a single color. Participants in the drawing condition were told: “Use the next 10 minutes to draw anything you would like. You will be able to take it with you when you leave.” Participants were then given the Affect Grid again and asked to rate their mood (mood rating Time 3).

Finally, to determine the strategy that participants used, at the end of the session we handed out a questionnaire that asked participants: “Which of the following functions did the task serve for you?” They were given three choices: “It helped me vent my feelings” (venting), “It helped me to think about things other than the movie clip” (distraction), and “Other—specify.” Nine participants checked “Other” and thus were excluded from the strategy analyses. We used the remaining responses ($n = 31$) to classify individuals as having used the drawing or writing activity to discharge negative feelings through venting or to distract themselves from negative feelings.

**Results**

**Preliminary Results**

Table 1 presents the mean valence scores for Time 1, Time 2, and Time 3 by condition. A one-way ANOVA by condition revealed no effect of condition at Time 1, $F(1, 38) = 0.000, p = 1.000$. Thus, the drawing and writing groups had equivalent valence scores prior to the mood induction. To determine the effectiveness of the film clip in inducing a negative mood, a paired sample $t$ test was performed with valence at Time 1 and Time 2. As expected, valence was lower at Time 2 than at Time 1, $t(39) = 7.077, p < .001$, indicating that the film clip had significantly decreased mood valence. A one-way ANOVA by condition also revealed that there were no condition differences between conditions at Time 2, $F(1, 38) = 0.683, p = .414$. Thus there were no differences in mood between the groups at the start of the study, or after they viewed the film clip.

<table>
<thead>
<tr>
<th>Condition</th>
<th>$n$</th>
<th>Time 1</th>
<th>Time 2</th>
<th>Time 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing</td>
<td>20</td>
<td>2.58 (.76)</td>
<td>−2.93 (2.78)</td>
<td>−.08 (3.99)</td>
</tr>
<tr>
<td>Drawing</td>
<td>20</td>
<td>2.58 (.48)</td>
<td>−2.20 (2.77)</td>
<td>3.38 (2.24)</td>
</tr>
</tbody>
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**Comparison of Writing and Drawing**

To compare the effectiveness of writing versus drawing in improving short-term mood, we performed a two-way repeated measures ANOVA, with condition as the between subjects factor, and time as the repeated measures. We then performed post-hoc paired sample $t$ tests to clarify the results. There was both a main effect of condition, $F(1, 38) = 4.002, p = .05$, and a main effect of time, $F(2, 76) = 35.729, MSE = 8.396, p < .001$. Paired sample $t$ tests revealed that, as expected, valence was higher at Time 3 (after drawing or writing) than at Time 2 ($p < .001$). There was no difference in valence at Time 1 and Time 3 ($p = .174$).

As shown in Figure 1, there was an interaction between condition and time, $F(1, 38) = 11.362, p = .002$. This interaction occurred due to differences at Time 3 between conditions: valence was significantly higher at Time 3 for drawing than for writing. In the drawing condition, valence at Time 3 was restored to Time 1 levels: there was no difference in valence at Time 1 and Time 3 ($p = .34$). In the writing condition, however, there was a significant difference in valence between Time 1 and Time 3 ($p = .01$) because valence after the writing task did not rise to the level of Time 1. Thus, our first hypothesis was supported in that drawing was found to be a more effective tool for short-term mood repair than writing.

**Effect of Venting Versus Distraction on Mood Valence**

Of the 40 participants, 13 reported that they used the drawing or writing conditions to vent their sad feelings and 18 reported that they used the activity to distract themselves from feeling sad. A chi-square test showed no difference in strategy distribution across conditions ($\chi^2 = .267, p = .605$). Figure 2 shows the mean valence by condition for the individuals using venting versus distraction. To compare whether strategy used (venting vs. distraction) differed by condition (writing vs. drawing), a strategy by condition univariate ANOVA was performed on valence scores at Time 3.
This analysis revealed no effect of strategy, $F(1, 27) = 2.467, p = .128$. There was no interaction between condition and strategy, $F(1, 27) = 0.025, p = .875$. Thus, the greater effectiveness of distraction occurred for both drawing and writing. Due to the small cell size when strategy and condition were crossed, we also performed a one-way ANOVA by strategy on valence at Time 3 collapsed across condition. Valence at Time 3 was marginally higher for those who reported using distraction as a coping strategy (2.30 vs. 0.393), $F(1, 29) = 2.802, p = .10$. Thus, the results provide modest (near-significant) support for our second hypothesis: Drawing and writing are more effective at repairing mood when they are used to distract than when they are used to vent.

**Discussion**

This study compared the effectiveness of two forms of expression—drawing and writing—on short-term mood repair and also compared the relative effectiveness in terms of mood elevation of using drawing or writing to vent negative feelings versus to distract oneself from thinking about negative feelings. We did this by inducing a negatively valenced mood and then assessing mood change after drawing or after writing. There were no systematic group differences in mood valence either at baseline or after viewing a sad film clip, although of course there likely were individual differences in mood valence at all three time points.

Consistent with Pizarro’s (2004) study, we found that art making repairs short-term mood to a greater extent than does writing. One possible reason for this is that drawing may invite people to play with line and form, and hence may serve as a more effective form of distraction. In addition, drawing could be a more enjoyable activity than writing because it is a more novel activity for most adults than is writing. But we admit that at present these suggestions are conjectures that remain to be tested.

Although this study is based on a relative small sample, it does suggest that art making used as a strategy of distraction is a more effective means of short-term mood repair. Future research would benefit from extending these findings to clinical populations. Future research would also benefit from examining the role that color plays in the use of visual art making to enhance mood.

Our results were also consistent with previous findings that distraction improves mood valence to a greater extent than does venting, which is a form of rumination. It is possible that creating images that were unrelated to the film increased cognitive demand and decreased mood-congruent memories. This explanation would be consistent with the working memory model developed by van Dillen and Koole (2007) but requires further investigation. Future research should investigate whether distraction is effective only when the distracting task leads to a positive emotion (as in the present study) or whether it is also effective when the distracting task leads to a neutral emotion.

Future research should examine not only the actual benefits of art making but also participant predictions about the effects of art making on mood and cognition. Previous research on affective forecasting has demonstrated that individuals overestimate their emotional reactions to future events (Wilson & Gilbert, 2005). Studies on how art making affects people that also examine participants’ own theories about the effects of art making would help us to understand the role of art making in human well-being.

Testimonials by artists about the therapeutic power of creating are supported by this study. However, the conventional wisdom that creativity is healing because it allows self-expression may apply only in the case of long-term therapeutic effects. For art making to improve mood immediately, it is better to use art to distract oneself rather than to express one’s pain. Perhaps this explains why Graham Greene (1980) described the act of creation as a means of escape.

**References**


