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FUNNY STORIES: OUR HUMOROUS REAPPRAISALS

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Abstract

Studies have been performed that show the benefits of humor in alleviating the impact of stressful life events. This line of research aims to gain insight into tragedy as a parent of humor by means of cognitive reappraisal. Participants were instructed to write a funny story based on their own life experiences. The Positive and Negative Affect Scale (PANAS, Watson et al., 1988) and the Profile of Mood States (POMS, McNair et al., 1971) were administered in order to measure the participants' transient emotions before and after they wrote their stories, as well as a third time to measure their emotions during the event about which they wrote their stories. The Coping Humor Scale (CHS, Martin and Lefcourt, 1983) was used to measure the degree to which the participants generally use humor as a means of coping with stress. The Sense of Humor Questionnaire (SHQ, Svebak, 1974) and the Situational Humor Response Questionnaire (SHRQ, Martin and Lefcourt, 1984) were implemented to find the frequency with which the participants tend to use humor in their lives. The effect that writing had on mood was inconclusive. After reading the stories, another variable of interest was noticed: self-focused versus other-focused stories. Self-focused stories were found to be correlated with high scores on the CHS. Furthermore, high coping humor was associated with stories written about self-focused negative events. These results validate the CHS and provide an interesting future direction for the study.

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Funny Stories: Our Humorous Reappraisals

Introduction

For decades, research has shown that stressful life events correlate strongly with the onset of many physiological and psychological disorders. For example, depression, which is now considered to be the most common mental disorder in the world, is frequently brought on by some sort of stressful life event (Kendler, Karkowski, & Prescott, 1999). Furthermore, findings have shown that refugees from Afghanistan—that is, individuals who had recently been through traumatic experiences—exhibited sicknesses to which medical doctors were unable to attribute any physiological cause or explanation (Feldmann, Bensing, & de Ruijter, 2007), suggesting a unique association between stressful experiences and physical health. Thus, stress can play a powerful role in many aspects of one's well-being.

Generally, emotional responses are characterized by quick, automatic reactions that occur without effortful cognitive processing. From an evolutionary perspective, such responses are adaptive because they have contributed to the survival of our species. However, social norms of modern society require the limitation and control of some emotional responses in order to function properly. Anger, for instance, can be very useful under circumstances that require action, such as a sporting event or attempting to protect oneself from harm, but it can also be dysfunctional if not sufficiently controlled. Other faculties essential to achievement rely on one's ability to regulate those same emotions. For example, long-term goal planning, part of a solid foundation for future success, is impaired without healthy emotion regulation (Mischel & Mischel, 1983). So, in addition to general health concerns, emotion regulation can also play a crucial role in one's social status and success, which, the literature suggests, also lend themselves to physiological health outcomes.

Because encounters with emotionally taxing events are inevitable in life and, from a practical standpoint, unpredictable, regulating subsequent negative emotions represents an integral component of mental health. The ability to manage one's feelings or reactions in order to maintain appropriate behavior patterns and a healthy lifestyle is known as emotion regulation. While several methods of emotion regulation exist, cognitive reappraisal seems to be the most commonly researched and practiced because of its effectiveness and simplicity. The literature is flooded with studies that suggest cognitive reappraisal to be an effective method of curbing one's stress. This coping strategy works by assigning a new, more positive meaning to an otherwise negative stimulus. In a laboratory setting, for example, if a participant views a picture of a sick boy with his parents in a hospital and focuses on the parents' devotion to their son instead of the boy's misfortune, the participant has used cognitive reappraisal to reduce the negative impact of the picture.

Humor has also been targeted as a role player in emotion regulation. Martin and Lefcourt (1983) found that people who rate higher on measures of sense of humor tend to experience less mood disturbance in response to stressors than those with less sense of humor. These results suggest that people who more regularly use humor in their lives may be better equipped to handle negative life events. Interestingly, cognitive reappraisal is often implicated in the mechanism involved with using humor to cope with stressful circumstances. The *Diagnostic and Statistical Manual of the American Psychiatric Association* (DSM-IV-TR; American Psychiatric Association, 1994), for example, lists humor as a defense mechanism or coping style in which "the individual deals with emotional conflict or external stressors by emphasizing the amusing or ironic aspects of the conflict or stressor" (p. 755). Thus, the two coping strategies appear

intertwined, and cognitive reappraisal facilitates humor. In terms of emotion regulation, humor is the result of attributing a uniquely positive meaning to a negative stimulus.

This line of research aims to gain insight into tragedy as a parent of humor. Previous studies have examined the efficacy of different types of humor, like positive, good-natured humor versus negative, mean-spirited humor (Samson & Gross, 2012), as well as perspective-taking humor (Lefcourt et al., 1995) in regulating emotions. However, there has yet been little research on the nature of negativity sparking positivity in the form of humor. Specifically, we want to know if people, when prompted to use humor, will tend to draw on negative life experiences in order to do so. Such a finding would support the idea that stressful life events are often a source of humor and, indeed, that the two are interlaced with one another. In order to assess this relationship, we instruct participants simply to write a funny story by drawing on their own life events. We predict that most people will choose to write their funny stories about a negative life event—that is, an event which, in real time, caused distress, but has since been cognitively reframed into a positive memory.

The act of writing has been widely researched in terms of its impact on emotion. It has been shown to be strongly associated with mental and physical health benefits. More important than the mere act of writing, however, is the thought process and introspection that goes into the writing. Pennebaker and Seagal (1999) report that the benefits of writing appear to be rooted in, among other things, the amount of insight used in one's writing process. Their study compared one group of participants who was instructed to write about traumatic life events to the other group who was instructed to write about emotionally neutral topics like the room in which they were sitting at the time. The essays were coded for words associated with insight, and those who wrote about stressful life events also tended to use more insight in their essays. The results

indicated that those in the experimental condition enhanced their mood more than those in the control group, both immediately after writing and a few weeks after writing. Those in the experimental condition were also found to have visited the university's health center significantly less than the others. Therefore, we expect that after participants write their funny stories, which we anticipate will involve negative life experiences, participants will report feeling better than they did before writing the story. Although the therapeutic effects of writing have been thoroughly investigated, humorous writing has not garnered much attention.

Additionally, we predict that those who draw on negative life events for their funny stories will experience an increase in positive affect proportional to the negativity of their life event. That is, the more traumatic the event about which the story is written, the more we expect to find a mood enhancement. Our reasoning behind this prediction is two-fold. First, based on the findings of Pennebaker and Seagal (1999), it seems reasonable to think that participants who recount extremely traumatic incidents will have engaged in more introspection and insight to put the story together, thereby improving their mood more than those who use less insight in their stories. Secondly, individuals who are able to construct funny stories from traumatic life events will have transformed those events to a greater extent than those who wrote about mildly negative experiences. So, presumably, they have regulated their emotions more and because their stories reflect a larger increase in positivity, their mood may also exhibit a larger increase in positivity.

Used to measure the participants' transient emotions before and after the story is written will be the Positive and Negative Affect Scale (PANAS, Watson et al., 1988) as well as the Profile of Mood States (POMS, McNair et al., 1971). Both have been shown to be reliable in measuring momentary and enduring emotional states. Additionally, these scales will be

administered a third time in order to gauge the participant's emotional state during the event about which the funny story was written. Scores on these scales will be used to determine any relationships between transient mood states at the three different times. We hypothesize that those who report feeling the most negative during the events described in their funny stories will also rate themselves as having experienced the greatest increase in mood after writing their stories.

Our next hypothesis focuses on the different ways in which people use and experience humor on a regular basis. That is, we wanted to see if habitual humor practices moderate the beneficial impact that an isolated humorous reappraisal might yield. For instance, the Coping Humor Scale (CHS, Martin and Lefcourt, 1983) assesses the extent to which people tend to use humor as a means of coping with stressful experiences. We will use this scale to examine any relationships between coping humor and the nature of the stories. We expect that those with high scores on the CHS (frequently use humor to regulate emotion) will also report feeling the most negative in their stories in real time, because it seems likely that those who more readily use humor to cope with stressful situations will have the ability to transform those truly negative situations into positive ones and thus will draw upon these experiences when called upon to write a humorous story. In contrast, participants who score lower on the CHS are less likely to be adept at reappraising negative situations into humorous ones and so may not be as capable of seeing the funny side of stressful stimuli.

Upon reviewing the participants' stories, it became clear that our instructions did not convey clearly that we specifically wanted them to write a story about an event that happened to them, as opposed to a funny event they witnessed happen to someone else. As a result, nearly half of our sample wrote funny stories about things that happened to other people instead of

themselves. For this reason, we separated the stories into those that focused on self (self-focused) and those that focused on someone else (other-focused). We expected that those who wrote the self-focused stories would be the ones who completed the study in the manner in which we had intended them and, therefore, the ones who more closely align with our hypotheses.

This unanticipated discrepancy in the ways the stories were written precipitated a new independent variable for our study as well. After separating the stories into self-focused and other-focused categories, we formulated another hypothesis using the final two scales that were administered. The Situational Humor Response Questionnaire (SHRQ, Martin and Lefcourt, 1984) and the Sense of Humor Questionnaire (SHQ, Svebak, 1974) were implemented in order to probe each participant's general ability to use and perceive humor in everyday life. We hypothesized that those with high scores on these two scales would be the ones who wrote funny stories about other people. Because these questionnaires assess one's propensity for extracting humor from their environment, it seems reasonable to expect high scores to be correlated with other-focused stories. On the other hand, we also predict high scores on the CHS to be correlated with self-focused stories, because this scale evaluates the tendency to use humor to regulate one's own emotions.

Methods

Participants

Undergraduate students taking introductory psychology courses at the Pennsylvania State University (N=41, 28 females, 12 males, 1 gender undeclared) received partial course credit to participate in this study.

Materials

Positive and Negative Affect Scale (PANAS). This scale lists twenty different emotions, ten of which are designed to measure positive affect and ten of which measure negative affect (Watson et al., 1988). Responses are given on a 5-point scale (1="very slightly/not at all" to 5="extremely") to express the extent to which the participant is experiencing each emotion.

Profile of Mood States (POMS). This 65-item scale is designed to assess transient emotions (McNair et al., 1971). Sixty-five different emotions are listed, and responses are indicated on a 5-point scale (1="not at all" to 5="extremely"). Note that this scale was collected, but will not be included in the analyses below due to the need for additional content coding of the stories to match on specific emotions of interest, and adequacy of the PANAS to address the specific hypotheses of this thesis. This scale will be used at a later point for further exploration of the data.

Coping Humor Scale (CHS). This 7-item scale measures one's ability and tendency to use humor as an emotion regulation technique (Martin and Lefcourt, 1983). Seven statements are listed, and responses are indicated on a 4-point scale (1= "Strongly Disagree" to 4= "Strongly Agree").

Sense of Humor Questionnaire (SHQ). This questionnaire contains twenty-one statements designed to measure the participant's sense of humor (Svebak, 1974). Responses are indicated on a 4-point scale. The SHQ examines three dimensions of sense of humor: meta-message sensitivity (M-items), liking of humorous situations (L-items), and expression of mirth (E-items).

Situational Humor Response Questionnaire (SHRQ). This questionnaire measures the extent to which participants find humor in a variety of situations (Martin and Lefcourt, 1984). The questionnaire contains twenty-one items, each of which describes a situation and asks the participant to indicate how much humor would be involved in each one.

Procedure and Design

Participants were seated at computers in the laboratory room, where they completed all four parts of the study. The first part of the study consisted of filling out the PANAS and POMS questionnaires. Each questionnaire comprises lists of different emotions and feelings along with a five-point scale of answer choices which allow the individual to rate the extent to which he or she is experiencing each emotion. Participants were instructed to report their “immediate knee-jerk responses” to each item. That is, they were told not to consider each item carefully, but rather to indicate how they feel based on their first impressions.

Next, participants were given five minutes to gather their thoughts so that they could write a funny story about themselves. They were told that they should try to tell the funniest story possible based on personal life experience and that they can pick any life event they think will enable them to do it best. After five minutes, they were allotted twenty minutes to write. They were instructed to transport themselves back to the moments about which they had just been thinking and to write their funny stories. Once the twenty minutes had passed, each person was instructed to stop writing and to save his or her story on the computer. After writing the story, participants again filled out the PANAS and POMS questionnaires. They were given the same instructions to respond with their immediate knee-jerk reactions to each item. The CHS,

SHRQ, and SHQ were administered after each participant had completed the PANAS and POMS for the second time.

At this point, every participant had completed the PANAS and POMS twice in order to assess their emotional states before and after writing their funny stories. Additionally, the CHS, SHRQ, and SHQ had been administered to evaluate tendencies to use and recognize humor on a regular basis. Finally, each participant filled out the PANAS and POMS for a third time but with a different objective. This time, they were instructed to mentally transport themselves back to the events described in their stories and to complete the two scales based on their emotional states during those life events.

Results

Because the PANAS is a 20-item scale with ten items designed to measure positive affect and ten items to measure negative affect, our hypotheses were that positive affect scores would increase while negative affect scores decrease after writing the funny story. The results, however, appear to only partially support this hypothesis. A paired-samples t-test was conducted to compare positive affect before and after writing the story, and the same procedure was applied to the negative affect scores. Negative affect displayed the expected effect in that negative affect was higher before the story ($M=1.55$, $SD=0.59$) than after the story ($M=1.38$, $SD=0.54$); $t(40)=2.29$, $p=.027$. Thus, negative affect decreased after writing the story, in line with our hypothesis. However, positive affect also decreased. Thus, there was also a significant difference in the scores such that positive affect was also higher before the story ($M=2.87$, $SD=0.74$) than after the story ($M=2.58$, $SD=0.73$); $t(40)=3.18$, $p=.003$. Because both positive and negative affect were reduced, however, and no nonhumorous baseline measures were taken with which to

compare this general decrease in affect ratings over time, the results do not suggest a clear effect of humorous story writing.

We also ran these analyses after accounting for the self-other variables. That is, for the participants who wrote stories about events that happened to themselves, paired-samples t-tests were again conducted to compare positive affect before and after writing the story and likewise for negative affect. The t-tests were computed separately for those who wrote self-oriented stories (as we originally intended) versus those who wrote other other-oriented stories. Still, accounting for this difference did not yield results that supported our hypothesis about mood improvement after story writing. While there was a significant difference in those who told self-oriented stories between positive affect before the story ($M=2.79$, $SD=0.65$) and after the story ($M=2.47$, $SD=0.63$); $t(26)=2.95$, $p=.007$, it again was not in the predicted direction. Positive affect decreased after writing the story. There was also a significant difference between negative affect before the story ($M=1.43$, $SD=0.34$) and after the story ($M=1.28$, $SD=0.40$); $t(26)=2.34$, $p=.027$. Negative affect decreased after writing the story. While the mean PANAS scores were different when only the self-focused stories were analyzed, the trend followed the same pattern as the data analyzed as a whole. Interestingly, those who wrote other-focused stories did not show a significant difference in PANAS scores before and after writing the story, $p > .05$, suggesting that writing self-oriented stories did have a unique effect on emotionality, just not in the manner predicted.

The relationship between the negativity of the episode described in the story and the change in affect after writing the story was also explored. We hypothesized that the more negative the participants rated their emotions during their life event, the greater their mood would improve after writing about it. To test our hypothesis, the PANAS scores measuring the

participants' positive and negative affect experienced in the storied life event (past affect) were compared to the difference in positive and negative affect experienced after writing. A Pearson product-moment correlation coefficient was computed to assess the relationship between past positive affect and the difference between reported positive affect before and after writing the story. No significant correlation was found between these two variables, and likewise, there was no significant correlation for the negative affect scale. There was, however, a significant positive correlation between past positive affect and the increase in positive affect experienced after writing the story, $r(41) = .477, p=.002$. This result indicates that the more positive the participants felt during their life event about which they wrote, the more their mood improved as a function of writing about it.

To test our hypothesis that high scores on the CHS will be correlated with stories about highly negative events, a Pearson product-moment correlation coefficient was computed to assess the relationship between CHS scores and affect ratings about the story in real time. A significant negative correlation was found between CHS scores and positive affect, $r(41) = -0.366, p=.019$, meaning that high scores on the CHS predicted lower reported past positive affect. Additionally, the effect was supported by a marginally significant positive correlation between CHS scores and negative affect, $r(41) = 0.302, p=.055$. So, strong coping humor skills were associated with stories based on more negative life events, and this finding supports our hypothesis. Interestingly, a significant correlation was also found between CHS scores and self-focused stories, $r(41)=0.564, p<.001$. Thus, people who rate themselves higher on the CHS also tended to choose their stories based on events that happened to themselves, in line with our hypothesis.

Discussion

Our first major hypothesis, that mood improvement would be shown after writing a funny story, was not supported by the PANAS data. While the negative affect scales displayed the predicted pattern (scores decreased after writing), the trend of the positive affect scales contradicted our expectations (scores decreased after writing). So, participants reported, on average, feeling both less positive and less negative after writing their funny stories. Even after accounting for self-oriented stories, the results exhibited the same pattern. One possible explanation for these inconclusive data is that fatigue began to influence mood ratings. Upon filling out the PANAS for the second time, participants had already been in the lab for about thirty minutes. One might expect positive affect to deteriorate as time spent in the lab increases, so perhaps having been in the lab for one half hour disturbed any mood enhancement generated by the writing exercise.

Furthermore, there may have been issues with the instructions given to the participants. The fact that a fair number of participants wrote about another person's experience hints toward the possibility that we were not conveying the intended instructions clearly. Given the widely replicated findings of Pennebaker and Seagal (1999) that the benefits of writing tend to be found when the writing involves a significant amount of insight, perhaps our instructions were insufficient to prompt an insightful writing process. If so, we should expect, as Pennebaker and Seagal (1999) found with their control group, no significant mood improvement. Future studies should put forth a direct and specific instruction to take time to recall the feelings and emotions associated with these previous life events.

Alternatively, perhaps leaving the instructions open to interpretation is useful in its own right. Allowing participants to choose the focus of their stories may provide insight into their

habits of using and sensing humor. In our study, people who chose to recount a self-focused story differed in two significant ways from those who wrote other-focused stories. First, other-focused stories were not correlated with significant differences in positive and negative affect before and after writing like the self-focused stories. Other-focused stories seem less likely to involve introspection and insight than self-focused stories since they are based on third party perspective. This difference, based on the findings of Pennebaker and Seagal (1999), may account for the absence of a change in affect for those who wrote other-focused stories.

Secondly, people who wrote self-focused stories also tended to score higher on the CHS. People who report regularly using humor to cope with stressful situations chose to write self-focused stories more than those who do not tend to engage in coping humor. Martin and Lefcourt (1983) conducted a study in which participants watched a stress-inducing film and were instructed to create a humorous monologue to accompany the movie. They found that the monologues of those who frequently use humor to cope with stressors (i.e. high CHS scores) were rated as more humorous than those of people with low coping humor (Martin & Lefcourt, 1983). This study illustrates the validity of the CHS. People with high CHS scores were better at creating positivity from a stressful stimulus than those with low coping humor. Similarly, our study appears to validate the CHS in that high scores suggest a keener ability to transform their own negative life events into humorous stories. What began as an apparent instructional mistake became a new direction for the study.

We also predicted that participants who scored high on the CHS would tend to write about strongly negative life events. This prediction was supported by the significant correlation between the CHS and PANAS scores. Those who rated themselves highly on the CHS also tended to report experiencing higher negative affect and lower positive affect in the stories about

which they wrote. Thus, in writing their funny stories, people with developed coping humor abilities were able to turn negative situations into positive ones to a greater degree than the others. People who more regularly use humor as a means of dealing with stress seem better equipped to reappraise negative circumstances into positive ones.

One unexpected variable that seems to have appeared in our results is that of an in-the-moment reappraisal. That is, some participants wrote humorous stories about events which, in and of themselves, were negative, but were experienced as positive. For example, one participant wrote a story about a time when she went on a date and tripped over her flip-flop, causing her to fall to the ground. The incident, which seems like an embarrassing one, is described in a positive manner. She mentions that she and her date immediately began laughing and enjoying the spectacle. The details of this story imply that the participant immediately reappraised her negative situation into a positive one. She was readily able to find the humor in her embarrassing and potentially painful predicament. Therefore, she is likely to identify her feelings during the event as positive, even though her fall was, itself, not positive. In-the-moment reappraisals cause participants to circumvent our method of operationalizing cognitive reappraisal. They never perceive the event as negative because they immediately reappraise it into a positive one. So, when filling out the PANAS, these participants will recall their positive emotions induced by these negative stimuli. Future studies might consider using a more direct and succinct approach to testing this hypothesis, such as asking participants to note whether they feel the event about which they have written their story was positive or negative.

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