

Using Art for Comparison and Distraction: Effects on Negative Emotions and Judgements of Satisfaction

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Two studies examined whether emotional comparison and distraction with emotion congruent and incongruent art would improve the well-being of dysphoric undergraduates. In both studies, subjects: (1) imagined a sad event; (2) compared their mood to that expressed by incongruent art (upward comparison) or congruent art (downward comparison); or focused on technical features of incongruent art (incongruent distraction) or congruent art (congruent distraction); and (3) rated their emotions and life satisfaction. The incongruent distraction group reported feeling more positive and more satisfied, and the downward comparison group reported feeling more satisfied, than the upward comparison or congruent distraction groups. Thus, comparison and distraction can improve well-being when directed towards emotion congruent and incongruent art, respectively.

INTRODUCTION

People respond to their negative affect in myriad ways, including distracting themselves from their negative feelings (Nolen-Hoeksema, 1987) or comparing their feelings with those of real or imaginary others (Wills, 1981). In trying to either avoid their feelings or gain a perspective from which to interpret their feelings, people often turn to art (music, literature, visual arts, and so on). Whereas some people turn to mood incongruent art, others turn to mood congruent art (Schoen & Gatewood, 1927). Thus, people can respond to their negative feelings by engaging in either

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distraction or comparison with either congruent or incongruent art. The current investigation sought to determine which of these strategies help people improve their well-being and which do not.

Distraction and Comparison as Responses to Negative Feelings

Distraction involves turning attention away from negative thoughts and feelings and towards pleasant or neutral activities (Nolen-Hoeksema, 1991). When people are in negative moods, their thoughts about themselves, their situation, and their future tend to be more negative (Beck, 1967). Negative thoughts, in turn, sustain negative moods. Distraction may alleviate negative moods in part by preventing people from thinking depressing thoughts (Nolen-Hoeksema, 1991). Once their mood begins to improve, people can view themselves, their situation, and their future more optimistically.

Several studies have shown that subjects experiencing (induced or naturally occurring) depressed affect who engage in tasks that turn attention away from themselves and their feelings subsequently report feeling better than subjects who engage in tasks that turn attention towards themselves and their feelings (Morrow & Nolen-Hoeksema, 1990; Needles & Abramson, submitted; Nolen-Hoeksema & Morrow, in press; Nolen-Hoeksema, Parker, & Larson, submitted). These tasks did not alter the mood of nondepressed subjects.

People also respond to negative affect by seeking "downward comparisons"—equally or more negative standards of comparison that help them view their own situation as comparatively less negative (Wills, 1981). Direct interaction can provide one source of negative standards. For example, dysphoric people feel more satisfied during and feel better following get-acquainted conversations with dysphoric as opposed to nondysphoric partners (Locke & Horowitz, 1990; Rosenblatt & Greenberg, 1991). Information about strangers one will never meet can also be a source of negative standards. For example, insecure students feel better after reading that another student is having problems (Gibbons & Gerrard, 1989) or scored even worse on a psychological test (Hakmiller, 1966). Finally, sad people prefer to listen to mood congruent music (Schoen & Gatewood, 1927), suggesting that negatively valenced art may provide yet another source of comparison standards.

Boundary Conditions for Comparison and Distraction

The studies reviewed earlier indicate that comparison and distraction can improve well-being under certain conditions. Comparison improves well-being when people: (1) are experiencing negative feelings; and (2)

attend to equally or more negatively valenced standards of comparison (Wills, 1981). For example, comparing negative feelings to those expressed by a depressed friend or sad music is likely to increase well-being, whereas comparing negative feelings to those expressed by an ebullient friend or energetic music ("upward comparison") is likely to decrease well-being.

In contrast, because distraction involves directing attention away from a negative state, the most effective distractors should be those least reminiscent of that state. For example, when trying to suppress a negative memory, positive thoughts are more effective distractors than negative thoughts (Wenzlaff, Wegner, & Roper, 1988). The less similar a distractor is to an emotional state (with respect to such characteristics as valence, content, and activity level), the less likely it will be to draw attention to thoughts or feelings associated with that state. Thus, if a person is experiencing lethargy, negative affect, and thoughts about academic failure, the most effective distractors will be those that are active, positive, and unrelated to academics, such as lively music as opposed to a dirge. Even deliberately focusing on nonemotional aspects of a dirge may not bring the person lasting relief from the negative state. Distractors reminiscent of the negative state can automatically prime negative thoughts and feelings (Strauman & Higgins, 1987), which in turn can activate other negative thoughts and feelings (Bower, 1981), thus undermining conscious attempts at distraction (Wenzlaff et al., 1988).

Overview of Studies and Hypotheses

Two studies examined the conditions under which emotional comparison and distraction improve the subjective well-being (emotional valence and life satisfaction) of dysphoric subjects. Both studies employed a 2 (emotional comparison vs. distraction) \times 2 (emotion congruent vs. incongruent art) factorial design. The procedures were nearly identical. Both began with standard laboratory sadness inductions. Subjects were then exposed to either *emotion congruent* or *emotion incongruent* art. Because scaling procedures have shown people to experience sadness as a combination of low arousal and negative valence (Russell, 1980), the congruent art was both low in arousal and negatively valenced, and the incongruent art was neither low in arousal nor negatively valenced. While listening to the music (Study 1) or reading the poetry (Study 2), subjects were asked to either engage in *emotional comparison* (attend to the similarity or dissimilarity between their emotions and the emotions expressed by the art) or distraction (attend to technical features of the art, such as the rhythms and instruments in the music and the word usage and sentence structure in the poems). Finally, subjects rated their current emotions and life satisfaction.

We hypothesized that the congruent art will depress well-being when used as an object of distraction (congruent distraction), but elevate well-being when used as an object of comparison (downward comparison); conversely, the incongruent art will depress well-being when used as an object of comparison (upward comparison), but elevate well-being when used as an object of distraction (incongruent distraction). We therefore expected a significant interaction, with the incongruent distraction and downward comparison subjects reporting higher levels of well-being than the congruent distraction or upward comparison subjects.

STUDY 1

Method

Subjects. A total of 52 students participated in partial fulfillment of an introductory psychology course requirement at Stanford University. Thirteen subjects (approximately half men and half women) were randomly assigned to each of the four conditions of the 2 (congruent vs. incongruent music) \times 2 (comparison vs. distraction) design.

Materials. Four-minute segments from two works by the contemporary composer Brian Eno and his colleagues were selected as the congruent and incongruent music. The congruent music was a portion of a slow piano piece from *Ambient 2: Plateaux of mirrors* (Budd & Eno, 1980). The incongruent music was a portion of an energetic percussion piece from *After the dark* (Eno, Moebius, & Roedelius, 1978).

To assess whether the music was congruent or incongruent with the negative valence and low arousal sadness, we played both pieces to 17 undergraduates from an introductory psychology class. While listening to each piece, subjects were given a list of 20 emotion words. Ten words denoted feelings congruent with sadness: sad, depressed, grief, tired, melancholy, wistful, beaten-down, sorrow, hopeless, and dejected. Ten words denoted feelings incongruent with sadness: vigorous, alive, powerful, excited, exuberant, confident, energetic, high, aroused, and fired-up. Subjects rated the extent to which each word described what the musician was feeling and trying to express on 1 (not at all) to 5 (very) scales.

As expected, *Ambient 2* was rated significantly higher than *After the dark* on the congruent items, independent samples $t(16) = 8.07, P < 0.001$; the means were, respectively, 3.4 and 1.6. Conversely, *After the dark* was rated significantly higher than *Ambient 2* on the incongruent items, $t(16) = 13.63, P < 0.001$; the means were, respectively, 4.5 and 1.9. *Ambient 2* was rated as most expressive of sadness (3.9), melancholy (3.8), sorrow

(3.8), and grief (3.6). *After the dark* was rated as most expressive of energy (4.9), excitement (4.8), vigour (4.7), and power (4.6).

Procedure

The subjects were run individually. Upon arrival the subjects were told that during the study they would imagine an emotional scene, listen to a piece of music, and answer questions about their feelings and their reactions to the music. The subjects were given a packet containing the experimental material and instructions, and were asked to proceed through the packet page by page and to notify the experimenter when they were finished.

The first part of the procedure was designed to induce feelings of sadness. Subjects were asked to spend 10 minutes reading a story in which their mother died unexpectedly and to imagine what it would be like to be in that situation. This induction has been used successfully to induce sadness in previous studies (Keltner, Ellsworth & Edwards, 1993; Morrow & Nolen-Hoeksema, 1990); however, no manipulation check was included because the very act of labelling and rating feelings has been shown to strongly impact subsequent satisfaction judgements (Keltner, Locke & Audrain, 1993). The instructions invited subjects who did not wish to complete the induction to discontinue their participation at any time.

After imagining themselves in the sad situation, the subjects were instructed to listen to the music on the cassette player in front of them. The subjects in the distraction conditions were instructed to "focus on how often the rhythm changes during the piece and how many different combinations of instruments there are in the piece". The subjects in the comparison conditions were instructed to "focus on the mood expressed by the music and sense how the mood of the piece either fits or does not fit your current emotions".

When the music was finished, the subjects rated their experience of the music, their life satisfaction, and their current emotions. First, four questions asked about their experience of the music. Two questions asked subjects to what extent "does your mood fit" and "can you relate to" the mood of the music, and two questions asked to what extent "you have a clear grasp" and "a clear sense" of the mood of the piece. The subjects responded on scales ranging from 1 (not at all) to 7 (completely).

Next, eight questions asked the subjects to rate their personal satisfaction. The subjects rated their satisfaction with: (1) their social-personal life; (2) their academic performance; (3) their life in general; (4) President Reagan's performance in office; and (5) the United States government's concern for the welfare of its people. The subjects also rated: (6) how

much they expected to enjoy their remaining time at Stanford; (7) how prepared they would be for a career after Stanford; and (8) how prepared they would be for life in general after Stanford. The subjects made these judgements on 11-point bipolar scales ranging from -5 (very negative) to +5 (very positive). These questions are similar to those used in previous investigations of judgements of life satisfaction (Forgas & Moylan, 1987; Keltner et al., 1993; Schwarz & Clore, 1983).

The final three questions asked the subjects to describe their current emotions. The subjects were asked to rate how happy, how sad, and how emotional they felt at that moment on scales ranging from 1 (not at all) to 7 (very). When the subjects had responded to all the questions, they were debriefed and thanked for their participation.

Results and Discussion

Ratings of the Music. The subjects' ratings of how well the music's mood fit their mood and how well they could relate to the music's mood were averaged to yield an overall measure of mood congruence (Cronbach alpha = 0.91). The subjects' ratings of the extent to which they had a grasp of the music and a sense of the music's theme were averaged to yield an overall measure of *understanding* (Cronbach alpha = 0.93).

Two by two analyses of variance on subjects' ratings, with type of music (congruent or incongruent) and type of instructions (comparison or distraction) as between-subjects independent variables, revealed main effects for type of music and type of instructions. The comparison subjects, relative to the distraction subjects, described the music as more congruent ($M = 4.58$ vs. $M = 3.63$), $F(1,48) = 7.52$, $P < 0.01$, and understandable ($M = 5.44$ vs. $M = 4.62$), $F(1,48) = 7.36$, $P < 0.01$. Similarly, the subjects described the congruent music, relative to the incongruent music, as more congruent ($M = 5.65$ vs. $M = 2.96$), $F(1,48) = 73.31$, $P < 0.001$, and understandable ($M = 5.62$ vs. $M = 4.42$), $F(1,48) = 13.86$, $P < 0.01$. Our data cannot indicate whether subjects rated the melancholy music as more congruent and understandable because: (1) their negative feelings made them more receptive to the melancholy piece; or (2) the melancholy piece actually conveyed a clearer mood. The interaction of the music and the instructions did not influence subjects' ratings, both P s > 0.25 .

Ratings of Life Satisfaction. The eight satisfaction items were averaged to yield an overall rating of life satisfaction (alpha = 0.53). A 2×2 analysis of variance revealed a significant effect of the interaction of type of music and type of instructions, $F(1,48) = 4.35$, $P < 0.05$. Table 1 shows that, as expected, the downward comparison and incongruent distraction subjects were more satisfied than the upward comparison and incongruent distraction

TABLE 1
Mean Emotion and Satisfaction Ratings by Type of Music and Type of Response

Scale	Comparison				Distraction			
	Congruent Music		Incongruent Music		Congruent Music		Incongruent Music	
	M	sd	M	sd	M	sd	M	sd
Satisfaction	2.45	(0.9)	1.94	(1.2)	1.81	(0.9)	2.41	(0.9)
Valence	0.00	(3.1)	-0.77	(1.8)	-0.31	(2.8)	1.62	(2.2)
Emotionality	4.61	(1.4)	4.46	(1.8)	4.08	(1.8)	3.38	(1.1)

Note: Life satisfaction represents the mean of eight ratings. Satisfaction ratings were made on -5 to +5 scales; emotion ratings were made on 1 to 7 scales.

tion subjects. Neither the main effects nor the simple effects alone were significant, all P s > 0.05 .

Ratings of Current Emotions. The subjects' overall positive-negative emotional valence was computed by subtracting their sadness ratings from their happiness ratings (alpha = 0.74). A 2×2 analysis of variance revealed a marginally significant effect of the interaction of type of music and instructions on the subjects' emotional valence, $F(1,48) = 3.64$, $P = 0.06$. Table 1 shows that whereas the subjects who engaged in incongruent distraction reported an overall positive emotional valence, the subjects who engaged in congruent distraction or upward comparison reported an overall negative valence. A 2×2 analysis of variance also showed a marginally significant effect of instructions on ratings of emotionality, with subjects who engaged in distraction feeling less emotional than subjects who engaged in comparison, $F(1,48) = 3.38$, $P < 0.08$. Overall, the incongruent distraction subjects reported feeling the least emotional and the most positive.

A final question concerns the relationship between current emotions and judgements of satisfaction. As expected, the valence of subjects' emotions correlated positively with their judgements of overall satisfaction, $r(50) = 0.47$, $P < 0.001$. The correlations for subjects engaging in comparison vs. distraction were, respectively, $r(24) = 0.25$, $P > 0.05$, and $r(24) = 0.68$, $P < 0.001$; the difference in magnitude was significant, $z = 1.95$, $P = 0.05$. Thus, engaging in emotional comparison weakened the positive relationship between current emotions and judgements of satisfaction relative to engaging in distraction.

STUDY 2

Study 2 extended Study 1 by: (1) using a different artistic medium (poetry instead of music); and (2) testing an alternative explanation of the relatively elevated satisfaction of the downward comparison group. Research

shows that people use current feelings to inform judgements of satisfaction unless they attribute those feelings to transient situational causes (Keltner et al., 1993; Schwarz & Clore, 1983). The downward comparison subjects in Study 1 may have attributed their negative feelings to the sad music (a salient transient external cause), and thus discounted the relevance of those feelings to judgements of satisfaction. If so, attributions, rather than comparisons, might be the cause of their relatively high satisfaction ratings and their relatively low emotion-satisfaction correlations. To test this hypothesis, the subjects in Study 2 were asked to rate the extent to which they believed the poem caused their current emotions.

Method

Subjects. A total of 52 students participated in partial fulfilment of an introductory psychology course requirement at San Jose State University. Thirteen subjects (approximately 50% men and 50% women) were randomly assigned to each of the four conditions of the 2 (emotion congruent vs. emotion incongruent poem) \times 2 (comparison vs. distraction) factorial design. The subjects were run in small groups.

Poems. As with the music in Study 1, two poems were selected: an emotion congruent poem and an emotion incongruent poem. The congruent poem was an excerpt from *Ship of death* by D.H. Lawrence (1977). Below is the text of that poem.

Now it is autumn and the falling fruit
and the long journey towards oblivion.
The apples falling like great drops of dew
to bruise themselves an exit from themselves
And it is time to go, to bid farewell
to one's own self, and find an exit
from the fallen self.
Have you built your ship of death, O have you?
O build your ship of death, for you will need it.
The grim frost is at hand, when the apples will fall
thick, almost thunderous, on the hardened earth . . .
Build then the ship of death, for you must take
the longest journey, to oblivion.
And die the death, the long and painful death
that lies between the old self and the new.

The incongruent poem was *L*, by e.e. cummings (1979), which was chosen because of its fast, playful rhythm, and upbeat theme—a declaration of love. Below is the text of that poem.

which is the very
(in sad this havingest
world)most merry
most fair most rare
)the livingest givingest
girl on this whirlingest
earth ?
why you're
by far the darlingest
who(on this busily
nowhere rollingest
it)'s the dizzily
he most him
)the climbingly fallingest
fool in this trickiest
if ?
why i'm
by much the luckiest
what of the wonder
(beingest growingest)
over all under
all hate all fear
)all perfectly dyingest
my and foreverless
thy?
why our
is love and neverless

Although the excerpt from *Ship of death* included more words than *L*, in pre-testing it took subjects the same amount of time to read the two poems, presumably because of the more unusual use of words in *L*.

We asked 17 undergraduates from an introductory psychology class to read each poem and rates how well each of 20 congruent (sad) and incongruent feeling words described what the poet was feeling and trying to express. The ratings were made on 1 (not at all) to 5 (very) scales. The words were the same as those used to rate the music in Study 1, but the raters were different.

As expected, *Ship of death* was rated significantly higher than *L* on the sad items, $t(16) = 5.59$, $P < 0.001$; the means were, respectively, 3.3 and 1.8. Conversely, *L* was rated significantly higher than *Ship of death* on the incongruent items, $t(16) = 3.63$, $P = 0.002$; the means were, respectively, 3.7 and 2.6. *Ship of death* was rated as most expressive of depression (3.8), sorrow (3.8), sadness (3.7), and grief (3.6). *L* was rated as most expressive of feeling alive (4.0), excited (3.9), exuberant (3.8), and energetic (3.8).

Procedure

Subjects were run in groups of approximately 10, but were seated apart from each other to provide privacy. Subjects were informed that the experiment was part of an investigation of imaginative abilities. Subjects were given a packet containing the experimental material and instructions, and were asked to proceed through the packet page by page and to notify the experimenter when they were finished.

The first part of the procedure was the sad mood induction. Subjects were asked to spend three minutes describing the last time a situation had made them sad and how it made them sad. This induction has been found to induce sadness (Strack, Schwarz, & Gschneidinger, 1985). After the subjects finished describing the sad situation, they were presented with a brief poem (either *Ship of death* or *L*). Instructions printed above the poem asked the subjects to either engage in comparison ("attend to how your mood is similar or dissimilar to the mood of the poem") or distraction ("attend to the poet's unusual use of words and sentence structure") while reading the poem.

When subjects finished reading the poem, they responded to questions concerning their experience of the poem, their life satisfaction, and their current emotions. First, four questions asked the subjects to evaluate their experience of the poem. The subjects rated the extent to which: (1) their mood fitted the mood of the poem; (2) they had a clear grasp of the mood of the poem; (3) they found the poem to be aesthetically pleasing; and (4) the poem caused their current emotions. The next two questions asked subjects to rate their satisfaction with: (1) their life in general; and (2) their social-personal life. The next four questions asked subjects to rate how sad, happy, anxious, and emotional they felt at that moment. The final question asked subjects "to what extent do you believe the emotions you experienced as a result of thinking about the sad event are over or completed?" Subjects responded to all items except the two satisfaction items on scales ranging from 1 (not at all) to 7 (very); subjects responded to the satisfaction items on 11-point scales ranging from -5 (very unsatisfied) to +5 (very satisfied). When the subjects had responded to all the questions, they were debriefed and thanked for their participation.

RESULTS AND DISCUSSION

Ratings of the Poems. Two by two analyses of variance on subjects' ratings of the poems, with type of poem (congruent or incongruent) and type of instructions (comparison or distraction) as between-subjects independent variables, revealed the following. First, the instructions influenced subjects' perceived grasp of the poem. Subjects who engaged

in comparison felt they had grasped the meaning of the poem to a greater extent ($M = 4.46$, $sd = 1.48$) than subjects who had engaged in distraction ($M = 3.65$, $sd = 1.70$), $F(1,48) = 3.86$, $P = 0.05$. Secondly, regardless of the type of instructions, subjects' grasp of *Ship of death* ($M = 4.46$, $sd = 1.48$) exceeded their grasp of *L* ($M = 3.65$, $sd = 1.70$), $F(1,48) = 8.40$, $P < 0.01$. The perceived impact on current feelings of *Ship of death* ($M = 4.00$, $sd = 1.88$) also exceeded that of *L* ($M = 2.92$, $sd = 1.65$), $F(1,48) = 4.67$, $P < 0.05$. No other effects were significant.

Ratings of Life Satisfaction. The two satisfaction items were averaged to yield an overall rating of life satisfaction ($\alpha = 0.86$). As in Study 1, the main effects on satisfaction of type of instructions and type of poem were not significant (both P s > 0.1), but the interaction effect was significant, $F(1,48) = 9.59$, $P < 0.01$. Table 2 shows that, as expected, the downward comparison subjects were more satisfied than the upward comparison subjects, protected $t(48) = 2.40$, $P < 0.05$, and the incongruent distraction subjects were more satisfied than the upward comparison and congruent distraction subjects, protected $t(48) = 1.98$, $P < 0.06$.

Ratings of Current Emotions. Emotional valence was computed by subtracting the sadness ratings from happiness ratings ($\alpha = 0.73$). In contrast to Study 1, the subjects in the different conditions of Study 2 did not differ in their ratings of emotional valence or emotionality, both P s > 0.2 . One possible explanation for the discrepancy between the results of the two studies is that the mood induction in Study 1 may have evoked more negative feelings than did the mood induction in Study 2. Supportive of this explanation, the emotional valence of the subjects in Study 1

TABLE 2
Mean Satisfaction and Emotion Ratings by Type of Poem and Type of Response

Scale	Comparison				Distraction			
	Congruent Poem		Incongruent Poem		Congruent Poem		Incongruent Poem	
	M	sd	M	sd	M	sd	M	sd
Satisfaction	2.38	(1.7)	0.38	(2.3)	1.31	(2.7)	2.96	(1.6)
Valence	1.54	(2.5)	0.92	(2.7)	0.85	(3.3)	2.00	(2.9)
Anxiety	4.69	(1.7)	3.46	(1.4)	4.69	(1.7)	3.23	(1.9)
Emotionality	4.08	(1.6)	3.92	(1.4)	4.23	(1.5)	3.85	(1.9)
Emotions Over	3.62	(1.1)	3.85	(2.1)	4.69	(1.4)	4.61	(1.8)
Attribution	3.85	(1.7)	2.85	(1.6)	4.15	(2.1)	3.00	(1.8)

Note. Life satisfaction represents the mean of two ratings. Satisfaction ratings were made on -5 to +5 scales; other ratings were made on 1 to 7 scales.

($M = 0.13$) was significantly lower than that of the subjects in Study 2 ($M = 1.30$), $t(102) = 2.74$, $P < 0.005$.

The subjects who read *Ship of death* reported feeling more anxious than the subjects who read *L*, $F(1,48) = 8.25$, $P < 0.01$, perhaps because *Ship of death* heightened subjects' awareness of issues related to mortality. The final questions asked to what extent the emotions induced by thinking about the sad event were over. Consistent with the literature on distraction, the distraction subjects tended to believe to a greater extent than did the comparison subjects that the emotions elicited by the emotion induction were over, $F(1,48) = 3.39$, $P = 0.07$.

As in Study 1, emotional valence was positively correlated with life satisfaction, $r(50) = 0.58$, $P < 0.01$. The magnitude of the relationship was similar for subjects in the comparison and distraction conditions: $r(24) = 0.56$, $P < 0.01$, and $r(24) = 0.61$, $P < 0.001$, respectively. Misattribution of current emotions to the poems did not seem to affect this relationship: partialing out the variance in how much subjects attributed their current emotions to the poems did not noticeably change the magnitude of the valence-satisfaction correlation for any of the groups. Moreover, an attribution perspective would predict that if subjects attribute their negative emotions to circumstances irrelevant to life satisfaction (such as reading a sad poem), their judgements of life satisfaction will become more positive. Instead, the results showed that for the subjects who read the sad poem, the more they believed the poem caused their emotions, the *less* positive tended to be their ratings of life satisfaction, $r(24) = -0.38$, $P < 0.06$. Thus, at least in Study 2, the increased satisfaction of subjects who engaged in downward comparison does not appear to have been mediated by attributions of current emotions to the congruent art.

Results for Studies 1 and 2 Combined

Because the two studies share the same design and cell sizes, the main dependent variables of both studies—ratings of satisfaction, emotional valence, and emotionality—can be analysed by combining the data from both studies. First, for each study separately, we converted ratings of satisfaction, valence, and emotionality to z-scores. Then, 2 (comparison vs. distraction) \times 2 (congruent vs. incongruent art) analyses of variance were performed on the combined data from both studies. The interaction of type of response and type of art had significant effects on ratings of satisfaction, $F(1,100) = 13.64$, $P < 0.001$, and emotional valence, $F(1,100) = 4.65$, $P < 0.05$. No other effects were significant. The ratings of satisfaction and emotional valence across both studies are shown in Figs 1 and 2 respectively. The incongruent distraction subjects felt more positive and more satisfied, and the downward com-

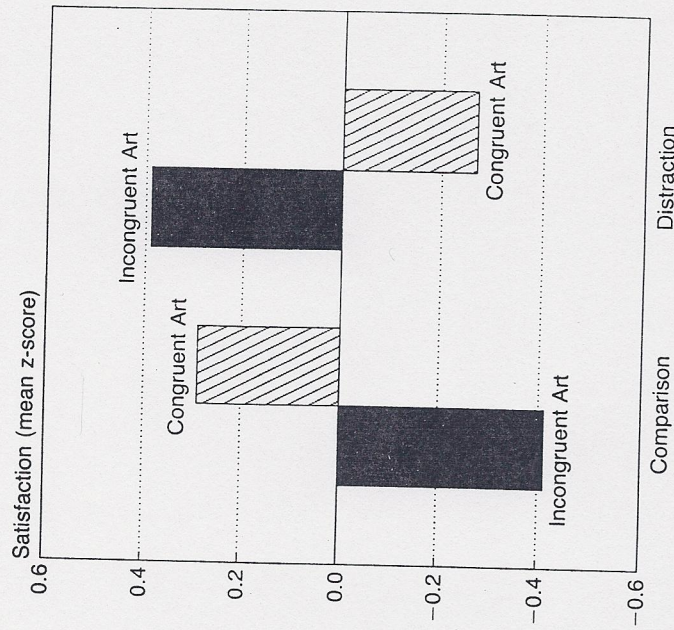


FIG. 1. Mean life satisfaction across both studies as a function of type of response and type of art.

parison subjects felt more satisfied, than the congruent distraction and upward comparison subjects (all P s < 0.05 by protected t -tests).

Ratings of life satisfaction and emotional valence were positively correlated, $r(102) = 0.50$, $P < 0.001$. After removing the differences in life satisfaction attributable to differences in emotional valence, the downward comparison group remained significantly more satisfied than the upward comparison group: before adding emotional valence as a covariate, $F(1,50) = 6.84$, $P = 0.012$; after adding covariate, $F(1,49) = 5.55$, $P = 0.022$. In contrast, after removing the differences in satisfaction attributable to emotional valence, the difference between the incongruent and congruent distraction subjects was only marginally significant: before adding covariate, $F(1,50) = 6.81$, $P = 0.012$; after adding covariate, $F(1,49) = 3.08$, $P = 0.085$. The covariance analyses suggest that changes in emotional valence are more important mediators of changes in satisfaction for distraction subjects than for comparison subjects.

These results should be interpreted in the context of several important caveats. First, the differences were relatively small in magnitude. Secondly, there were no control conditions designed to assess the effects of art alone or the passage of time alone. Thirdly, behaviour in controlled laboratory situations may not generalise to everyday life. More naturalistic approaches are needed to determine whether (and to what effect) people use art for comparison and distraction in responding to naturally occurring negative feelings. Finally, if subjects realised the true purpose of the manipulations, then their responses may have reflected experimental demand rather than true changes in well-being; this seems unlikely, however, because during the debriefing most subjects expressed surprise at the purpose and predictions of the study.

Distraction

The incongruent distraction subjects reported feeling relatively happy and satisfied. We speculate that the incongruent distractors helped alleviate subjects' negative mood (Nolen-Hoeksema, 1991), which in turn led to more optimistic judgements of satisfaction. Supportive of this hypothesis, the incongruent distraction group reported the most positive emotional valence of all the groups, and the difference in the satisfaction of the two distraction groups decreased noticeably when the variance attributable to emotional valence was removed.

In contrast, the congruent distraction subjects reported feeling relatively sad and dissatisfied. We speculate that their negative feelings became primed (Strauman & Higgins, 1987), spread (Bower, 1981), persisted (Weinberger, 1991), and intruded into awareness (Wenzlaff et al., 1988) even though they were consciously focusing on unemotional features (the musical instruments or sentence structures) of the melancholy art. Perhaps the effects of distraction are more robust in laboratory studies than correlational surveys (Nolen-Hoeksema, 1991) because laboratory manipulations typically force subjects to attend exclusively to mood incongruent distractors, whereas in the real world people (due to external constraints or poor judgement) may sometimes attend to mood congruent distractors as well.

Comparison

In our study, comparing negative emotions with emotion congruent standards (melancholy music and poetry) improved well-being, whereas comparing negative moods with emotion incongruent standards did not. Because our subjects were induced to feel mild dysphoria, our results may not generalise to people in other affective states. Indeed, prior research suggests that downward comparisons do not raise (and may even lower)

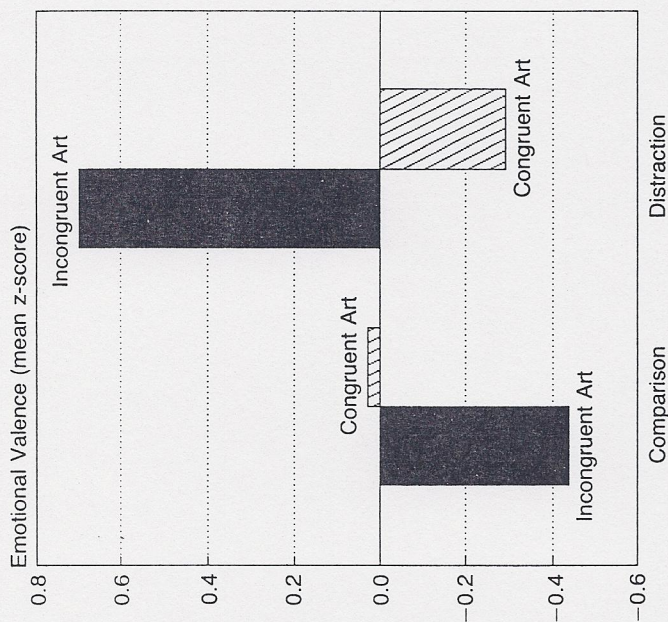


FIG. 2. Mean emotional valence across both studies as a function of type of response and type of art.

GENERAL DISCUSSION

Summary of the Findings

Two studies examined the influence of comparison, distraction, and art on emotional valence and life satisfaction. In both studies, after imagining events designed to evoke negative feelings, subjects engaged in emotional comparison or distraction with emotion congruent or incongruent music or poetry. Then, subjects rated their current emotions and life satisfaction. The subjects who engaged in distraction with incongruent art reported feeling more positive and more satisfied, and the subjects who engaged in comparison with congruent art reported feeling more satisfied, than subjects who engaged in distraction with congruent art or comparison with incongruent art. Thus, both distraction and comparison can improve well-being under certain conditions.

the well-being of people who are relatively calm, happy, and secure (Gibbons, 1986; Gibbons & Gerrard, 1989; Gibbons & McCoy, 1991).

Two findings suggest that changes in emotional valence did not mediate the increased satisfaction of the downward comparison group. First, the satisfaction of the downward comparison group was significantly more positive than that of the upward comparison and congruent distraction groups, but their emotional valence was not. Secondly, removing the variance in satisfaction attributable to emotional valence had little impact on the difference between the satisfaction of the two comparison groups. There was no evidence that causal attributions or aesthetic appreciations were important mediators either. Instead, comparison probably influenced ratings of well-being directly, with subjects' perceptions of their circumstances shifting in a direction opposite to the valence of the art.

Art

The current investigation showed that both melancholy and energetic art (when used as means of comparison and distraction, respectively) can help improve well-being. Interestingly, the role of art as a means of distraction is supported by philosophical definitions of aesthetic objects as those which compel attention (Sircello, 1975) and draw attention away from the self and its desires (Kant, 1951; Shaftesbury, 1741/1963). Art as a means of comparison has been more neglected, perhaps because art rarely involves direct contact with a comparison other. Yet, direct contact with distressed others is unnecessary (Wills, 1981), and may often be upsetting and avoided (Taylor & Lobel, 1989). Thus, it may be the lack of contact with others that allows artistic depictions of adversity and distress to be, for some dysphoric people, a source of solace.

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