



Published in final edited form as:

Emotion. 2011 August ; 11(4): 807–815. doi:10.1037/a0022010.

Can Seeking Happiness Make People Happy? Paradoxical Effects of Valuing Happiness

Iris B. Mauss¹, Maya Tamir², Craig L. Anderson³, and Nicole S. Savino¹

¹University of Denver

²Boston College and Hebrew University

³University of British Columbia, Vancouver

Abstract

Happiness is a key ingredient of well-being. It is thus reasonable to expect that valuing happiness will have beneficial outcomes. We argue that this may not always be the case. Instead, valuing happiness could be self-defeating because the more people value happiness, the more likely they will feel disappointed. This should apply particularly in positive situations, in which people have every reason to be happy. Two studies support this hypothesis. In Study 1, female participants who valued happiness more (vs. less) reported lower happiness when under conditions of low, but not high, life stress. In Study 2, compared to a control group, female participants who were experimentally induced to value happiness reacted less positively to a happy, but not a sad, emotion induction. This effect was mediated by participants' disappointment at their own feelings. Paradoxically, therefore, valuing happiness may lead people to be less happy just when happiness is within reach.

Those only are happy who have their minds fixed on some object other than their own happiness

-- Mill, 1873, p. 100

Happiness is a crucial ingredient of human well-being and health (Duckworth, Steen, & Seligman, 2005; Fredrickson, 1998; Lyubomirsky, King, & Diener, 2005) and, therefore, people generally value happiness (Diener, 2000; Myers, 2000). Indeed, in an acknowledgment of its value, the pursuit of happiness was identified as an "inalienable right" in the US Declaration of Independence. However, there is substantial variation in the extent to which people value happiness (Eid & Diener, 2001). Whereas some view it as a nice thing to have every now and then, others see it as the *sine qua non* of their existence. The current investigation examines how such differences in valuing happiness affect people's actual happiness and well-being. We based our operationalization of happiness on a prominent definition in the present cultural context, namely individuals' emotional state (cf. Diener, 2000; Kahneman, Diener, & Schwarz, 1999).

At first glance, valuing happiness should lead to positive outcomes, because it is assumed that the more one values happiness the happier one will be. Models of goal pursuit (e.g., Mischel, Cantor, & Feldman, 1996) generally back up this intuition. According to such

Publisher's Disclaimer: The following manuscript is the final accepted manuscript. It has not been subjected to the final copyediting, fact-checking, and proofreading required for formal publication. It is not the definitive, publisher-authenticated version. The American Psychological Association and its Council of Editors disclaim any responsibility or liabilities for errors or omissions of this manuscript version, any version derived from this manuscript by NIH, or other third parties. The published version is available at www.apa.org/pubs/journals/emo

models, people's values determine what they want to achieve, which in turn will lead them to work toward that goal. This can be illustrated with an example from another domain: A person who highly values academic excellence will want to achieve high grades and, thus, study harder. All else being equal, valuing academic excellence will result in better grades. Applying this logic, valuing happiness should result in greater happiness.

At a second glance, however, a particular feature of goal pursuit may lead to possible negative outcomes of valuing happiness. People's values determine not only what they want to achieve but also the standards against which they evaluate their achievements (Carver & Scheier, 1981). The person who highly values academic achievement and wants to achieve high grades is bound to be disappointed at times when he falls short of his high standards. In the case of academic achievement, this may not matter for the goal at hand – someone can feel disappointed but still achieve high grades. However, in the case of happiness, this feature of goal pursuit may lead to paradoxical effects, because the outcome of one's evaluation (i.e., disappointment and discontent) is incompatible with one's goal (i.e., happiness) (cf. Schooler, Ariely, & Loewenstein, 2003). This reasoning leads to a counterintuitive hypothesis: People who highly value happiness set happiness standards that are difficult to obtain, leading them to feel disappointed about how they feel, paradoxically decreasing their happiness the more they want it.

Disappointment at one's achievements should be most likely in situations that seem conducive to high achievement. For instance, people who value academic achievement are more likely to feel disappointed if they get a low grade at an easy class, compared to a hard one. Analogously, the paradoxical effect of valuing happiness should depend on the emotional context at hand. In relatively negative situations people can attribute their unhappiness to the circumstances (cf. McFarland & Ross, 1982). For instance, people are unlikely to be disappointed if they fail to be happy after hearing that a close friend had an accident. In contrast, in relatively positive situations, people have every reason to feel happy, and are likely to feel disappointed when they do not. For instance, people who value happiness may feel disappointed if they fail to feel happy at their own birthday party. In summary, the more people value happiness the less likely they may be to obtain it, especially when happiness appears within reach.

Little empirical research to date has directly tested these ideas. However, an experiment described in a chapter by Schooler and colleagues (Schooler et al., 2003) provides data consistent with the notion that the pursuit of happiness may cause decreased happiness. This study found that participants who were told to "try to make yourself feel as happy as possible" while they listened to a piece of hedonically ambiguous music, reported feeling *less* positive mood compared to a no-instruction control group. While these findings offer relevant insight, they are difficult to fully judge because they are reported as part of a chapter. In addition, the study design calls for several extensions. First, the manipulation of happiness goals was explicit, raising questions about experimental demand. Second, mood was measured only explicitly and with self-reports, which raises additional questions about experimental demand and validity of such measures as the sole index of emotional state (cf. Mauss & Robinson, 2009). Third, in this study emotional context was not manipulated. Because the model we described above leads one to predict paradoxical effects of valuing happiness in positive but not negative emotional contexts, research is needed that examines valuing happiness in multiple emotional contexts.

In sum, very little research has directly examined the idea that valuing happiness can negatively influence happiness. The few studies that have provided data consistent with this idea are subject to a number of limitations. Therefore, the present research was aimed to examine this idea while addressing key limitations of existing research. Our approach was

additionally guided by the wish to arrive at insights about longer-term well-being correlates as well as shorter-term causal effects of valuing happiness. We therefore obtained converging evidence from a correlational and an experimental study (cf. Cronbach, 1957).

In a first study, we examined whether individual differences in valuing happiness are related to happiness and well-being. We hypothesized that the more people value happiness, the lower their happiness and well-being would be in relatively positive contexts (i.e., lower life stress) but not in relatively negative contexts (i.e., higher life stress). In a second study, we examined the causal effects of valuing happiness by experimentally manipulating it and measuring participants' emotional reactions to either a positive or a negative emotion induction. Our experimental manipulation was tailored to be relatively implicit, to ascertain that values rather than perceived experimental demand were manipulated. We additionally reduced experimental demand by obtaining an implicit as well as an explicit measure of mood. We hypothesized that making participants value happiness more would lead them to feel less happy in response to a relatively positive context (a happiness induction), but not a relatively negative context (a sadness induction). We further expected this effect to be mediated by feelings of disappointment.

Study 1

Study 1 tested whether the degree to which individuals value happiness is associated with happiness and well-being. To do so, we recruited adult female participants from the community. To assess a range of indices of happiness and well-being, we measured trait hedonic balance (i.e., ratio of positive to negative mood), subjective well-being, psychological well-being, and depression symptoms. To examine the moderating effect of context, we assessed levels of life stress that participants had experienced in the past 18 months. We predicted that valuing happiness would be associated with lower trait hedonic balance, subjective well-being, and psychological well-being, and greater depression symptoms under conditions of low but not high stress.

Method

Participants and Procedure—Fifty-nine female participants (*mean age*=37.6 years, *SD*=12.3) were recruited from the Denver metro area through postings in online bulletins or in public areas such as laundromats and local hospitals. To ensure sufficient variance in levels of stress, participants were recruited to have experienced a stressful life event (SLE) within six months prior to the session. SLEs were defined to participants as events with a distinct onset (i.e., a relatively acute instead of a chronic stressor) that had a significant negative impact on their lives. Examples were provided to clarify what we meant (“e.g., divorce, injury to self, injury or death of a close family member, sudden unemployment, and exposure to crime”). In addition, all participants were screened during an initial phone call to ensure that they met selection criteria. Because a pilot study showed no gender effects on happiness values (see *Measures. Valuing happiness*) and to minimize error variance in associations between well-being and stress levels (and thus isolate effects of happiness values), only women were recruited. Participants' self-reported ethnic background was 81% European-American, 4% Asian-American, 4% Hispanic-American, 6% African-American, and 5% either mixed-race or other. Participants reported a range of family income levels (ranging from less than \$10,000/year to more than \$50,000/year) and educational backgrounds (ranging from partial completion of high school to graduate degree). Participants completed all surveys online at home and received \$15.

Measures

Valuing happiness: Various measures exist that assess values and processes related to happiness, including values regarding specific emotions in specific situations (Matsumoto, 1990; Timmers et al., 2003) and ideal affective states (Tsai, Knutson, & Fung, 2006). However, none of these scales captures the construct we set out to examine: valuing happiness to a potentially extreme degree. We thus developed a measure that would capture such values. Because our scale needed to correspond to the present, western cultural context we equated happiness to a prominent definition in this context: an individual's positive hedonic state. We generated items by examining existing scales of emotion-related values (e.g., affect valuation, Tsai et al., 2006; emotion control values, Mauss, Butler, Roberts, & Chu, in press) and by asking members of our research teams how they would describe their values regarding happiness. A process of validity and reliability checks yielded seven items, each rated on a 7-point Likert scale from 1 (strongly disagree) to 7 (strongly agree).¹ A pilot test ($N=292$; 50% male; mean age=39.8 years [$SD=11.8$]) indicated adequate internal consistency ($\alpha=.76$) and no gender differences, $t(290)=.77$, $p=.38$. An exploratory factor analysis supported that a one-factor solution was the most appropriate, with a first initial factor producing an Eigenvalue of 2.9 and explaining 41% of the variance. All seven items loaded positively on this factor, with all coefficients above .54. This factor was followed by one factor with an Eigenvalue of 1.2 that explained an additional 17% of the variance. Because the Eigenvalue of this factor was barely above 1 and because factor loadings on this factor were lower and did not yield a conceptually cohesive second factor, the one-factor solution was most appropriate.

Life stress: Stress was measured using the Life Experiences Survey (LES; Sarason, Johnson, & Siegel, 1978). The LES consists of 45 items assessing a range of potentially stressful events (e.g., death of a family member). Participants indicated for each item if a particular event had occurred in the past 18 months and the impact of that event (+3=extremely negative; -3=extremely positive). Like others (e.g., Herrington, Matheny, Curlette, McCarthy, & Penick, 2005), we only used the negative impact of events because positive events are less reliable predictors of well-being (e.g., Vinokur & Selzer, 1975). We summed impact ratings across all events to arrive at one cumulative stress score. Stress scores ranged from 0 to 39 ($M=10.9$, $SD=9.5$). To decrease the impact of two outliers (>2 SDs from the mean), we winsorized them to the 90th percentile (22.5). Stress was not related to age, ethnicity, family income, education, or valuing happiness ($ps>.13$).

Happiness and well-being: Trait hedonic balance was assessed as the ratio of positive over negative affect from the two 10-item subscales of the Positive and Negative Affect Schedule (Watson, Clark, and Tellegen, 1988). Subjective well-being was measured with the 5-item Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985). Psychological well-being was assessed with the 18-item Scales for Psychological Well-Being (Ryff & Keyes, 1995). Depression symptoms were measured with the 22-item Inventory to Diagnose Depression (Zimmerman & Coryell, 1986). One item concerning suicidality was omitted from this scale due to IRB concerns. All four measures were normally distributed according to tests of kurtosis and skewness. Scale descriptives and internal consistency coefficients are provided in Rows 2 and 3 of Table 1.

¹The seven items were as follows. 1. How happy I am at any given moment says a lot about how worthwhile my life is. 2. If I don't feel happy, maybe there is something wrong with me. 3. I value things in life only to the extent that they influence my personal happiness. 4. I would like to be happier than I generally am. 5. Feeling happy is extremely important to me. 6. I am concerned about my happiness even when I feel happy. 7. To have a meaningful life, I need to feel happy most of the time.

Results

A *MANOVA* with hedonic balance, psychological well-being, satisfaction with life, and depression symptoms as dependent variables and valuing happiness, stress level, and the valuing happiness by stress interaction as mean-centered, continuous predictor variables indicated significant effects of valuing happiness, $F(4,49)=4.9, p<.01, \eta_p^2=.29$, stress level, $F(4,49)=3.7, p<.01, \eta_p^2=.23$, and the valuing happiness by stress interaction, $F(4,49)=2.6, p<.05, \eta_p^2=.17$. Stress level was associated with lower hedonic balance, lower psychological well-being, less satisfaction with life, and higher levels of depression symptoms² (see Table 1, Row 4). Valuing happiness was associated with lower hedonic balance, lower psychological well-being, less satisfaction with life, and higher levels of depression symptoms (see Table 1, Row 5). As expected, each of these main effects was qualified by stress level, as indicated by significant interactions between valuing happiness and stress level (see Table 1, Row 6). As illustrated in Figure 1 and summarized in Table 1, Rows 7 and 8, simple slopes analyses (Aiken & West, 1991) indicated that at lower but not higher life stress, the more participants valued happiness, the lower their hedonic balance, psychological well-being, and satisfaction with life, and the higher their depression symptoms.³

Discussion

Results of Study 1 suggest that valuing happiness is not necessarily linked to greater happiness. In fact, under certain conditions, the opposite is true. Under conditions of low (but not high) life stress, the more people valued happiness, the lower were their hedonic balance, psychological well-being, and life satisfaction, and the higher their depression symptoms.

This pattern of associations was found across four distinct domains, including hedonic balance, subjective well-being, psychological well-being, and depression symptoms. While these domains covary (absolute inter-correlations ranged from .67 to .82 in the present study), they are conceptually distinct (e.g., Ryff & Keyes, 1995; Ryff et al., 2006). Thus, the paradoxical effects of valuing happiness may not be constrained to hedonic well-being and are relatively reliable.

While these findings are consistent with the hypothesis that valuing happiness can lead to less happiness, Study 1 is correlational and thus open to alternative interpretations. Most notably, associations between valuing happiness and well-being might be due to third variables or to effects of well-being. For instance, being unhappy may lead people to value happiness to a greater extent. The fact that we found relationships between valuing happiness and outcomes only under conditions of low stress makes this interpretation less plausible because it is difficult to explain why feeling unhappy would lead people to value happiness only when they experience low levels of life stress. Nonetheless, to bolster causal interpretations, an experimental manipulation of happiness values is necessary. Study 2 was designed to provide such a manipulation.

Study 2

In Study 2, we examined the causal effects of happiness values. To do so, we experimentally manipulated the extent to which people valued happiness and assessed emotional reactions

²Because variance of depression symptoms was greater in the higher than the lower-stress group (at $\pm SD$ of stress), we log-transformed depression symptoms, which yielded equal variances. All results were equivalent with log-transformed and non-transformed data. Therefore, figures and means present non-transformed scores.

³Lack of effects in the group of highly-stressed women were likely not due to floor effects, as *Levene* tests confirmed that there were equal variances across lower and higher stress groups.

to a relatively positive and a relatively negative laboratory context. Compared to a control group, we expected participants who were led to value happiness to feel less happy in the positive, but not the negative, context. We further predicted that the effect of the experimental manipulation would be mediated by participants' disappointment at their emotional reactions. To lead participants to value happiness while minimizing experimental demand, we used a fake newspaper article extolling the importance of happiness (cf. Hong, Chiu, Dweck, Lin, & Wan, 1999). This manipulation was geared to closely match the values we measured in Study 1. To manipulate emotional context in a standardized fashion (an important feature to rule out potential confounds such as positive emotional reactivity or the generation of particular emotional contexts by particular individuals), we used film clips pretested to induce happiness or sadness. Crossing these two factors (valuing happiness versus experimental control and happy versus sad context) resulted in four experimental groups: valuing happiness/ happy emotion induction, valuing happiness/sad emotion induction, experimental control/happy emotion induction, and experimental control/ sad emotion induction. Finally, to further minimize concerns about experimental demand, we used an implicit as well as an explicit measure of emotional experiences.

Method

Participants—Seventy women (*mean* age=21.1 years, *SD*=2.2) participated in exchange for course credit or \$20. Participants' self-reported ethnic background was 57.7% European-American, 7.0% Asian-American, 11.3% Hispanic-American, 8.5% African-American, 1.4% Pacific-Islander, 1.4% mixed, and 12.7% other or refused to report.

During the funneled debriefing (cf. Bargh & Chartrand, 2000), one participant (from the valuing happiness/sad film clip group) expressed strong suspicion about the nature of the faux newspaper article manipulation and was excluded from analyses, leaving 69 participants.

Procedure—To minimize experimental demand, participants were told they were in a study about “television programming.” Then, to neutralize and equate emotional states across participants, they watched a two-minute affectively neutral film clip. Participants were then randomly assigned to either a ‘valuing happiness’ or a control manipulation. Participants in the ‘valuing happiness’ condition were told the following:

“People who report higher than normal levels of happiness experience benefits in their social relationships, professional success, and overall health and well-being. That is, happiness not only feels good, it also carries important benefits: the happier people can make themselves feel from moment to moment, the more likely they are to be successful, healthy, and popular. (...). In fact, recent research shows that people who are able to achieve the greatest amount of happiness (...) can experience long-term beneficial outcomes. (...).”

Participants in the control condition read the same paragraph, except that all references to happiness were replaced by “making accurate judgments.”⁴

⁴To ensure that the experimental manipulation was effective, we ran a pilot study in which 40 participants were randomly assigned to either the experimental or the control manipulation and then completed the happiness values scale used in Study 1. Supporting the effectiveness of our manipulation, an ANOVA revealed that participants in the experimental condition valued happiness more than those in the control condition (*M*s [*SD*s]=4.6 [0.85] and 4.0 [0.75], respectively), $F(1, 38)=5.27, p=.03, \eta_p^2=.12$. To ensure that the experimental manipulation itself did not lead to differences in mood, we ran another pilot study in which 37 participants were randomly assigned to either the experimental or the control manipulation and then watched a 2-minute emotionally neutral film clip. They then rated their mood, using the same measure used in Study 2. Supporting that the manipulation paragraphs *per se* did not lead to differences in mood, an ANOVA revealed that participants in the two conditions did not differ from one another in terms of hedonic balance (*M*s [*SD*s]=3.3 [1.83] and 3.5 [2.29], respectively), $F(1, 35)=0.04, p=.84, \eta_p^2=.001$. The randomization check from Study 2 confirmed these results.

After participants underwent the valuing happiness manipulation, they were randomly assigned to watch either a happy or a sad two-minute film clip, pretested to primarily evoke the target emotion. The happy film clip showed a popular female figure skater winning a gold medal, the audience's enthusiastic reaction, and her celebrating with her coach. The sad film clip showed a happy couple in love spending a night out dancing, the wife's sudden death, and ends with the husband arriving to an empty home (cf. Rottenberg, Ray, & Gross, 2007). After watching the film clip, participants completed an implicit measure of their emotional state, in which they rated how much they liked each of two abstract polygons ($\alpha=.67$), provided in one random order. Positive feelings tend to be associated with more positive judgments (e.g., Mayer & Hanson, 1995), and thus greater liking of the polygons indicates more positive mood.

To explicitly measure emotional state, participants then rated on a 1 (none) to 9 (extremely) scale the maximal extent to which during the film clip they had experienced two positive emotions (joy and happiness; $\alpha=.96$) and seven negative emotions (anxiety, sadness, shame, worry, nervousness, frustration, and tension; $\alpha=.90$). As in Study 1, we formed an index of hedonic balance by taking the ratio of positive to negative emotion. The correlation between the implicit and the explicit measures was positive but modest ($r=.29, p=.01$), indicating that the two measures were not redundant with one another.

To ascertain the effectiveness of the happiness values manipulation, participants then rated to what extent they had "tried to feel more positive during the previous film clip" on a 1 (none) to 9 (extremely) Likert scale. To assess a key mediator, participants rated to what extent they had "felt disappointed during the previous film clip" and "should have enjoyed the film clip more" on a 1 (=none) to 9 (=extremely) Likert scale ($\alpha=.68$). All measures were normally distributed according to tests of kurtosis and skewness.

Results

Randomization Check—After watching the neutral film clip and before the experimental manipulation, the four experimental groups did not differ from one another in terms of hedonic balance, implicit mood, attempts to feel more positively, and disappointment, as indicated by four ANOVAs with values condition and film clip valence as independent variables, $F_s(1, 65) < .79, p_s > .40$.

Manipulation check: Emotional Film Clips—The film clips induced the intended emotions, as indicated by hedonic balance in the control group, which was greater for the happy than for the sad film clip, groupwise $t(33)=8.96, p < .001$, greater for the happy than for the neutral film clip, pairwise $t(16)=2.24, p=.04$, and lower for the sad than for the neutral film clip, pairwise $t(17)=5.97, p < .001$ (*Means [SD]* happy film clip: 5.8 [2.3]; sad film clip: 0.9 [0.6]; neutral film clip: 4.4 [2.1]).

Manipulation Check: Effectiveness of the Valuing Happiness Manipulation—An ANOVA with values condition and film valence condition as independent variables indicated that the values manipulation worked as intended. Participants in the valuing happiness condition indicated that they tried harder than those in the control condition to feel positively, $F(1,65)=16.79, p < .001, \eta_p^2=.21$ (*Means [SD]* valuing happiness group: 4.7 [1.9], control group: 2.6 [2.3]). There were no effects involving film clip valence on participants' attempts to feel more positively, $F_s(1,65) < 1.26, p_s > .27$.

Effects of Valuing Happiness on Explicitly Measured Emotion—We predicted that leading participants to value happiness (compared to the control group) would lead them to feel more negative hedonic balance in a happy, but not a sad, emotional context.

Consistent with this hypothesis, an ANOVA with happiness values condition and film valence condition as independent variables and explicitly measured emotion as a dependent variable indicated a significant Happiness Values \times Film Valence interaction, $F(1,65)=5.65$, $p=.02$, $\eta_p^2=.08$ (see Figure 2)⁵. Follow-up t tests indicated that participants who were led to value happiness exhibited more negative hedonic balance than participants in the control condition during the happy film clip, $t(33)=2.46$, $p=.02$, $\eta_p^2=.15$, but not the sad film clip, $t(32)=-.83$, $p=.41$.⁶

Effects of Valuing Happiness on Implicitly Measured Emotion—We ran a similar analysis to the one used for explicitly measured emotion, using implicitly measured emotion as the dependent variable. As predicted, we found a significant Happiness Values \times Film Valence interaction, $F(1,65)=5.47$, $p=.02$, $\eta_p^2=.08$ (see Figure 3). Follow-up t -tests indicated that participants who were led to value happiness more were in a less positive emotional state than participants in the control condition after the happy clip, $t(33)=2.65$, $p=.01$, $\eta_p^2=.18$, but not after the sad clip, $t(32)=-.42$, $p=.68$.⁶

Disappointment as a Mediator—To test whether effects of the values manipulation were mediated by disappointment, we followed procedures suggested by Baron and Kenny (1986). Because our sample was relatively small, a bootstrapping method was used to test the indirect effect (cf. Preacher & Hayes, 2004). As discussed above, the happiness values manipulation affected emotional reactions to the happy film clip. The happiness values manipulation also affected disappointment during the happy film clip, $t(33)=-2.06$, $p=.05$, $\eta_p^2=.11$, such that participants led to value happiness more were more disappointed about their emotional state than participants in the control condition (M_s [SD_s]=3.06 [2.55] and 1.71 [1.08] in the happiness values and control groups, respectively). Disappointment, in turn, was negatively associated with explicitly measured emotion (hedonic balance), standardized $\beta=-.61$, $p<.001$. When both happiness values condition and disappointment were included as predictors of hedonic balance, the effect of happiness values condition was no longer significant, $p=.19$, indicating full mediation. Lastly, bootstrapping tests with 5,000 re-samples estimated the indirect effect for hedonic balance as $-.33$, $SE=.22$, 95% CI (bias corrected) $[-.83$ to $-.02$. A bootstrapping rather than Sobel's Z test was used because this test is more powerful and less biased in relatively small samples such as the present one (Preacher & Hayes, 2004).

Disappointment about emotional state was only marginally correlated with implicitly measured emotion, standardized $\beta=-.30$, $p=.08$, and thus we did not further test for mediation.

Discussion

Using an experimental manipulation, Study 2 demonstrates that valuing happiness can lead to less happiness, precisely in a situation that should give rise to it, namely a happy emotion induction. Supporting the reliability of this finding, this pattern was obtained using both an explicit and an implicit measure of emotion. These findings are consistent with the idea that valuing happiness leads to less happiness by setting people up for disappointment. Indeed, the effects of valuing happiness on emotional reactions were fully mediated by participants' disappointment about their feelings.

⁵Because variances differed between the four groups, we log-transformed hedonic balance, which yielded equal variances. All results were equivalent with log-transformed and non-transformed data. Therefore, figures and means present non-transformed scores.

⁶A *Levene* test confirmed that variances were equal across the happy and the sad emotion induction conditions, suggesting that null effects in the sad film condition were not due to floor effects.

Interestingly, mediation by disappointment was only obtained when using the explicit, but not the implicit, measure of emotion because the implicit measure of emotion was only marginally related to disappointment. Indeed, the correlation between implicit mood and disappointment was significantly smaller than the correlation between explicit mood and disappointment (Steiger's $Z=3.16$, $p<.01$). There are at least two plausible explanations for this dissociation. First, it may be that disappointment (as measured with self reports) shares less method variance with the implicit than with the explicit measure (Greenwald & Banaji, 1995). Second, it may be that valuing happiness influences implicit and explicit aspects of mood via two different pathways (Greenwald & Banaji, 1995; Nosek, 2007). While explicit aspects of mood may be influenced more via disappointment, implicit aspects of mood may be influenced by a different process. For example, disappointment may mediate effects on explicitly measured mood while less declaratory processes such as self-monitoring may mediate effects on implicitly measured mood. This may be because disappointment takes its effects when it becomes conscious and declaratory (i.e., a person's mood only becomes affected when he becomes aware of the fact that he feels disappointed), and might thus influence declaratory and explicit aspects of mood (cf. Schooler & Schreiber, 2004). In contrast, less declaratory processes such as self-monitoring may more strongly influence more implicit aspects of mood because paying attention to one's self may disrupt more basic, less declarative forms of positive emotion experience (cf. Schooler & Schreiber, 2004). Future research is needed to further explore these ideas.

One alternative explanation for the present results is that the manipulation of happiness values led to differences in mood, which in turn could explain mood effects of the experimental manipulation after the mood induction. For instance, it is possible that comparing oneself to the happier-than-normal person described in the happiness values paragraph could induce negative mood. Three pieces of evidence speak against this explanation. First, as described in Footnote 4, pretesting as well as the randomization check did not reveal differences in mood effects between the two paragraphs. Second, if the paragraphs themselves led to differences in mood, one would expect a main effect of the manipulation rather than the interaction with film clip valence that was found. Third, self-reported attempts to increase positive emotion were correlated positively with disappointment, $r(68) = .25$, $p = .04$, again suggesting that it is not simply mood induced by the paragraphs that is causing the effects on mood after the film clips.

General Discussion

The current findings demonstrate that under certain circumstances, valuing happiness may be self-defeating. Leading people to value happiness more made them feel less happy. This effect was found in a positive emotional context but not in a negative emotional context, because in positive contexts expectations for happiness are high and it is difficult to attribute failure to be happy to one's circumstances. Therefore, in positive contexts, people are more likely to feel disappointed in their level of happiness, and ultimately feel less happy. Consistent with these experimental findings, when examining correlates of happiness values among a community sample of women, we found that women who valued happiness more tended to experience less positive hedonic balance, be less satisfied with their lives, report lower psychological well-being, and greater levels of depression symptoms. These associations were found only among women who experienced relatively positive (low stress), but not negative (elevated stress), life circumstances. Thus, valuing happiness can impair happiness, just when happiness seems most attainable.

Implications for Emotion Regulation

People's values influence self regulation in two ways. First, the more people value a particular outcome, the more effort they exert to attain it (e.g., Emmons, 1991). Second, the

more people value a particular outcome, the higher the standards they apply when evaluating the outcomes of self regulation (Carver & Scheier, 1981), and so the more likely they are to feel disappointed at their progress. When goals are not emotional (e.g., academic), goal achievement can be independent from how people feel about their achievement (i.e., one can be disappointed and yet achieve high grades). However, this is not the case when goals are emotional in nature (e.g., to feel happy). In this case, high values may *adversely* affect goal achievement by influencing how people feel about their achievements (i.e., the disappointment one feels undermines one's happiness). In these cases, values can lead to paradoxical effects. In line with this logic, the present studies demonstrate that the more people value happiness, the less happy they are in positive situations, because they feel disappointed at their feelings.

This reasoning suggests two more general hypotheses. First, paradoxical effects should occur when people pursue *any* emotion-regulatory goal, because in this case goals and how people feel about their progress toward their goals both involve feelings, and hence, may be in conflict with one another. Second, all else being equal, paradoxical effects should be less likely to occur when people pursue *non*-emotion-regulatory goals, because then goals and how people feel about their progress toward their goals are not in conflict with one another. Future research should examine these hypotheses.

One might argue that simply wanting to be happy or simply becoming aware of one's happiness could impair happiness (Deci, Koestner, & Ryan, 1999; Schooler et al., 2003; Schooler & Mauss, 2010; Wegner, 1994). However, our findings suggest that the paradoxical effects of valuing happiness are not due to pursuing happiness as a goal or awareness of it, but rather, to how people evaluate their progress toward this goal. In Study 2, leading participants to value happiness more increased their attempts to feel more positively, regardless of film clip valence. Yet, only participants who also watched a happy film clip felt disappointed and ended up feeling less happy. This suggests that attempts to feel happier or greater awareness of one's happiness by themselves do not necessarily lead to less happiness. Rather, it appears to be the negative evaluation of one's self-regulatory attempts that impairs happiness, and this is most likely in contexts perceived to be conducive to happiness.

Implications for Happiness Research and Interventions

Happiness is generally highly valued (Eid & Diener, 2001). In fact, one might accuse modern-day Westerners to be obsessed with happiness, considering the ever-growing number of psychological and popular-science books examining happiness and how people can increase it (e.g., Diener & Biswas-Diener, 2008; Eid & Larsen, 2008; Gilbert, 2006; Lyubomirsky, 2008; Seligman & Csikszentmihalyi, 2000; Shimoff & Kline, 2009). Thus, the finding that highly valuing happiness is associated with negative outcomes has important implications.

The present findings suggest that further encouraging a mindset to maximize happiness (as some "self help" books do) may be counterproductive, in that it might increase the extent to which people value happiness, making them more vulnerable to paradoxical effects. Conversely, it may be advantageous to encourage people to follow John Stewart Mill's suggestion not to have their mind fixed on their personal happiness. Indeed, decreased valuing of happiness might be one of the active ingredients of acceptance of negative emotional experiences (Roemer, Salters, Farra, & Orsillo, 2005; Shallcross, Troy, Boland, & Mauss, in press) and of acceptance-based therapies (Hayes, Strosahl, & Wilson, 1999), which aim to enhance clients' acceptance of the full range of emotions, including negative ones.

Importantly, the present findings do not suggest that valuing happiness is *always* self-defeating. Valuing happiness could lead to greater happiness if people are given the right tools to pursue it (e.g., emotion regulatory abilities; cf. Gilbert, 2006; Lyubomirsky, 2008) or if they define happiness more broadly than their personal emotional state, as the present operationalization of happiness encouraged them to do. Valuing other types of happiness (e.g., those based on social engagement; Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008; Keltner, 2009; Kesebir & Diener, 2008; Konow & Earley, 2008; Ryff & Singer, 2008) might circumvent the paradoxical effects described here, because in this case one's happiness goals would be dissociated from how one feels about them.

Our findings raise the interesting question of whether happiness values might systematically affect cultural groups. For instance, US-Americans value happiness highly in international comparison (Eid & Diener, 2001). All else being equal, do these high values for happiness impair the happiness of US-Americans compared to members of other cultures? A study of the effects of happiness values on well-being across nations is yet to be undertaken. However, our findings offer an intriguing explanation for the vexing paradox that even in the face of objectively positive life circumstances nations generally do not become happier (Easterlin, 1973).

It is conceivable that only the most extreme levels of happiness values lead to negative consequences for individuals' happiness (cf. Oishi, Diener, & Lucas, 2007). To examine this possibility, we tested non-linear relationships between happiness values and outcomes in Study 1. There was no evidence for non-linear relationships, suggesting that it is not just at its extremes that valuing happiness affects people's well-being. Nonetheless, the happiness values scale in Study 1 and the experimental manipulation of happiness values in Study 2 target relatively extreme cases (e.g., "Feeling happy is extremely important to me"). Future research should explore at what point valuing happiness becomes harmful.

Limitations and Conclusion

As with any research, ours is not without limitations. First, the present research was conducted exclusively with female participants living in the US. Study 1 extends generalizability of the present effects by providing a community sample of women with a high range of ages, in addition to the college sample examined in Study 2. Also, pilot testing suggested no gender effects in happiness values. Nonetheless, given that cultures differ in their values regarding emotions and in how they define happiness (Eid & Diener, 2001; Frijda & Mesquita, 1995; Tsai et al., 2006), it will be important to examine whether the current findings generalize to men and to other cultural contexts.

A second limitation concerns our mediational findings. In Study 2, we found that disappointment about one's feelings mediated the effects of valuing happiness on emotional reactions to the films. Although encouraging, this finding needs to be interpreted cautiously. Given our cross-sectional approach, the mediation findings can only hint at mechanism. Future studies that manipulate disappointment or use longitudinal designs will provide more conclusive evidence. In addition, it will be important to explore other mediators – of the experimental effects as well as of the individual differences in valuing happiness, including experiential avoidance, self monitoring, materialism, extrinsic motivation, and social belonging (cf. Lyubomirsky & Lepper, 1999; Schooler et al., 2003; Shallcross et al., in press; Van Boven & Gilovich, 2003). The fact that Study 2 showed that disappointment acted as a mediator does not preclude other mediators to be at work as well.

Our findings point at important directions for future research, exploring a fascinating paradox. Although happiness is regarded as one of the most basic and rational human pursuits, valuing happiness – as many people do -- can backfire.

Acknowledgments

This study was supported by a grant from the National Institute on Aging (1R21AG031967) awarded to Iris Mauss. We thank Matthew Boland, Leaf Van Boven, June Gruber, and Michelle N. Shiota for their contributions to this research.

References

- Aiken, L.S.; West, S.G. Multiple regression: Testing and interpreting interactions. Thousand Oaks, CA: Sage Publications, Inc; 1991.
- Bargh, J.A.; Chartrand, T.L. The mind in the middle: A practical guide to priming and automaticity research. In: Reis, H.T.; Judd, C.M., editors. Handbook of research methods in social and personality psychology. New York, NY: Cambridge University Press; 2000. p. 253-285.
- Baron RM, Kenny DA. The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*. 1986; 51(6):1173–1182. [PubMed: 3806354]
- Carver, C.S.; Scheier, M.F. Attention and self-regulation: A control theory approach to human behavior. New York, NY: Springer-Verlag; 1981.
- Cronbach L.J. The two disciplines of scientific psychology. *American Psychologist*. 1957; 12:671–685.
- Deci E.L., Koestner R, Ryan R.M. A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin*. 1999; 125(6):627–668. [PubMed: 10589297]
- Diener E. The science of happiness and a proposal for a national index. *American Psychologist*. 2000; 55(1):34–43. [PubMed: 11392863]
- Diener, E.; Biswas-Diener, R. Happiness: Unlocking the mysteries of psychological wealth. Malden, MA: Blackwell Publishing; 2008.
- Diener E, Emmons RA, Larsen RJ, Griffin S. The satisfaction with life scale. *Journal of Personality Assessment*. 1985; 49(1):71–75. [PubMed: 16367493]
- Duckworth AL, Steen TA, Seligman MEP. Positive psychology in clinical practice. *Annual Review of Clinical Psychology*. 2005; 1(1):629–651.
- Easterlin RA. Does money buy happiness? *The Public Interest*. 1973; 30:3–10.
- Eid M, Diener E. Norms for experiencing emotions in different cultures: Inter- and intranational differences. *Journal of Personality and Social Psychology*. 2001; 81(5):869–885. [PubMed: 11708563]
- Eid, M.; Larsen, R.J. The science of subjective well-being. New York: Guilford; 2008.
- Emmons RA. Personal strivings, daily life events, and psychological and physical well-being. *Journal of Personality*. 1991; 59(3):453–472. [PubMed: 1960639]
- Fredrickson BL. What good are positive emotions? *Review of General Psychology*. 1998; 2(3):300–319. [PubMed: 21850154]
- Fredrickson BL, Cohn MA, Coffey KA, Pek J, Finkel SM. Open hearts build lives: Positive emotions, induced through loving-kindness meditation, build consequential personal resources. *Journal of Personality and Social Psychology*. 2008; 95(5):1045–1062. [PubMed: 18954193]
- Frijda, N.H.; Mesquita, B. The social roles and functions of emotions. In: Kitayama, S.; Markus, H.R., editors. Emotion and culture: Empirical studies of mutual influence. Washington, DC: American Psychological Association; 1995. p. 51-87.
- Gilbert, D.T. *Stumbling on happiness*. New York: Knopf; 2006.
- Greenwald AG, Banaji MR. Implicit social cognition: Attitudes, self-esteem and stereotypes. *Psychological Review*. 1995; 102(1):4–27. [PubMed: 7878162]
- Hayes, S.C.; Strosahl, K.; Wilson, K.G. Acceptance and commitment therapy: An experiential approach to behavior change. New York: Guilford Press; 1999.
- Herrington AN, Matheny KB, Curlette WL, McCarthy CJ, Penick J. Lifestyles, coping resources, and negative life events as predictors of emotional distress in university women. *Journal of Individual Psychology*. 2005; 61(4):343–364.

- Hong Y, Chiu C, Dweck CS, Lin DMS, Wan W. Implicit theories, attributions, and coping: A meaning system approach. *Journal of Personality and Social Psychology*. 1999; 77(3):588–599.
- Kahneman, D.; Diener, E.; Schwarz, N., editors. *Well-being: The foundations of hedonic psychology*. New York: Russell Sage Foundation; 1999.
- Keltner, D. *Born to be good: The science of a meaningful life*. New York: W. W. Norton & Company; 2009.
- Kesebir P, Diener E. In pursuit of happiness: Empirical answers to philosophical questions. *Perspectives on Psychological Science*. 2008; 3(2):117–125.
- Konow J, Earley J. The hedonistic paradox: Is *homo economicus* happier? *Journal of Public Economics*. 2008; 92:1–33.
- Lyubomirsky, S. *The how of happiness: A practical approach to getting the life you want*. London: Sphere; 2008.
- Lyubomirsky S, King L, Diener E. The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*. 2005; 131(6):803–855. [PubMed: 16351326]
- Lyubomirsky S, Lepper H. A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research*. 1999; 46(2):137–155.
- Matsumoto D. Cultural similarities and differences in display rules. *Motivation and Emotion*. 1990; 14(3):195–214.
- Mauss IB, Butler EA, Roberts NA, Chu A. Emotion control values and responding to an anger provocation in Asian-American and European-American individuals. *Cognition and Emotion*. in press.
- Mauss IB, Robinson MD. Measures of emotion: A review. *Cognition and Emotion*. 2009; 23(2):209–237. [PubMed: 19809584]
- Mayer JD, Hanson E. Mood-congruent judgment over time. *Personality and Social Psychology Bulletin*. 1995; 21(5):237–244.
- McFarland C, Ross M. Impact of causal attributions and level of performance on affective reactions to success and failure. *Journal of Personality and Social Psychology*. 1982; 43(5):937–946.
- Mill, JS. *Autobiography*. New York, NY: Columbia University Press; 1873/1960.
- Mischel, W.; Cantor, N.; Feldman, S. Principles of self-regulation: The nature of willpower and self-control. In: Higgins, ET.; Kruglanski, AW., editors. *Social psychology: Handbook of basic principles*. New York: Guilford; 1996. p. 329-360.
- Myers DG. The funds, friends, and faith of happy people. *American Psychologist*. 2000; 55(1):56–67. [PubMed: 11392866]
- Nosek BA. Understanding the individual implicitly and explicitly. *International Journal of Psychology*. 2007; 42(3):184–188.
- Oishi S, Diener E, Lucas RE. The optimum level of well-being: Can people be too happy? *Perspectives on Psychological Science*. 2007; 2(4):346–360.
- Preacher KJ, Hayes AF. SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, and Computers*. 2004; 36(4):717–731.
- Roemer L, Salters K, Raffa SD, Orsillo SM. Fear and avoidance of internal experiences in GAD: Preliminary tests of a conceptual model. *Cognitive Therapy and Research*. 2005; 29:71–88.
- Rottenberg, J.; Ray, RD.; Gross, JJ. Emotion elicitation using films. In: Coan, JA.; Allen, JJB., editors. *Handbook of emotion elicitation and assessment*. New York, NY, US: Oxford University Press; 2007. p. 9-28.
- Ryff CD, Keyes CM. The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*. 1995; 69(4):719–727. [PubMed: 7473027]
- Ryff CD, Love GD, Urry HL, Muller D, Rosenkranz MA, Friedman EM, Davidson RJ, Singer B. Psychological well-being and ill-being: Do they have distinct or mirrored biological correlates? *Psychotherapy and Psychosomatics*. 2006; 75(2):85–95. [PubMed: 16508343]
- Ryff CD, Singer BH. Know thyself and become what you are: A eudaimonic approach to psychological well-being. *Journal of Happiness Studies*. 2008; 9(1):13–39.

- Sarason IG, Johnson JH, Siegel JM. Assessing the impact of life changes: Development of the life experiences survey. *Journal of Consulting and Clinical Psychology*. 1978; 46(5):932–946. [PubMed: 701572]
- Schooler, JW.; Ariely, D.; Loewenstein, G. The pursuit and assessment of happiness may be self-defeating. In: Carrillo, J.; Brocas, I., editors. *The psychology of economic decisions*. Oxford: Oxford University Press; 2003. p. 41-70.
- Schooler, JW.; Mauss, IB. To be happy and to know it: The experience and meta-awareness of pleasure. In: Kringelbach, ML.; Berridge, KC., editors. *Pleasures of the Brain*. New York, NY: Oxford University Press; 2010. p. 244-254.
- Schooler JW, Schreiber CA. Experience, meta-consciousness, and the paradox of introspection. *Journal of Consciousness Studies*. 2004; 11(7–8):17–39.
- Seligman M, Csikszentmihalyi M. Positive psychology: An introduction. *American Psychologist*. 2000; 55(1):5–14. [PubMed: 11392865]
- Shallcross AJ, Troy AS, Boland M, Mauss IB. Let it be: Accepting negative emotional experiences predicts decreased negative affect and depressive symptoms. *Behaviour Research and Therapy*. in press.
- Shimoff, M.; Kline, C. *Happy for no reason. Seven steps to being happy from the inside out*. New York: Free Press; 2009.
- Timmers M, Fischer AH, Manstead ASR. Ability versus vulnerability: Beliefs about men's and women's emotional behavior. *Cognition and Emotion*. 2003; 17(1):41–63.
- Tsai JL, Knutson B, Fung HH. Cultural variation in affect valuation. *Journal of Personality and Social Psychology*. 2006; 90(2):288–307. [PubMed: 16536652]
- Van Boven L, Gilovich T. To do or to have? That is the question. *Journal of Personality and Social Psychology*. 2003; 85(6):1193–1202. [PubMed: 14674824]
- Vinokur A, Selzer ML. Desirable versus undesirable life events: Their relationship to stress and mental distress. *Journal of Personality and Social Psychology*. 1975; 32(2):329–337. [PubMed: 1239500]
- Watson D, Clark LA, Tellegen A. Development and validation of brief measures of positive and negative affect: The PANAS scale. *Journal of Personality and Social Psychology*. 1988; 54(6): 1063–1070. [PubMed: 3397865]
- Wegner DM. Ironic processes of mental control. *Psychological Review*. 1994; 101(1):34–52. [PubMed: 8121959]
- Zimmerman M, Coryell W. The inventory to diagnose depression (IDD): A self-report scale to diagnose major depressive disorder. *Journal of Consulting and Clinical Psychology*. 1986; 55(1): 55–59. [PubMed: 3571659]

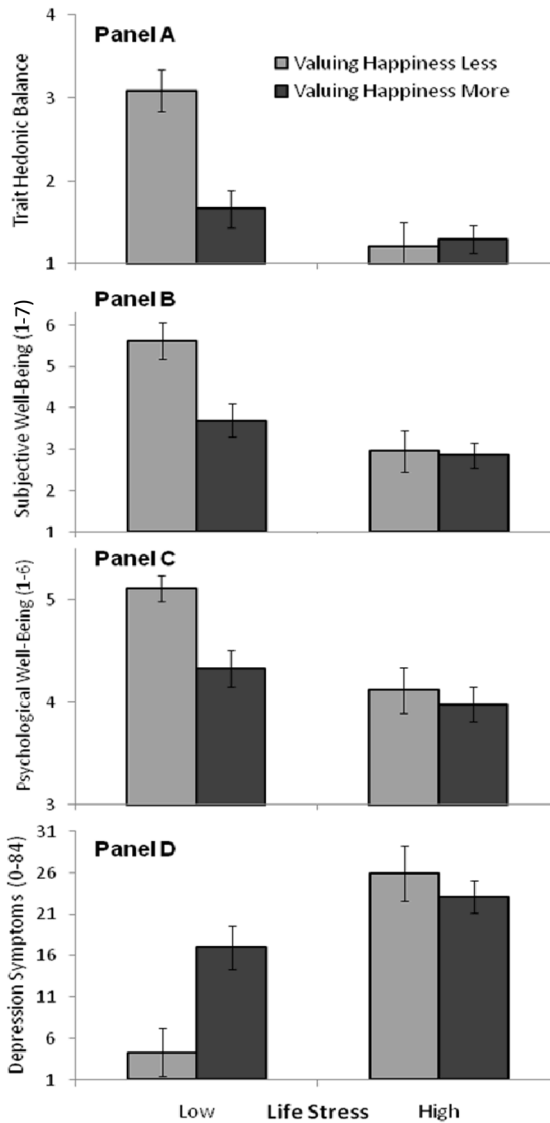


Figure 1. Study 1: Mean trait hedonic balance (positive/negative mood; Panel A), subjective well-being (Panel B), psychological well-being (Panel C), and depression symptoms (Panel D) as a function of participants' levels of valuing happiness (low versus high) and emotional context (low versus high stress). Values depict estimates at ± 1 SD for values and levels of life stress. Error bars are standard error of the mean (SEM).

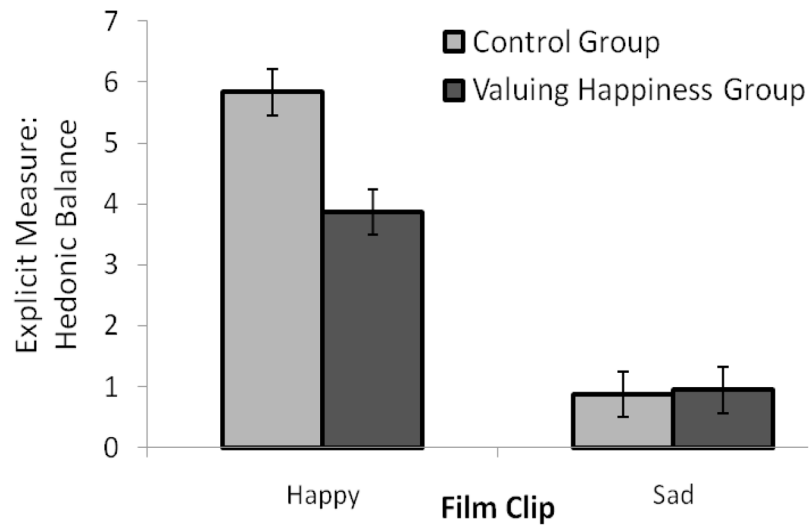


Figure 2. Study 2: Mean hedonic balance (explicitly measured positive/negative emotion ratings) as a function of experimental condition (control versus valuing happiness) and emotional context (happy versus sad film). Error bars are standard error of the mean (SEM).

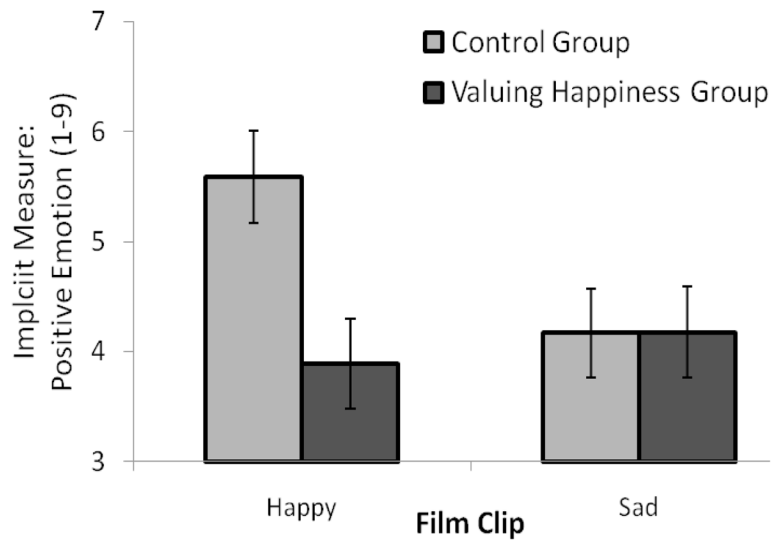


Figure 3. Study 2: Implicitly measured positive emotion as a function of experimental condition (control versus valuing happiness) and emotional context (happy versus sad film). Error bars are standard error of the mean (SEM).

Study 1: Rows 2 and 3: Descriptives and α s of trait hedonic balance, subjective well-being, psychological well-being, and depression symptoms. Row 4: Main effects of stress level on trait hedonic balance, subjective well-being, psychological well-being, and depression symptoms. Row 5: Main effects of valuing happiness. Row 6: Interaction between valuing happiness and stress level. Rows 7–8: Summary of simple slopes analyses decomposing the interactions.

Table 1

	Hedonic Balance	Subjective Well-Being	Psychological Well-Being	Depression Symptoms
Means (SD)	1.88 (.94)	3.92 (1.57)	4.53 (.80)	17.0 (10.9)
α	.92	.90	.87	.85
Standardized β s of main effects of stress	-.60 ***	-.55 ***	-.57 ***	
Standardized β s of main effects of valuing happiness	-.39 **	-.33 **	-.43 ***	.30 *
Standardized β s of interactions between valuing happiness and stress	.45 **	.32 *	.38 **	-.41 **
Simple slopes analyses: Standardized β s of effects of valuing happiness at each level of stress				
Low stress	-.75 ***	-.60 **	-.76 ***	.59 **
High stress	.05	-.03	-.09	-.13

Note. $N=59$,

* $p<.05$,

** $p<.01$,

*** $p<.001$