Seeing through New Eyes: An Experimental Investigation of the Benefits of Photography

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Abstract: This study examined the affective and cognitive benefits of taking photographs of one's everyday surroundings. Thirty-eight undergraduate participants were randomly assigned to either take photographs in a mindful, creative way; take photographs in a neutral, factual way; or do a count-your-blessings writing exercise, an activity that is known to reliably increase mood [1]. Planned contrasts revealed that those taking mindful, creative photographs were, on average, in a significantly better mood and were significantly more appreciative and motivated than those taking neutral photographs. There were no significant differences between either photography condition and the writing activity. These results suggest that, when done thoughtfully, photography can be an effective way of improving mood and appreciation of everyday life.

Keywords: Happiness, savoring, appreciation, well-being, emotion, positive psychology.

"I believe in photography as one means of achieving an ultimate happiness and faith." Ansel Adams (1985) [2]

In recent years, psychological research has established the effectiveness of several cognitive and behavioral strategies people can adopt to enhance everyday life. These include performing acts of kindness, visualizing your "best possible self", cultivating optimism, expressing gratitude to others, and counting your blessings [1, 3, 4]. A primary reason why these strategies are beneficial is because they appear to counteract the process of hedonic adaptation, in which experiences lose their emotional intensity as a result of repeated exposure [5, 6, 7].

Composing a photograph calls for some degree of focused attention and evaluation of one's immediate environment. Photographers, be they professional or amateur, assess their environments for signs of beauty, meaning, or value. In so doing, they may see things that they normally fail to notice and recognize the unique, positive features of their everyday lives. Although the effects of photography have never been empirically tested, I hypothesize that taking photographs of the pleasant but relatively unchanging features of one's daily environment may be another strategy for reaping more appreciation and enjoyment from one's surroundings. This study examines the affective effects of photography, with the prediction that taking photographs can create a sense of enhanced appreciation, more motivation and energy, and an increase in positive mood.

This hypothesis is not as obvious as it may seem. In fact, there are several reasons to believe that taking photographs may actually *detract* from a positive experience. Imagine the stereotypic tourist, standing before the Grand Canyon or the Eiffel Tower. Rather than taking in the scene before him, he is fumbling with his unwieldy camera, thinking about focus, shutter speed, and the position of the sun. Similarly, the person who is always snapping pictures of friends at parties is often disengaged from the fun activities going on around him. Therefore, sometimes the act of taking photographs may actually detract from the experience at hand. In fact, one recent study [8] found that those who took photographs of the works they viewed in an art museum showed poorer recall of those works compared to people who didn't take photographs. Essentially, a camera can serve as an external hard drive for our memories.

In light of this, I hypothesize that benefits result from a *certain kind* of photography, one in which people are using the camera as a tool to help them locate beauty and meaning in their everyday environments. As Ansel Adams put it,

> Both the grand and the intimate aspects of nature can be revealed in the *expressive* [italics added] photograph. Both can stir enduring affirmations and discoveries, and can surely help the spectator in his search for identification with the vast world of natural beauty and the wonder surrounding him. [1]

In other words, *mindful* photography – with the appropriate goals, and subject matter - can be one way of promoting both appreciation of one's immediate

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environment and an increase in positive mood. And indeed, Henkel found that participants instructed to take more detail-oriented photographs of the art they were viewing (i.e, a brushstroke or small detail) showed enhanced recall, presumably because they were processing the works more deeply [8].

The present study employed a methodology that is frequently used when examining the effectiveness of happiness-increasing strategies, in which participants are randomly assigned to a particular activity, perform that activity on their own, and then report their mood and related outcomes for a period of time ranging from several days to several weeks [2, 4]. For the sake of comparison, and to allow for a high degree of psychological realism, a similar methodology was used here. I hypothesized that participants taking mindful pictures in a positive, appreciative mindset would be in a better mood and show appreciation than those taking pictures in a more neutral way. A second aim of this study was to compare the effects of photography to the effects of "counting your blessings" a technique that is a well-established mood enhancer [1, 9].

METHOD

Participants

Thirty-eight college students (11 male, 27 female) participated in exchange for course credit. Response rates for each of the four time points were 38 (100%), 37 (97%), 36 (95%), and 38 (100%), respectively.

MATERIALS AND PROCEDURE

Initial Session

Participants reported to a group session in the laboratory. They provided consent and were given an initial questionnaire, which contained the Subjective Happiness Scale (SHS) [10], a four-item measure of dispositional happiness (α = 0.87); the Gratitude Questionnaire – 6 (GQ-6) [11], a six-item measure of trait gratitude (α = .0.60); and the Mindful Attention Awareness Scale (MAAS) [12], a 15-item measure of trait mindfulness (α = 0.76). They also provided demographic information.

After completing this questionnaire, participants were given a packet of study materials. The version of materials they received was a means of randomly assigning them to one of three experimental conditions: the mindful photo condition, the neutral photo condition, or a count your blessings condition. There were four sets of study materials, one for each day they were to do their respective exercise.

Experimental Exercises

The four experimental sessions were done on pre-assigned days, on the participants' own time. They received an email reminder the night before, to ensure that they would remember to do the exercise and complete the questionnaires.

Prior to doing the activities, those in the mindful photo condition saw the following:

> Sometime today, set aside *at least* 15 minutes. Take your digital camera and go for a walk around campus. Look around for the THREE BEST examples of *campus architecture* and take three pictures (one each) of these three examples. Imagine that your pictures will be in the campus catalog that gets sent out to prospective students. Try to make your pictures creative, beautiful, and meaningful to you. Try to capture the best view of the subject matter. Do not rush through this exercise. Instead, try to take everything in and take the best pictures that you can.

The topic "campus architecture" was replaced with "your friends," "your natural environment," and "what is most personally meaningful to you on campus" for the second, third, and fourth sessions, respectively.

Those in the neutral photo condition saw the following instructions:

> Sometime today, set aside *at least* 15 minutes. Take your digital camera and go for a walk around campus. Look around for three examples of *bike racks* on campus and take three pictures (one each) of these three examples. Imagine that your pictures will be part of a report about campus maintenance. Try to make your pictures accurate, neutral, and informative. Try to capture the best view of the subject matter. Do not rush through this exercise. Instead, try to take the best pictures that you can.

Similar to the mindful photo condition, the topic "bike racks" was replaced with "dorm lounges," "benches," and "a campus facility of your choosing" for

the second, third, and fourth sessions, respectively. These topics controlled for the effects of being outside and being in a social setting, which were characteristic of the photography topics in the mindful photo condition.

Twice a week for two weeks, participants in the count your blessings condition read the following.

> Sometime today, set aside *at least* 15 minutes. Turn off all distractions and write for 15 minutes about the positive qualities of *campus architecture*. You can write either in prose or in a list. Don't worry about grammar or spelling. Just focus on what is beautiful and meaningful to you. Do not rush through this exercise. Instead, try to relax and reflect.

The writing topic for each session varied to match those of the mindful photo condition.

After each exercise, all participants completed a one-item mood scale, in which they circled one dot on a 26-point dot scale (1 = very negative, 26 = very positive). This scale was used as a way of minimizing anchoring effects over multiple administrations of the mood scale. Participants also completed items regarding motivation ("How motivated do you feel right now?"), energy ("How energized do you feel right now?) and appreciation ("How appreciative do you feel right now?"). They also reported how absorbing, challenging, and pleasant the activity was, and how skillful they felt while doing it. Responses were given on seven-point Likert scales (1 = not at all, 3 = moderately, 7 = very much).

The fourth and final session was followed by a second administration of the SHS (α = 0.89), GQ-6 (α = 0.58), and MAAS (α = 0.85) questionnaires, to allow for comparisons with baseline measures. Participants turned in their materials and were debriefed.

RESULTS

I examined pretest measures of happiness, mindfulness, and gratitude, which were administered prior to random assignment, predicting no significant differences by condition. This prediction was confirmed (all *p*'s > 1). There were also no significant gender differences on any of the variables, and therefore gender is not discussed further.

To control for dispositional effects of happiness, baseline SHS score was used as a covariate in all analyses described below. Ratings of mood, appreciation, energy, and motivation were correlated (α = 0.75, 0.62, 0.64, and 0.63, respectively) and therefore averaged across the four time points. In order to test specific hypotheses, I conducted three planned contrasts [13]. To test the effect of the mindful photo condition as compared to the neutral photo condition, I assigned weights of 1, -1, and 0 to the mindful photo, neutral photo, and count your blessings conditions, respectively. This contrast was significant for the mood item (t (35) = 2.73, p < .01), the appreciation item (t (35) = 1.74, p < .05), and the motivation item (t (35) = 2.45, p < .05). All effects were in the predicted direction, with mindful photo participants scoring higher on all measures. See Table **1** for means and standard deviations of these measures.

A second planned contrast assigned weights of 2, -1, and -1 to the mindful photo, neutral photo, and count

Table 1: Adjusted Means and Standard Deviations for Mood, Appreciation, and Motivation Measures, Averaged over Four Time Points, as a Function of Experimental Condition

	MP	NP	CB
Mood	19.21 (3.89)[a]	14.80 (3.93)[b]	17.51 (3.88)
Appreciation	5.49 (0.94)[a]	4.80 (0.79)[b]	5.27 (0.76)
Motivation	5.10 (0.94) [a]	4.15 (0.97)[b]	4.47 (0.93)
Energized	4.92 (0.97) [a]	4.19 (0.97)	4.37 (0.96)
Absorbing	5.81 (1.41) [a]	4.72 (1.38) [b]	5.49 (1.39)
Challenging	2.97 (1.33)	3.86 (1.31)	3.59 (1.33)
Skilled	4.89 (1.66)	4.41 (1.65)	4.50 (1.63)
Pleasant	6.70 (1.30) [a]	5.46 (1.27) [b]	6.14 (1.29)

Note: MP = Mindful photo condition, NP = Neutral photo condition, CB = Counting your blessing condition.
Means with different subscripts are significantly different (p < 0.05) using planned contrasts.

Table 2: Means and Standard Deviations on Pre-test and Post-test Measures as a Function of Experimental Condition

	MP	NP	CB
Subjective Happiness Scale			
Pretest	4.63 (0.97)	5.11 (0.74)	4.77 (1.27)
Posttest	4.51 (0.97)	4.82 (1.11)	4.75 (1.29)
Mindful Attention Awareness Scale			
Pretest	3.54 (0.48)	3.74 (0.63)	3.97 (0.53)
Posttest	3.58 (0.92)	3.79 (0.90)	3.64 (0.64)
Gratitude Scale – 6			
Pretest	5.89 (0.70)	6.25 (0.47)	6.05 (0.63)
Posttest	5.78 (0.83)	6.06 (0.56)	5.91 (0.57)

Note: MP = Mindful photo condition, NP = Neutral photo condition, CB = Counting your blessing condition.

your blessings conditions, respectively, to examine the effect of the mindful photo condition against the other two combined. This was significant for the composite mood item, t (35) = 2.03, $p < .05$. Contrast analyses revealed no significant effects between the mindful photo and the count your blessings conditions or between the neutral photo and the count your blessings conditions.

Reports of how absorbing, challenging, and pleasant the activities were also averaged across four time points (α = 0.72, 0.66, 0.67, respectively), as well as how skillful participants felt during the activities (α = 0.77), and were tested using the same analyses. Planned contrasts revealed that mindful photo participants rated their activity as significantly more pleasant (t (35) = 2.48, $p < .05$) and absorbing (t (35) = 1.68, $p < .05$) than those in the neutral photo condition. There were no significant differences on perceived skill or challenge, and no significant differences on any of these measures between either photo condition and the count your blessings condition. See Table **1**.

To examine dispositional changes in happiness, gratitude, and mindfulness, I conducted 2 (Time) x 3 (Condition) repeated measures ANOVAs for SHS, GQ-6, and MAAS scores at pretest and posttest. Contrary to predictions, there were no significant effects on these measures, suggesting effects are more momentary than dispositional. See Table **2** for means and standard deviations.

DISCUSSION

The present study had two primary aims. First, it sought to examine the affective impact of photography, both with a positive and a neutral emphasis. Second, it compared the effect of photography to that of an empirically-supported happiness-increasing strategy: counting one's blessings in a writing exercise [1]. Results revealed that those who were taking photographs while looking for meaning and beauty found the activity more pleasant and absorbing and also reported significantly higher mood and higher levels of appreciation and motivation than those who were asked to take more neutral, informative photographs. In other words, the way a person engages in photography seems critical.

Results suggest that both mindful photography and counting one's blessings seem to be similarly effective at enhancing appreciation. One might argue that the photography exercise takes more time and effort than writing, which can be done anywhere, at any time. However, these results suggest otherwise. The mindful photo condition was not only rated as the most pleasant and absorbing activity, but was also the *least* challenging. While these results are not significant, they do suggest that those who were asked to take pictures were not particularly overburdened, and those in the mindful photo condition actually enjoyed the activity.

To my knowledge, this is the first study to examine the psychological benefits of photography. Future studies could further address questions of implementation. Positive interventions are more effective when a certain "fit" exists between the person and the activity, such that it feels authentic and enjoyable [4]. Therefore, it is reasonable to assume that not everyone would enjoy and benefit from mindful photography. In addition, the current manipulation was

somewhat minimal, with participants taking three photographs of each topic, twice a week for two weeks. With the practically limitless memory capacity of digital cameras, a person hoping to implement this strategy could easily take these findings to the extreme, such that they are so busy taking photographs that they cease to be fully present in and appreciative of the moment. As with most happiness-increasing strategies, the appropriate "dosage" needs to be considered [4].

A limitation of this study is that it is unknown whether this increased motivation translated into behavioral changes. For instance, did participants in the mindful photo condition ultimately do more to take advantage of their environments, such as going for a walk or planning activities with their friends? Although other positive intervention studies [14] have noted such behavioral changes, the present methodology did not allow for these data to be collected.

In sum, this study suggests that mindful photography should be added to the growing list of effortful strategies people can employ to increase their enjoyment and appreciation of everyday life [1, 3, 4]. When used as a tool for assessing and capturing beauty and meaning in one's everyday life, taking photographs can enhanced momentary mood, appreciation, and motivation as effectively as the well-established practice of writing about life's blessings.

REFERENCES

[1] Emmons RA, McCullough ME. Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life. J Pers Soc Psychol 2003; 84: 377-89. http://dx.doi.org/10.1037/0022-3514.84.2.377

[2] Adams A. Ansel Adams: An autobiography. New York: Bulfinch 1985.

[3] Seligman MEP, Steen TA, Park N, Peterson, C. Positive psychology progress: Empirical validation of interventions. Am Psycho 2005; 60: 410-21. http://dx.doi.org/10.1037/0003-066X.60.5.410

[4] Sheldon KM & Lyubomirsky S. How to increase and sustain positive emotion: The effects of expressing gratitude and visualizing best possible selves. J Posit Psychol 2006; 1: 73-82. http://dx.doi.org/10.1080/17439760500510676

[5] Brickman P, Campbell DT. Hedonic relativism and planning the good society. In: Appley MH, editor. Adaptation-level theory. New York: Academic Press 1971; p. 287-305.

[6] Parducci A. Happiness, pleasure, and judgment: The contextual theory and its applications. Mahwah, NJ: Erlbaum 1995.

[7] Wilson TD, Gilbert DT. Explaining away: A model of affective adaptation. Perspect Psychol Sci 2008; 3: 370-86. http://dx.doi.org/10.1111/j.1745-6924.2008.00085.x

[8] Henkel LA. Point-and-shoot memories: The influence of taking photos on memory for a museum tour. Psychol Sci 2014; 25: 396-402. http://dx.doi.org/10.1177/0956797613504438

[9] Frattaroli J. Experimental disclosure and its moderators: A meta-analysis. Psychol Bull 2006; 132: 823-865. http://dx.doi.org/10.1037/0033-2909.132.6.823

[10] Lyubomirsky S, Lepper HS. A measure of subjective happiness: Preliminary reliability and construct validation. Soc Indic Res 1999; 46: 137-55. http://dx.doi.org/10.1023/A:1006824100041

[11] McCullough ME, Emmons RA, Tsang J. The grateful disposition: A conceptual and empirical topography. J Pers Soc Psychol 2002; 82: 112-27. http://dx.doi.org/10.1037/0022-3514.82.1.112

[12] Brown, KW, Ryan RM. The benefits of being present: Mindfulness and its role in psychological well-being. J Pers Soc Psychol 2003; 84: 822-48. http://dx.doi.org/10.1037/0022-3514.84.4.822

[13] Rosenthal R, Rosnow RL, Rubin DB. Contrasts and effect sizes in behavioral research: A conceptual approach. Cambridge: Cambridge University Press 2000.

[14] Kurtz JL. Looking to the future to appreciate the present: The benefits of perceived temporal scarcity. Psychol Sci 2008; 19: 1238-41. http://dx.doi.org/10.1111/j.1467-9280.2008.02231.x

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