How Vacation Increases Happiness

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Abstract

Americans are time poor—they work long hours and leave paid vacation days unused. An analysis of over 200,000 U.S. workers reveals that not prioritizing vacation is linked to lower levels of happiness. Can people gain the emotional benefits of vacation without taking additional time off or spending additional money? Two preregistered experiments showed that simply treating an ordinary weekend "like a vacation" (vs. "like a regular weekend") made people happier. Viewing this time as a vacation led participants to attend more to the present moment, which increased their enjoyment over the weekend and, ultimately, their happiness when back at work on Monday. These findings not only help explain why vacations increase subjective wellbeing, they also show how people can get the most out of their time off more generally. It is not about the amount of time or money spent, or even how this time is spent, but rather one's mindset during this time.

Key words: vacation, happiness, subjective well-being, time, attention

How Vacation Increases Happiness

Though one of the wealthiest nations in the world, the United States is temporally impoverished. Americans spend more of their weekly hours at work than people in most other countries (Bick, Brüggemann, & Fuchs-Schundeln, 2017), and they work more on the weekends (Hamermesh & Stancanelli, 2015). The U.S. is the only industrialized nation without legally mandated vacation, and even though U.S. employees are allotted fewer paid vacation days than their European counterparts (Alesina, Glaeser, & Sacerdote, 2005), many Americans do not use their apportioned days off because of perceived financial and temporal pressures (Harvard University T.H. Chan School of Public Health, 2016).

Yet, vacations have immediate benefits—improving health (de Bloom et al., 2009; de Bloom et al., 2010; Eaker, Pinsky, & Castelli, 1992; Gump & Matthews, 2000), creativity (de Bloom, Ritter, Kühnel, Reinders, & Geurts, 2014), job performance (Fritz & Sonnentag, 2006; Westman & Eden, 1997; Westman & Etzion, 2001; Etzion, Eden, & Lapidot, 1998; Kuhnel & Sonnentag, 2010; Sonnentag, 2003), and life satisfaction (de Bloom et al., 2009; de Bloom et al., 2010; Gilbert & Abdullah, 2004; Lounsbury & Hoopes, 1986). Moreover, Americans who prioritize vacation tend to be happier. Our analysis of over 200,000 Americans from the most recent Gallup US Daily Poll (2014-2016) showed that even after controlling for income and weekly hours worked, people who reported making more time for vacations were happier: they exhibited more positive emotions, $\beta = 0.205$, $t(218,155) = 96.20 \ p < .001$, $CI(\beta) = [0.200, 0.209]$, less negative emotions, $\beta = -0.243$, $t(218,303) = -106.03 \ p < .001$, $CI(\beta) = [-0.248, -0.239]$, and were more satisfied with life, $\beta = 0.257$, $t(218,241) = 134.16 \ p < .001$, $CI(\beta) = [0.254, 0.261]$ (see supporting materials for complete description and analyses).

How does vacation increase happiness? Perhaps it is the lavish experiences people acquire traveling around the world (Bhattacharjee & Mogilner, 2013; Gilovich, Kumar, & Jampol, 2015; Kumar & Gilovich, 2015). It may be because fewer days in the office reduces feelings of time-stress (Hamermesh & Lee, 2007; Kasser & Sheldon, 2009; Wooden, Warren, & Drago, 2009) and frees up time for activities associated with happiness, such as relaxing or socializing with family and friends (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004a; Mogilner, 2010). Or it could simply be that individuals who prioritize personal time also tend to be happier (Hershfield, Mogilner, & Barnea, 2016; Whillans, Weidman, & Dunn, 2016). We propose that beyond individual differences, and rather than additional money spent, time taken, or even how the time is spent, the happiness derived from vacation stems from the mindset people apply to their time away from work.

While most working Americans take little time off for vacation, the majority get (and take) two days off from work every week on the weekend (Hamermesh & Stancanelli, 2015). Weekends, however, do not typically produce an increase in happiness at work the following Monday (Helliwell & Wang, 2014). The routine of weekends keeps people from attending to or appreciating this time off. Indeed, people default to mindlessness, typically living their lives inattentive to the present moment (Teper, Segal, & Inzlicht, 2013), which undermines enjoyment of those moments (Brown & Ryan, 2003; Killingsworth & Gilbert, 2010). However, if people were to treat their weekend *like a vacation*, the apparent break from their working lives might prod them to attend more to the present and more fully enjoy this time off (Sonnentag, 2012). Prior work in consumer research identified, for instance, that inserting breaks into ongoing experiences is an effective way to reengage people, such that they notice the experience more and extract greater enjoyment from it (Ratner, Kahn, & Kahneman, 1999; Nelson & Meyvis,

2008; Nelson, Meyvis, & Galak, 2009). Projecting this insight from singular experiences to the larger pattern of people's lives, we propose that treating a regular weekend like a vacation would make people more attentive to their time off from work, producing greater enjoyment during this time and greater happiness when back at work—even without spending any more money or taking any additional time off.

In two preregistered experiments amongst fully employed Americans, we tested whether treating a regular weekend like a vacation could increase subsequent happiness. By "happiness," we mean subjective well-being as defined by the combination of higher positive emotion, lower negative emotion, and higher overall satisfaction (Diener et al., 2017; Lyubomirsky, Sheldon, & Schkade, 2005). Because vacations involve taking a break from ordinary life, we predicted that viewing the weekend as a vacation would urge people to take more notice of the present moment. We further predicted that this vacation mindset would lead people to enjoy their time off more and subsequently feel happier when back at work on Monday.

For both studies, preregistrations, materials, data, and analyses are available on Open Science Network: <u>https://osf.io/t9qab/?view_only=10ea5fdf6d6e456dae9bb3ddaa135e83.</u>

Study 1

Method

Study 1 was a preregistered experiment conducted on a sample of fully employed American adults (N = 441) over an ordinary spring weekend. Participants (ages 20-72, $M_{age} =$ 34.686, SD = 9.953; 40% women; 44% single, 40% married, 14% living with someone as a couple; 39% have at least one child; median income = \$40,000 - \$49,000 per year; $M_{weekly hours of}$ $p_{aid work} = 40.573$, SD = 10.264) were recruited on Amazon's Mechanical Turk. In order to participate, individuals had to be fully employed, work for or with at least one other person, typically take weekends off from work, and not work primarily from home (see supplemental materials for full details on preregistered inclusion criteria).

On Friday, participants reported their baseline happiness by rating on a 1 (*not at all*) to 7 (*a lot*) scale the extent to which they currently felt positive affect (happiness, enjoyment), negative affect (stress, worry), and satisfied. With the two negative affect items reverse-scored, these five items were averaged to create the composite baseline score of happiness.

Participants were then randomly assigned to one of two conditions. In the control condition (coded "0"), participants were instructed to treat the upcoming weekend like a regular weekend. In the treatment condition (coded "1"), the instructions prompted participants to treat their weekend like a vacation. Specifically, the instructions read:

Here are your instructions to complete this study: treat this weekend like a regular weekend [like a vacation]. That is, to the extent possible, think in ways and behave in ways you normally would on a weekend [as though you were on vacation].

After the weekend, when back at work the following Monday, participants completed a follow-up survey. There was no difference in attrition across conditions, χ^2 (1, N = 441) = 1.09, p = 0.297, and no difference in baseline happiness between participants who returned to complete the follow-up survey and those who dropped out, *Welch's F*(1, 701.760) = 1.986 p = .159 (see supplemental materials for full details on attrition).

In the follow-up survey participants again reported their happiness by rating on a 1 (*not at all*) to 7 (*a lot*) scale the extent to which they currently felt positive affect (happiness, enjoyment), negative affect (stress, worry), and satisfied. Because the effects were highly consistent across the three subcomponents of subjective well-being, for brevity, we report the

composite score in the text as "happiness" and each subcomponent measure separately in the tables.

Participants then also rated the frequency (1 = almost never; 6 = almost always) with which they had focused on the present moment over the course of the weekend using seven items adapted from the present-oriented attention factor of the Mindfulness Attention Awareness Scale (Brown & Ryan, 2003): "I found it difficult to stay focused on what was happening in the present" (R); "I seemed to be 'running on automatic' without much awareness of what I was doing" (R); "I was so focused on the goal I wanted to achieve that I lost touch with what I was doing in the moment;" "I found myself preoccupied with the future or the past" (R); "I found it difficult to pay attention to the 'here and now'" (R); "I rushed through activities without really being attentive to them" (R); "I focused on the present moment;" ($\alpha = .85$).

Since the study design already held constant the amount of time participants spent away from work, we measured how much money participants spent over the weekend to also hold constant financial expenditures.

Results

As predicted, treating the weekend like a vacation increased happiness on Monday at work, even without any additional temporal or financial costs. Specifically, controlling for baseline happiness and the amount of money spent (log), vacationers ($M_{adj} = 5.240$, SD = 1.323) felt happier than their counterparts in the control condition ($M_{adj} = 4.826$, SD = 1.512), $\beta =$ 0.168, t(437) = 4.311, p < .001, 95% CI(β) = [0.091, 0.244]). This effect operated for each subcomponent of subjective well-being and when money spent was not included as a control (Table 1). Furthermore, the vacationers' increase in happiness was driven by their greater attention to the present moment. Compared to those in the control condition (M = 4.525, SD = .859), vacationers were more attentive to the present moment during the weekend (M = 4.808, SD =0.766), $\beta = 0.172$, t(439) = 3.651, p < .001, 95% CI(β) = [0.079, 0.264]. Moreover, attention to the present moment mediated the effect of the vacation treatment on subsequent happiness controlling for baseline happiness, 95% CI [0.028, 0.089]. Again, this effect operated for each subcomponent of subjective well-being (Table 2).

The results of Study 1 provide initial evidence suggesting that, even though people do not typically experience an emotional boost from weekends, they can enjoy greater happiness when back at work on Monday if they treat their weekend like a vacation (even without extra spending). Simply by adopting a vacation mindset, people became more attentive to the present moment, thereby extracting greater happiness from this time off.

Study 2

Study 2 sought to both replicate these effects and further explain them by implementing a modified version of the Day Reconstruction Method (DRM) (Kahneman et al., 2004a): a timediary instrument that guides participants to systematically reconstruct their activities and emotions for the preceding day (which we adapted to cover the two days of the weekend). The DRM has been shown to elicit reliable estimates of affect intensity and variation over the course of a day, aligning closely with readings obtained through real-time experience sampling methods (Kahneman et al., 2004a; Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004b). Our modified DRM allowed us to assess at a more granular level people's attention to the present, as well as their affective states and time use during the weekend.

Method

Following the same experimental paradigm as Study 1, Study 2 was conducted among a sample of fully employed American adults (N = 536) over an ordinary weekend in the winter. Participants (ages 19-76, $M_{age} = 35.810$, SD = 9.941; 49% women; 36% single, 47% married, 16% living with someone as a couple; 51% have at least one child; median income = \$40,000 - \$49,000 per year) were recruited from Amazon's Mechanical Turk and subject to the same inclusion criteria as the previous study.

On the Friday, after reporting their baseline happiness, participants were randomly assigned to either treat their weekend "like a regular weekend" or "like a vacation." After the weekend, when back at work on Monday, participants completed the follow-up survey. There was no difference in attrition across conditions, $\chi^2 (1, N = 561) = .15$, p = .696, and no difference in baseline happiness between participants who returned to complete the follow-up survey and those who dropped out, *Welch's F*(1, 198.007) = 1.181 p = .279 (see supplemental material for full details).

As in Study 1, the follow-up survey first asked participants to report their happiness on the same five items. After completing these items, participants completed the modified Day Reconstruction Method (DRM). This required participants to reconstruct both days of the weekend, delineating up to 18 'episodes' (the start and end of a given episode is determined by participants themselves and may be defined by moving to a new location, switching activities, or changing the person with whom one is interacting). For each episode, participants indicated the activity that best characterized what they were doing (e.g. cooking dinner); rated (0 = not at all; 6 = very much) their happiness, enjoyment, stress, worry, satisfaction; and reported the frequency (1 = almost never; 6 = almost always) of their attention to the present moment during the episode, measured on two items ("I focused on the present moment", "I found it difficult to stay focused on the 'here and now'" (R). See the supplemental materials and open source materials for details on the procedure for administering our modified DRM.

Using responses from the modified DRM, for each participant, we calculated the percentage of time spent on each activity, time-weighted measures of cumulative happiness (net affect, U-index, and net satisfaction; see Kahneman et al., 2004b), and a time-weighted measure of attention to the present moment across episodes.

Results

Replicating the results of Study 1, controlling for baseline happiness and the amount of money spent (log), vacationers felt happier on Monday ($M_{adj} = 5.306$, SD = 1.296) than people in the control condition ($M_{adj} = 4.935$, SD = 1.273), $\beta = 0.151$, t(532) = 4.765, p < .001, 95% CI(β) = [0.089, 0.213]. This effect operated for each subcomponent of subjective well-being and when money spent was not included as a control (Table 3).

Evidence from the modified DRM showed that vacationers also experienced greater happiness throughout the weekend, as measured by net affect: the time-weighted differences between positive and negative emotions for each participant in each reported episode (see the supplemental materials for details on calculating net affect; Kahneman et al. 2004b). Controlling for baseline happiness, compared to people in the control condition ($M_{adj} = 3.481$, SD = 2.107), net affect was significantly higher for vacationers ($M_{adj} = 4.114$, SD = 2.153), $\beta = 0.185$, t(513)= 4.884, p < .001, 95% CI(β) = [0.111, 0.260].

Furthermore, calculating a time-weighted measure of participants' attention throughout the weekend shows that vacationers consistently paid more attention to the present moment during their weekend activities (M = 5.150, SD = 0.798) than did those in the control condition (M = 4.898, SD = 0.835), $\beta = 0.152$, t(514) = 3.496, p = .001, 95% CI(β) = [0.067, 0.238]. A

serial mediation revealed that this greater attention to the present led to greater net positive affect throughout the weekend, which ultimately carried over to increased happiness at work on Monday, 95% CI [0.004, 0.027] (Figure 1). The serial mediation results operated when conducted separately for each subcomponent of subjective well-being (Table 4).

With respect to how participants spent their time over the weekend, we observed some differences in activities between conditions; however, none of these mediated the effect of the vacation treatment on the subsequent boost in happiness (see supplemental materials). Compared to participants in the control condition, vacationers spent less time doing housework, $\beta = -0.143$, t(514) = -3.374, p = .001, 95% CI(β) = [-0.226, -0.060], working, β = -0.119, t(514) = -2.855, p = .004, 95% CI(β) = [-0.201, -0.037], caring for children, β = -0.090, t(514) = -2.016, p = .044, 95% CI(β) = [-0.178, -0.002], and praying or meditating, β = -0.112, t(514) = -2.503, p = .013, 95% CI(β) = [-0.199, -0.024]; and they spent more time eating, β = 0.103, t(514) = 2.328, p = .020, 95% CI(β) = [0.016, 0.190], and in intimate relations, β = 0.106, t(514) = 2.417, p = .017, 95% CI(β) = [0.020, 0.193]. Despite these differences in activities, it was attention to the present moment that predicted people's happiness on Monday. That is, the effects of the vacation treatment were significant even after controlling for the fraction of time individuals spent on each activity (Table 5). Furthermore, a parallel mediation analysis revealed that attention to the present moment continued to significantly mediate the effect of the vacation treatment on happiness on Monday, even after controlling for all of the significant differences in activities, 95% CI [0.007, 0.047] (Figure 2). The parallel mediation results also operated when conducted separately for each subcomponent of subjective well-being (Table 6).

These results show that the boost in happiness that follows from simply treating a regular weekend like a vacation is robust. The modified DRM provided further insight into the effect by

revealing that rather than any changes in one's activities, it was indeed one's minding of the present moment throughout the weekend that increased enjoyment during that time and produced greater happiness when back at work.

General Discussion

This research examines the consequences of prioritizing time outside of work as well as how to optimize that time. The experiments reveal that rather than one's activities, or even the amount of time or money spent, it is one's mindset that is important for deriving happiness from time off work (Sonnentag, 2012). The greater attention to the present moment that accompanies a vacation mindset can demonstrably increase enjoyment of a regular weekend, and ultimately carry over to greater emotional well-being at the start of the workweek.

Despite offering the longest chunk of time off work, being a principle employment benefit, and supporting an industry that accounts for 10% of the world's GDP (United Nations World Tourism Organization, 2018, p.3), there is surprisingly little research on the psychological effects of vacation (de Bloom 2015; de Bloom et al., 2009; 2010). These findings look to contribute to this small but important literature in several ways. Building on existing correlational and longitudinal evidence (de Bloom et al., 2009; Fritz & Sonnentag, 2009), these experiments are the first to leverage random assignment to gain causal evidence for the positive emotional effects of vacation. Notably, the effect sized observed from our experimental treatment that is easily and freely accessible to any employee (Study 1: d = .212 and Study 2: d =.208) were comparable to those observed in the field for actual vacations (d = .24; de Bloom et al., 2009).

Perhaps more importantly, these findings help inform *how* vacation produces happiness. The benefits do not require taking additional time off from work, excessive spending for extravagant travel, or the inclusion of particular activities. Fully attainable to anyone, vacations involve a mental break that allows people to become more fully engaged in and absorbed by their time off, making that time more enjoyable. Thus, time-poor Americans may be able to enjoy the happiness from vacation without actually having to take additional time off.

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Regression Results of Study 1: Treatment Effects on Each Subcomponent of Subjective Well-Being on Monday, Controlling for Baseline Happiness and Monetary Expenditures over the Weekend

Variables	Positive Affect		Negative Affect		Satisfaction	
	Model I	Model II	Model I	Model II	Model I	Model II
Baseline measure on Friday	0.567*** (0.039)	0.565*** (0.039)	0.517*** (0.040)	0.514*** (0.041)	0.471*** (0.042)	0.468*** (0.042)
Vacation Treatment	0.129*** (0.039)	0.126*** (0.039)	-0.162*** (0.040)	-0.160*** (0.040)	.135*** (0.042)	0.125** (0.042)
Log(weekend expenditures+1)		0.023 (0.039)		-0.017 (0.040)		0.083* (0.042)
df error	438	437	438	437	438	437

Reporting standardized coefficients and standard errors for each dependent variable measured on Monday, controlling for the respective baseline measure on Friday. Results are reported with and without controlling for the log of self-reported money spent over the course of the weekend. Expenditures were transformed by a log(expenditures + 1) function to include participants who reported spending \$0 (n = 20). * p < .05, ** p < .01, ***p < .001.

Mediation Results of Study 1: Three Independent Mediation Analyses Testing Whether the Influence of Vacation Treatment on Each Subcomponent of Subjective Well-Being on Monday was Mediated by Greater Attention to the Present Moment, Controlling for the Respective Baseline Measure.

Dependent measure	Indirect effect	95% CI
(1) Positive affect	0.029**	0.012, .0056
(2) Negative affect	-0.062***	-0.101, -0.032
(3) Satisfaction	0.048***	0.023, 0.083

Reporting standardized coefficients (N = 441). 5000 bootstrapped samples * p < .05, ** p < .01, ***p < .001. P-values calculated using a Sobel Test

Regression Results of Study 2: Treatment Effects on Each Subcomponent of Subjective Well-Being on Monday, Controlling for Baseline Happiness and Monetary Expenditures over the Weekend

	Positive Affect		Negative Affect		Satisfaction	
	Model I	Model II	Model I	Model II	Model I	Model II
Baseline measure on Friday	0.665*** (0.032)	0.659*** (0.032)	0.577*** (0.035)	0.576*** (0.035)	0.560*** (0.035)	0.555*** (0.036)
Vacation Treatment	0.134*** (0.032)	0.134*** (0.032)	109** (0.035)	-0.109** (0.035)	0.142*** (0.035)	0.142*** (0.035)
Log(weekend expenditures+1)		0.042 (0.032)		0.041 (0.035)		0.030 (0.036)
df error	533	532	533	532	533	532

Reporting standardized coefficients and standard errors. Log(expenditures + 1) transformation on monetary expenditures allows us to include participants who reported \$0 in spending (n = 39).

* p < .05, ** p < .01, ***p < .001.

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Table 4

Serial Mediation Results of Study 2: Separate Serial Mediation Analyses for Each Subcomponent of Subjective Well-Being on Monday, Controlling for the Respective Baseline Measure. Each Model Includes Two Mediators in Serial: 1) Attention to the Present, 2) Net Affect

Dependent measure	Indirect effect	95% CI
(1) Positive affect	0.022*	0.009, 0.038
(2) Negative affect	-0.019*	-0.035, -0.008
(3) Satisfaction	0.023*	0.010, 0.042

Reporting standardized coefficients (N = 516).

*Indicates that the 95% CI does not include 0.

Variables	Positive Affect		Negativ	Negative Affect		Satisfaction	
	Model I	Model II	Model I	Model II	Model I	Model II	
Baseline measure on Friday	0.660*** (0.032)	0.632*** (0.034)	0.567*** (0.035)	0.574*** (0.036)	0.563*** (0.036)	0.536*** (0.039)	
Treatment	0.134*** (0.032)	0.114** (0.034)	-0.113** (0.035)	-0.087* (0.037)	0.140*** (0.036)	0.121** (0.039)	
Commuting		0.010 (0.035)		0.042 (0.038)		0.034 (0.040)	
Working		-0.006 (0.042)		-0.033 (0.045)		0.051 (0.047)	
Shopping		0.013 (0.037)		0.023 (0.039)		0.029 (0.042)	
Preparing food		0.006 (0.039)		0.004 (0.042)		0.061 (0.044)	
Housework		-0.028 (0.038)		0.052 (0.041)		0.013 (0.043)	
Caring for children		-0.064 (0.039)		0.111** (0.041)		-0.011 (0.044)	
Eating		0.059 (0.045)		-0.021 (0.048)		0.121* (0.051)	
Praying, meditating		0.018 (0.036)		0.034 (0.038)		0.036 (0.040)	
On the phone		-0.037 (0.033)		0.011 (0.035)		-0.028 (0.037)	
Watching TV		0.008 (0.051)		-0.083 (0.055)		0.098 (0.058)	
Nap, resting		0.007 (0.039)		-0.038 (0.041)		-0.022 (0.044)	
Computer, internet, email		-0.095* (0.041)		0.024 (0.043)		-0.072 (0.046)	
Relaxing		-0.054 (0.046)		0.013 (0.049)		0.012 (0.052)	
Socializing		0.034 (0.049)		0.002 (0.052)		0.060 (0.055)	
Intimate relations		0.002 (0.035)		0.034 (0.037)		0.007	
Exercise		-0.069 (0.039)		0.058 (0.041)		-0.061 (0.044)	
df error	516	470	516	470	516	470	

Regression Results of Study 2: Treatment Effects on Each Subcomponent of Subjective Well-Being on Monday, Controlling for the Respective Baseline Measure and the Fraction of Time Spent on Each Activity.

Reporting standardized coefficients and standard errors.

* p < .05, ** p < .01, ***p < .001.

Parallel Mediation Results for Study 2: Separate Parallel Mediation Analyses for Each Subcomponent of Subjective Well-Being on Monday, Controlling for the Respective Baseline Measure.

Dependent measure	Indirect effect	95% CI
(1) Positive affect	0.015*	0.005, 0.034
(2) Negative affect	-0.034*	-0.063, -0.016
(3) Satisfaction	0.018*	0.006, 0.039

Reporting standardized coefficients (N = 516). *Indicates that the 95% CI does not include 0.

Figure 1

Serial Mediation Results of Study 2: Testing the Process through which the Vacation Treatment Influenced Happiness on Monday, Controlling for Baseline Happiness



Reporting standardized coefficients, controlling for baseline happiness. Attention to the present moment and net affect are time-weighted measures aggregated across all reported weekend episodes in the DRM for each individual (N = 516). Direct effect of Vacation Treatment on Happiness on Monday, controlling for baseline happiness is reported as c. Indirect effect reported as c'. * p < .05, ** p < .01, *** p < .001.

Figure 2

Parallel Mediation Results of Study 2: Attention to the Present Moment (and Not Activities) Mediates the Effect of Vacation Treatment on Happiness on Monday.



Reporting standardized coefficients, controlling for baseline happiness. Attention to the present moment is a timeweighted measure aggregated across all reported weekend episodes in the DRM for each individual. Each activity variable represents the fraction of reported time spent on a given activity over the weekend (N = 516). * p < .05, ** p < .01, ***p < .001.