

BRIEF REPORT

Being Present: Focusing on the Present Predicts Improvements in Life Satisfaction But Not Happiness

Peter Felsman
University of Michigan

Philippe Verduyn
University of Leuven and Maastricht University

Ozlem Ayduk
University of California–Berkeley

Ethan Kross
University of Michigan

Mindfulness theorists suggest that people spend most of their time focusing on the past or future rather than the present. Despite the prevalence of this assumption, no research that we are aware of has evaluated whether it is true or what the implications of focusing on the present are for subjective well-being. We addressed this issue by using experience sampling to examine how frequently people focus on the present throughout the day over the course of a week and whether focusing on the present predicts improvements in the 2 components of subjective well-being over time—how people feel and how satisfied they are with their lives. Results indicated that participants were present-focused the majority of the time (66%). Moreover, focusing on the present predicted improvements in life satisfaction (but not happiness) over time by reducing negative rumination. These findings advance our understanding of how temporal orientation and well-being relate.

Keywords: well-being, temporal orientation, mindfulness, emotion

Supplemental materials: <http://dx.doi.org/10.1037/emo0000333.supp>

We may never quite be where we actually are, never quite touch the fullness of our possibilities. Instead, we lock ourselves into a personal fiction . . . remaining enshrouded in thoughts, fantasies, and impulses, mostly about the past and about the future. . . .

—Jon Kabat-Zinn, 2009

We spend most of our time lost in memories of the past and fantasies of the future.

—Ronald D. Siegel, Christopher K. Germer, and
Andrew Olendzki, (2009)

Although various methods exist for cultivating mindfulness, they are guided in part by a common assumption—that people spend most of their time focusing on the past or future rather than “the present”—an internal state or external event happening in the

moment (e.g., Creswell, 2017; Hanh, 1991; Kabat-Zinn, 2009; Siegel, Germer, & Olendzki, 2009). Despite the prevalence of this assumption, to our knowledge no research has examined whether it is true. Furthermore, because focusing on the present represents only one of mindfulness’s presumed “active ingredients,” the specific role that this process plays in influencing well-being is likewise unclear. The current work examined these issues guided by two questions.

First, do people in fact spend most of their time lost in the past or future? Evidence suggesting that this may not be true comes from an experience-sampling study on mind-wandering, which found that people report focusing on what they are presently doing 53% of the time (Killingsworth & Gilbert, 2010). However, it is possible to have thoughts that are focused on the activity one is engaged in that are not present-focused. For example, a person might be exercising but thinking about their next set of 10 squats (i.e., future-focused thinking) rather than focusing on the form of their current squat (i.e., present-focused thinking). Thus, whether people do in fact spend most of their time focusing on the present is unclear.

Our second question concerned whether focusing on the present does in fact lead to improvements in subjective well-being. Addressing this issue is important because prior research provides mixed forecasts about how focusing on the present should influence subjective well-being. On the one hand, mindfulness theory suggests that focusing on the present should reduce negative

This article was published Online First June 26, 2017.

Peter Felsman, Department of Psychology, University of Michigan; Philippe Verduyn, Faculty of Psychology and Educational Sciences, University of Leuven, and Faculty of Psychology and Neuroscience, Maastricht University; Ozlem Ayduk, Department of Psychology, University of California–Berkeley; Ethan Kross, Department of Psychology, University of Michigan.

Correspondence concerning this article should be addressed to Peter Felsman or Ethan Kross, Department of Psychology, University of Michigan, 530 Church Street, Ann Arbor, MI. E-mail: pfelsman@umich.edu or ekross@umich.edu

rumination, the tendency to think repeatedly about negative information (Ito, Takenaka, Tomita, & Agari, 2006), which has been linked with impoverished well-being (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008).¹ On the other hand, other work suggests that adopting a “balanced” time perspective, in which one does not focus on the present too much or too little, is ideal (Keough, Zimbardo, & Boyd, 1999; Zimbardo, Keough, & Boyd, 1997). Still other work suggests that people derive value learning from the past, planning for the future, or experiencing the benefits of nostalgia and hope—processes linked to well-being improvements (Barnett, 2014; Epstude & Roese, 2008; Gollwitzer & Sheeran, 2006; Sedikides, Wildschut, Arndt, & Routledge, 2008).

We addressed these questions by using experience sampling to examine how frequently people focus on the present and whether focusing on the present predicts improvements in the two components of subjective well-being over time: how people feel and how satisfied they are with their lives (Diener, 1994). Participants were text messaged 5 times a day for 7 days. Each time we text messaged participants, we asked them to indicate (a) how they felt; (b) whether they were focused on the past, present, or future; and (c) the degree to which they were ruminating. Participants also completed the Satisfaction With Life Questionnaire (Diener, Emmons, Larsen, & Griffin, 1985) before and after the experience-sampling phase of the study so that we could examine whether focusing on the present predicts change in this variable over time.

Method

Participants

Sixty-four people (47 female; $M_{\text{age}} = 19.79$ years, $SD_{\text{age}} = 1.51$; 64% European American; 17% Asian or Asian American; 14% biracial, Latina, Middle Eastern, or African American; and 5% unreported) were recruited through flyers posted around Ann Arbor and the University of Michigan introductory psychology participant pool. Sampling ended at the end of the term in which we surpassed 50 participants, the minimum advised sample size for multilevel modeling (Maas & Hox, 2005). Participants needed a touch screen smartphone to participate. All participants were compensated with \$15 or 1.5 h of course credit. Paid participants who responded to >80% of the prompts they received were entered into a raffle to win \$100. The University of Michigan Institutional Review Board approved this study. All participants gave informed consent. We report how we determined our sample size, all data exclusions, and all relevant measures in the study.²

Materials and Procedure

Phase 1. After informed consent was obtained, participants completed the Satisfaction With Life Scale (Diener et al., 1985; $M = 5.38$, $SD = 1.01$) and disclosed their demographics. An experimenter then walked participants through the Phase 2 protocol.

Phase 2. Participants were text messaged 5 times per day between 10:00 a.m. and 12:00 a.m. for 7 days. Following prior work (Kross et al., 2013; Verduyn et al., 2015), text messages were automatically sent at random times within 168-min windows each day. Responses recorded before a subsequent text message was

sent were considered “compliant.” Survey reminders were not provided.

Every text message contained a link to a four-question online survey. First, participants answered “How do you feel right now?” (*very negative* [0] to *very positive* [100]; $M = 60.24$, $SD = 21.17$). Next, they were asked to (a) recall what they were thinking about when texted and then (b) answer, “Which of the following would best characterize these thoughts?” (*past-focused*, *present-focused*, *future-focused*). To ensure that participants interpreted these answer choices similarly, an experimenter explained, “A thought that you would mark as present-focused is a thought about something occurring in the moment you were texted. [A thought about] anything occurring before should be marked as past-focused, and anything after should be marked as future-focused.”³ The experimenter then provided participants with examples of present-, past- and future-focused thoughts and encouraged participants to ask clarifying questions.

Next, participants were asked two questions to assess negative rumination. First, they rated the valence of the thoughts that were streaming through their mind when we texted them (i.e., *mostly negative* [0] to *mostly positive* [100]; $M = 56.69$, $SD = 22.97$). Second, they rated the extent to which they were “ruminating on these thoughts, repetitively thinking about them over and over again?” (*to an extremely small extent* [0] to *an extremely large extent* [100]; $M = 48.60$, $SD = 26.12$). We multiplied ratings from the first question dichotomized at the scale midpoint (i.e., 0–50 = [1] *negative*: 51–100 = [0] *positive*) by ratings from the second question to compute a negative rumination index ($M = 21.15$, $SD = 30.75$). We dichotomized the valence scale before making this computation so that we could draw inferences about negative (rather than positive) rumination.

Phase 3. Participants returned to the laboratory after Phase 2 to complete the Satisfaction With Life Scale ($M = 5.47$, $SD = 1.13$).

Analyses Overview

We examined the relationship between present focus (1 = present oriented, 0 = past/future oriented) and affective well-being using multilevel analyses to account for the nested data structure and tested whether negative rumination explained the present focus → affective well-being relationship with a 1–1–1 multilevel mediation analysis as outlined by Bolger and Laurenceau (2013). When present focus took the role of a dependent variable, we performed multilevel logistic analyses. In each multilevel analysis, level 1 predictors were person-mean centered and both intercepts and slopes were allowed to vary randomly across

¹ Some work suggests that focusing on the present should reduce rumination by directing one’s attention away from past- and future-focused negative thoughts (Brown & Ryan, 2003)—key targets of rumination. Other work suggests that focusing on the moment should reduce rumination by increasing the likelihood that people recognize that they are ruminating, motivating them to take action to stop doing so (Baer, 2015).

² See online supplemental material for information on exploratory measures and attrition.

³ When designing this study, we recognized that people’s attention might alternate among focusing on the past, present, and future. Thus, the question we administered to assess temporal orientation asked participants to indicate their temporal orientation during the precise moment that they were texted.

participants. Following prior work (e.g., Verduyn et al., 2015), we report unstandardized regression weights. Significance tests of fixed effects are t tests with degrees of freedom calculated based on the number of level 1 observations. Although our analyses focused on the relationship between present focus and affective well-being at the within-subject level, we nevertheless also examined this relationship at the between-person level by predicting affect by the proportion of cases participants reported being in the present (i.e., person-mean).

We examined the relationship between present focus and cognitive well-being by calculating the percentage of cases in which participants reported focusing on the present during the experience-sampling phase of the study and using this variable as a predictor of life satisfaction at the end of the study, controlling for life satisfaction at the study's start using ordinary least squares regression analysis. Finally, we examined whether negative rumination explained the relationship between present focus and changes in cognitive well-being by performing a mediation analysis with 5,000 bootstrapped resamples as outlined by Preacher and Hayes (2008).⁴

Results

Do People Focus Predominantly on the Present?

People reported focusing on the present (66%) more than the past or future combined (34%), $t(1,642) = 7.65, p < .001$. People also reported focusing more on the future (26%) than the past (8%), $t(557) = 9.73, p < .001$ (see Figure 1).

Does Focusing on the Present Predict Improvements in Affective Well-Being by Reducing Negative Rumination?

Although focusing on the present was not significantly related to affective well-being at the between-person level, at the within-subject level of analyses, which allows for a more accurate test of our hypotheses, we observed a significant relationship between these variables (see Table 1). Specifically, people reported feeling 4% better when focusing on the present compared with the non-present.⁵

Next, we examined whether focusing on the present predicted changes in how people felt from one moment to the next. In contrast to mindfulness theory, focusing on the present did not lead to changes in how positive people felt ($p = .22$). However, we did find evidence for the inverse pathway—the more positive people felt at Time 1, the more likely they reported focusing on the present at Time 2.

Finally, we examined whether focusing on the present indirectly led to increases in affective well-being over time by reducing negative rumination. Although focusing on the present (at Time 1) was concurrently negatively related to rumination (at Time 1) at the within-subject level (present focus \rightarrow negative rumination, $B = -7.96, SE = 1.79, z = -4.45, p < .001, 95\%$ confidence interval [CI] $[-11.47, -4.45]$), negative rumination at Time 1 did not predict a subsequent decrease in affective well-being over time (negative rumination \rightarrow affect, $B = -0.014, SE = 0.027, z = -0.51, p = .61, 95\%$ CI $[-0.07, 0.04]$). The indirect effect was not significant ($B = 0.75, SE = 0.49, z = 1.51, p = .13, 95\%$ CI $[-0.22, 1.71]$).

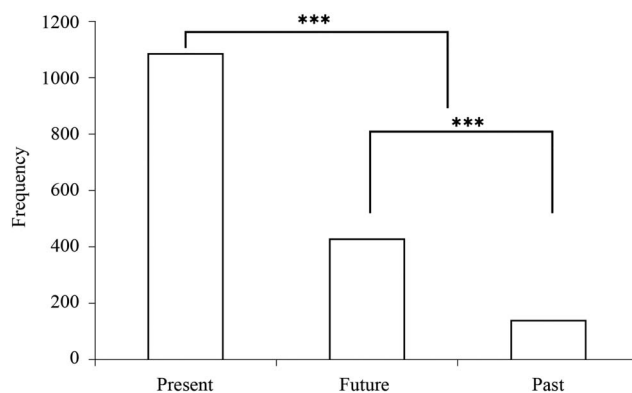


Figure 1. Frequency of present, future, and past temporal orientation. *** $p < .001$.

Does Focusing on the Present Predict Improvements in Cognitive Well-Being by Reducing Negative Rumination?

Focusing on the present predicted a marginal increase in life satisfaction over time, ($B = 0.011, SE = 0.007, \beta = 0.14, t(47) = 1.70, p = .096, 95\%$ CI $[-0.002, 0.024]$), and this remained true when average affect throughout the week was included as a covariate ($B = 0.011, SE = 0.006, \beta = 0.14, t(46) = 1.92, p = .062, 95\%$ CI $[-0.001, 0.023]$). Next, following the procedure outlined by Preacher and Hayes (2008), we examined whether negative rumination mediated the relationship between present focus and changes in cognitive well-being. Focusing on the present revealed a relationship with negative rumination that was not significant but in the theoretically predicted direction (present focus \rightarrow negative rumination, $B = -0.16, SE = 0.09, t(47) = -1.64, p = .107$), and negative rumination predicted a decrease in cognitive well-being over time (negative rumination \rightarrow life satisfaction, $B = -0.03, SE = 0.009, t(47) = -3.50, p = .001$). Finally the indirect effect of present focus on changes in cognitive well-being through negative rumination was significant ($B = .005, bias-corrected 95\%$ CI = $[0.0002, 0.0136]$), providing evidence to support mediation.

Discussion

This study generated three main findings. First, in contrast to the idea that people spend most of their time focusing on the future or past, participants in the current study overwhelmingly focused on the present. This finding is consistent with the idea that there is a fundamental need for people to attend to the stimuli they encounter in daily life (Ellsworth & Scherer, 2003).

Second, focusing on the present did not lead people to feel better from one moment to the next. Instead, the more positive people felt at one point in time, the more likely they were to report focusing on the present during the next assessment. The latter finding is consistent with research indicating that feeling good biases attention toward rewarding stimuli in the present (Tamir & Robinson,

⁴ See online supplemental material for additional methodological details and results.

⁵ As reflected by the corresponding regression weight ($B = 4.37$), with a one unit increase in the present focus predictor corresponding to moving from non-present to present focus.

Table 1
Unstandardized Regression Weights From Multilevel Analyses on the Relationship Between Present Focus and Both Affect and Negative Rumination

	<i>B</i>	<i>SE</i>	<i>p</i>	95% CI
Between-person level				
Present focus				
Affect	−4.08	9.72	.67	[−23.15, 14.98]
Negative rumination	−13.08	9.38	.16	[−31.48, 5.33]
Within-person level: Concurrent relationship				
Present focus				
Affect	4.37	1.28	<.001	[1.85, 6.88]
Negative rumination	−12.10	2.26	<.001	[−16.54, −7.66]
Within-person level: Lagged relationship predicting changes in affect and negative rumination				
Present focus (T1)				
Affect (T2)	1.41	1.15	.22	[−0.85, 3.67]
Negative rumination (T2)	−1.36	1.85	.46	[−4.99, 2.27]
Within-person level: Lagged relationship predicting changes in present focus				
Affect (T1)				
Present focus (T2)	0.01	0.003	.01	1.01 ^a
Negative rumination (T1)				
Present focus (T2)	−0.004	0.002	.08	1.00 ^a

Note. When performing lagged analyses, the level of the dependent variable at the previous assessment was controlled for. *B* = unstandardized regression weights, T1 = Time 1, T2 = Time 2.

^a Odds ratio.

2007), a bias that reinforces present focus. It is also consistent with work suggesting that when we feel good about something, we are less likely to engage in past- or future-focused counterfactual thinking (Gleicher et al., 1995).

Finally, the more people focused on the present over the course of the study, the less they engaged in negative rumination, which in turn predicted improvements in their life satisfaction levels over time. This finding is consistent with mindfulness theory and raises the interesting possibility that focusing on the present influences the cognitive (but not affective) component of subjective well-being. In this vein, it is important to recognize that these different facets of well-being are dissociable (Kahneman & Deaton, 2010); that is, engaging in activities that enhance cognitive well-being need not improve how one feels in the moment (Schueller & Seligman, 2010).

Three caveats are in order before concluding. First, we examined a specific component of mindfulness in this study: focusing on the present. We did not additionally focus on “mindfully” attending to the present, which involves not only focusing on the present (i.e., the “now”) but also engaging in additional mental operations (e.g., paying attention to ongoing sensations, adopting a nonjudgmental attitude). It is possible that mindfully attending to the present might lead to different outcomes from those documented here. Second, our sample consisted primarily of young adults. Future research is needed to examine how these findings generalize to other populations. Finally, whereas affective well-being was assessed up to 35 times, cognitive well-being was only assessed twice. Future research would benefit from assessing cognitive well-being more frequently and over longer time-spans.

References

- Baer, R. A. (2015). *Mindfulness-based treatment approaches: Clinician's guide to evidence base and applications*. San Diego, CA: Academic Press.
- Barnett, M. D. (2014). Future orientation and health among older adults: The importance of hope. *Educational Gerontology, 40*, 745–755. <http://dx.doi.org/10.1080/03601277.2014.898496>
- Bolger, N., & Laurenceau, J. -P. (2013). *Intensive longitudinal methods: An introduction to diary and experience sampling research*. New York, NY: Guilford Press.
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology, 84*, 822–848. <http://dx.doi.org/10.1037/0022-3514.84.4.822>
- Creswell, J. D. (2017). Mindfulness interventions. *Annual Review of Psychology, 68*, 491–516.
- Diener, E. (1994). Assessing subjective well-being: Progress and opportunities. *Social Indicators Research, 31*, 103–157. <http://dx.doi.org/10.1007/BF01207052>
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment, 49*, 71–75. http://dx.doi.org/10.1207/s15327752jpa4901_13
- Ellsworth, P. C., & Scherer, K. R. (2003). Appraisal processes in emotion. In R. J. Davidson, K. R. Scherer, & H. H. Goldsmith (Eds.), *Handbook of affective sciences* (pp. 572–595). New York, NY: Oxford University Press.
- Epstude, K., & Roese, N. J. (2008). The functional theory of counterfactual thinking. *Personality and Social Psychology Review, 12*, 168–192. <http://dx.doi.org/10.1177/1088868308316091>
- Gleicher, F., Boninger, D. S., Strathman, A., Armor, D., Hetts, J., & Ahn, M. (1995). With an eye toward the future: The impact of counterfactual thinking on affect, attitudes, and behavior. In N. J. Roese & J. M. Olson (Eds.), *What might have been: The social psychology of counterfactual thinking* (pp. 283–304). Mahwah, NJ: Erlbaum.
- Gollwitzer, P. M., & Sheeran, P. (2006). Implementation intentions and goal achievement: A meta-analysis of effects and processes. In M. P. Zanna & M. P. Zanna (Eds.), *Advances in experimental social psychology* (Vol. 38, pp. 69–119). San Diego, CA: Elsevier Academic Press. [http://dx.doi.org/10.1016/S0065-2601\(06\)38002-1](http://dx.doi.org/10.1016/S0065-2601(06)38002-1)
- Hanh, T. N. (1991). *Peace is every step: The path of mindfulness in everyday life*. New York, NY: Bantam Books.

- Ito, T., Takenaka, K., Tomita, T., & Agari, I. (2006). Comparison of ruminative responses with negative rumination as a vulnerability factor for depression. *Psychological Reports, 99*, 763–772. <http://dx.doi.org/10.2466/PRO.99.3.763-772>
- Kabat-Zinn, J. (2009). *Wherever you go, there you are: Mindfulness meditation in everyday life*. New York, NY: Hachette.
- Kahneman, D., & Deaton, A. (2010). High income improves evaluation of life but not emotional well-being. *Proceedings of the National Academy of Sciences of the United States of America, 107*, 16489–16493. <http://dx.doi.org/10.1073/pnas.1011492107>
- Keough, K. A., Zimbardo, P. G., & Boyd, J. N. (1999). Who's smoking, drinking, and using drugs? Time perspective as a predictor of substance use. *Basic and Applied Social Psychology, 21*, 149–164. <http://dx.doi.org/10.1207/S15324834BA210207>
- Killingsworth, M. A., & Gilbert, D. T. (2010). A wandering mind is an unhappy mind. *Science, 330*, 932. <http://dx.doi.org/10.1126/science.1192439>
- Kross, E., Verduyn, P., Demiralp, E., Park, J., Lee, D. S., Lin, N., . . . Ybarra, O. (2013). Facebook use predicts declines in subjective well-being in young adults. *PLoS ONE, 8*, e69841. <http://dx.doi.org/10.1371/journal.pone.0069841>
- Maas, C. J., & Hox, J. J. (2005). Sufficient sample sizes for multilevel modeling. *Methodology, 1*, 86–92. <http://dx.doi.org/10.1027/1614-2241.1.3.86>
- Nolen-Hoeksema, S., Wisco, B. E., & Lyubomirsky, S. (2008). Rethinking rumination. *Perspectives on Psychological Science, 3*, 400–424. <http://dx.doi.org/10.1111/j.1745-6924.2008.00088.x>
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*, 879–891. <http://dx.doi.org/10.3758/BRM.40.3.879>
- Schueler, S. M., & Seligman, M. E. (2010). Pursuit of pleasure, engagement, and meaning: Relationships to subjective and objective measures of well-being. *The Journal of Positive Psychology, 5*, 253–263. <http://dx.doi.org/10.1080/17439761003794130>
- Sedikides, C., Wildschut, T., Arndt, J., & Routledge, C. (2008). Nostalgia past, present, and future. *Current Directions in Psychological Science, 17*, 304–307. <http://dx.doi.org/10.1111/j.1467-8721.2008.00595.x>
- Siegel, R. D., Germer, C. K., & Olendzki, A. (2009). Mindfulness: What is it? Where did it come from? In F. Didonna (Ed.), *Clinical handbook of mindfulness* (pp. 17–35). New York, NY: Springer. http://dx.doi.org/10.1007/978-0-387-09593-6_2
- Tamir, M., & Robinson, M. D. (2007). The happy spotlight: Positive mood and selective attention to rewarding information. *Personality and Social Psychology Bulletin, 33*, 1124–1136. <http://dx.doi.org/10.1177/0146167207301030>
- Verduyn, P., Lee, D. S., Park, J., Shablack, H., Orvell, A., Bayer, J., . . . Kross, E. (2015). Passive Facebook usage undermines affective well-being: Experimental and longitudinal evidence. *Journal of Experimental Psychology: General, 144*, 480–488. <http://dx.doi.org/10.1037/xge0000057>
- Zimbardo, P. G., Keough, K. A., & Boyd, J. N. (1997). Present time perspective as a predictor of risky driving. *Personality and Individual Differences, 23*, 1007–1023. [http://dx.doi.org/10.1016/S0191-8869\(97\)00113-X](http://dx.doi.org/10.1016/S0191-8869(97)00113-X)

Received October 9, 2016

Revision received April 25, 2017

Accepted April 26, 2017 ■