

# The dynamics of searching for meaning and presence of meaning in daily life

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## Abstract

**Objective:** Research on searching for meaning in life has focused on trait-level relationships rather than within-person relationships. Our goal was to examine within-person relationships between daily states of searching for meaning in life, daily states of presence of meaning in life, and daily states of well-being.

**Method:** To advance our understanding of searching for meaning in life, we conducted a daily diary study with two samples in which 254 undergraduate students ( $M_{\text{age}} = 18.54$ ,  $SD = 1.55$ ; 66.9% female) completed daily reports of presence and search for meaning in life and well-being for 2 weeks ( $n = 3,288$ ).

**Results:** Between persons, search was negatively related to presence and well-being. In contrast, within persons, daily search was positively related to presence and well-being. Relationships between daily search and daily well-being were mediated by daily presence of meaning in life. Lagged analyses indicated that greater search on one day led to greater presence the next day.

**Conclusions:** The implications of these within-person findings suggest that researchers should reconsider the potential consequences that occur from searching for meaning in life, including the possibility that greater searching is associated with increased well-being.

## KEYWORDS

diary, meaning in life, search, well-being

## 1 | INTRODUCTION

During the past two decades, meaning in life has received considerable attention from psychologists, and much of this work has been informed by the seminal works of Frankl (1963) and Maddi (1970). Although specific models and explanations of meaning in life (MIL) vary, it appears that MIL needs to be understood in terms of two relatively independent dimensions (e.g., Steger, Frazier, Oishi, & Kaler, 2006). One dimension is typically referred to as *presence*—to what extent does a person find or experience meaning in his or her life? The second dimension is typically referred to as *search*—to what extent is a person searching for meaning in his or her life?

Similar to most individual differences, the bulk of research and theorizing has focused on MIL as a trait—a

relatively stable or enduring difference among individuals. Some people are assumed to find greater meaning in their lives than others do, some people are assumed to search for meaning in their lives more than others do, and so forth. Although work on trait-level meaning in life has been informative, we believe that MIL also has an important state component. Individuals vary in terms of how much meaning they find in their lives, and they vary in terms of how much they search for meaning. Moreover, Frankl (1963) believed that the meaning of life changes from day to day and even from hour to hour. In terms of searching for meaning in life, Frankl argued that the will to meaning is a fundamental human motivation, but it can be frustrated and can lead to a will to pleasure or power or some other search. This suggests that the extent to which

one searches for meaning in life varies over time within individuals.

Under this assumption, we conducted a study that examined within-person (state) variability in MIL. We examined within-person relationships between searching for and presence of MIL, and we examined within-person relationships between MIL and well-being. The hypotheses and expectations that guided this study were based on theoretical work, research at the trait level, and the more limited research at the within-person level. These hypotheses and expectations are presented following a review of the relevant literature.

Perhaps the clearest empirical support for presence and search as two dimensions of MIL comes from Steger et al. (2006), who developed the Meaning in Life Questionnaire (MLQ). The MLQ consists of 10 items, five measuring presence (e.g., "I understand my life's meaning") and five measuring search (e.g., "I am searching for meaning in my life"). Steger et al. provided evidence for the discriminative validity of these two subscales, and they provided evidence that the MLQ had advantages over previous measures of MIL, including the Life Regard Index (Battista & Almond, 1973), the Purpose in Life Test (Crumbaugh & Maholick, 1964), and the Seeking of Noetic Goals Scale (Crumbaugh, 1977). In the present study, we relied upon the framework offered by Steger et al. (2006) for conceptualizing and measuring MIL.

In our conceptualization of MIL, we also consider the level of analysis at which MIL is defined and measured. For present purposes, the critical distinction is between studies done at the state and trait levels of analysis. Such a distinction is critical because relationships between constructs at different levels of analysis can represent different psychological processes (Affleck, Zautra, Tennen, & Armeli, 1999). For example, the state of searching for MIL may represent something different than chronic (trait) searching for MIL. In fact, searching for meaning in life has often been conceptualized as an attempt at reconciling discrepancies between global meaning (measured as a trait) and situational meaning (measured as the extent to which an event or experience makes sense; Park, 2010). Thus, a chronic stable trait of searching for meaning in life implies one is continually trying to make sense of life events, whereas a daily state of searching for meaning in life describes a fluctuating attempt at making meaning in response to life events. Moreover, technically, relationships at different levels of analysis are mathematically independent (Nezlek, 2001). For example, knowing the trait-level relationships between MIL and well-being tells us nothing (mathematically) about the state-level (within-person) relationships.

## 1.1 | Relationships between meaning in life and well-being

Similar to much previous work, the present study examined relationships between MIL and well-being. Our framework

incorporates both distinctions mentioned above: the aspect of MIL (presence vs. search) being considered and the level of analysis of the measures involved (traits vs. states). Within such a framework, most research on relationships between MIL and well-being has been done at the trait level, and the results of this research are reasonably consistent. At the trait level, the presence of MIL has been found to be positively related to well-being as defined in terms of satisfaction with life, happiness (e.g., Debats, Van der Lubbe, & Wezeman, 1993), and positive affect (e.g., Hicks & King, 2007; King, Hicks, Krull, & Del Gaiso, 2006).

In contrast, at the trait level, search for MIL has been found to be negatively related to well-being as defined in terms of negative affect, depression, neuroticism, life satisfaction, and self-esteem (Steger et al., 2006). Searching for MIL has also been found to be positively related to rumination, to the fatalism with which the past is viewed, and to the tendency to focus on the past in a negative fashion (Steger, Kashdan, Sullivan, & Lorentz, 2008). These trait-level relationships suggest that those who are searching for MIL have lower well-being than those who are not searching for MIL.

There are fewer studies of state MIL than there are of trait MIL. Regardless, similar to the results of trait-level studies, presence of MIL and well-being have been found to be positively related at the within-person level. Daily presence of MIL has been found to be positively related to daily positive affect and negatively related to negative affect (King et al., 2006; Machell, Kashdan, Short, & Nezlek, 2015). Daily presence of MIL was also found to be positively related to a measure of subjective well-being that consisted of a combination of daily life satisfaction and affect balance (positive affect minus negative affect) (Steger & Frazier, 2005). In a study that included midday assessments of presence and evening assessments of well-being, with control of prior levels of all variables, presence was found to positively predict positive affect, life satisfaction, subjective well-being, vitality, and (marginally) self-actualization, but it did not predict negative affect (Thrash, Elliot, Maruskin, & Cassidy, 2010).<sup>1</sup>

In contrast, we know of no study that has examined relationships between search for MIL and well-being at the within-person (state) level. To our knowledge, analyses of state-level measures of searching for MIL have been reported in only two studies (Kashdan & Steger, 2007; Steger & Kashdan, 2013). In both studies, daily scores of searching for meaning were aggregated to form a trait-like measure of searching for meaning and analyses were done at the between-person (trait) level, and as such, these analyses did not describe within-person relationships.

To complement existing research on MIL, particularly search for MIL, we conducted a daily diary study in which we measured MIL and well-being at both the trait (person) and state (daily) levels. Each day for 2 weeks, participants responded to measures of presence of and search for MIL

and various measures of well-being. Participants also responded to trait-level measures of the same constructs. At the between-person level, we expected to replicate previous research and find positive relationships between well-being and presence of MIL, and to find negative relationships between well-being and search for MIL. At the within-person level, we expected to replicate previous research and find positive relationships between well-being and presence of MIL.

Our expectations regarding within-person relationships between well-being and search for MIL were not as clear as they were for relationships at the between-person level and for within-person relationships between well-being and presence of MIL. Given that this was the first study to examine within-person relationships between searching for MIL and daily well-being, we based our hypotheses on theoretical work (e.g., Baumeister, 1991; Frankl, 1963; Maddi, 1970) and on results of research on between-person relationships (e.g., Steger, Kashdan, et al., 2008).

Although between-person relationships are mathematically independent of within-person relationships, we used between-person and trait research as a starting point to guide some of our hypotheses. Research on between-person relationships between well-being and search for MIL suggested two, somewhat opposing, possibilities for within-person relationships between these constructs. As noted previously, research has found negative relationships between these constructs at the trait level, suggesting that state-level relationships would be negative. In contrast, previous research has found that relationships between aggregated daily states of search and well-being (either trait or aggregated daily scores) are either positive or not significant (Kashdan & Steger, 2007; Steger & Kashdan, 2013), leading to the expectation that within-person relationships between well-being and search for MIL are positive, or at the least, not negative.

## 1.2 | Causal relationships between presence of meaning in life and searching for meaning in life

In addition to furthering our understanding of relationships between MIL and well-being, the present study was also designed to further our understanding of causal relationships between presence of and search for MIL. The two simplest such possibilities have been described as the *search-to-presence* model and the *presence-to-search* model (Steger, Kashdan, et al., 2008). According to the *search-to-presence* model, increased searching for MIL should lead to finding more MIL. This possibility was discussed by Frankl (1963) and Maddi (1970) but has not been examined empirically. According to the *presence-to-search* model, once one finds or experiences MIL, one searches for MIL to a lesser extent. Conversely, when one

lacks MIL, one searches for MIL more strongly than when one's life has meaning, a possibility that is consistent with the homeostasis model (Baumeister, 1991; Klinger, 1998) and the meaning maintenance model (Heine, Proulx, & Vohs, 2006). We note that the *search-to-presence* and *presence-to-search* models are not mutually exclusive; both could be correct.

To date, research on causal relationships between presence of and search for MIL has been limited. Steger, Kashdan, et al. (2008) interpreted various moderators of zero-order relationships as suggesting support for the *presence-to-search* model, and Steger (2013) interpreted some nonlinear relationships between the two measures as suggesting causal relationships in different ways. Nevertheless, neither of these studies was designed to examine causal relationships between search and presence, and they do not provide a basis for inferring causality between search and presence.

The present study was designed to provide such a basis by collecting data on consecutive days. Temporal precedence is typically considered as a necessary (although not sufficient) condition to establish causal relationships, and the data we collected allowed us to examine lagged relationships across days. For example, if search on day  $n$  was related to presence on day  $n + 1$ , whereas presence on day  $n$  was not related to search on day  $n + 1$ , we could conclude that search led to presence, with caveats regarding the possible influence of unmeasured variables. Based upon the original work of Frankl (1963) and Maddi (1970), we expected that our lagged analyses would find that search led to presence rather than the reverse. On an exploratory basis, we also examined individual differences in the causal relationships between search and presence.

In particular, Frankl (1963) stressed the importance of finding the specific meaning of one's life at a particular moment rather than a broad global meaning. Moreover, Frankl believed that people should strive to find MIL and noted several benefits of this pursuit, such as happiness and the capability to cope with suffering. Although the exact nature of the process of searching for MIL was not clearly depicted, one could argue that Frankl was referring to a search for meaning in the present moment given his emphasis on finding meaning in the moment. By extension, we propose that Frankl's support for the causal process from searching for meaning to finding meaning referred to a short-term process as we measured in our study.

## 2 | METHOD

### 2.1 | Participants and procedure

We collected data from two samples of undergraduates who provided data over the course of two semesters ( $N = 270$ ), and the measures that are the focus of this article were

collected in both samples. Fourteen individuals were in both samples, and we eliminated their data from the second sample. In addition, the data of two participants who failed to answer both of the instructed response items of the trait questionnaire (e.g., Meade & Craig, 2012) were eliminated. The final sample consisted of 254 participants ( $M_{\text{age}} = 18.54$ ,  $SD = 1.55$ ; 66.9% female). Participants were recruited based on their responses to questions from an initial survey distributed at the beginning of the semester regarding their frequency of prayer, their race, and their willingness to participate in additional studies for payment.<sup>2</sup>

Information sessions were held to explain the study to the participants. Following these sessions, participants completed trait-level measures online. Participants were then sent daily questionnaires every evening at 9:00 p.m. for 14 consecutive nights. Participants were instructed to complete the questionnaire just before going to bed. Reminder emails were sent at 7:00 a.m. the following morning to participants who did not complete the questionnaire the night before. Entries were accepted until noon, consistent with previous studies (e.g., Oishi, Diener, Choi, Kim-Prieto, & Choi, 2007).

A total of 3,422 entries were collected, and 134 entries (3.9%) were eliminated because they were incomplete, were completed after noon, were completed on the same day by the same participant, or because the participant incorrectly answered an instructed response item or entered the same response across an entire page. (The last two criteria were recommended by Meade and Craig [2012] to eliminate careless responding in online data.) This left 3,288 entries for the final analyses. The mean number of valid entries was 12.94 ( $SD = 1.47$ ), and the minimum number of valid entries completed by a participant was 5.

## 2.2 | Trait measures

Well-being was measured using an affective circumplex scale (e.g., Feldman Barrett & Russell, 1998), the Satisfaction With Life Scale (Diener, Emmons, Larsen, & Griffin, 1985), and a self-esteem scale (Rosenberg, 1965). The circumplex model of affect distinguishes valence (positive or negative) and arousal (activated or deactivated). Positive activated affect (PA) was measured with the items *enthusiastic*, *alert*, *happy*, *proud*, and *excited*; positive deactivated affect (PD) was measured with *calm*, *peaceful*, *relaxed*, *contented*, and *satisfied*; negative activated affect (NA) was measured with *stressed*, *embarrassed*, *upset*, *tense*, and *nervous*; and negative deactivated affect (ND) was measured with *depressed*, *disappointed*, *sluggish*, *bored*, and *sad*. Participants were asked to report how strongly they generally felt each emotion using a 7-point scale (1 = *do not feel this way at all*, 4 = *feel this way moderately*, 7 = *feel this way very strongly*).

Responses on the Satisfaction With Life Scale (Diener et al., 1985) were made using a 7-point scale (1 = *strongly*

*disagree*, 7 = *strongly agree*). Self-esteem was measured using the Rosenberg Self-Esteem Scale (Rosenberg, 1965), and participants responded using a 4-point response scale (1 = *strongly agree*, 4 = *strongly disagree*). Scale scores were calculated such that higher scores indicated higher self-esteem. Participants completed the Meaning in Life Questionnaire (MLQ) (Steger et al., 2006). Responses were made using a 7-point scale (1 = *absolutely untrue*, 4 = *can't say true or false*, 7 = *absolutely true*). Participants also completed the BFI-44, a 44-item measure of the Big Five personality traits (John & Srivastava, 1999). Univariate summary statistics, including reliabilities and correlations, for all trait measures are presented in Table 1.

## 2.3 | Daily measures

Daily affect was measured using the same circumplex model (e.g., Feldman Barrett & Russell, 1998) that was used for the trait measure. Participants were asked to rate on a 7-point scale how strongly they felt each emotion each day (1 = *did not feel this way at all*, 4 = *felt this way moderately*, 7 = *felt this way very strongly*).

Daily satisfaction with life was measured with two items based on Oishi et al. (2007). Participants answered the first question, "How was today?" using a 7-point scale (1 = *terrible*, 7 = *excellent*), and they answered the second question, "How satisfied were you with your life today?" using a 7-point scale (1 = *very dissatisfied*, 7 = *very satisfied*).

Similar to previous research (e.g., Nezlek, 2005), daily self-esteem was measured with four items. These were "Today, I felt like a failure," "Today, I felt that I had many good qualities," "Today, I thought I was no good at all," and "Today, on the whole, I was satisfied with myself." Each item used a 7-point scale (1 = *very uncharacteristic of me today*, 7 = *very characteristic of me today*).

Daily measures of presence of MIL and searching for MIL were based on items that have been used in previous diary studies (Kashdan & Nezlek, 2012; Kashdan & Steger, 2007). Daily presence was assessed using the items "How meaningful did you feel your life was today?" and "How much did you feel your life had purpose today?" Daily search included the items "How much were you searching for meaning in your life today?" and "How much were you looking to find your life's purpose today?" Each item used a 7-point scale (1 = *not at all*, 7 = *very much*).

## 3 | RESULTS

### 3.1 | Relationships among trait measures

Correlations among the trait measures are presented in Table 1. These correlations were consistent with those reported in previous studies (e.g., Steger et al., 2006; Steger, Kashdan

**TABLE 1** Descriptive statistics and correlations between trait-level measures

	<i>M</i>	<i>SD</i>	$\alpha$	Presence	Search	SWLS	PA	PD	NA	ND	SE	N	E	O	A	C
Presence of meaning in life	4.53	1.27	0.89													
Search for meaning in life	4.97	1.29	0.91	−0.12												
Satisfaction with life	5.07	1.39	0.91	0.46	−0.10											
Positive activated affect	4.83	0.94	0.78	0.48	0.09	0.61										
Positive deactivated affect	4.61	1.07	0.85	0.32	0.01	0.54	0.58									
Negative activated affect	3.79	1.07	0.81	−0.29	0.22	−0.46	−0.17	−0.48								
Negative deactivated affect	3.28	1.08	0.78	−0.39	0.19	−0.58	−0.35	−0.39	0.65							
Self-esteem	3.08	0.60	0.92	0.38	−0.12	0.62	0.56	0.57	−0.52	−0.53						
Neuroticism	3.03	0.83	0.85	−0.35	0.19	−0.48	−0.37	−0.61	0.68	0.47	−0.62					
Extraversion	3.22	0.89	0.87	0.21	0.00	0.42	0.48	0.24	−0.20	−0.29	0.45	−0.26				
Openness	3.67	0.60	0.76	0.22	0.12	0.14	0.19	0.13	−0.02	−0.11	0.15	−0.06	0.10			
Agreeableness	3.79	0.63	0.78	0.29	0.13	0.32	0.33	0.34	−0.26	−0.36	0.25	−0.30	0.13	0.10		
Conscientiousness	3.62	0.68	0.82	0.25	0.12	0.31	0.36	0.15	−0.13	−0.28	0.28	−0.20	0.15	0.19	0.32	

Note. Correlation absolute values above .16 were significant at  $p < .01$ , above .12 at  $p < .05$ , and above .10 at  $p < .10$ .

et al., 2008). Presence and search were marginally negatively correlated ( $r = -.12$ ,  $p = .06$ ). Presence of MIL was positively related to life satisfaction, positive affect, and self-esteem and was negatively related to negative affect. In contrast, search for MIL was not significantly related to life satisfaction, positive affect, or self-esteem (marginally significant) but was positively related to negative affect. Presence of MIL was negatively related to Neuroticism and was positively related to the other Big Five personality traits. Search for MIL was positively related to Neuroticism and Agreeableness and was either marginally or not significantly related to Extraversion, Openness, and Conscientiousness.

### 3.2 | Daily measures: Reliability, validity, and descriptive statistics

Before conducting the analyses to examine the relationships that were the focus of our study, we examined the reliability and validity of our daily measures. All multilevel analyses, with the exception of the mediation analyses, were conducted with HLM version 7.0 (Raudenbush, Bryk, & Congdon, 2011). The reliability of our daily measures was estimated using three-level models in which items on a scale were nested within days, and days were nested within persons (Nezlek, 2017). These analyses found that the scales of PA, NA, and ND were not as reliable as desired (.55, .44, and .46, respectively), and so we excluded items from each scale to improve the reliabilities. The final measure of PA included the adjectives *enthusiastic*, *happy*, and *excited*, the final

measure of NA included *stressed*, *upset*, *tense*, and *nervous*, and the final version of ND included *depressed*, *disappointed*, and *sad*. Reliability estimates for these final measures of affect and the reliability estimates of the other daily measures are reported in Table 2. Scores on each scale were operationalized as the mean response to items on each scale.

The remaining analyses reported in this article were two-level models in which days were treated as nested within persons. These analyses followed the guidelines offered by Nezlek (2001). The first set of analyses consisted of “unconditional models,” or models in which there were no predictors at any level of analysis. These analyses provided the basic multilevel descriptive statistics—the mean and the within- and between-person variance estimates—and these statistics are presented in Table 2. Note that for all measures, there was ample variance at the within-person level to analyze within-person variability. Also, all person-level measures were standardized prior to the analyses.

The between-person variance from these null models also served as part of the basis for estimating the validity of our daily measures, which was defined as the correlation between the mean daily measure of a construct and the trait measure of the same construct. This correlation was defined as the square root of the percent the between-person variance from the null model was reduced when the corresponding trait-level measure was included as a predictor at the person level. The percent reduction is the functional equivalent of  $r^2$ , and the square root of this is  $r$ . See Nezlek and Plesko (2001) and Nezlek (2002) for examples. These validity

**TABLE 2** Descriptive statistics of daily measures

Daily measure	Mean	Variance		Reliability	Validity
		Within	Between		
Presence of meaning in life	4.04	1.11	1.77	.86	.61
Search for meaning in life	2.46	1.05	1.31	.91	.28
Positive activated affect	4.23	1.30	1.02	.72	.62
Positive deactivated affect	3.87	.89	.91	.76	.65
Negative activated affect	3.18	1.18	.82	.56	.59
Negative deactivated affect	2.28	1.12	.80	.66	.59
Self-esteem	5.29	.90	.98	.58	.80
Satisfaction with life	4.83	1.23	.63	.81	.74

estimates are presented in Table 2. They were all approximately .6 or higher, with the exception of search for MIL.

### 3.3 | Within-person relationships between search and presence

Within-person relationships between presence and search for MIL were an important focus of the present study. The static (same-day) relationships between search and presence were examined with a multilevel model (MLM) that took the following form. Search was entered group-mean centered and was modeled as randomly varying.

Day level :  $y_{ij}(\text{Presence}) = \beta_{0j} + \beta_{1j}(\text{search}) + r_{ij}$ .

Person level :  $\beta_{0j} = \gamma_{00} + u_{0j}$ .

$\beta_{1j} = \gamma_{10} + u_{1j}$ .

The coefficient describing this relationship was positive and statistically significant ( $\gamma_{10} = .30$ ,  $t = 9.19$ ,  $p < .001$ ). Using a procedure similar to that used to estimate the validity of the daily measures (relying upon the reduction in Level 1 variance in presence when search was included as a predictor), the estimated within-person correlation between these two measures was +.40. This positive relationship at the within-person level is quite different than the marginally significant negative relationship between these two measures at the between-person level of analysis.

### 3.4 | Causal relationships between search and presence: Lagged analyses

To examine possible causal relationships between search and presence, we conducted lagged analyses. We examined relationships between measures collected on consecutive days (a lag of 1 day). For example, if search on day  $n - 1$  was related

to presence on day  $n$  after controlling for presence on day  $n - 1$ , this would suggest that search was a cause of presence, whereas if presence on day  $n - 1$  was related to search on day  $n$  after controlling for search on day  $n - 1$ , this would suggest that presence is a cause of search. The models used to examine these relationships are below. Data for 2,826 days were included in these analyses.

Lag from Search to Presence:

$$y_{ij}(\text{presence day } n) = \beta_{0j} + \beta_{1j}(\text{presence day } n - 1) + \beta_{2j}(\text{search day } n - 1) + r_{ij}.$$

Lag from Presence to Search:

$$y_{ij}(\text{search day } n) = \beta_{0j} + \beta_{1j}(\text{presence day } n - 1) + \beta_{2j}(\text{search day } n - 1) + r_{ij}.$$

The results of these analyses were unambiguous. In the first model, the  $\beta_{2j}$  coefficient was significant ( $\gamma_{20} = .05$ ,  $t = 2.42$ ,  $p < .05$ ), and in the second model, the  $\beta_{1j}$  coefficient was not significant ( $\gamma_{10} = .00$ ,  $t < 1$ ). These findings are consistent with a causal sequence from search for MIL to the presence of MIL the following day rather than from presence to search.

Given the lack of research on causal relationships between search for and presence of MIL, we examined individual differences in these lagged relationships on an exploratory basis. We examined the moderation by trait-level measures of presence and search by including trait-level measures in the person-level equations in the models used to examine the lagged relationships. We interpreted a given moderation effect by estimating slopes for participants who were one standard deviation above and below the mean of the moderating variable.

The lagged relationship from presence to search was moderated by both trait presence ( $\gamma_{11} = .05$ ,  $t = 1.98$ ,  $p < .05$ )<sup>3</sup> and trait search ( $\gamma_{11} = -.06$ ,  $t = 2.91$ ,  $p < .01$ ). For individuals high

**TABLE 3** Predicted slopes for interactions involving trait moderators of lagged relationships

	Trait presence		Trait search	
	Low (−1 SD)	High (+1 SD)	Low (−1 SD)	High (+1 SD)
Predicted lag from search to presence	.08	.02	.02	.08
Predicted lag from presence to search	−.05	.05	.07	−.05

in trait presence, the estimated coefficient representing the effect of presence on search the following day was .05, whereas for those low in trait presence, the lagged relationship was −.05. For individuals high in trait search, the estimated coefficient representing the effect of presence on search the following day was −.05, whereas for those low in trait search, the estimated coefficient representing the effect of presence on search the following day was .07.

The lagged relationship from search to presence was marginally significantly moderated by trait presence ( $\gamma_{21} = -.03$ ,  $t = 1.69$ ,  $p = .09$ ) but was not significantly moderated by trait search ( $\gamma_{21} = .03$ ,  $t = 1.21$ ,  $p = .26$ ). For individuals high in trait presence, the lagged effect from search to presence was .02, whereas for individuals low in trait presence, the lagged effect was .08. All estimated slopes are presented in Table 3.

### 3.5 | Within-person relationships between meaning in life and well-being

Next, we examined relationships between well-being and search and presence. To understand these relationships more completely, each measure of well-being was modeled with presence as a sole predictor, with search as a sole predictor, and with both presence and search as predictors. The results of these analyses are presented in Table 4.

The results of these analyses for presence of MIL were quite clear. As expected, presence of MIL was positively related to all measures of well-being (including negative relationships with the two negatively valent affective measures), and this occurred when presence was a sole predictor of well-being and when presence and search were predictors together. On days when people thought that their lives had more purpose/meaning, they felt better affectively, they thought their lives were satisfying, and they thought better of themselves compared to days when they thought their lives had less purpose/meaning.

The results of the analyses in terms of searching for MIL were not as straightforward. At the zero-order level (when search was the only predictor), there were positive relationships between search and PA, PD, satisfaction with life, and

self-esteem. When presence was added as a predictor, the relationships with PA and PD became nonsignificant, the positive relationships with satisfaction with life and self-esteem became negative, and there were positive relationships between search and ND and NA. In other words, when controlling for day-level differences in presence, search for MIL was negatively related to well-being. This could be interpreted to mean that presence mediated positive relationships between search and well-being while also suppressing negative direct relationships with well-being. To explore such possibilities in more detail, we conducted a series of mediational analyses.

We examined mediational relationships using a procedure outlined by Preacher, Zyphur, and Zhang (2010), and we estimated these models using Mplus (V6.12) (Muthén & Muthén, 2010). Given that we were interested in within-person relationships, we focus on the estimates of the within-person indirect effects estimated in these analyses. The results of these analyses are summarized in Table 5.

These analyses revealed a significant indirect effect in the prediction of all well-being variables. All a-paths (the effect of search on presence) and b-paths (the effect of presence on well-being after controlling for search) were also significant. In the models involving PA and PD, the total effects were significant and the direct effects were not significant. These results suggest that daily presence mediated the within-person relationships between daily search and daily PA and daily PD.

In the models involving NA and ND, the total effects were practically zero and were not significant, but the direct effects were positive and significant. This indicates that presence suppressed the positive relationship between search and NA and ND. That is, the significant positive direct effects of search on NA and ND were offset by the negative indirect effect, which resulted in nonsignificant total effects, a case of statistical suppression.

**TABLE 4** Within-person relationships between daily well-being and presence and search

Outcome	Separate predictors		Together as predictors	
	Presence	Search	Presence	Search
Positive activated affect	.50***	.14**	.50***	.00
Positive deactivated affect	.36***	.09***	.36***	−.01
Negative activated affect	−.29**	.00	−.31***	.08***
Negative deactivated affect	−.34***	−.01	−.36***	.08***
Self-esteem	.46***	.07*	.48***	−.07**
Satisfaction with life	.63***	.14***	.63***	−.03a

Note.  $ap < .10$ .  $*p < .05$ .  $**p < .01$ .  $***p < .001$ .

**TABLE 5** Mediation models with search as predictor, presence as mediator, and well-being as outcomes

Outcome variable	a-path	b-path	Total effect	Direct effect	Indirect effect	95% CI
Positive activated affect	.30***	.50***	.14***	.00	.16***	[.11, .20]
Positive deactivated affect	.30***	.36***	.09***	-.01	.10***	[.07, .14]
Negative activated affect	.30***	-.31***	.00	.08***	-.08***	[-.11, -.04]
Negative deactivated affect	.30***	-.36***	-.01	.08***	-.09***	[-.12, -.06]
Self-esteem	.30***	.48***	.07*	-.07**	.13***	[.09, .17]
Life satisfaction	.30***	.63***	.14***	-.03*	.18***	[.13, .23]

Note. The a-path refers to the effect of search on presence, and the b-path refers to the effect of presence on well-being after controlling for search.  
 \* $p < .10$ . \*\* $p < .05$ . \*\*\* $p < .01$ . \*\*\*\* $p < .001$ .

In the models involving self-esteem and life satisfaction, the total effects and indirect effects were positive and significant, but the direct effects were negative (either significant or marginally significant). These can be considered cases of inconsistent mediation in which positive indirect effects were partially offset by the negative direct effects. Similar to the other models, the significant indirect effects are consistent with the idea that search leads to presence and presence leads to well-being, but these findings also suggest that searching for meaning without finding it (i.e., a direct effect, unmediated by presence) is negatively associated with well-being.

Next, we examined lagged relationships between MIL and well-being using the procedure described previously. We examined lagged relationships between each measure of well-being and presence and search separately. Given that presence mediated and suppressed same-day relationships between well-being and search, we ran separate lagged models in which we either did or did not control for presence in the analyses of search. Doing so provided the conceptual equivalent of testing total (without a control variable) and

direct (with a control variable) lagged effects. In the models in which we controlled for presence, we included lagged presence when present well-being was predicted by lagged well-being and lagged search. For analyses in which present search was predicted by lagged search and lagged well-being, we included present presence.

The results of these analyses were quite clear, and they are summarized in Table 6. There were significant lagged effects from presence to well-being in the analyses of PA, PD, NA, satisfaction with life, and self-esteem. In contrast, there were no significant (or near significant) lagged effects from well-being to presence (all  $ps > .25$ ). These results suggest that finding meaning in life leads to an increase in well-being.

There were also significant or marginally significant lagged effects from search to PD and NA when presence was not controlled, and the reverse lagged effects were not significant. The lagged effects from search to the other well-being measures were not significant. Additionally, after controlling for presence, the significant or marginally significant lagged

**TABLE 6** Lagged analyses involving presence and search

	Lag from presence		Lag to presence		Without controlling for presence				Controlling for presence			
					Lag from search		Lag to search		Lag from search		Lag to search	
	Coeff.	t-ratio	Coeff.	t-ratio	Coeff.	t-ratio	Coeff.	t-ratio	Coeff.	t-ratio	Coeff.	t-ratio
Positive activated affect	.09***	3.77	.00	<1	.03	1.33	.01	<1	.01	<1	.00	<1
Positive deactivated affect	.07**	3.52	-.01	<1	.04*	2.07	.02	<1	.03	1.36	.01	<1
Negative activated affect	-.05*	2.13	.00	<1	-.03a	1.65	-.01	<1	-.02	1.00	-.00	<1
Negative deactivated affect	-.03	1.60	.02	1.12	-.00	<1	-.00	<1	.01	<1	.01	<1
Self-esteem	.05*	2.48	-.01	<1	.01	<1	-.00	<1	-.01	<1	-.02	<1
Satisfaction with life	.07**	2.75	-.02	<1	.01	<1	.00	<1	.00	<1	-.01	<1

Note.  $ap < .10$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

effects from search to PD and NA became nonsignificant. When all lagged relationships are considered together, these results suggest that searching for MIL leads to increases in PD and decreases in NA, and these lagged effects can be explained by the fact that search leads to presence, and presence leads to well-being.

## 4 | DISCUSSION

Few studies have examined within-person variability in search for MIL. Past trait findings have concerned the between-person level of analysis, and these studies did not address the possibility that searching for MIL may vary considerably within individuals. Moreover, even when data were collected on a daily basis, the analyses relied upon aggregated daily data, something that precluded analyses of within-person relationships. The present diary study was designed to examine the within-person covariation between daily search for MIL, daily presence of MIL, and daily well-being, and we believe the present study complements and extends research on this important topic.

### 4.1 | Within-person relationships between search and presence

Consistent with previous studies (Steger et al., 2006; Steger, Kashdan, et al., 2008), at the between-person level, search for MIL related weakly and negatively to presence of MIL. At the within-person level, however, the relationship between search and presence was positive. One possible explanation for this finding is that searching has positive consequences. That is, if the process of searching for MIL is successful, it could lead one to find more MIL.

Moving beyond same-day covariation, we documented a significant lagged effect of search on one day to presence on the following day, whereas the lagged effect of presence to search was not significant. This significant lagged relationship from daily search to daily presence raises a couple of interesting questions: Why do people find meaning after searching for meaning, and where exactly do they find meaning? Research has shown that people find meaning in various domains of life, such as family, love, religion, work, and social relationships (e.g., Baumeister, 1991; Emmons, 1997; Lambert et al., 2010). It is possible that the search for MIL leads people to one of these specific domains of life, which subsequently leads one to find more MIL. Searching for MIL in certain domains of life might be more effective than others in leading to the presence of MIL.

According to the meaning maintenance model (Heine et al., 2006), people seek meaning in new domains after meaning has been violated or depleted in another domain. For example, if someone fails an exam, they may search for

MIL by talking to friends about their situation. Through these conversations, they might strengthen their relationships with their friends, and these strengthened bonds or social connections with friends could add meaning to one's life.

### 4.2 | Trait moderation of lagged analyses

The significant lagged effect from daily search for MIL to daily presence of MIL supports the search-to-presence model for the average individual; however, this lagged effect was moderated by trait-level presence of MIL. The positive lagged effect from search to presence was particularly strong among those individuals low in trait presence. That is, individuals who believe they do not find much meaning and purpose in life at the trait level actually find daily MIL after they search for it. This raises an interesting paradox. If individuals report low levels of presence of MIL at the trait level, and if these individuals find MIL in response to daily searching for meaning, one might assume that they would experience high presence of MIL at the trait level. Yet these individuals do not report high trait presence of MIL.

One possible way to reconcile these findings is to consider that it takes time before the process of finding daily MIL in response to daily searching for MIL affects a trait measure of presence of MIL. After searching for MIL over the course of many days or even years, individuals low in trait presence will eventually report high levels of trait presence. In fact, older adults find more MIL than younger adults (Steger, Oishi, & Kashdan, 2009), and this proposed sequence fits with this finding.

Although the presence-to-search model was not supported for the average individual, individuals high in trait search or low in trait presence did show the negative effect posited by this model. Individuals low in trait search or high in trait presence showed the opposite pattern. These findings raise questions about the overall validity of the presence-to-search model and suggest that trait moderators must be considered.

In sum, the key findings suggest that there was a main effect across all individuals that search leads to presence of MIL, and the daily process of searching for MIL is more beneficial for those who have low trait scores of presence.

### 4.3 | Within-person relationships between search, presence, and well-being

In addition to the relationships between presence and search, we examined the relationships between each construct and several well-being indicators. The relationships between presence and well-being were positive at both the between- and within-person relationships, which is consistent with previous research (e.g., King et al., 2006; Machell et al., 2015; Steger et al., 2006). In contrast, searching for MIL was

negatively related to well-being at the between-person level, which is also consistent with previous research. At the within-person level, however, search was positively related to well-being at the zero-order level. At first glance, one could interpret this finding to indicate that daily search is a pleasant state. For example, searching for MIL could follow from a positive experience, such as an interesting philosophy lecture. This process of searching for MIL could be an enjoyable experience.

This interpretation could be misleading though. After controlling for presence in these models, the direct effect of search on well-being variables was nonsignificant or negative. In mediation analyses, we found significant positive indirect effects of search on well-being variables via presence. In some cases, this indirect effect was partially offset by a negative direct effect of search on well-being. These findings raise the possibility that searching for meaning enhances well-being through the process of finding meaning (i.e., a positive indirect effect via presence), yet also (to a degree) thwarts well-being to the extent that meaning is not found (i.e., a negative direct effect). Of course, this interpretation assumes causal relationships from static or same-day relationships.

Nevertheless, this causal assumption may be justified after considering the lagged relationships. Presence of MIL related positively to well-being on the following day, which is consistent with a causal sequence from presence to well-being. Search for MIL related positively to PD and negatively to NA on the following day, although these relationships became no longer significant after controlling for presence. Finally, after considering that search related positively to presence on the following day, it seems reasonable to conclude that search leads to presence, and presence leads to well-being.

## 5 | LIMITATIONS AND FUTURE DIRECTIONS

A few limitations require brief attention. Although we collected data from over 250 participants, our sample was limited to a relatively homogenous group of undergraduate students in the United States. Younger adults search for MIL to a greater extent than older adults (Bodner, Bergman, & Cohen-Fridel, 2014), and the negative between-person relationship between searching for MIL and experiencing MIL is stronger for older adults than for younger adults (Steger et al., 2009). These patterns of findings suggest that searching for MIL is expected or normal for younger adults, but searching for MIL is particularly detrimental to the presence of MIL for older adults. The positive within-person relationship between daily search and daily presence of MIL may

not exist for older adults. Future research can examine these possibilities.

Other recent studies have revealed some key cultural differences in MIL. For example, people in wealthy nations find less MIL than people in poor nations (Oishi & Diener, 2013). If the general level of MIL is higher in poor nations, the search for MIL may not relate as strongly to presence of MIL in these poor nations. In contrast to the United States, the relationship between presence and search for MIL is positive at the person level in Japan (Steger, Kawabata, Shimai, & Otake, 2008). People who find MIL also search for MIL in Japan, whereas those who find MIL do not search for MIL in the United States. It is plausible that the daily search for MIL among the Japanese could lead one to find MIL the next day to a greater degree. On the other hand, if people in Japan who search for meaning already find MIL, the search may not lead to the presence of meaning the next day. Such questions require studies that examine the within-person relationships between these constructs in different cultures.

## 6 | CONCLUSION

The present research has addressed the limitations of prior research on the search for MIL in several ways. By examining within-person relationships between daily search and daily presence, we have shown that the daily search for MIL is positively related to daily presence (within persons), even though individuals who search for MIL are less likely to find MIL (between persons). In our analyses involving daily states of well-being, we suggest that daily search leads to greater presence, which subsequently promotes greater well-being. The daily reports of search for MIL provide us with a richer theoretical understanding of this construct. Rather than assuming that searching for MIL is a stable trait that relates negatively to well-being, it is important to examine the daily fluctuations. The implications of these findings suggest that well-being researchers should reconsider the potential consequences that occur from searching for MIL.

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## CONFLICT OF INTEREST

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## NOTES

<sup>1</sup> These effects of presence of meaning on well-being variables were the *b* paths in mediation models of the effect of inspiration on well-being

via presence of meaning. The Thrash et al. (2010) article reported direct, indirect, and total effects, but not these *b* paths specifically. The findings summarized here regarding the *b* paths are findings from the Thrash et al. (2010) data set that were not reported in the original article.

<sup>2</sup> For the purpose of analyses of prayer not reported in this article, participants were recruited so that our sample distribution was relatively evenly distributed regarding prayer frequency. Prayer frequency was entered as a control at the trait level in all analyses, and this variable did not alter the significance of any analysis (with the exception of the trait moderation of lagged analyses, addressed below). Therefore, we report the analyses without this control variable throughout.

<sup>3</sup> After entering prayer frequency as a control variable at Level 2, the significance of this coefficient became marginally significant ( $p = .08$ ).

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