

Dynamic Variation in Finding Meaning and Purpose in Daily Life

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Abstract

Much of the research on meaning in life has relied on global evaluations or trait reports in which people consider their life as a whole. While informative, these types of reports fail to capture how one's sense of meaning and purpose in life may change from one time to the next. In fact, Viktor Frankl argued that the meaning of one's life can change from day to day or even from hour to hour. In recent years, psychologists have considered this insight by measuring daily or momentary states of meaning in life through the use of daily diary and Ecological Momentary Assessment methods. These studies have been particularly informative because they have revealed how judgments about meaning in life vary as a function of daily situations. In this review, we describe ways in which the measurement of meaning and purpose in daily life has yielded novel insights about this important phenomenon. More specifically, we discuss how within-person processes represent distinct psychological processes from between-person relationships. We present evidence about how daily and momentary assessments of meaning in life rely on unique types of inputs. Finally, we discuss ongoing challenges in the measurement of meaning in daily life and point to fruitful avenues for future research.

Dynamic Variation in Finding Meaning and Purpose in Daily Life

One of the core concepts of existential psychology is the process through which people find meaning and purpose in their lives. Finding meaning in life often entails the ability to believe your life is coherent, matters, and has a sense of purpose. Though related to hedonic measures of well-being, such as life satisfaction and affect, meaning in life is distinct (Joshanloo, 2016; Steger et al., 2006) and is typically considered to be an important component of eudaimonia and the good life (King & Hicks, 2021). Much of the psychological research on meaning in life has focused on measuring the construct as an individual difference in which people are asked to reflect on their life as a whole. Some people tend to find more meaning in their lives than others. Understanding variation across individuals is important as many studies have shown that people who find meaning in life report greater well-being (King & Hicks, 2021; Steger et al., 2006), live longer (Boyle et al., 2009), and are healthier (Kim et al., 2013, 2017) than those who report less meaning in life.

Although informative, measuring meaning in life as an individual difference and examining between-person relationships provides no information about within-person relationships and how meaning in life may vary from one time to another (Heintzelman & Mohideen, 2022). People may find their lives to be more or less meaningful at one time than another, depending on the circumstances, situations, and other contextual factors. The fact that the meaning of one's life may change was first proposed by Viktor Frankl, a holocaust survivor who witnessed the importance of having a sense of meaning and purpose in the direst of circumstances. In his seminal book, *Man's Search for Meaning*, he observed that, "The meaning of life differs from man to man, from day to day, from hour to hour. What matters, therefore, is not the meaning of life in general but rather the specific meaning of a person's life at a given moment" (Frankl, 1963). This novel insight was later tested empirically by psychologists who asked people to evaluate how meaningful they found their lives to be on consecutive days (Steger & Frazier, 2005; Steger & Kashdan, 2013). Consistent with Frankl's theory, daily states of meaning varied considerably from one day to the next. The type of method used to measure the fluctuating states of meaning and other relevant constructs is known as Ecological Momentary Assessment (EMA), which includes daily diary and experience sampling methods (Newman & Stone, 2019; Shiffman et al., 2008; Stone & Shiffman, 1994).

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The use of EMA methods in the study of meaning in life can offer several key insights that other methods cannot address. First, EMA methods typically ask participants about their thoughts, feelings, behaviors, and judgments at that particular time or day, thus reducing recall biases and heuristics that often accompany global assessments or long-term recall evaluations. Thus, the judgments that people make in daily life in naturalistic contexts differ markedly from other types of judgments that are utilized in experiments or cross-sectional studies. Second, daily or momentary reports captured from EMA methods can be aggregated to measure individual differences, and these measures are often quite distinct from global assessments. Thus, EMA methods can be used to measure between-person relationships in ways that may differ from single-assessment reports. Third, the use of EMA methods allows researchers to examine within-person processes, which are statistically and psychologically distinct from between-person processes (Affleck et al., 1999; Nezlek, 2001). The examination of within-person relationships opens a wealth of possibilities in helping extend the research on meaning in life.

Before explaining each of these advantages of EMA methods, we first describe daily diary and EMA methods. Then we review studies that touch on each of these advantages of EMA methods. Finally, we end by discussing challenges that accompany the measurement of meaning in daily life and future directions for the field.

Overview of EMA Methods

EMA methods refer to a range of techniques used to capture real-world phenomena by sampling time periods from a person's life. Similar to the way researchers may select a sample of people from the larger population of people, EMA researchers draw on a sample of time points from the larger population of time points of a person's life. There are four attributes or features that define EMA methods. First, participants complete reports in real-world, naturalistic contexts as they live their daily lives. This helps researchers generalize their findings to everyday experiences in contrast to other methods that might elicit responses in artificial settings. This ability to generalize from experiences captured in naturalistic contexts harkens to Brunswik's term of ecological validity (Brunswik, 1956). Second, participants typically answer questions about their immediate experiences or current states, hence the term "momentary." This reduces any biases or errors associated with long-term recall reports. Some EMA methods may ask participants to reflect on the past few hours or the present day, but they avoid long-term recall reports. Third, the schedule of assessments in an EMA study reflects a strategic plan. Participants

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may be prompted to complete a report each time a particular activity occurs (e.g., a social interaction) or they may be prompted to complete reports at randomly selected times throughout the day. Some combination or variation of these schedules could also occur. Fourth, there must be repeated assessments of people's thoughts, feelings, and behaviors over the course of time to provide a sample of time points. Because of this, these methods are sometimes referred to as intensive repeated measures designs. Though most EMA studies will prompt participants to complete multiple assessments each day, end-of-day daily diary studies are often considered a special case of EMA methods. Much of the research on daily experiences of meaning in life comes from daily diary studies, so we include them in this review.

EMA Methods Minimize Recall Biases and Heuristics

The first advantage of EMA methods is that the reports minimize recall biases and heuristics that are inherent in long-term recall (Schwarz, 2012). When people are asked to think about longer time periods, they tend to remember peak moments, recent ones, and frequently occurring occasions (Bradburn et al., 1987; Fredrickson & Kahneman, 1993; Schwarz, 2012). This can be useful when the goal is to capture such memories, but recall reports tend not to provide an accurate picture of average experiences. In studies that have compared aggregated states of affect with recall judgments of the same time period, recall reports tend to be higher than the aggregated states (Broderick et al., 2008; Neubauer et al., 2020; Stone et al., 2010; Wirtz et al., 2003). This demonstrates that feelings and states captured in real-time tend to be more mundane and ordinary than people's recollection of the events, feelings, and episodes during the time.

This fact has important implications for the study of meaning in life. By this logic, daily states of meaning in life should not be as extreme as long-term recall reports of meaning in life. Though no study has examined this exact question, Newman et al. (2021) compared aggregated daily states of well-being during a typical two-week period with global evaluations of well-being. Though global evaluations reflect one's life more broadly beyond a two-week period, the results were consistent with prior research on affective recall. Global evaluations of meaning in life were rated higher than aggregated daily states of meaning in life. The reason for this is presumably because the contexts that influence daily judgments of meaning in life (e.g., working on a paper, eating a typical lunch with friends) differ from the recollections that influence global evaluations of meaning in life (e.g., receiving a promotion at work, enjoying an anniversary

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dinner). Daily life is much more mundane and ordinary than the peak moments of one's life that come to mind when answering questions about the overall meaning in one's life.

This principle is worth considering when reviewing the literature. For instance, in a thorough review of empirical articles that included a global evaluation of meaning in life, Heintzelman and King (2014) found that the average score is significantly higher than the midpoint of the scale. They concluded that most people tend to think that life is pretty meaningful. Findings about people's experiences of daily meaning in life qualify this conclusion to some degree. Life is certainly quite meaningful when people consider their lives as a whole, but it seems less meaningful in the context of daily life. This discrepancy between global and daily reports of meaning in life is consistent with experimental evidence that found that life seems more meaningful as psychological distance increases (Waytz et al., 2015). According to a construal level theory account (Trope & Liberman, 2010), life seems more meaningful when people think in more abstract, high-level ways as opposed to more concrete, low-level ways. Rare experiences that come to mind in global evaluations may provide more meaning in life than ordinary experiences that come to mind when completing daily questionnaires.

Along these lines, a similar pattern was detected in a study that compared an experimentally induced nostalgic memory with daily nostalgic memories (Newman et al., 2020, Study 5). In this within-subjects experiment with a counterbalanced order, participants wrote about their most nostalgic experience, and they completed a one-week diary by answering questions about their daily events, states of well-being, and how nostalgic they felt that day. When they felt nostalgic on a particular day, they wrote about the nostalgic feeling. After both tasks, they rated how positive and negative the nostalgic experience was along with their feelings of meaning in life. Meaning in life scores were higher in the long-term recall condition than in the daily life condition. In other words, people's recollection of their most nostalgic experience provides more meaning in life than daily, ordinary nostalgic reflections. Once again, this pattern shows that daily experiences differ considerably from long-term recall or global evaluations and highlight the importance of measuring meaning in life in the context of people's daily lives.

These findings lend support to Park's (2010) model that distinguishes global forms of meaning in life from situational forms of meaning. It is important to note that global and situational meaning can influence each other in a reciprocal manner. One's beliefs, goals, and subjective sense of meaning and purpose quite broadly can influence how one interprets

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situational experiences in daily life. Conversely, the accumulation of daily events and the meaning found in these experiences can influence how people form judgments about their global sense of meaning in life (Newman et al., 2021). The use of daily diary and EMA methods are critical in understanding the dynamic relationships between these different forms of meaning.

EMA Methods Provide the Means to Examine Individual Differences

Another useful feature of EMA methods is that they allow for the examination of between-person relationships in the study of daily meaning in life. In essence, researchers can calculate an average daily or momentary meaning in life score for each participant across many occasions to form an individual difference measure of meaning in life. Though this type of aggregation score is distinct from a global evaluation, both may be useful, depending on the goals of the research.

This manner of measuring individual differences is similar to an approach known as whole-trait theory (Fleeson, 2001; Fleeson & Jayawickreme, 2015). Instead of relying on global evaluations of personality traits, participants can provide daily reports of their personality states, and these states can be aggregated. Thus, daily and/or situational contexts are accounted for in these assessments used at the individual level, as opposed to trait reports which do not adequately account for multiple contextual factors as they naturally occur.

This technique has been used several times to explain certain attributes about people who find meaning and purpose in their lives. For example, using a two-week daily diary method, Nezlek et al. (2018) found that vegetarians found less meaning in their daily lives relative to semi-vegetarians and omnivores. In separate EMA and daily diary studies, aggregated momentary states of meaning in life were positively related to everyday routines (Heintzelman & King, 2019), and aggregated daily states of meaning in life were positively related to positive affect (King et al., 2006). That is, people who find meaning and purpose in their daily lives also tend to engage in daily routines and experience high levels of positive affect relative to those who find less meaning and purpose in their daily lives. In other daily diary and EMA studies, conservatives reported greater daily and momentary meaning and purpose in their lives than liberals (Newman et al., 2019). These findings were consistent with analyses that examined trait measures or global evaluations of meaning in life. Although aggregated daily states and global reports are distinct types of judgments, they may correlate with other constructs in similar manners.

Finally, in addition to aggregating daily states of meaning in life, researchers can also examine the variation across days for each participant as a measure of instability. For instance, across two daily diary studies, participants who reported unstable levels of daily meaning in life, i.e., high daily variability, had lower global well-being relative to those with higher levels of stability (Steger & Kashdan, 2013). These examples illustrate how EMA methods can be used to examine between-person relationships through some type of aggregation or calculation of daily reports of meaning in life.

EMA Methods Can Help Distinguish Within-Person from Between-Person Relationships

Though EMA methods can be used to examine between-person relationships, arguably their greatest strength is the means to examine within-person relationships between daily states of meaning in life and other daily events, experiences, feelings, and states. As noted above, between-person relationships and within-person relationships are mathematically orthogonal and represent distinct psychological processes (Affleck et al., 1999; Nezlek, 2001). As an example, consider the relationship between the risk of a heart attack and exercise. At a between-person level, they are negatively related, i.e., people who exercise frequently have a lower risk of a heart attack relative to those who exercise less frequently. In contrast, exercise and risk of a heart attack are positively related at a within-person level, i.e., people are more likely to have a heart attack while exercising than when not exercising (Curran & Bauer, 2011).

In the research on meaning in life, perhaps the best example of distinguishing between-person from within-person relationships comes from two diary studies on the topic of searching for meaning and presence of meaning in life (Newman et al., 2018). Replicating previous research (Steger et al., 2006), trait measures of searching and presence of meaning in life were slightly negatively related at a between-person level of analysis. This indicates that people who are searching for meaning in life tend to lack a sense of meaning in life and are generally unhappy with their lives. When the relationship between daily states of searching and presence of meaning in life were examined at a within-person level of analysis, they were positively related. That is, for the average person, on days when they searched for meaning in their lives, they were likely to find more meaning compared to days when they were not searching. This represents a completely different psychological process.

Further, an advantage of examining within-person relationships in a daily diary context is that lagged relationships from one day to the next can provide some insights into the

directionality of the relationship. In this particular study, daily states of searching for meaning in life predicted greater levels of presence of meaning in life on the following day, indicating that the process of daily searching for meaning can yield beneficial effects of finding meaning in life (Newman et al., 2018; see also Morse et al., 2018). This type of examination of the directionality of the relationship cannot be conducted in between-person cross-sectional designs, which means we do not know the directionality of the effects at a between-person level of analysis. The distinction of levels of analysis in the relationship between searching for meaning and the presence of meaning highlights distinct processes. At a between-person level, searching for meaning is negatively associated with the presence of meaning in life, presumably because the act of searching for meaning quite broadly indicates one has not been able to find meaning. At a within-person level, the process of searching for meaning in daily life is much more manageable and can lead to the feeling that life is pretty meaningful.

A few other interesting examples that distinguished between-person from within-person variation in the study of meaning in life were captured in an EMA study in which participants reported on their levels of meaning in life during the day while also reporting various activities (Kucinskis et al., 2018). People who frequently listen to the news report higher average meaning in life than those who spend less time listening to the news (a positive between-person relationship). In contrast, people report lower meaning in life during occasions when they listen to the news relative to times when they are not listening to the news (a negative within-person relationship). As yet another example in the opposite direction, people who spend a lot of time eating report lower meaning in life on average (a negative between-person relationship), whereas people tend to report higher meaning in life during occasions when they are eating compared to moments when they are not (a positive within-person relationship). These examples highlight how different levels of analysis illustrate distinct psychological processes.

With these examples in mind, we now summarize the literature that has examined within-person relationships between meaning in life and other constructs. To help organize this literature, we divide this area of research into three sections. The first considers studies that have examined within-person relationships between meaning in life and other well-being variables. The second reviews how meaning in life is related to outward focused constructs, such as social relationships, prosociality, and religious/spiritual experiences. The third summarizes how meaning in life is related to inward focused thoughts, such as thinking about the self, proactive

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coping, and rumination. Such a categorization may not be perfect as some variables may fit in multiple groups. Nevertheless, we believe these categories may be useful in helping make sense of studies of within-person relationships.

Meaning in Life and Well-Being

Though meaning in life is usually considered to be a component of well-being, it can be useful to understand how daily meaning in life relates to other aspects of well-being. Not surprisingly, daily states of meaning in life have been positively related to daily life satisfaction, daily positive affect, and daily self-esteem, and negatively related to daily states of negative affect (Newman et al., 2018). Many of these within-person relationships have been replicated and extended in studies that have found daily meaning in life to be similarly associated with affect, self-esteem, depressive symptoms, and physical symptoms (Hadden & Smith, 2019; Hill, Klaiber, et al., 2022; Jayawickreme et al., 2021). It is worth emphasizing that though the direction of these within-person relationships mirror those at the between-person level (Steger et al., 2006; Steger, Kashdan, Sullivan, et al., 2008), they represent completely distinct psychological processes. In fact, in separate studies, between-person relationships between aggregated daily states of meaning in life and affect were in the same direction as within-person relationships (Hill, Klaiber, et al., 2022; Jayawickreme et al., 2021). As they note though, understanding the within-person relationships extends the research beyond between-person relationships.

Perhaps more interestingly, several EMA studies have attempted to compare daily meaning in life with other well-being variables. For example, in a series of daily diary studies, Tov and Lee (2016) found that daily meaning in life was more strongly related to daily satisfaction than daily affect. Moreover, people were able to find some meaning in daily negative events, whereas they generally did not find any satisfaction from daily negative events. In an EMA study that compared momentary states of meaning with momentary states of happiness, Choi et al. (2017) found several interesting differences in their associations with various daily activities. Watching TV, playing a game, and attending a staff party were not significantly related to happiness, but they were negatively related to meaning. Participating in a class, visiting a hospital, and working were positively related to momentary states of meaning, but they were negatively related to happiness. Finally, doing housework and studying were positively related to meaning, but they were not significantly (though trending in the negative direction)

related to momentary states of happiness. Clearly, daily and momentary states of meaning in life are distinct from other states of well-being. Importantly, these associations differ from studies at between-person levels of analysis that have attempted to compare meaning with other aspects of well-being (Baumeister et al., 2013; Dwyer et al., 2017).

Meaning in Life and Outward Focus

In this next section, we review how daily states of meaning relate to experiences that focus one's attention to other individuals or entities that are separate from the self. According to some theoretical accounts, meaning is found when one realizes that the self is part of something bigger than oneself (e.g., Wong, 2014). As an example, social relationships and interactions are some of the key ingredients to a happy life (Diener et al., 2018). The same is true for meaning in life. For example, Machell et al. (2015) found that people found more meaning in their lives on days when they engaged in pleasant social interactions relative to days when they did not experience as many pleasant social interactions. This within-person relationship was significant even after controlling for daily states of affect. Thus, not only is it the case that people who have many pleasant social interactions and friendships find meaning in their lives, but for the average person, they tend to find their days as more meaningful when they engage in pleasant social interactions. This pattern of results was conceptually replicated in a study by Pfund et al. (2022) who used a very similar daily measure of purpose in life. Furthermore, in addition to typical pleasant social interactions, people find more meaning in their lives following sexual intercourse relative to days when they do not (Kashdan et al., 2018).

In addition to social events that are naturally viewed as quite pleasant, prosocial events that involve helping other people have also been positively related to daily states of meaning in life. For example, daily states of meaning in life were positively related to both subjective perceptions of prosociality and objective reports of prosociality (Dakin et al., 2022; see also Martela et al., 2018). These relationships were stronger than those involving prosocial behaviors and states of happiness. In a separate study, daily states of meaning in life were positively related to eudaimonic daily activities, which included volunteering, giving money to a person in need, and writing out goals for the future (Steger, Kashdan, & Oishi, 2008). In lagged analyses, daily eudaimonic activities predicted greater states of meaning in life on the following day, but the reverse pathway was not significant. Thus, engaging in prosocial events that may help orient oneself to others could foster a sense of daily meaning in life.

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Another way of connecting to something or someone larger than oneself is through religious or spiritual experiences. Religiosity has been defined as connecting to the sacred (Pargament et al., 2005), and religious individuals tend to find more meaning and purpose in their lives than non-religious people (Newman et al., 2019, 2022; Steger et al., 2006). At a within-person level of analysis, some similar results have been found. On days when people report higher levels of spirituality, they tend to also find more meaning in their lives relative to days when they feel less spiritual (Kashdan & Nezlek, 2012). In a separate study, daily states of meaning in life were also positively related to daily religious events and they mediated the relationship between religious events and well-being (Steger & Frazier, 2005). Thus, people experience greater well-being when they engage in religious experiences because they find meaning and purpose in those experiences.

Although people tend to report greater well-being and meaning in life on days when they engage in religious experiences, the composite measures of religious experiences may gloss over some important nuances. For example, in a series of daily diary studies about prayer and well-being, prayers of thanksgiving and adoration were positively related to concurrent hedonic measures of well-being (daily life satisfaction and affect), prayers of supplication were negatively related to hedonic well-being, and prayers of confession were inconsistently related to hedonic well-being (Newman et al., 2023). In contrast though, daily meaning in life was positively related to all types of prayer. Thus, although people may not feel particularly happy or satisfied when expressing supplication or confession in prayer, they tend to find their lives meaningful on those days.

Finally, it is worth noting that not all religious experiences are positively associated with daily states of meaning in life at a within-person level of analysis. For instance, when people made various attributions to God for positive and negative events, they were not significantly related to daily meaning in life (Wilt et al., 2024). This non-significant within-person relationship was in contrast to the positive between-person relationships between these same constructs.

In addition to religious and spiritual experiences and social events, various feelings and motivational states can help people feel connected to something larger than themselves which could imbue their lives with meaning. For instance, feeling grateful can help remind people of others in their lives who care for them (Algoe, 2012; Stellar et al., 2017). In line with this, daily

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states of meaning in life were positively related to daily feelings of gratitude in a diary study that examined within-person relationships (Nezlek et al., 2017). A similar result was found in a diary study that examined within-person relationships between current states of meaning in life and daily states of experiential appreciation, which is defined as the extent to which one appreciates and values their experiences (Kim et al., 2022). In addition to gratitude, inspiration often requires an outward focus as people are often inspired by other people (Thrash, 2021). Daily reports of purpose in life were positively related to daily states of inspiration in a daily diary study that included two reports per day (Thrash et al., 2010). In a similar vein, curiosity often requires attentional focus on others, and daily states of curiosity have been positively associated with daily states of meaning in life (Kashdan & Steger, 2007). In sum, a range of different feelings and states that orient oneself to something outside of themselves may help provide people with a sense of meaning and purpose in daily life.

Meaning in Life and Inward Focus

Inward focused thoughts also have important implications for how people find meaning and purpose in their daily lives, and various EMA methods have shed light on these processes. For instance, how people reflect on their lives during various moments throughout the day can affect one's sense of meaning and purpose (Steger, Kashdan, Sullivan, et al., 2008). Two types of private self-consciousness that have received considerable attention at the trait level include rumination and reflection (Trapnell & Campbell, 1999). Rumination refers to a neurotic self-attentiveness, whereas reflection refers to an intellectual self-attentiveness. In a daily diary study, daily states of meaning in life were negatively related to daily rumination but were not significantly associated with daily reflection (Newman & Nezlek, 2019). Though these patterns of relationships were in the same direction as prior research conducted at the trait-level (Steger, Kashdan, Sullivan, et al., 2008), they represent distinct processes. For example, although people who ruminate often generally find less meaning in their lives than those who ruminate less frequently, for the average person, when one tends to ruminate, they find less meaning in their lives compared to days when they do not ruminate as much.

Another negatively oriented inward thought process that has relevance for meaning in life is experiential avoidance, which is considered to be an unwillingness to engage in events and activities or action tendencies to reduce the frequency or occurrence of such events (Hayes et al., 1996). In two separate studies, within-person analyses found that daily states of experiential

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avoidance were negatively related to states of meaning in life (Machell, Goodman, et al., 2015; Pavlacic et al., 2021). Experiences can often provide people with meaning in life, so the avoidance of such experiences likely hinders the meaning making process.

Turning to more positively oriented thoughts and values, daily states of proactive coping were positively related within-persons to daily states of meaning in life, and this relationship was mediated by positive affect (Miao et al., 2017). Authenticity, defined as the perception of being true to oneself, has been positively related to daily states of meaning in life and negatively to daily meaning struggles (Wilt et al., 2021). This suggests being true to oneself might be beneficial for one's sense of meaning in life. However, it is important to consider the multifaceted nature of authenticity (Wood et al., 2008). In a daily diary study that examined within-person relationships between different aspects of daily meaning in life and daily facets of authenticity, authentic living was positively related to concurrent meaning in life, whereas self-alienation and accepting external influence were negatively related to daily meaning in life (Lutz et al., 2023a). Lagged analyses suggested that the direction of effects was more consistently linked from authenticity facets to meaning in life rather than the reverse. Thus, certain aspects of authenticity may promote meaning in daily life, whereas other aspects may hinder it.

Finally, various needs and goals may often involve inward thoughts and have relevance to within-person meaning making processes. According to self-determination theory, autonomy, relatedness, and competence are fundamental human motivations and needs¹. In one study, daily states of meaning in life were positively related to daily states of autonomy, relatedness, and competence (Martela et al., 2018). Thus, each of these needs seem relevant for the experience of finding meaning in daily life. Similarly, making progress toward goals can be helpful in finding meaning in daily life. In one study, when people made progress toward a goal, they felt as if their life was more meaningful on that particular day, though this effect was most pronounced among those high in social anxiety disorder (Kashdan & McKnight, 2013). Similarly, daily goal progress interference via anxiety was negatively related to daily meaning in life, and this effect was stronger among those high in social anxiety disorder (Goodman & Kashdan, 2021). As noted repeatedly throughout this chapter, it is important to remember that the within-person

¹ Admittedly, some of these constructs could also be considered more relational and outward focused in some regards, but we felt it would nevertheless be useful to summarize their findings here.

relationships described here represent advances from between-person findings from prior cross-sectional work that address distinct questions.

Cross-Level Interactions

One other advantage of EMA methods is that they allow for cross-level interactions in understanding both trait and daily factors in processes involving meaning in life. In the prior sections, we reviewed within-person relationships between daily states of meaning in life and other constructs. It is possible though that trait levels of meaning in life may influence within-person relationships involving other constructs. For example, in one diary study, trait levels of purpose in life moderated the within-person relationship between daily stressors and negative affect and physical symptoms such that the relationships were weaker among those high vs. low in trait purpose in life (Hill et al., 2018). In the same dataset, trait purpose in life also moderated the within-person relationship between positive events and positive affect, such that the relationship was weaker among those high in trait purpose in life (Hill, Sin, et al., 2022). Taken together, these results show that trait levels of purpose may help people be less reactive to daily events, both good and bad.

Challenges in Measuring Meaning in Daily Life

In the final sections, we discuss some challenges researchers face when measuring meaning in daily life, along with some recommendations and avenues for future research. The first challenge researchers must consider pertains to the interpretations of the questions about meaning and purpose in daily life. Although the topic of understanding how participants interpret questions is important for all methods and for all research topics, there are some unique issues that are specific to the measurement of meaning and purpose in daily life.

The main issues concern the multiple time frames and the focal points participants could consider when answering such questions. For instance, when participants are asked at the end of the day, “how meaningful did you feel your life was today?” some participants may focus quite broadly on their life as a whole (thus ignoring the aspect about today), whereas others might focus solely on their experiences on that day (thus focusing more on the meaningfulness of the events and experiences rather than one’s life). Yet others may integrate the two and provide answers that reflect how the day’s experiences relate to their larger purpose or sense of meaning in life quite broadly. In the first instance, participants would presumably provide the same response on every single day if they were to only consider their lives as a whole. However,

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participants may get confused as to why the researchers would ask the same question as this would violate a conversational norm (Grice, 1975). Participants may provide answers about their life as a whole for the first day or days of the study and then update how they interpret the questions. This could lead to a phenomenon known as the initial elevation bias that has been detected in some daily diary studies (Shrout et al., 2018; though see Cerino et al., 2022, for a critique). In the second instance, participants may focus solely on the meaningfulness of the events that occurred during the day. If someone were in a car accident on a particular day, they might provide a very high score on the daily meaning in life question because the car accident event was highly meaningful in the sense that it had an important impact on their day. Some researchers may not be aware that some of the participants' answers may reflect unintended sources. Although we do not offer any solutions, we urge researchers to consider such issues when designing their questionnaires.

The second challenge facing researchers in this area concerns the conceptualization of meaning in life and the number of facets or aspects of meaning in life one should measure. Many diary and EMA studies commonly adopt the presence and search dimensions captured by Steger et al.'s (2006) Meaning in Life Questionnaire. To assess momentary or daily states of one or both of these dimensions, some researchers have adjusted the instructions of the MLQ to ask participants to rate the items according to the desired level of analysis ("right now"; e.g., Heintzelman & King, 2019). Many diary (e.g., Dakin et al., 2022; Morse et al., 2021; Newman et al., 2018) and some EMA (e.g., Mohideen & Heintzelman, 2023) studies have employed items created by Kashdan and Steger (2007) and Kashdan and Nezlek (2012) to assess presence (sample daily item: "How meaningful did you feel your life was today?") and search (sample daily item; "How much were you searching for meaning in your life today?").

In contrast to these unidimensional measures, some scholars have recently explored tripartite models of meaning in life. In particular, Martela and Steger (2016, p. 534, 2023) suggest that the presence of meaning encompasses a sense of: (1) "comprehensibility and one's life making sense" (coherence), (2) "core goals, aims, and direction in life" (purpose), and (3) "life's inherent value and having a life worth living" (significance). George and Park (2016, 2017; see also Costin & Vignoles, 2020) similarly endorse a tripartite model, but these researchers replace significance with "mattering". Research suggests that this distinction may be important, as significance seems to emphasize the value of one's life to the individual, whereas

matterings seems to emphasize the value of one's life on a much larger, cosmic scale (Martela & Steger, 2023; but see recent work on different forms of mattering, Gutherie et al., 2024; Prinzing et al., 2023). Diary investigations in particular have either developed items to target a specific tripartite component (e.g., Martela et al., 2018), or adapted items from trait tripartite measures (e.g., George & Park, 2017) for daily use (Gutherie et al., 2024; Kim et al., 2022; Lutz et al., 2023a; 2023b).

Recently, Zambelli and Tagliabue (2024) proposed the Situational Meaning in Life Evaluation (SMILE) that integrates the tripartite components (coherence, purpose, significance) within the dimensions of presence and search, producing six items in total. Each item of the SMILE can be easily adapted to different events and timeframes, making it appealing for diary and EMA research. However, caution is warranted given that the scale was developed with a single-assessment method, and more research is needed to validate this measure.

When thinking about different aspects or facets of meaning in life, it is also worth weighing the strengths and weaknesses of each approach. Measuring each specific component of meaning in life increases participant burden, a major concern in EMA studies (Eisele et al., 2022). Given that the facets of meaning in life correlate highly with a composite or general meaning in life scale, it may not be worth increasing the time and effort participants have to spend completing each questionnaire. Moreover, some research has questioned whether the coherence aspect of meaning in life is truly distinct from previously established measures (Hochwalder, 2024). Thus, it might behoove researchers to measure daily or momentary states of meaning in life with one or two items that capture the broader construct of meaning in life unless researchers have specific goals or reasons to capture each individual facet.

Future Directions and Recommendations

Finally, we point to a few fruitful avenues for future research. First, it could be valuable to combine EMA methods with longitudinal designs, sometimes known as burst designs (Hill et al., 2023). In these studies, participants complete an EMA study for a few days or weeks by completing momentary or daily reports about their meaning in life and other experiences. These same participants are then followed and asked to complete the same EMA study at a later time, e.g., six months or a year later. This could be repeated multiple times which would allow for the examination of how within-person relationships between meaning and daily experiences change over time across the lifespan. People may find meaning from certain types of experiences early

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in their lives (e.g., moving to a new city, starting a new job or career) and from different kinds of experiences later in their lives (e.g., spending time with family or close friends). A recent study used a similar type of measurement burst design (Pfund et al., 2022), and we believe this can yield promising insights in the future.

Second, the experience of searching for meaning in daily life has been understudied in this field. Most diary and EMA studies focus on the presence of meaning in life, but we know considerably less about daily states of searching for meaning in life. Future research could examine how certain types of daily events and experiences may elicit daily states of searching for meaning as opposed to the presence of meaning. Similar to research at the trait level that has compared the presence and search for meaning in life (Steger, Kashdan, Sullivan, et al., 2008), it would be interesting to examine how searching for meaning relates to cognitive processes, social interactions, and affective states.

Third, we urge researchers to consider integrating their findings with existing literatures from other fields. For instance, social and personality psychologists have often measured meaning in life from versions of the Meaning in Life Questionnaire (Steger et al., 2006), whereas clinical and health psychologists have often studied purpose in life from Ryff's psychological well-being measures which have been included in large, publicly available datasets like the MIDUS (Midlife in the United States) study. Although some researchers may argue that purpose and meaning may be distinct, the items used to measure them overlap considerably. For example, Machell et al (2015) examined the within-person relationships between daily events (including social events) and daily meaning in life. One of the items used to measure daily meaning in life was, "How much did you feel your life had purpose today?" Pfund et al. (2022) examined similar within-person relationships social events and purpose in life with the item, "How much do you think your life had purpose today?" Though the two studies addressed somewhat different questions, they overlapped considerably, and we believe it is good practice to appropriately cite relevant studies from prior research so that readers can understand how recent findings replicate and extend prior research.

Fourth, research examining within-person relationships between daily states of meaning in life and health behaviors and outcomes is rife with possibilities. Most research that has considered the relationships between meaning in life and health has been conducted at a between-person level of analysis, typically with cross-sectional designs. For instance, Kim et al.

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(2014) found that people who report more purpose in their lives were more likely to go to the doctor's for mammograms, colonoscopies, and other health preventive visits compared to those who found less purpose in their lives. Relatedly, during the Covid-19 pandemic, Newman et al. (2022) found that meaning and purpose in life predicted greater adherence to health recommendations, such as wearing face masks, washing hands, social distancing, etc. However, very little research has examined how daily states of meaning in life may relate to various health outcomes as they naturally occur. We consider this to be a fruitful area for future research.

Conclusion

A complete understanding of meaning and purpose in life involves the study of how meaning in life may vary from one time to the next depending on situational contexts. EMA and daily diary methods provide the means to examine these dynamic processes while capturing states of meaning in life and daily experiences as they naturally occur. The conclusions drawn from these methods may challenge conclusions drawn from other methods, and they can also help extend and further research in this important area.

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