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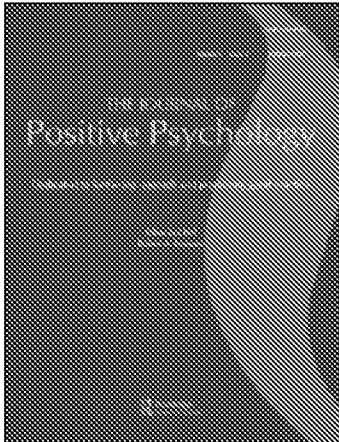
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Detecting and constructing meaning in life events

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Three studies examined the meaning ascribed to events varying in intensity and valence and how meaning detection and construction relate to the experience of meaning in life events. In Study 1, participants were more likely to expect meaning to emerge from major life events particularly if they are negative, while trivial events were expected to be meaningful if they were positive. Study 2 showed that constructed meaning was more likely to occur in response to negative events while detected meaning was more likely to be associated with positive events. Study 3 showed that this 'match' between valence and meaning strategy predicted enhanced experience of meaning in those events. These studies suggest that the more subtle experience of meaning detection may provide a way to understand the meaning that emerges from positive events and experiences.

Keywords: meaning; life events; well-being

The experience and construction of meaning in life events

The meaning of our existence is not invented by ourselves, but rather detected.

Victor Frankl

Each man must look to himself to teach him the meaning of life. It is not something discovered: it is something molded.

Antoine de Saint-Exupéry

The question of whether and how life experiences have meaning is a central one that has interested humanity (including psychologists) perhaps since our species gained the security to stop and think. Two approaches to the question of the meaning of life events are well represented in the quotations above. Meaning may be assumed to be present and awaiting detection (as noted by Frankl), or it may be viewed as a construction, something the person molds from the events that life presents (as noted by de Saint-Exupéry). The purpose of the present investigation is to examine these two non-mutually exclusive avenues to the experience of meaning. Meaning may, at times, be detected and, at other times, actively molded, or constructed. People may readily connect an event to pre-existing beliefs (i.e., meaning detection) or engage in a constructive process to come to a sense of meaning (i.e., meaning construction). Before exploring these two possibilities further, we first offer a tentative definition of meaning itself.

The meaning of life events

In the present studies, we relied on the phenomenological or intuitive sense of the word 'meaning'. Meaning is present when an individual feels that an event 'makes sense,' that it fits with preexisting beliefs and expectations (Heine, Proulx, & Vohs, 2006). Meaningfulness might also arise from a sense that events are particularly profound, significant, or promote a feeling of transcendence from the mundane aspects of life (Leontiev, 2005).

Psychologists have often broached the topic of meaning as a problem the individual must face in the context of trauma or when experiences defy expectations. Yet, life often conforms to our expectations and the experience of meaning may be relevant at these times as well. The focus on 'exceptions to the rule' has potentially led to neglect of the experience of meaning that might emerge during those times when the rules work. That the absence of meaning is a notable loss suggests that meaning previously had been present (if taken for granted). Meaning is not always a problem to be solved and may be experienced as an ambient aspect of daily life (King, Hicks, Krull, & Del Gaiso, 2006). Although research and theory have focused primarily on meaning as something that is reinstated after some violation (Heine, Proulx, & Vohs, 2006; Janoff-Bulman, 1992; Janoff-Bulman & Berg, 1998; Janoff-Bulman & Frieze, 1983; Tedeschi & Calhoun, 2003, 2004), here we acknowledge that

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meaning may also be experienced as present during those times in life when assumptions are not tested, when things are going well, or when meaning is experienced as effortlessly present (King, et al., 2006). Clearly, despite their lack of strong representation in the psychological approach to meaning in events, positive experiences can be experienced as profound, significant, and transcendent (Maslow, 1971).

Detecting versus constructing meaning

How might we come to understand meaning that emerges from life events that reinforce rather than challenge life's unwritten rules? We refer to detected meaning as the deductive application of one's general or personal meaning system to abstract meaning from a life experience. The match between one's assumptions about the world and current experience may be reinforcing, allowing an individual to feel that things are 'as they were meant to be'. Detected meaning may be a rather subtle experience and one that occurs relatively automatically, perhaps accounting for its neglect in the research literature. If an individual's meaning system is his or her hypothesis about life, meaning detection refers to those times when the data from the world are essentially (and perhaps quietly) saying 'Yes' to that hypothesis. Meaning detection might be thought of as the default mode, the implicit operation of the rules of one's life, rather than the exceptions to those rules—testing an experience against one's assumptions about life and finding that things still make sense. The detection of meaning might occur at times when experiences remind us of our correct but perhaps momentarily forgotten assumptions about life, such as when the emotion of gratitude reminds us of the human capacity for kindness (Emmons, 2007).

The detection of meaning is not limited to the passive reception of meaning, however. Enacting meaning may involve putting one's philosophy of to work in daily action. The deductive experience of meaning may be implicated in this enactment, such as participating in religious services, ceremonies, and customs. In addition, the experience of flow—the positive, unself-conscious state of engagement in activities when an individual's skills match the requirements of a task (Csikszentmihalyi, 1990)—engaging in intrinsically motivated behavior (Ryan & Deci, 2000, 2001) and behaving in ways that are experienced as an expression of the self (Waterman, 1993) might also be thought of as enacting meaning.

Detected meaning involves assimilating (versus accommodating; Brandstadter, 2002; King & Hicks, 2006, 2007) new experiences into one's pre-existing assumptions (Block, 1982; King & Hicks, 2006, in press). In contrast, meaning construction may predominate when events are experienced as shattering

these very assumptions, requiring a revision in one's meaning structures themselves (Janoff-Bulman, 1992). This type of inductive meaning making refers to constructing meaning out of potentially chaotic events. In this sense, meaning construction involves the search for satisfactory answers to the questions, 'Why did this happen to me?' or 'What does this mean?' when one's routine answers do not readily apply.

Meaning construction is clearly implicated in the coping literature. The results of constructing meaning may be demonstrated when an individual comes to feel that he or she has learned from an event, gained valuable insight, or grown as a person as a result of difficulties. Thus, constructed meaning may be a general process that is implicated in the search for meaning in traumatic events (Davis, Nolen-Hoeksema, & Larson, 1998; King & Hicks, 2007), stress-related growth (Park, Cohen, & Murch, 1996; Tedeschi & Calhoun, 2004), and benefit finding more generally (Affleck & Tennen, 1996; Lehman et al., 1993; Nolen-Hoeksema & Davis, 2002; Taylor, 1983, 1989; Tennen & Affleck, 2002).

In developmental terms, this type of meaning making may play a role in accommodation (Brandstadter, 2002), the revision of one's pre-existing structures in order to accommodate reality (Block, 1982; Brandstadter, 2002). Indeed, in adulthood active coping with adversity may be viewed as a developmental opportunity (Aldwin & Levenson, 2004). The meaning that results from this process may be best understood as an accomplishment, meaning that is not simply detected, but molded or, ultimately, earned. Compared to the detection of meaning, meaning construction is more likely to involve awareness and intentional and effortful processing. Meaning construction may be motivated by the person's conscious awareness of the gap between experience and expectation.

The notions of detected and constructed meaning resonate with the distinction made by Steger and colleagues (Steger, Frazier, Oishi, & Kaler, 2006; Steger, Kashdan, Sullivan, & Lorentz, 2008) between the presence and search for meaning in life, more generally. These dimensions refer to the assured sense that one's life is meaningful ('I understand my life's meaning') versus the active pursuit of meaning in life ('I am searching for meaning in my life'). The presence of meaning relates to life satisfaction, positive emotions, and intrinsic religiosity (Steger et al., 2006). In contrast, the search for meaning relates to neuroticism, depression, and negative emotions (Steger et al., 2006). These relations support the contention that the detection and construction of meaning in events fit into the larger framework of research on mood and cognition, which has identified positive affect with top-down processing and negative affect with

bottom-up processing (Bless, 2001; Fiedler, 2001; Schwarz, 2002). When things are going well, meaning likely springs from what we know to be true. When things are going poorly, meaning is more elusive, requiring effortful processing.

Meaning in positive and negative events

Although research on finding meaning in life events has often focused on coping with negative life events (Davis, 2007; Davis, et al., 1998; Park, 2007), meaning may also be experienced as present during positive experiences. Such experiences seem likely to foster the detection of meaning. Research has demonstrated the robust relation between the experience of meaning and positive affect (King et al., 2006), offering further support for the notion that, when things are going well, meaning is experienced as present. Such positive experiences may require little in terms of analysis. Indeed, taking an analytical stance toward positive experiences may drain these experiences of value (Lyubomirsky, Sousa, & Dickerhoof, 2006). Research examining the relationship between mood and cognitive processes supports that idea that affectively positive experiences may lead to the reliance on top-down processing strategies (i.e., fitting experiences into pre-existing knowledge structures or expectancies; e.g., Fiedler, 2001). Experiences such as a wedding may be experienced as meaningful because they are congruent with an individual's expectations for meaningful experiences.

Meaning might also be detected during negative life experiences. A deeply religious person might detect meaning in the death of a loved one within a meaning system that includes meeting again in heaven. This possibility might help to explain the finding that among individuals who have experienced traumatic life events, some subset report never searching for meaning yet demonstrates relatively high levels of psychological functioning (Davis, 2007). The quality of an individual's meaning system (its clarity, complexity and accessibility) may allow for the detection of meaning even during very difficult times.

However, often, major negative life events may be perceived as inconsistent with core assumptions about the world (Janoff-Bulman, 1992), precluding the application of one's pre-existing sources of meaning. Indeed, the lack of comfort offered by these sources of meaning may move the individual to embark on a search for meaning. Negative life experiences may test one's beliefs, calling into question their very role in the experience of meaning itself. In these cases, meaning may eventually be abstracted, via meaning construction. For example, the unexpected loss of a significant other may, over time, seem meaningful because it is perceived to have allowed the person to have a deeper

understanding of the importance of human relationships, his or her own vulnerability, and the fragility of meaning itself (King & Hicks, 2007). The individual might also come to realize that previously held sources of meaning (e.g., religious faith) still apply, but in new and more nuanced ways that he or she had not previously considered or understood.

It is certainly possible that intensely positive experiences can involve meaning construction. The emotion of awe, for instance, includes vastness (e.g., the sheer size of the eliciting experience) and accommodation (Keltner & Haidt, 2003). Accommodation processes during awe-inspiring experiences may lead to enlightenment after the person fully integrates the new experience. Similarly, being pleasantly surprised by the kindness of another may require an individual to rethink preconceptions about human nature.

In sum, the detection and creation of meaning in life events are implied in a broad range of research topics (Heine, et al., 2006). Yet, there are many basic questions that remain unanswered regarding the psychological processes that lead to the experience of meaning in life events. First, perhaps most basically, are some events more likely than others to be experienced as meaningful? Are the processes of meaning detection and meaning construction associated with particular types of events? Do these strategies result in enhanced feelings of meaning toward the events to which they are applied? The present studies addressed these questions.

Overview and predictions for Study 1

What types of life events do people find meaningful? Study 1 examined individuals' subjective experience of meaning in various types of life events by having participants rate the meaningfulness of different hypothetical life events that varied in both significance (trivial versus major) and valence (positive versus negative). It was predicted that individuals would find major life events more meaningful than trivial life events. In addition, given the preceding discussion of the subtle nature of meaning detection, we predicted that negative experiences would be judged as more meaningful than positive life events.

A second purpose of Study 1 was to examine the relationship between meaning ratings of the life events and overall well-being. There is evidence that experiencing positive and negative minor life events (i.e., uplifts or hassles) are associated with mental health and well-being (DeLongis, Coyne, Dakof, Folkman, & Lazarus, 1982); however, it is unclear whether the amount of meaning ascribed to specific types of life events also influences well-being. Finding meaning in 'the little things in life' is a common platitude but finding meaning in *all* types

of life experiences has not always been associated with positive outcomes. Placing too much significance on the trivial aspects of life is a characteristic of various psychopathological thought processes (e.g., Lenzenweger, Bennett, & Lilenfeld, 1997). Thus, Study 1 examined the tendency to 'find meaning in the little things' as a predictor of overall well-being.

Study 1

Method

Participants

One hundred and twenty-two undergraduate students (77 women, 44 men, 1 not reporting) completed a large questionnaire packet for extra credit in a psychology class. Participants' ages ranged from 18 to 23 years ($M=19.55$, $SD=1.26$). Represented ethnicities were 87% white/European-American, 7% African-American, 2% Hispanic, 2% Asian, and 3% other.

Materials and procedure

Affect measure. The Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) was administered to provide measures of positive affect (PA) and negative affect (NA). On the PANAS, participants rate how much they generally experience a particular positive or negative emotion. Items were rated on a scale from 1 (very slightly or not at all) to 5 (extremely; M for PA = 3.44, $SD=0.56$, $\alpha=0.83$; M for NA = 2.04, $SD=0.60$, $\alpha=0.84$).

Well-being. After completing the PANAS, participants completed four different measures of well-being. First, participants completed four items from the Purpose in Life Test (PIL; Crumbaugh & Maholick, 1964). The PIL is a 20-item scale assessing the degree to which a person experiences a sense of meaning and purpose in life. The PIL was factor analyzed by McGregor and Little (1998) and the items that pertained specifically to the experience of meaning in life (and not happiness or general well-being) were identified. Four items adapted from the items McGregor and Little identified were used in the present study. These items included, 'In life, I have very clear goals and aims,' 'My personal existence is very purposeful and meaningful,' 'I have clear goals and a satisfying purpose in life,' and 'I regard my ability to find a meaning, purpose, or mission in life to be very great' ($M=3.61$, $SD=0.68$, $\alpha=0.83$).

The 8-item Life Orientation Test (LOT; Scheier & Carver, 1985; $M=3.41$, $SD=0.64$, $\alpha=0.81$) was used to measure dispositional optimism, or the extent to which positive outcomes are expected. This instrument includes items such as, 'I'm always optimistic about my future.' In addition, the 10-item

Rosenberg self-esteem scale (1965; $M=3.88$, $SD=0.64$, $\alpha=0.78$) was included to assess overall feelings of self-worth. A representative item from this measure is, 'I feel that I have a number of good qualities.'

The 7-item vitality scale was also administered (Ryan & Frederick, 1997; $M=3.46$, $SD=0.61$, $\alpha=0.77$). The scale assesses individual differences in feeling alert and energetic. A sample item includes 'I have energy and spirit.' All items were rated on a scale from 1 (not at all) to 5 (extremely).

Event measure. Finally, participants were asked to rate how meaningful a particular event would be if it happened to them, on a scale from 1 (not at all meaningful) to 5 (extremely meaningful). The list of events was adapted from a study of personality and objectively positive and negative life events (Suh, Diener, & Fujita, 1996). Four different categories of events, each consisting of 20 items, were used. Sample events include 'got married' and 'graduated from college' for major positive events ($M=4.26$, $SD=0.46$, $\alpha=0.85$); 'saw a good movie' and 'got a funny email,' for trivial positive events ($M=2.85$, $SD=0.62$, $\alpha=0.91$); 'got a divorce/marital separation' and 'got fired/laid off' for major negative events ($M=4.54$, $SD=0.57$, $\alpha=0.92$); and 'stepped in gum' and 'got a bad haircut' for trivial negative events ($M=2.33$, $SD=0.73$, $\alpha=0.94$). The life events questionnaire appeared as the final measure in the packet and was separated from the well-being measures by a variety of filler questions (about 150) pertaining to a broad range of individual differences. The complete list of events is provided in Appendix A.

Results

Preliminary analyses

Table 1 shows the correlations among all of the measures. It is notable that PA was unrelated to the event meaning ratings, although it shared positive associations with the measures of well-being. NA was associated with a tendency to find meaning in negative trivial events. Table 1 shows the consistent positive correlations among the measures of well-being. In order to simplify analyses, a composite well-being variable was created by averaging the four measures ($M=3.59$, $SD=0.51$, $\alpha=0.78$).

Event meaning as a function of significance and valence

As an examination of how meaning was ascribed to the events listed, a 2 (significance: trivial versus major) \times 2 (valence: positive versus negative), repeated measures ANOVA was computed on the meaning ratings. Results showed significant main effects for significance

Table 1. Correlations among measures, Study 1.

	1	2	3	4	5	6	7	8	9	10
1. PA	1	-0.06	0.06	0.07	0.16	0.11	0.30**	0.43**	0.40**	0.49**
2. NA		1	0.06	-0.04	0.15	0.20*	-0.13	-0.09	-0.24*	0.02
3. PMEvent ^a			1	0.63**	0.58**	0.47**	-0.02	0.18	0.02	0.21*
4. NMEvent				1	0.35**	0.32**	0.01	0.25**	0.26**	0.26**
5. PTEvent					1	0.76**	-0.07	0.15	-0.04	0.11
6. NTEvent						1	-0.08	-0.01	-0.06	0.02
7. LOT							1	0.49**	0.45**	0.30**
8. Vitality								1	0.52**	0.55**
9. Self-esteem									1	0.54**
10. PIL										1

Note. $n = 109$. PA = positive affect, NA = negative affect. ^aParticipants rated the meaningfulness of various events. PT = positive trivial, PM = positive major, NT = negative trivial, NM = negative major. LOT = trait optimism, PIL = purpose in life. ** $p < 0.01$; * $p < 0.05$.

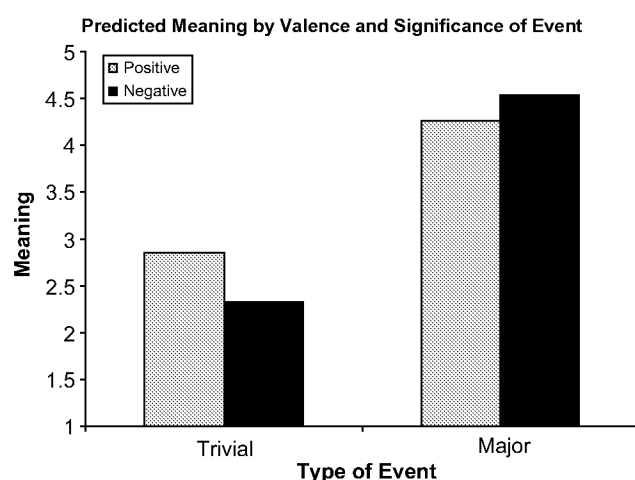


Figure 1. Predicted meaning by valence and significance of events, Study 1.

($F(1, 121) = 1, 189, p < 0.0001$) and valence ($F(1, 121) = 221, p < 0.0001$) qualified by a significant two-way interaction ($F(1, 121) = 9.47, p < 0.003$). Figure 1 shows the pattern for the interaction. Bonferroni tests demonstrated that all means significantly differed from each other (p 's < 0.01). Within the general tendency to rate major events more meaningful than trivial ones, there was a tendency to find greater meaning in negative major events than positive major events. Conversely, there was also a tendency to find greater meaning in the positive trivial events than the negative trivial events.

Event meaning and well-being

A hierarchical regression was computed to assess whether meaning ratings predicted overall well-being. Because of the high correlation between the positive trivial and negative trivial measures ($r = 0.76, p < 0.001$), as well as between the positive major and

negative major measures ($r = 0.63, p < 0.001$), these ratings were collapsed to form a trivial life event variable and major life event variable. Both of these variables were then converted to mean deviation scores to represent the main effects. The product of these variables represented the two-way interaction (Aiken & West, 1991). Centered mood scores were entered on the first step of the analysis as control variables. These variables produced a significant change in R^2 (R^2 change = 0.28, $p < 0.001$), with PA ($\beta = 0.51, p < 0.001$) predicting enhanced well-being. The trivial and major event meaning variables entered on the second step also produced a significant change in R^2 (R^2 change = 0.05, $p < 0.05$), showing that both trivial event meaning ($\beta = -0.19, p < 0.05$) and major event meaning ($\beta = 0.26, p < 0.05$) predicted well-being. However, these effects were qualified by a significant two-way interaction entered on the third step (R^2 change = 0.03, $\beta = 0.21, p < 0.05$). This interaction, shown in Figure 2, indicates that experiencing enhanced meaning in trivial life experiences relative to major life experiences predicted lowered well-being. These results provide preliminary evidence that focusing primarily on the little things in life may have negative consequences for overall well-being. Incidentally, similar analyses examining the valence dimension, collapsing over event significance, produced no significant associations with well-being.

The results of Study 1 demonstrate that both the significance and valence of a life event predict the degree to which meaning is assigned to that event. Negative events were generally rated as more meaningful, supporting the notion that the meaning that might be present in positive experiences may be less obvious to individuals. Moreover, the results suggest the amount of meaning assigned to different life events may influence overall well-being. Although these results provide evidence that life events vary in perceived meaningfulness, they do not address the types of processes that make a particular life event

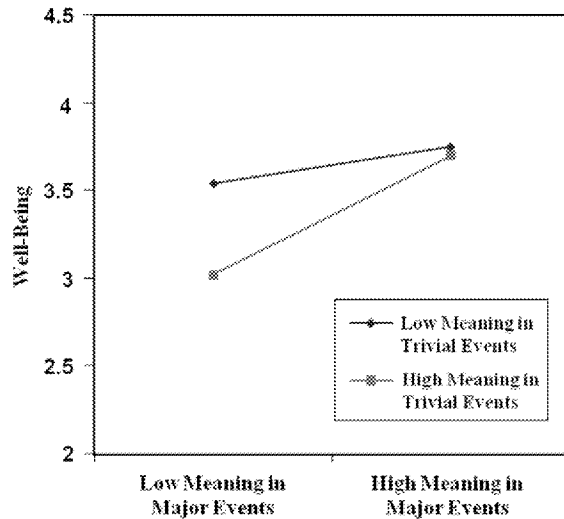


Figure 2. Well-being as a function of experiencing meaning in trivial and significant events, Study 1.

meaningful. The purpose of Study 2 was to examine the strategies people use to abstract meaning from positive and negative life events.

Overview and predictions for Study 2

Participants described how they would make meaning in hypothetical life events that varied in significance and valence. Narratives were then content analyzed for meaning detection and construction. We predicted that positive events would pull for meaning detection while negative events would foster the creation of meaning.

Study 2

Method

Participants

Participants were 119 (74 women, 45 men) undergraduate students who received extra credit in a psychology course. Participants' ages ranged from 18 to 23 years old ($M=19.59$, $SD=1.27$). Represented ethnicities included 82% European-American, 10% African-American, 4% Hispanic-American, 2% Asian-American, and 2% other.

Materials and procedure

Participants were run in small groups of approximately 10 people. During the session, they completed a packet that contained three measures. First, they completed the PANAS (Watson, Clark, & Tellegen, 1988) as a measure of current mood. Then the participants were instructed that 'On the next page you will read about an event that might happen to someone in his or her life ... imagine that this event has happened to you.

Imagine that someone has asked you to explain ... how you have managed to make this experience meaningful—how is it that you have made meaning out of this event? Is it meaningful to you and how so? Please take a few moments to reflect on your thoughts before you start writing'. The participants read one of six possible scenarios, which varied in significance (low, moderate, or high) and valence (positive or negative).¹ The events were adapted from life events mentioned by undergraduates in previous research in which they were asked to write about positive and negative life events (Burton & King, 2008). Events included being a basketball player and experiencing a season-ending injury (high-intensity negative); having one's car vandalized and car stereo stolen (medium-intensity negative); spending an entire Saturday doing mundane chores (low-intensity negative); winning a spring break trip to Cancun (high-intensity positive); having a beloved college football team win its conference (medium-intensity positive); and driving on a beautiful autumn day (low-intensity positive). Finally, participants once again completed a measure of current mood.²

Content analyses. Responses were content analyzed to quantify the approaches to meaning in response to positive versus negative and trivial versus major events. Four independent raters made ratings on two dimensions, meaning detection and meaning construction.³ Meaning detection was defined for the coders as 'referring to a pre-existing meaning system, including God, fate, fortune, or luck, or a clearly pre-existing personal meaning system, for instance, as found in statements such as "This is how people are" or "this is how the world works."' Similarly, meaning construction was defined in terms of 'learning a lesson, striving to make sense, or struggling to find resolution.' Both dimensions were rated on a scale from 1 (not at all) to 7 (extremely much) by all raters for all responses. Interrater reliability for this coding was high for detection and construction ($\alpha=0.81$, 0.72 , respectively). The standardized ratings were averaged across raters to create composite scores for detected ($\alpha=0.99$) and constructed meaning ($\alpha=0.98$). These scores were significantly negatively correlated ($r=-0.32$, $p<0.01$), suggesting, not surprisingly, that individuals tend not to construct meaning when meaning has been detected.

Results

Meaning processes as a function of significance and valence

Analyses first examined the tendency to detect and construct meaning in response to positive and negative events varying in intensity. Initially, the analyses

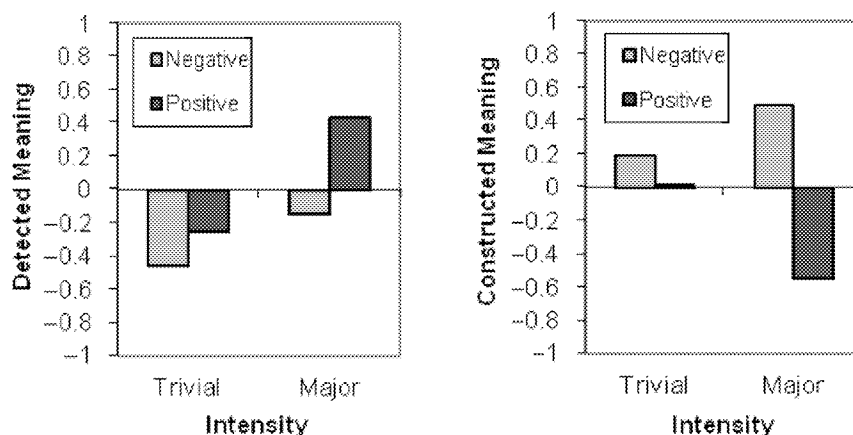


Figure 3. Detected meaning and constructed meaning by valence and significance of events, Study 2. In panel A, two main effects are significant. In panel B, the interaction is significant.

retained all levels of the intensity factor. However, the moderate and high levels of this factor were essentially identical. Thus, they were collapsed so that the analyses reported here refer only to trivial versus major events. With regard to detected meaning, a 2 (positive versus negative) \times 2 (trivial versus major) event analysis of variance (ANOVA) was performed on detected meaning scores, revealing significant main effects for both valence ($F(1, 116) = 3.90$, $p < 0.05$) and intensity ($F(1, 115) = 6.45$, $p < 0.05$). Means for the groups are shown in panel A of Figure 3. As can be seen in the figure, detected meaning was most likely to occur in response to major events and positive events.

Next, a two-way ANOVA on meaning construction indicated there was a main effect for valence ($F(1, 116) = 9.62$, $p < 0.01$) qualified by a two-way interaction ($F(1, 116) = 4.67$, $p < 0.001$). Means are shown in panel B of Figure 3. In contrast to detected meaning, constructed meaning was most likely to occur in response to negative events and was quite unlikely in response to major positive events. Post hoc Bonferroni tests showed that the major positive events significantly differed from all other groups (p 's < 0.001). In addition, the major negative events were significantly higher in constructed meaning than the trivial positive events ($p < 0.05$). These results lend support to the notion that major positive events lend themselves to the detection of meaning while negative events, particularly major negative events, call for the construction for meaning. Major positive events may serve to reinforce pre-existing meaning systems while negative events call for a search for new ways of creating comprehensible sense out of apparent chaos.

These results suggest that the strategies people use in determining the meaning of a life event depend on the significance and valence of the event. People primarily detect meaning in major and positive

events and construct meaning in major negative events. One problematic aspect of Study 2 was the use of content analytic procedures to gauge detected and constructed meaning. Narratives of life experience have often been portrayed as instantiations of meaning (e.g., McAdams, 2006; Sommer & Baumeister, 1998). However, the resultant narrative may represent the finished product—'meaning made'—rather than the underlying processes involved. In fact, constructed meaning might be more likely to occur within the writer while composing the written account of meaning making than in the actual content of the narrative itself. As such, in Study 3, we relied on self-report measures of these two meaning-related processes. Study 2 also relied on hypothetical scenarios, leaving open the question of the applicability of the results to real life experiences, an issue addressed by Study 3. In addition, given the results of Studies 1 and 2, Study 3 focused only on intense emotional experiences.

In addition to addressing these issues, a primary goal of Study 3 was to examine whether the match between detection versus construction and positive versus negative events has implications for the subjective meaningfulness of an experience. Does meaning detection make a positive experience more meaningful? Conversely, does constructing meaning predict how meaningful one perceives a negative event to be? Study 3 addressed these questions by having participants write about either an extremely positive or extremely negative personal experience. After briefly describing the event, participants completed measures of detection and construction of meaning, and rated the subjective meaningfulness of the event. We predicted that meaning detection would relate to enhanced experienced meaning for positive events, whereas meaning construction would relate to enhanced experienced meaning for negative events.

Study 3

Method

Participants

Sixty-five (45 women, 20 men) undergraduate students participated in the study for course credit in an introductory psychology class. Participants' ages ranged from 18 to 23 years old ($M=20.16$, $SD=1.36$). Represented ethnicities included 93% European-American, 5% African-American, and 2% Asian-American.

Materials and procedure

Participants were informed they would be completing a study that examined various life experiences of college students. Upon arrival at the lab, participants were escorted into a private cubicle where they completed all of the tasks on a computer. Their first task was to complete a 'Life Events Inventory.' For this task, half of the participants were asked to write about the most positive life experience since arriving at the University of Missouri. The other half of the participants were asked to write about their most negative life experience since arriving at the University of Missouri. Participants were given 6 minutes to write. Examples of positive events included getting straight A's, the 'thrill' of arriving at the university for the first time, and winning a local swimming competition. Examples of negative events included having the football suffer a 'heartbreaking' loss to a rival university, not being able to practice with an athletic team because of an injury, and having one's dog die. After writing, participants rated nine items related to the experience. One item assessed the amount of time since the event took place ($M=1.35$ years, $SD=1.01$). Two items were used to assess meaning detection including, 'The experience reinforced what I know about humanity,' and 'The experience fit well into what I know about the world and people' ($M=4.48$, $SD=1.27$, $r=0.62$). Four items assessed meaning construction including, 'I struggled to make sense of the experience,' 'It was difficult to make sense of the experience,' 'I thought about it a lot trying to understand what I experienced,' and 'The experience was hard to understand and did not fit with anything I have experienced before' ($M=3.32$, $SD=1.88$, $\alpha=0.82$). Two final items, 'The event was very meaningful to me,' 'This was a very significant experience to me,' assessed the subjective meaningfulness of the experience ($M=5.58$, $SD=1.28$, $r=0.67$, $p<0.001$).⁴ All items were rated on a 1 (not at all) to 7 (extremely much) scale.

Because writing about positive and negative life experiences has been shown to influence mood, current mood was assessed by six positive ('happy,' 'joy,' 'self-confident,' 'pleased,' 'satisfied,' and

'enjoyment/fun') and six negative ('unhappy,' 'blue,' 'anxious,' 'anticipating,' 'nervous,' and 'depressed') mood descriptors rated on a 1 (not at all) to 7 (extremely much) scale (from Diener & Emmons, 1984; $M=4.46$, $SD=1.15$, $\alpha=0.82$ for PA; $M=3.61$, $SD=1.41$, $\alpha=0.80$ for NA).

Results

Preliminary analyses

Correlations among all measures revealed that constructed meaning was significantly associated with PA ($r=-0.25$, $p<0.05$) and NA ($r=0.47$, $p<0.01$), and PA was significantly associated with NA ($r=-0.56$, $p<0.01$). As expected, the positive and negative event conditions differed in terms of PA ($M=4.80$, $SD=0.98$ vs. $M=4.10$, $SD=1.22$); NA ($M=3.21$, $SD=1.40$ vs. $M=4.03$, $SD=1.29$) and constructed meaning ($M=1.94$, $SD=1.01$ vs. $M=4.74$, $SD=1.41$; t 's (64) = -2.25, 2.30, 8.69, respectively, all p 's < 0.05). The groups, however, did not differ in detected meaning or event meaningfulness (p 's > 0.11). Given the results of Study 2, one might expect that the positive events would be rated as significantly higher in detected meaning than the negative events. The items assessing detected meaning, however, assessed *current* detected meaning. Therefore, it is unclear how much meaning was detected when the event first occurred.

Meaning processes, event valence, and the experience of meaning

A hierarchical regression was computed to assess whether meaning detection and construction interacted with event valence to predict the subjective meaningfulness of the event. Detected and constructed meaning scores were converted to mean deviation scores to represent the main effects. Then, the products of each of these scores with the condition variable (0 = negative event, 1 = positive event) were used as the interaction terms (Aiken & West, 1993). The main effects, along with the three control variables (PA, NA, and time) were entered on the first step. The main effects did not contribute to a significant change in R^2 (R^2 change = 0.11, $p=0.18$). However, the two-way interactions entered on the second step did contribute to a significant change in R^2 (R^2 change = 0.27, $p<0.01$), showing a significant detected meaning \times valence interaction ($\beta=0.34$, $p<0.05$) as well as a significant constructed meaning \times valence interaction ($\beta=-0.52$, $p<0.05$).

These interactions indicated that detected meaning enhanced the subjective meaningfulness for the positive events ($\beta=0.44$, $p<0.05$), and constructed meaning enhanced the subjective meaningfulness for the

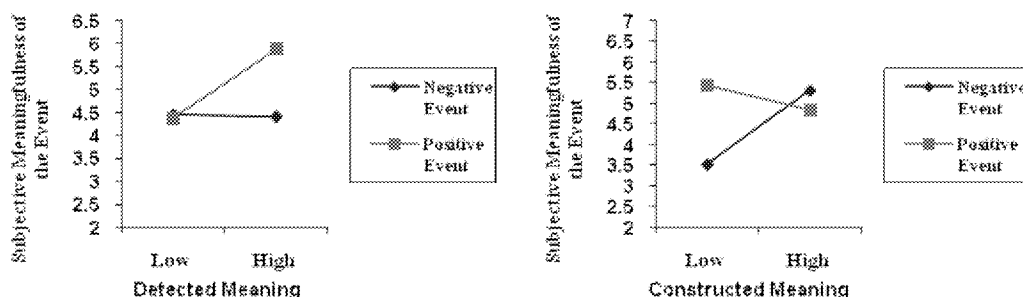


Figure 4. Subjective experience of meaning as a function of detected meaning, constructed meaning and valence of the event, Study 3.

negative events ($\beta=0.56$, $p < 0.01$). The generated means for these interactions are shown in Figure 4.

As shown in panel A of Figure 4, detected meaning was particularly associated with the perceived meaningfulness of positive events. Conversely, detected meaning scores were unrelated to the perceived meaningfulness of negative events. In contrast, panel B of Figure 4 shows the means for the constructed meaning ratings. Although not as straightforward as in panel A, the slopes of the lines in panel B indicate that constructed meaning is associated with enhanced feelings of meaning, particularly for negative events, while the use of constructed meaning for positive events showed a negligible decrease in experienced meaning. These results suggest that these two distinct meaning-related processes influence the phenomenological value of the experience, with the match between one's approach to meaning and the valence of the event contributing to a higher feeling of meaning in the event.

Discussion

What makes a life event meaningful? The present studies suggest that the answer to this question includes the valence and intensity of the event but also the meaning-related processes that are applied to the event by the person. Study 1 demonstrated that individuals are more likely to expect meaning to emerge from major and negative life events. Furthermore, finding meaning in the little things in life (to the exclusion of 'big things') negatively related to overall well-being. Study 2 showed that detected meaning was more likely to be associated with positive events, and constructed meaning was more likely to occur in response to negative events. Study 3 showed that this 'match' between valence and meaning strategy predicted the experience of meaning in those events.

What is a meaningful event?

In general, Study 1 demonstrated that major life events are more likely to be perceived as meaningful.

The interaction that emerged, however, indicated that negative events are particularly likely to be viewed as sources of the experience of meaning. Integrating the results of Studies 1 and 2 provides insight into the naive notion of what it is that makes an event meaningful. Note that in Study 1, major negative events were judged to be most meaningful, while Study 2 showed that construction was far more likely for such events. We might note, then, that the meaning rated on those events in Study 1 may have referred to molded or created meaning rather than detected meaning. Detected meaning, because it generally requires less effort, may be less easily recognized. As a result, it is perhaps no surprise, that meaning is often a salient theme when it is absent.

Researchers have suggested that positive affect is the 'natural habitat' of meaning (King, et al., 2006), suggesting that in every positive experience there lies an implicit sense that things are as they were meant to be. This reinforcement of meaning by positive events deserves further exploration. Research on more self-conscious processes associated with positive feelings, such as savoring (Bryant & Veroff, 2007) and nostalgia (Wildschut, Sedikides, Arndt, & Routledge, 2006) indicates that positive life experiences may present untapped sources of meaning.

The detection of meaning in a variety of life events

The results of these studies converge to support the notion that the detection of meaning is most often associated with positive life events and that the detection of meaning in positive events is associated with heightened experienced meaning. However, the detection of meaning is not exclusively associated with the positive aspects of life. Indeed, in the epigraph of this paper, Victor Frankl (1963) was not talking about positive events but abject human misery. The detection of meaning in a negative event may, as discussed earlier, require a rather sophisticated meaning system.

We might assume that individuals who do not search for meaning in negative life events are in denial or are simply not engaged in life. Assimilative processes

may impede development when an individual fails to note the true inconsistencies between experience and his or her meaning system (King & Hicks, 2007; Levenson & Crumpler, 1996; Maddi, 2006). Individuals who approached the meaning of negative events with assimilation (i.e., detection) actually experienced less meaning in those events (Study 3). These results may indicate that not recognizing times when an extant meaning system is, in fact, in need of revision may detract from the experience of meaning in events. It is possible, however, that individuals who approach the meaning of negative events with detection have, through life experience, come to a deep, complex understanding of life experiences and are, in fact, able to detect meaning in even abject circumstances.

The construction of meaning in a variety of life events

Although constructed meaning seems to be predominantly associated with negative life experiences, there are instances when the active struggle to make sense of an experience is enjoyable. For example, trying to understand the meaning of abstract artwork, making sense of the ending of an esoteric book, or actively solving a riddle may often be perceived as meaningful *and* enjoyable. In fact, research has shown that finding meaning in potentially ambiguous stimuli, such as Zen koans, is related to enhanced PA (King & Hicks, 2007). The rich and even ambivalent emotional character of many of life's most significant events (e.g., parenting) suggests that to fully understand the extraction of meaning from such experiences may require attention to the host of emotions present, as well as the variety of meaning-related tools that are brought into play in incorporating these events into one's approach to life. Future research should examine how detected meaning and constructed meaning processes relate to the experience of meaning (and affect) in these other types of diverse, yet common, life experiences.

Negative meaning or mistaken meaning

The detection and creation of meaning are, perhaps, a more general case of attributional processes. One might argue that any attribution involves the detection or creation of meaning in experience. Research points to the problem of detecting meaning in a way that enhances distress or dysfunction. The pessimistic attributional style, for instance, involves attributing stable, internal causes to negative life events (e.g., Nolen-Hoeksema, Girgus, & Seligman, 1992; Wise & Rosqvist, 2006). Such a style has been found to serve as a relatively stable individual difference that predisposes individuals to depression (Wise & Rosqvist, 2006). This style may take on a particularly

pernicious assimilative character through the automatic overuse of such self-denigrating attributions. Assimilation, then, may be problematic when the meaning system into which events are incorporated is, itself, a source of distress.

Meaningless experiences

Is the human need for meaning so strong that we refuse to acknowledge the existence of the truly meaningless? Even the trivial events in Study 1 were rated as somewhat meaningful (with the mean falling around the midpoint, 2.6, on a 5-point scale). Certainly, great minds have occasionally pointed out the innate meaninglessness or absurdity in human life, the indifference of life events to those who experience and perceive them, and the awful paradox of our views of our lives as significant against the backdrop of the reality of meaninglessness (Sartre, 1938; Camus, 1942). Such a sensibility is largely absent from the present data.

Accommodation and the construction and detection of meaning

The meaning-related processes explored here may occur in a dynamic fashion, such that, via meaning construction, the individual is able to come to a resolution of a potentially chaotic event, and thereby reinstate the possibility of meaning detection. Successfully accommodating a new or challenging event may follow just such a pattern—from reliance on meaning construction toward a reinstatement of meaning detection (King & Hicks, 2006, 2007).

Created meaning can itself become an enduring source of meaning. The accommodation of life events may lead to an increasingly sophisticated and complex meaning system. It makes sense that such a system would be a durable source of meaning as the individual continues to confront life events. In the end, a goal of such a system might be to effectively detect (rather than create) meaning in a host of diverse events, be they positive or negative. As the teachings of Buddha might suggest, meaning can be experienced in the joy and the suffering life has to offer. Through experience, an individual may come to detect, rather than effortfully construct, meaning routinely in the face of events that others might perceive as unfathomable. Future research examining the unfolding of these processes over time will help to further illuminate the role of the experience of meaning in development.

The experience of meaning in human life or in college life?

These studies may be limited by reliance on college students. There is undoubtedly a strong, positive

relationship between age and the number of major life events one experiences, and such experiences may inform the relations between meaning processes and the ultimate experience of meaning itself. However, college students occupy a period in life in which meaning systems are changing and developing (Hy & Loevinger, 1996; McLean & Pratt, 2006; Roberts, Walton, & Viechtbauer, 2006). Indeed, the meaning of life experiences may be a common preoccupation among these individuals.

Furthermore, research using community samples has found similar processes in adult narratives of life-changing events (King, 2001). Such narratives often include two types of processes, coherent positive resolution and exploration (King, Scollon, Ramsey, & Williams, 2000; Pals, 2006a, 2006b). Narrative indicators of closure (similar to meaning detection) are related to measures of well-being and meaning in life, while indicators of active accommodation (essentially meaning construction) are associated with enhanced complexity and personality development. Still, additional research exploring meaning-making processes in a wide range of individuals and research exploring individual differences in these processes would certainly be a valuable direction for future research.

Conclusion

Finding meaning in negative life experiences may be a powerful component of coping with those experiences (Janoff-Bulman, 1992; Janoff-Bulman & Berg, 1998; Janoff-Bulman & Frieze, 1983; McIntosh, Silver, & Wortman, 1993). Because of this importance, researchers in the psychological sciences have primarily focused on the processes that lead to the construction of meaning in events that threaten or violate assumptions (Heine, Proulx, & Vohs, 2006). The present findings, however, suggest that focusing only on the creation of meaning may not fully illuminate the place of meaning in life events. The experience of meaning may involve two distinct, and potentially synergistic, psychological processes that allow individuals to mold meaning out of the senseless or seemingly incomprehensible aspects of life *and* detect the meaning that is felt to be present in events that inspire joy, contentment, or the feeling that all is right with the world. The creation of meaning is clearly an important part of both the naive understanding of meaning as well as the psychological approach to meaning. But the less effortful detection of meaning may reinforce and maintain the sources of meaning that are vulnerable when challenging events occur.

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Notes

1. The scenarios were constructed so that all events were uncontrollable by the participants, so that meaning could not be due to personal faults or strengths.
2. Analyses also examined whether pre-existing mood might relate to the types of meaning making engaged in, over and above the effects of condition. However, for both types of meaning making, pre-existing mood neither served as a significant predictor nor interacted with other variables to significantly predict type of meaning making. It is possible, however, that the act of meaning making itself might influence mood. Thus, finally, a regression equation was computed predicting post-session mood from the experimental conditions, pre-test mood, and the two types of meaning making coded for in the responses (detected versus constructed). Indeed, analyses examining mood following the meaning-making exercise demonstrated that for NA, only, the use of meaning-detection processes related to lowered levels of NA ($\beta = -0.15$), controlling for pretest NA, constructed meaning, and experimental condition.
3. Content analyses were performed in two stages. First, all of the responses were read and all instances of meaning-relevant statements were noted. Based on this exhaustive list, a coding scheme was devised that listed all of the ways a person might engage in meaning making, including 'learned a lesson,' 'realized it was God's will,' 'came to understand what people are really like,' etc. Two independent coders then used these inductively defined themes as dimensions for rating and rated the theme as present or absent. An exploratory factor analysis of these initial ratings showed that they fell into two factors, conforming to the detected meaning versus constructed meaning. Based on these analyses and discussions with the raters, it was determined that the exhaustive lists were overly taxing, led to rater decay, and presumably accounted for unreliability in the ratings (King, 2003). As such, a simpler ratings scheme was devised.
4. Additional analyses were conducted in Studies 3 using only the 'This event was very meaningful to me' item to assess subjective meaningfulness. The results paralleled those using the two-item dependent measure. It might be noted that the items tapping meaning construction may seem most appropriate to negative life events. We would suggest that this appearance is in keeping with the fact that negative events may be more difficult in terms of their challenge to a meaning maker.

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Appendix A. Events rated in Study 1

Positive trivial

Got a funny email
 Got an A on a test
 Found \$5 on the sidewalk
 Saw a good movie
 Had lunch with a good friend
 Invited to a party
 Saw a shooting star
 Began a hobby
 Joined a club or group
 Went on a short vacation
 Engaged in a certain art or craft for leisure
 Got a pet fish
 Met a new friend
 Got a new winter coat
 Got a new stereo
 Reconciled a minor dispute with a friend
 Realized that you had an extra \$20 in your bank account
 Got a minor raise/promotion
 Saw your favorite music band in concert
 Parent took you on a short vacation

Positive major

Got married
 Won the lottery
 Became a parent
 Reconnected with a childhood friend
 Got a new car
 Paid off a substantial credit card debt
 Fell in love
 Got a substantial raise/promotion
 Received a major award or public recognition for achievement
 Engagement (mine)
 Parent got a substantial raise/promotion

Got into graduate school
 Parents gave you a major gift (over \$5,000)
 Became an aunt/uncle
 Met a famous childhood idol
 Met the Pope
 Rescued someone from a burning house
 Graduated from college
 Bought a house
 Sibling got married

Negative trivial

Got a parking ticket
 Stained a favorite shirt
 Got a cavity
 Got a bad haircut
 Got a flat tire
 Got a bad grade on a test
 Got in a minor argument with a friend
 Got a cold sore
 Sick with the flu
 Stung by a wasp
 Stepped in gum
 Got a pimple
 Got caught in the rain without an umbrella
 Scratched and ruined a favorite CD
 Overslept a class
 Got a speeding ticket
 Lost a homework assignment
 Fell and skinned knee
 Misplaced car keys
 Got a headache

Negative major

Paralyzed in a car accident
 Parents got a divorce
 Had an abortion (self/spouse/girlfriend)
 Death of a close family member
 Went to prison
 Were evicted from house/apartment
 Death of a close friend
 Victim of a violent crime
 Immediate family member victim of a violent crime (rape, assault, etc.)
 Attempted suicide (self)
 Got a divorce/marital separation
 Pet died or permanently lost
 Fired/laid off
 Miscarriage or stillbirth (self/spouse/girlfriend)
 Had to leave school (flunked, expelled, financial reasons, etc.)
 Borrowed more than \$10,000
 Best friend moved away
 Wrecked car
 Went blind
 Diagnosed with cancer