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Perceptions of Stressful Life Events as Turning Points Are Associated with Self-rated Health and Psychological Distress

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Abstract

We test the hypothesis that changes in physical and psychological health are associated with construals of stressful life events. At two points in time, approximately 10 years apart, participants ($N=1,038$) rated their physical health and psychological distress. At the second assessment, participants also reported their most stressful life event since the first assessment and indicated whether they considered the event a turning point and/or lesson learned. Lower self-ratings of health and higher ratings of psychological distress, controlling for baseline health and distress and relevant demographic factors, were associated with perceiving the stressful life event as a turning point, particularly a negative turning point. The two health measures were primarily unrelated to lessons learned. How individuals construe the most stressful events in their lives is associated with changes in self-rated health and distress.

Keywords

Turning points; Lesson Learned; Life story; Physical health; Psychological distress; Stressful life event

From a life course perspective, development across adulthood is dynamic; while individuals may prefer and strive for stability, they also must adapt to stressful life events (Clausen, 1995; Elder, 1998; Wethington, 2005). Individuals generally have a strong need to perceive their lives as consistent, and they tend to construct a self that is coherent, at least to themselves (Clausen, 1995). Stressful life events are thus particularly challenging, as their physical and psychological impact can disrupt self-coherence and identity long after the event itself. For some individuals, these events may be subsequently construed as a turning point, a point associated with a major life change. Such events may also be identified as an opportunity for the individual to learn something about him/herself; one effective coping strategy is to find benefits from a traumatic experience (Folkman, 2008). The present research examines how these two common ways of construing stressful life events – as turning points and/or lessons learned – are associated with changes in psychological and self-rated health over an approximately 10-year period.

Individuals' construals of their experiences are associated with psychological health and well-being (Park, 2006). For example, individuals who are able to draw a positive, coherent resolution from a difficult life experience have higher subjective well-being, measured both

concurrently (King, Scollon, Ramsey, & Williams, 2000) and nine years later (Pals, 2006). For individuals who have recently lost a spouse, those who relate narratives with a higher ratio of behavior-based (i.e., what one does) to character-based (i.e., what one is) self-evaluations experience less grief approximately two years after the loss (Bauer & Bonanno, 2001). And those who suffer from depression and lower life satisfaction have life narratives characterized by contamination sequences – events that start positively but end negatively (Adler, Kissel, & McAdams, 2006).

The association between such construals and health is not limited to the psychological, but extends to physical health as well. For example, women who integrate a positive transformation of themselves into their narrative of a difficult life experience have better physical health, rated both by the self and by an interviewer (Pals, 2006). Individuals who use stable and global causal statements – so-called depressogenic attributions – in written accounts of their life story have poorer physical health (Adler et al., 2006). And, finding meaning in a stressful life event has been found to be associated with slower HIV progression among HIV-positive men (Bower, Kemeny, Taylor, & Fahey, 1998) and with improved cellular immune function among breast cancer patients (McGregor et al., 2004).

Individuals have a strong need for a coherent self, and when reflecting on a stressful life event they may label the event in a particular way as to bridge the continuities and discontinuities of the self following the event (Clausen, 1995). Two common ways that individuals construe such events are as a turning point and/or a lesson learned. Pillemer (1998) defines a turning point as “a specific episode or series of episodes, (that) appears to alter or redirect the ongoing flow of the life course” (p. 76). Turning points can be positive or negative, but generally reflect an event or period of time that changes an individual's subjective appraisal of the direction and meaning of his life (Clausen, 1995). Depending on the direction of the turn in the life story, the psychological impact of such turning points can range from depression and questions of self-worth to discovering what is important in life and increased self-confidence (Wethington, 2003). Although there is often an implied causal link between an event construed as a turning point and what comes after it, these links are usually made retrospectively; in constructing a consistent life story, an event may be subsequently labeled as a turning point because it marks the beginning a new life trajectory (Pillemer, 2001). Indeed, turning points are a dynamic construct and the interpretation of an event as a turning point may change as the individual's identity evolves over time.

Finding benefits as a means of coping with a stressful life event is associated with positive outcomes, such as a greater appreciation of life and improved social relationships (Folkman, 2008). Learning a lesson may be one form of benefit finding that individuals can use to lessen the psychological impact of a stressful experience (Thorne, McLean, & Lawrence, 2004). Those who are able to step back from the stressful event, evaluate their actions, and learn from the experience tend to be better adjusted than those who have difficulty evaluating the event in such a way (Blagov & Singer, 2004). In addition, those who have life stories saturated with themes of redemption – finding something positive out of a negative experience, a concept related to lesson learning – have greater life satisfaction, self-esteem, and lower depression (McAdams, Reynolds, Lewis, Patten, & Bowman, 2001).

Both turning points and lessons learned have been recognized as important mechanisms that help individuals to maintain continuity of the self following a difficult life experience. These mechanisms have been linked to physical health and well-being concurrently, but few studies have taken a longitudinal approach to ask whether turning points and lessons learned are associated with physical health and psychological distress measured at two different points in time. The current research examined whether individuals' psychological interpretation of their most stressful life event was associated with self-rated health and

psychological distress longitudinally. Participants reported on their physical and mental health at two time points, approximately 10 years apart. At the second assessment, participants also related the most stressful event that they experienced within this time interval and indicated whether the experience was a turning point and/or lesson learned. Given that integrating difficult experiences into the ongoing life story is associated with greater well-being (King et al., 2000) and improved physical health (Pals, 2006), we expected that lessons learned would be associated with better self-rated health and less psychological distress over time. In contrast, we expected turning points, which may represent disruptions in the life story, would be associated with lower ratings of physical and psychological health.

Method

Participants and Procedure

Participants are drawn from the Baltimore Epidemiologic Catchment Area (ECA) study. The ECA began as part of a national, five site epidemiological study (L. N. Robins & Regier, 1991). A probability sample of 3,481 household residents of East Baltimore was initially interviewed in 1981. Follow-up interviews were done in 1993-98 ($n = 1,920$; Eaton et al., 1997) and in 2004-05 ($n = 1,071$; Eaton, Kalaydjian, Scharfstein, Mezuk, & Ding, 2007). Detailed attrition analyses can be found in Badawi, Eaton, Myllyluoma, Weimer, and Gallo (1999) and Löckenhoff and colleagues (2008). The present analyses rely on data from the 1993 (baseline) and 2004 (follow-up) assessments. All participants provided informed consent prior to each assessment.

At both baseline and follow-up, participants were asked to rate their health and psychological distress (see below). At follow-up, participants orally described the most stressful life experience that had occurred between the baseline interview and the present day (see below). A total of 1,038 participants (54% of the baseline sample) were asked the stressful life event item. Participants were primarily female (62%) and White (62%) or African-American (35%). At baseline, on average, participants were 47.33 ($SD = 12.05$) years old (range 30-86 years) and had 12.40 ($SD = 2.66$) years of education. Compared to participants in the 1993 baseline sample who did not complete the follow-up measures, participants who provided data included in the current study were younger ($M = 47.33$ [$SD = 12.05$] versus $M = 64.14$ [$SD = 17.46$]; $F(1,1918) = 616.58$) and more educated ($M = 12.40$ [$SD = 2.66$] versus $M = 10.14$ [$SD = 3.04$]; $F(1,1918) = 301.11$) at the baseline assessment. There were no differences in sex or ethnicity ($\chi^2 = .41$ and 2.74, respectively, both *ns*).

Measures

Stressful life event—At follow-up, participants were asked to describe the most stressful experience that occurred in the ten years since the last assessment (baseline). Specifically, participants were asked, “Among these things we have talked about, and everything else that has happened over the past 10 years, that is, since we talked to you in (YEAR OF LAST INTERVIEW) what event or occurrence was most upsetting or stressful for you?” Participants responded orally; the interviewer recorded their response verbatim.

Participants were asked about turning points and lessons learned in two follow-up questions: “Sometimes people think of things like this as a “turning point” when their lives change direction. Is that true for you about this (EVENT/SITUATION)?” and “Sometimes things like this lead to new ideas or wisdom. Is there anything you learned that you could tell me that others should know?” Participants responded yes or no to each follow-up question. We refer to the first follow-up question as turning point and to the second follow-up question as lesson learned. Turning points and lessons learned were each coded 1 if the participant

responded “yes” or 0 if the participant responded “no.” Participants also had to provide at least a brief description of the turning point or lesson learned for it to be coded as such. Although single-item measures are often not ideal, they can be reliable and valid (R. W. Robins, Hendin, & Trzesniewski, 2001) and predict consequential outcomes (Idler & Benyamini, 1997). In addition, single-item measures of turning points and lessons learned have been used successfully in previous research (e.g., Park, 2006; Thomsen & Jensen, 2007). For the turning point question, if the participant responded “yes” he/she was asked “Can you explain a little bit why you feel that way?” Again, participants responded orally and the interviewer recorded their response verbatim.

Self-rated health—At baseline and follow-up, participants rated their physical health. Specifically, participants were asked, “At the present time, would you say that your health is excellent, good, fair, or poor?” Health scores ranged from 1 (*poor*) to 4 (*excellent*). Higher scores indicate better self-rated health. Similar single-item health ratings have been found to be valid and an independent predictor of mortality, even after the inclusion of other health status indicators and relevant covariates (Idler & Benyamini, 1997). In the current study, 934 participants responded to this question at both assessments; African-Americans ($\chi^2 = 13.05$, $p < .05$) and more educated participants ($M = 13.34$ ($SD = 2.86$) versus $M = 12.29$ ($SD = 2.61$); $F(1,1036) = 14.60$) were less likely to have self-rated health scores as both time points. Analyses of self-rated health are based on complete data for this variable (i.e., $N = 934$). At baseline and follow-up, the mean for self-rated health was 3.04 ($SD = .72$) and 2.74 ($SD = .79$), respectively.

Mental health—At both baseline and follow-up, participants completed the 30-item General Health Questionnaire (GHQ; Goldberg & Williams, 1988), a measure of general psychological distress. Items were rated on a four-point scale and summed to form a general psychological distress score. The GHQ has been shown to be reliable and valid for use in non-clinical populations (Goldberg & Williams, 1988). In the current study, 938 participants responded to this question at both assessments; as with self-rated health, African-Americans ($\chi^2 = 12.63$, $p < .05$) and more educated participants ($M = 13.42$ ($SD = 2.78$) versus $M = 12.29$ ($SD = 2.62$); $F(1,1036) = 16.61$) were less likely to have GHQ scores at both time points. In addition, participants who reported that they did not learn from their reported stressful experience were less likely to have GHQ scores at both time points ($\chi^2 = 5.62$, $p < .05$). Analyses of mental health are based on complete data for this variable (i.e., $N = 938$). At baseline and follow-up, the mean for psychological distress was 36.28 ($SD = 6.46$) and 35.52 ($SD = 6.71$), respectively.

Personality—For most participants ($N = 973$), we had self-reported ratings of personality at either baseline or follow-up. These participants completed the Revised NEO Personality Inventory (NEO PI-R; Costa & McCrae, 1992), a 240-item questionnaire measure of the five major domains of personality: Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness. Participants responded on a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Raw scores were converted to T -scores ($M = 50$, $SD = 10$) using the combined-sex norms for adults reported in the Manual.

Data analysis

Coding—To gain a better understanding of the type of events participants reported, two expert raters coded the stressful life event narratives into several categories. First, narratives were coded for whether participants reported that they did or did not experience a stressful life event within the last 10 years ($\kappa = .99$). That is, a number of participants responded that they had not experienced a stressful event and thus did not provide a narrative beyond specifying that they had not had such an event. Second, these events were classified as either

personal, that is, something that happened to the participant or someone associated with the participant (e.g., car accident, death of a loved one, own or partner's heart attack) or impersonal, that is, a major world event that did not directly involve the participant (e.g., 9/11, the war in Iraq, global warming; $\kappa = .97$). We then coded for whether the personal event was something that happened to the self (e.g., participant was in a car accident) or to someone else (e.g., participant's husband was in a car accident; $\kappa = .93$). Finally, personal events were also coded into broad categories based on the content of the experience ($\kappa = .86$): (1) death of a loved one, (2) participant's own health problem, (3) a close other's health problem, (4) difficulty with children, (5) accident/natural disaster, (6) separation/divorce, (7) employment/finances, and (8) other. Disagreements between raters were resolved through discussion and consensus.

The expert raters also independently coded the turning point responses as a positive change (e.g., better health-related behaviors, personal growth, greater appreciation of life), a negative change (e.g., loss, loneliness, negative lifestyle change), or a neutral change (i.e., not clearly positive or negative). Interrater reliability was acceptable ($\kappa = .68$) and disagreements were again resolved through discussion and consensus.

Statistical analyses—To determine whether turning points and lessons learned were associated with changes in self-rated health and psychological distress, we used regression analyses predicting each of these ratings at follow-up from baseline demographic characteristics (age, sex, ethnicity, and education), baseline health ratings, and the turning point and lessons learned variables simultaneously. We follow-up on this analysis by examining whether the direction of the turning point is associated with change in self-rated health or psychological distress. In this analysis, we coded the direction of change into three dummy-coded variables, representing negative change, positive change, and neutral change; no turning point was the reference category. We entered these dummy variables simultaneously into a regression to test whether direction of the turning point was associated with health and distress at follow-up, again controlling for the demographic characteristics and baseline ratings of health and distress. Finally, to determine whether the associations were independent of individual differences in personality, we tested whether the associations remained significant after controlling for personality.

In addition, we tested for an interaction between turning points and lessons learned and interactions between each of these variables and sex and age. Finally, to test whether the association between turning points and lessons learned and changes in self-rated health and psychological distress was specific to specific stressful events (Phillips, Der, & Carroll, 2008), we estimated the regressions within each of the eight coded event categories.

Results

Event characteristics

Out of the 1,038 participants asked to describe the most stressful event that occurred to them in the last ten years, 82 (8%) reported that they had not experienced a stressful event within this time frame; one participant refused to answer. Of the 955 who recounted a stressful event, 70 (7%) reported that the most stressful event that had occurred was impersonal (e.g., 9/11), whereas 885 (93%) reported an event that they were personally involved in. Approximately two-thirds of these participants ($n = 674$; 71%) reported that the event happened to someone else versus something that happened to themselves ($n = 281$; 29%). Compared to men, women were more likely to report that they had experienced a stressful life event ($\chi^2 = 4.82, p < .05$), that is was personal ($\chi^2 = 8.67, p < .05$), and about a close other rather than themselves ($\chi^2 = 26.31, p < .05$); the three coded event characteristics did not differ by ethnicity. Participants who reported a stressful event were younger (Mean age

= 46.63 [$SD = 11.49$] versus 55.67 [$SD = 15.06$]; $F(1,1035) = 44.30, p < .05$) and more educated (Mean education = 12.48 [$SD = 2.62$] versus 11.43 [$SD = 2.92$]; $F(1,1035) = 12.03, p < .05$) than those who did not report experiencing such an event. Participants who reported a personal versus impersonal event were older (Mean age = 46.86 [$SD = 11.40$] versus 43.77 [$SD = 12.19$]; $F(1,953) = 4.70, p < .05$); the three coded event characteristics did not differ by education. There were no differences in age or education between participants who reported an event that happened to their self versus a close other.

Turning to the specific events, of the 885 personal events that participants reported, 390 (44%) were about the death of a loved one, 122 (14%) were about their own physical health, 94 (11%) were about a close other's physical health, 56 (6%) were about problems with a child, 54 (6%) were about separation/divorce, 54 (6%) were about stress over employment/finances, 37 (4%) were about accidents/natural disasters, and 78 (9%) were about other stressful events.

Of the 955 participants who reported a stressful life event, 540 (56%) participants reported that the event was a turning point in their lives and 762 (80%) participants reported that a lesson could be learned from the experience. Women and African Americans were more likely to construe the stressful life event as a turning point (χ^2 s = 11.80 and 26.25, respectively, both $ps < .05$), whereas construing the event as an opportunity to learn something did not differ by sex or ethnicity (χ^2 s = 1.56 and 1.10, respectively, both ns). In addition, younger participants were more likely to perceive the event as a turning point (Mean age = 45.68 [$SD = 10.72$] for turning point versus 47.87 [$SD = 12.31$] for no turning point; $F(1,953) = 8.63, p < .05$) and a lesson learned (Mean age = 46.14 [$SD = 10.96$] for lesson learned versus 48.58 [$SD = 13.21$] for no lesson learned; $F(1,953) = 6.99, p < .05$). Turning points did not differ by education (Mean education = 12.48 [$SD = 2.66$] for turning point versus 12.49 [$SD = 2.57$] for no turning point; $F(1,953) = .01, ns$), but lessons learned did: More educated participants were more likely to take a lesson away from the experience (Mean education = 12.65 [$SD = 2.59$] for lesson learned versus 11.81 [$SD = 2.62$] for not lesson learned; $F(1,953) = 16.26, p < .05$).

Self-rated health

We first tested whether changes in self-rated health over the 10 years between the two assessments were associated with perceiving the event as a turning point and/or as a lesson learned. At baseline, controlling for the demographic characteristics, self-rated health did not differ by turning point or lesson learned ($M = 3.07$ [$SE = .04$] and $M = 3.02$ [$SE = .03$] for no turning point and turning point, respectively, $F(1,857) = 1.04, ns$ and ($M = 3.04$ [$SE = .06$] and $M = 3.04$ [$SE = .03$] for no lesson learned and lesson learned, respectively, $F(1,857) = .01, ns$). In one regression, we predicted self-rated health at follow-up from turning point and lesson learned, controlling for sex, ethnicity, age, education, and baseline health (see Table 1). Participants who perceived the event as a time that their lives changed direction reported lower self-rated health at follow-up, relative to participants who did not perceive the event to be a turning point. Although all participants reported that their health was not as robust at follow-up as at baseline, those who reported a turning point had a steeper decline than those who did not perceive the event to be a turning point (see Figure 1). In addition, because the turning point item did not specify the direction of the change, we coded the turning point response into positive change ($n = 276$; 51%), negative change ($n = 151$; 28%), and neutral change ($n = 113$; 21%). As expected, the participants who perceived the turning point to bring their life in a negative direction were the ones whose self-rated health decreased the most ($\beta = -.10, p < .01$). All findings remained significant when the five personality domains were included as covariates.

In contrast to perceiving the event as a turning point, and contrary to expectations, learning a lesson was unrelated to self-rated health. In addition, there was not an interaction between turning point and lesson learned in predicting self-rated health at follow-up, nor was there any interaction between either turning point or lesson learned and sex or age.

We next looked at the associations by the type of event that participants reported. For participants who reported a stressful event about their own physical health, those who reported that this event was a turning point had a greater decrease in self-rated health than participants who did not describe the event as a turning point ($\beta = -.28, p < .05$). In contrast, among those who reported that their most stressful life event was about a close other's health, reporting that the event was a turning point was also associated with better self-rated health at follow-up, compared to those who reported that the event was not a turning point ($\beta = .21, p < .05$). Finally, although learning a lesson was not associated with self-rated health in the full sample, it was associated within two of the specific events: Those who reported learning a lesson in response to a stressful event that involved difficulty with a child decreased in self-rated health ($\beta = -.41, p < .05$), whereas those that reported learning a lesson in response to an accident or a natural disaster had better self-rated health ($\beta = .34, p < .05$). These latter associations should be treated with caution, however, given the relatively small *ns* within each of these categories.

Psychological distress

As with self-rated health, we tested whether perceiving the event as a turning point or lesson learned was associated with psychological distress across the 10 years. Similar to self-rated health, at baseline, controlling for the demographic characteristics, psychological distress did not differ by turning point or lesson learned ($M = 35.99 [SE = .32]$ and $M = 36.66 [SE = .30]$ for no turning point and turning point, respectively; $F(1,859) = 2.11, ns$ and $M = 36.43 [SE = .51]$ and $M = 36.36 [SE = .25]$ for no lesson learned and lesson learned, respectively; $F(1,859) = .01, ns$). We again used linear regression to predict psychological distress at follow-up, controlling for sex, ethnicity, age, education, and baseline distress (see Table 1). We found a similar pattern for distress as for self-rated health: Turning points, but not lessons learned, were associated with psychological distress at follow-up. Again, there was no interaction between turning points and lesson learned in predicting psychological distress at follow-up, nor was there any interaction between either turning points or lesson learned and sex or age.

Interestingly, participants who construed the stressful life event to be a turning point remained at the same level of psychological distress between baseline and follow-up, whereas those who did not perceive the event to be a turning point reported less distress, controlling for sex, ethnicity, age, and education (see Figure 2). Specifically, participants who perceived the turning point to be either negative ($\beta = .11, p < .05$) or neutral ($\beta = .10, p < .05$) reported greater psychological distress at follow-up than those who reported a positive or no turning point. As with self-rated health, all of these findings remained significant when the five personality domains were included as covariates.

Finally, looking at the associations within each of the individual events, two trends emerged: reporting that either the death of a loved one or an event related to their own health was a turning point was associated with increases in distress between baseline and follow-up ($\beta = .10, p = .056$ and $\beta = .17, p = .078$, respectively).

Discussion

The present research examined the association between two common ways individuals construe stressful events – by perceiving the event as a turning point and/or a lesson learned

– and self-rated health and psychological distress across approximately a ten-year time span. Changes in self-rated and psychological health were both associated with turning points, specifically negative turning points, whereas lessons learned were unrelated to these dimensions. Consistent with expectations, those who construed the event as a negative change in life's direction had worse self-rated and psychological health than those who reported the event was not a turning point. Individual differences in personality did not account for these associations.

Stressful events are disruptions in the life story that need to be accommodated into the individual's ongoing storyline. Accumulating evidence suggests that how individuals construe the stressful events in their lives is related to their physical, as well as their psychological, health. In particular, integrating difficult life experiences into the ongoing life story has been associated with greater physical health and well-being (King et al., 2000; Pals, 2006). Surprisingly, our two construals, turning points and lessons learned, were not associated with positive outcomes. Perhaps, for some participants, the impact of the event has not been completely resolved; once fully processed and the event integrated into the life story, the designation of turning point or lesson learned may have more of a beneficial effect on the individual. For example, such an event can become a touchstone that individuals refer back to when faced with hard times as a reminder of tough obstacles overcome.

Perceived changes in one's life, including declines in health, may be attributed to specific events that preceded the decline. Such events may thus be designated as the time that one's life changed direction. In fact, we found evidence of this in the current study. Although, overall, turning points were associated with declines in self-rated health, this decline was steepest among participants who reported a health-related stressful event. Interestingly, those who reported that their most stressful life event was about a close other's health problem reported better health at follow-up. These participants may either be explicitly comparing their own health to that of their infirmed close other or perhaps taking care of a loved one increases feelings of vitality. In addition, this increase in self-rated health may be due to being released from the burden of care-giving, if their close other either recovered or passed away.

Turning points are often, although not always, triggered by a severe event or long-term difficulty (Wethington, Kessler, & Pixley, 2004), and, when resolved, can lead to lower distress and greater psychological growth (Wethington, 2002, 2003). In the present research, those who perceived the event to be a turning point did not change in their ratings of psychological distress, whereas those who did not perceive the event to be a turning point reported less distress. Psychological distress tends to decrease with age (Carstensen, Mayr, Pasupathi, & Nesselrode, 2000), but perceiving a major stressful life event as a turning point, especially one that takes the self in a negative direction, may impede this age-related trend.

Contrary to our hypotheses, learning a lesson was not associated with either self-rated health or psychological distress. Deriving meaning or finding benefits from difficult experiences typically helps to buffer against the psychological damage of such events and ultimately may promote psychological health (Blagov & Singer, 2004). Not all meaning, however, is created equal; meaning can take different forms, such as learning a lesson or gaining insight (McLean, 2005). Different forms of meaning are differentially related to maturity (McLean & Pratt, 2006) and well-being and similar differences may be apparent for physical and psychological health. In the current research, we were unable to make such a distinction.

As individuals age, changes in health status may be considered a life transition (Liang et al., 2008). As such, these health declines may have an effect on construals of stressful events,

such as the designation of a turning point. Individuals who suffer great declines in health over time may look back to the most stressful event in their lives as the point that precipitated their decline in health. For example, a heart attack may be a turning point because it is associated with declines in physical health; widowhood may be a turning point because it is associated with increased distress. As such, stressful life events may be appraised as turning points when the individual perceives a significant change in physical or mental health following the event.

In addition, younger and older adults appear to engage different types of stress and coping mechanisms (Aldwin, Sutton, Chiara, & Spiro, 1996; Aldwin, Sutton, & Lachman, 1996) and younger and older adults are more able to create meaning from experience than adolescents (Bluck & Glück, 2004) across the lifespan. In the present research, younger participants were more likely to designate the stressful experience that they related as turning point and a lesson learned than older adults. Age, however, did not moderate the association between either turning points or lessons learned and physical and mental health. This may be due, in part, to our primarily middle-aged sample; age may play more of a role toward the beginning of adulthood (Bluck & Glück, 2004; Wethington, 2003).

The present study improved on previous research in several ways. First, we used a larger, more diverse sample than has typically been utilized in the past. Second, by measuring both self-rated health and psychological distress twice, over a significant period of time, we were able to examine whether perceiving a stressful life event as a turning point or lesson learned was associated these variables at follow-up, controlling for initial levels. Third, we asked participants for what they perceived to be the most stressful event in their lives instead of assuming that some events are more stressful than others.

Despite these strengths, this study also had several limitations. First, as mentioned above, we did not make the distinction between different types of meaning. Second, instead of coding turning points and meaning from the narratives of the stressful life event, we explicitly asked participants. We consider this approach one strength of the current research, as how an individual explicitly understands a stressful event has consequences for their physical and mental health (e.g., Park, 2006; Thomsen & Jensen, 2007). It is possible, however, that coding these dimensions from a more in-depth narrative may yield different results. Third, although we controlled for some potential confounders, including personality traits, given that all of our measures were subjective, other unmeasured variables could have confounded the reported associations. Finally, we did not ask people exactly when the stressful event occurred. It is possible that events perceived to be negative turning points may be re-construed into positive turning points as time passes and individuals adjust to the consequences of the event. Despite these limitations, this research offers new insights in to the association between changes in physical and psychological health over time and how individuals construe the stressful events in their lives.

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References

- Adler JM, Kissel EC, McAdams DP. Emerging from the CAVE: Attributional style and the narrative study of identity in midlife adults. *Cognitive Therapy and Research* 2006;30(1):39–51.

- Aldwin CM, Sutton KJ, Chiara G, Spiro A. Age differences in stress, coping, and appraisal: Findings from the normative aging study. *Journals of Gerontology - Series B Psychological Sciences and Social Sciences* 1996;51:179–188.
- Aldwin CM, Sutton KJ, Lachman M. The development of coping resources in adulthood. *Journal of Personality* 1996;64:837–871. [PubMed: 8956515]
- Badawi MA, Eaton WW, Myllyluoma J, Weimer LG, Gallo J. Psychopathology and attrition in the Baltimore ECA 15-year follow-up 1981-1996. *Social Psychiatry and Psychiatric Epidemiology* 1999;34:91–99. [PubMed: 10189815]
- Bauer JJ, Bonanno GA. Doing and being well (for the most part): Adaptive patterns of narrative self-evaluation during bereavement. *Journal of Personality* 2001;69(3):450–481.
- Blagov PS, Singer JA. Four dimensions of self-defining memories (specificity, meaning, content, and affect) and their relationships to self-restraint, distress, and repressive defensiveness. *Journal of Personality* 2004;72(3):481–511. [PubMed: 15102036]
- Bluck S, Glück J. Making things better and learning a lesson: Experiencing wisdom across the lifespan. *Journal of Personality* 2004;72:543–572. [PubMed: 15102038]
- Bower JE, Kemeny ME, Taylor SE, Fahey JL. Cognitive processing, discovery of meaning, CD4 decline, and AIDS-related mortality among bereaved HIV-seropositive men. *Journal of Consulting and Clinical Psychology* 1998;66:979–986. [PubMed: 9874911]
- Carstensen LL, Mayr U, Pasupathi M, Nesselroade JR. Emotional experience in everyday life across the adult life span. *Journal of Personality and Social Psychology* 2000;79(4):644–655. [PubMed: 11045744]
- Clausen, JA. Gender, contexts, and turning points in adults' lives. In: Moen, P.; Elder, GH.; Luscher, K., editors. *Examining lives in context: Perspectives on the ecology of human development*. Washington, DC: American Psychological Association; 1995. p. 365-389.
- Costa, PT., Jr; McCrae, RR. *Revised NEO Personality Inventory (NEO-PI-R) and the NEO Five-Factor Inventory (NEO-FFI) professional manual*. Odessa, FL: Psychological Assessment Resources; 1992.
- Eaton WW, Anthony JC, Gallo J, Cai G, Tien A, Romanoski A, et al. Natural history of diagnostic interview schedule/DSM-IV major depression: The Baltimore Epidemiologic Catchment Area follow-up. *Archives of General Psychiatry* 1997;54(11):993–999. [PubMed: 9366655]
- Eaton WW, Kalaydjian A, Scharfstein DO, Mezuk B, Ding Y. Prevalence and incidence of depressive disorder: The Baltimore ECA follow-up, 1981-2004. *Acta Psychiatrica Scandinavica* 2007;116(3):182–188. [PubMed: 17655559]
- Elder GH Jr. The life course as developmental theory. *Child Development* 1998;69:1–12. [PubMed: 9499552]
- Folkman S. The case for positive emotions in the stress process. *Anxiety, Stress and Coping* 2008;21:3–14.
- Goldberg, D.; Williams, P. *A user's guide to the General Health Questionnaire*. Berkshire, England: NFER-Nelson Publishing; 1988.
- Idler EL, Benyamini Y. Self-rated health and mortality: A review of twenty-seven community studies. *Journal of Health and Social Behavior* 1997;38:21–37. [PubMed: 9097506]
- King LA, Scollon CK, Ramsey C, Williams T. Stories of life transition: Subjective well-being and ego development in parents of children with Down Syndrome. *Journal of Research in Personality* 2000;34(4):509–536.
- Liang J, Bennett JM, Shaw BA, Quiñones AR, Ye W, Xu X, et al. Gender differences in functional status in middle and older age: Are there any age variations? *Journals of Gerontology - Series B Psychological Sciences and Social Sciences* 2008;63:S282–S292.
- Löckenhoff CE, Terracciano A, Bienvenu OJ, Patriciu NS, Nestadt G, McCrae RR, et al. Ethnicity, education, and the temporal stability of personality traits in the East Baltimore Epidemiologic Catchment Area study. *Journal of Research in Personality* 2008;42(3):577–598. [PubMed: 19122849]
- McAdams DP, Reynolds J, Lewis M, Patten AH, Bowman PJ. When bad things turn good and good things turn bad: Sequences of redemption and contamination in life narrative and then-relation to

- psychosocial adaptation in midlife adults and in students. *Personality and Social Psychology Bulletin* 2001;27(4):474–485.
- McGregor BA, Antoni MH, Boyers A, Alferi SM, Blomberg BB, Carver CS. Cognitive-behavioral stress management increases benefit finding and immune function among women with early-stage breast cancer. *Journal of Psychosomatic Research* 2004;56:1–8. [PubMed: 14987957]
- McLean KC. Late adolescent identity development: Narrative meaning making and memory telling. *Developmental Psychology* 2005;41(4):683–691. [PubMed: 16060814]
- McLean KC, Pratt MW. Life's little (and big) lessons: Identity statuses and meaning-making in the turning point narratives of emerging adults. *Developmental Psychology* 2006;42(4):714–722. [PubMed: 16802903]
- Pals JL. Narrative identity processing of difficult life experiences: Pathways of personality development and positive self-transformation in adulthood. *Journal of Personality* 2006;74(4):1079–1110. [PubMed: 16787429]
- Park CL. Exploring relations among religiousness, meaning, and adjustment to lifetime and current stressful encounters in later life. *Anxiety, Stress and Coping* 2006;19:33–45.
- Phillips AC, Der G, Carroll D. Stressful life-events exposure is associated with 17-year mortality, but it is health-related events that prove predictive. *British Journal of Health Psychology* 2008;13:647–657. [PubMed: 18039429]
- Pillemer, DB. *Momentous Events, Vivid Memories*. Cambridge, MA: Harvard University Press; 1998.
- Pillemer DB. Momentous events and the life story. *Review of General Psychology* 2001;5:123–134.
- Robins, LN.; Regier, DA. *Psychiatric Disorders in America - The Epidemiologic Catchment Area Study*. New York: The Free Press; 1991.
- Robins RW, Hendin HM, Trzesniewski KH. Measuring global self-esteem: Construct validation of a single-item measure and the Rosenberg Self-Esteem Scale. *Personality and Social Psychology Bulletin* 2001;27:151–161.
- Thomsen DK, Jensen AB. Memories and narratives about breast cancer: Exploring associations between turning points, distress and meaning. *Narrative Inquiry* 2007;17:349–370.
- Thorne A, McLean KC, Lawrence AM. When remembering is not enough: Reflecting on self-defining memories in late adolescence. *Journal of Personality* 2004;72(3):513–541. [PubMed: 15102037]
- Wethington, E. The relationship of work turning points to perceptions of psychological growth and change. In: Settersten, RA.; Owens, TJ., editors. *Advances in Life Course Research: New Frontiers in Socialization*. Vol. 7. Oxford: Elsevier; 2002. p. 111-131.
- Wethington, E. Turning points as opportunities for psychological growth. In: Keyes, CL.; Haidt, J., editors. *Flourishing: Positive Psychology and the Life Well-lived*. Washington, DC: American Psychological Association; 2003. p. 37-53.
- Wethington E. An overview of the life course perspective: Implications for health and nutrition. *Journal of Nutrition Education and Behavior* 2005;37:115–120. [PubMed: 15904574]
- Wethington, E.; Kessler, RC.; Pixley, JE. Turning points in adulthood. In: Brim, OG.; Ryff, CD.; Kessler, RC., editors. *How healthy are we?: A national study of well-being at midlife*. Chicago, IL: University of Chicago Press; 2004. p. 586-613.

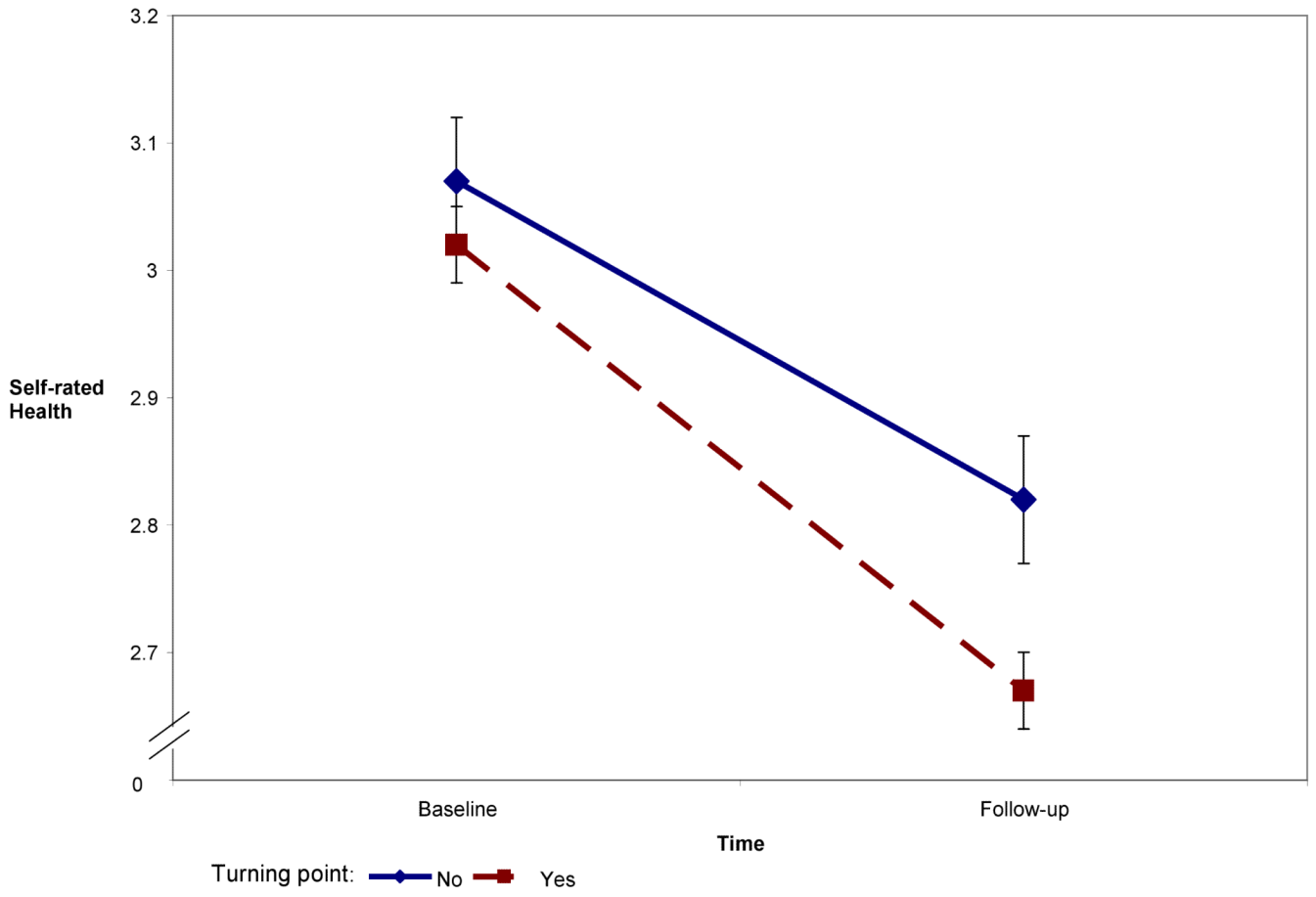


Figure 1. Change in self-rated health between baseline and follow-up by turning point, controlling for sex, ethnicity, age, and education.

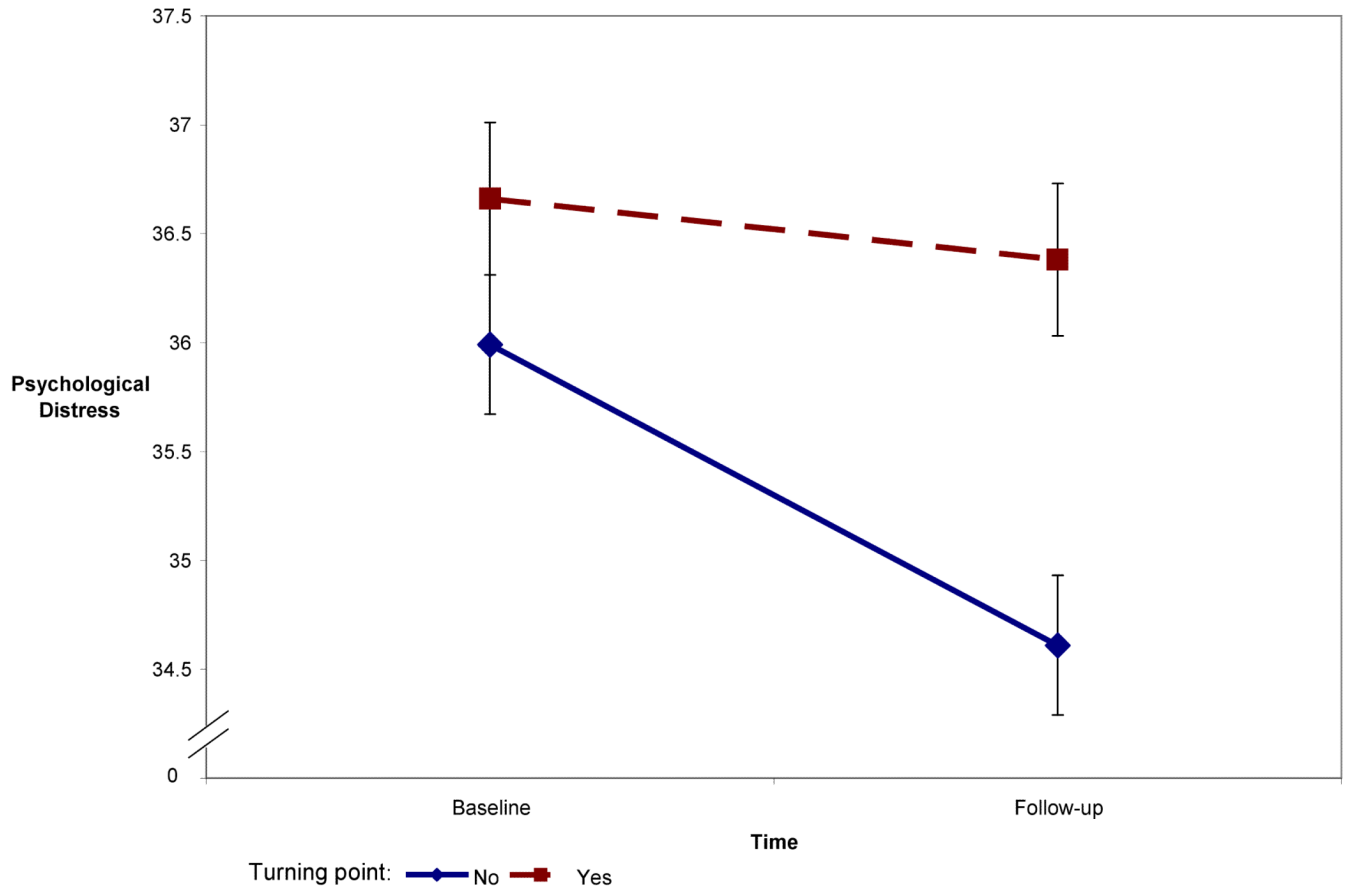


Figure 2. Change in psychological distress between baseline and follow-up by turning point, controlling for sex, ethnicity, age, and education.

Table 1
Regression Analyses Predicting Change in Self-rated Health and Psychological Distress from Turning Points and Lessons Learned

	Self-rated Health		Psychological Distress	
	b	SE	b	SE
Sex (female)	-.05	.05	-.03	.46
Race (African-American)	-.10	.05	-.06	.46
Race (other ethnicities)	-.09	.15	-.02	1.31
Age	-.01	.00	-.08*	.02
Education	.03	.01	.09*	.09
Health (Baseline)	.40	.04	.37*	.03
Lesson Learned	-.03	.06	-.02	.56
Turning Point	-.13	.05	-.08*	.45

Note. $N = 858$ for Self-rated Health and $N = 860$ for Psychological Distress. Health (Baseline) refers to baseline self-rated health for the regression results on the left and baseline psychological distress for the regression on the right. European-Americans are the reference category for ethnicity.

* $p < .05$.

** $p < .01$.