

ORIGINAL ARTICLE

Dramatic effects but fast adaptation: Changes in life satisfaction and different facets of affective well-being around the death of a partner and death of a child

Eva Asselmann¹  | Jule Specht²

¹Faculty of Health, HMU Health and Medical University, Potsdam, Germany

²Department of Psychology, Humboldt-Universität zu Berlin, Berlin, Germany

Correspondence

Eva Asselmann, Faculty of Health, HMU Health and Medical University, Olympischer Weg 1, Potsdam 14471, Germany.

Email: eva.asselmann@health-and-medical-university.de

Funding information

Open Access funding was enabled and organized by Projekt DEAL. The authors had complete freedom to direct the analysis and writing without influence from any sponsors. There was no editorial direction or censorship from any sponsors.

Abstract

Although everyone would agree that bereavement is extremely stressful, surprisingly little is known about changes in different facets of affective well-being in the years surrounding the death of a loved one. On the basis of the Socio-Economic Panel Study, we examined changes in cognitive well-being (life satisfaction) and different facets of affective well-being (happiness, sadness, anxiety, and anger) in the years around the death of a partner ($N = 989$) and child ($N = 276$). Data on the death of a partner and child as well as cognitive and affective well-being were assessed yearly since 2007. Multilevel analyses revealed that both events were associated with very large well-being impairments ($>1 SD$) that were most pronounced for sadness, happiness, and life satisfaction in the first year of bereavement. Afterwards, bereaved individuals managed to recover impressively well: Levels of life satisfaction, happiness, and sadness were on average similar 5 years after losing a partner or child compared with 5 years before the respective loss. Our findings suggest (a) that many individuals tend to be capable to even cope with highly stressful loss experiences and (b) that Set-Point Theory not only applies to life satisfaction but also

This is an open access article under the terms of the [Creative Commons Attribution](https://creativecommons.org/licenses/by/4.0/) License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

© 2022 The Authors. Applied Psychology: Health and Well-Being published by John Wiley & Sons Ltd on behalf of International Association of Applied Psychology.

different facets of affective well-being around the death of a loved one.

KEYWORDS

affect, bereavement, grief, life satisfaction, widowhood

INTRODUCTION

The death of a loved one belongs to the most stressful life events that humans can be faced with. Bereaved individuals often experience a variety of different feelings and thoughts, which may include grief, despair, helplessness, loneliness, guilt, fear, and anger (Parkes & Prigerson, 2013). Consistently, bereavement has been associated with an increased risk of unfavorable health outcomes such as prolonged grief, depression, and anxiety disorders (Komischke-Konnerup et al., 2021; Lunderhoff et al., 2017; Stroebe et al., 2007). Various panel studies have shown that losing a loved one relates to a large decrease of life satisfaction that already starts in the preceding years and tends to last for several years (Anusic & Lucas, 2014; Denissen et al., 2019; Infurna et al., 2017; Infurna & Luthar, 2017a, 2017b; Luhmann et al., 2012). In contrast—and although everyone would intuitively agree that losing a loved one is a very emotional experience—surprisingly little is known about changes in different facets of affective well-being in the years around this experience. Here, we close this gap and investigate changes in cognitive (life satisfaction) and affective (happiness, sadness, anxiety, and anger) well-being at different junctions before and after the death of a partner and death of a child.

Subjective well-being

Subjective well-being refers to people's subjective evaluation of their life and comprises a cognitive and an affective component (Diener et al., 2018). Cognitive well-being includes life satisfaction and affective well-being includes the frequency and intensity of positive and negative affect. Previous research has shown that life satisfaction, positive affect, and negative affect are moderately correlated but clearly separable dimensions (Diener et al., 2018) and that negative affect can further be divided into different sub-facets such as sadness, anxiety, and anger (Möwisch et al., 2019).

Set-point theory

Subjective well-being is not set in stone but may change in response to major life experiences (Luhmann et al., 2012). Set-Point Theory assumes that it fluctuates around a person-specific set point over time (Headey & Wearing, 1989; Lykken & Tellegen, 1996). That is, people might feel better or worse due to positive or negative experiences, but these fluctuations tend to be transient and attenuate in the long term. Set-Point Theory has been largely supported but also challenged (Headey, 2008a, 2008b, 2010). For instance, some highly stressful life events (e.g. unemployment, disability, and sometimes the death of a loved one) have been associated with enduring declines in life satisfaction (Lucas, 2007; Lucas et al., 2003, 2004).

Changes in subjective well-being around the death of a loved one

Meta-analytic findings suggest that life satisfaction tends to fall much deeper around the death of a loved one (about 0.48 standard deviations, *SDs*) compared with other stressful experiences (e.g. divorce) (Luhmann et al., 2012). Although recovery from this highly stressful experience tends to be strong, bereaved individuals thus need much more time (i.e. several years) to regain their set point (Luhmann et al., 2012).

Considerably fewer studies focused on changes in affective well-being (Anusic et al., 2014; Kettlewell et al., 2020; Luhmann et al., 2012). Luhmann et al. (2012) found that affective well-being decreased less around the death of a partner than life satisfaction. Another study based on the Labour Dynamics in Australia Survey (HILDA) came to similar results (Anusic et al., 2014): Life satisfaction was much lower in the year in which a partner died (0.79 *SD*) and continued to be lower in the following years (0.35 *SD*). Changes in positive affect were comparable but only half as large. Negative affect was higher at the time of the event (0.24 *SD*) but did not differ in the long run.

In sum, these findings suggest that well-being impairments around the death of a loved one are particularly pronounced for cognitive well-being and less pronounced and persistent for affective well-being. However, affective well-being captures a variety of emotions, which might change in very different ways (and at different times) around this highly stressful experience. For example, especially anxiety might increase before the death—when people anticipate their loss (e.g. due to a serious health condition) and become increasingly afraid of it. In contrast, sadness might rise in the first year of bereavement—when people face their loss and react to it. Because acute grief often also involves feelings of anger (Maciejewski et al., 2007), anger might also be higher shortly after the event. Distinguishing between different facets of affect is important not only from a theoretical but also methodological perspective. For example, when anxiety decreases but sadness increases after losing a loved one, these effects counteract each other. Consequently, changes in affective well-being might be underestimated when focusing on overall negative affect only.

Death of a child versus partner

Furthermore, previous studies mainly focused on the death of a partner but less so on the death of a child (Infurna & Luthar, 2017b). Because children usually outlive their parents, losing a child is considered as particularly painful (McNeil et al., 2021; Moor & de Graaf, 2016; Sanders, 1979). Bereaved parents oftentimes not only lose their child but also their family plans, future hopes, and sense of meaning in life (McNeil et al., 2021; Moor & de Graaf, 2016). Thus, well-being impairments around the death of a child (vs. partner) might be larger and more persistent. Panel studies based on huge samples are required to examine well-being changes around this particularly rare event.

Aims

Several previous studies have focused on changes in cognitive but less so affective well-being among bereaved individuals. Here, we considerably add to this existing literature by investigating whether not only changes in life satisfaction but also different facets of positive and negative affect around the death of a loved one correspond to Set-Point Theory. We not only examine

when and how life satisfaction as well as happiness, sadness, anxiety, and anger change in the 5 years before and 5 years after this experience. We also compare these changes for two different losses: the death of a partner and death of a child. An improved knowledge hereon is of great relevance not only for basic but also applied research. For example, it provides important cues for targeted and timely bereavement interventions to focus on specific facets of affective well-being at different junctions before and after a loved one has died.

Our data come from the Socio-Economic Panel Study (SOEP) (Goebel et al., 2019; Kroh et al., 2018). In the SOEP, information on subjective well-being and both loss experiences was assessed yearly since 2007 among thousands of people from Germany. The rich data set allowed us studying well-being changes not only after but also *before* the respective loss. Modeling such anticipation effects is important because subjective well-being might already decline a long time before the event (Asselmann et al., 2021). Thus, several years before and after losing a loved one need to be considered to determine when affected individuals leave and regain their set point.

MATERIALS AND METHODS

Study sample

The German SOEP is a nationally representative household panel study from Germany with multistage probability sampling that started in 1984. Data are collected yearly and largely come from face-to-face interviews among all adult members of the target households. The initial SOEP sample was replenished in regular intervals with new participants to counteract attrition, to enlarge the overall sample size, and to allow for nuanced subgroup analyses. In this paper, we consider information from 2007 (the first year in which information on the death of a child and affective well-being was assessed) until 2019 (the most recent wave so far).

More detailed information on the SOEP, the sample structure, subsamples, and panel attrition has been previously presented (Goebel et al., 2019; Kroh et al., 2018) and can be found at <https://paneldata.org/soep-core>. All procedures and measures of the SOEP are described at <https://data.soep.de/soep-core>. A list of previous SOEP publications can be found at https://www.diw.de/sixcms/detail.php?id=diw_02.c.298578.en. The SOEP data are available from the DIW Berlin after signing a contract on data distribution (https://www.diw.de/en/diw_02.c.222829.en/access.html).

Assessment of the death of a partner and death of a child

Since 2007, panel members were asked each year whether and when a partner or child had died in the current or previous year. In participants who indicated the respective loss, we coded the time point of this experience in years and months. In participants who lost a partner or child more than once, the earliest loss was considered.

Assessment of subjective well-being

Since 1984, life satisfaction was assessed each year with a single item (“How satisfied are you currently with your life as a whole?”), labeled from 0 (“completely dissatisfied”) to

10 (“completely satisfied”). This single-item measure of life satisfaction is well established in socioeconomic and psychological research and has satisfactory psychometric properties (Schilling, 2006; Schimmack et al., 2008; Schimmack & Lucas, 2006; Schimmack & Oishi, 2005).

Since 2007, participants were additionally asked each year how often they had felt happy, sad, anxious, and angry during the past 4 weeks on a scale from 1 (“very rarely”) to 5 (“very often”), respectively. The reliability and validity of these scales have been supported (Anusic & Schimmack, 2016; Hudson et al., 2020, 2017; Schimmack et al., 2008).

Statistical analysis

Stata 15 (StataCorp, 2017) was used for the analyses. The analyses were not preregistered. The analytic codes are attached as Supporting Information. Only individuals were considered who (a) experienced the death of a partner ($N = 989$) or child ($N = 276$) between 2007 and 2019 and (b) provided information on their cognitive and/or affective well-being at least twice during this period.

Among affected individuals, we coded the time point at which their partner or child had died relative to the time points at which they provided information on their subjective well-being (in years and months). We then transformed the data from wide to long format to obtain fine-grained well-being information at different times before and after the respective loss (i.e. by combining within- and between-person information).

Similar to previous publications (Asselmann & Specht, *in press*, 2020a, 2020b, 2021a, 2021b; Denissen et al., 2019), we applied multilevel analyses with measurement occasions (Level 1) nested within persons (Level 2) nested within households (Level 3). Because participants may have moved during the study, their household number in the year of the event was considered. We built separate models per trait and modeled the effects as fixed effects.

Specifically, we analyzed linear well-being changes in the 5 years before (anticipation effects) and 5 years after (socialization effects) the respective loss. Over and above, we modeled well-being differences in the first year (short-term effects) and more than 1 year (long-term effects) after the respective loss versus before. To this end, we regressed the standardised score of the respective well-being facet on four event-related predictors (anticipation, socialization, short-term, and long-term).

Furthermore, we conducted supplemental analyses in the total sample of bereaved partners and parents. In participants losing a partner and a child ($N = 21$), the earlier loss was considered. In these analyses, interaction terms between an event dummy (coded with 0 in bereaved partners and 1 in bereaved parents) and the event-related predictors were included to test whether well-being changes significantly differed around the death of a partner and death of a child.

Each model was adjusted for gender (to control for differences between women and men), linear and quadratic age (to control for continuous and discontinuous age effects), and testing effects (to control for effects due to repeated assessments of the respective well-being outcome). The respective well-being facet was standardised in the total SOEP sample, so that the effect sizes from different models can be compared with each other. We chose an alpha level of .05 and did not control for multiple testing because each analysis refers to another research question (Savitz & Olshan, 1995).

Table S1 summarizes how each predictor was defined and coded. Table S2 displays the number of observations per cell and predictor for cognitive and affective well-being in people who

lost their partner or child, respectively. Correlations of life satisfaction, happiness, sadness, anxiety, and anger in both samples are shown in Table S3.

RESULTS

Death of a partner

Between 2007 and 2019, 989 individuals experienced the death of a partner (women: $N = 683$, 69.06%, grand-mean age: $M = 68.17$ years, $SD = 12.49$ years, age range: 22–105 years). Of these individuals, 6 (0.61%) lost two partners, so that their earlier loss was considered. Means and standard deviations for the standardised scores of life satisfaction, happiness, sadness, anxiety, and anger from 5 years before until 5 years after the death of a partner are shown in Table S4 and visualized in Figure S1a.

In terms of control variables (Table 1, upper part), we found that men experienced higher levels of happiness but lower levels of sadness, anxiety, and anger compared with women who lost a partner. Moreover, happiness and anger decreased with age, and life satisfaction decreased with repeated testing.

TABLE 1 Changes in cognitive and affective well-being in the 5 years before and 5 years after the death of a partner ($N = 989$)

Coefficient	LS <i>b</i> (<i>SE</i>)	Happiness <i>b</i> (<i>SE</i>)	Sadness <i>b</i> (<i>SE</i>)	Anxiety <i>b</i> (<i>SE</i>)	Anger <i>b</i> (<i>SE</i>)
Intercept	−0.390** (0.058)	−0.256** (0.056)	0.329** (0.052)	0.237** (0.057)	0.152** (0.051)
Gender (men vs. women)	0.076 (0.057)	0.188** (0.052)	−0.356** (0.047)	−0.530** (0.053)	−0.126** (0.047)
Linear age	−0.006 (0.040)	−0.130** (0.039)	−0.000 (0.036)	−0.065 (0.040)	−0.199** (0.036)
Quadratic age	0.006 (0.010)	0.009 (0.010)	0.005 (0.010)	0.016 (0.010)	0.013 (0.009)
Testing	−0.012** (0.003)	0.010 (0.007)	0.011 (0.007)	0.006 (0.007)	0.002 (0.007)
Anticipation	−0.061** (0.011)	−0.075** (0.013)	0.098** (0.012)	0.060** (0.013)	0.014 (0.012)
Socialization	0.092** (0.015)	0.144** (0.018)	−0.160** (0.017)	−0.047** (0.017)	0.002 (0.016)
Short-term	−0.535** (0.039)	−1.021** (0.043)	1.272** (0.042)	0.184** (0.040)	−0.057 (0.038)
Long-term	−0.117* (0.052)	−0.530** (0.058)	0.636** (0.056)	−0.036 (0.054)	−0.181** (0.051)

Abbreviation: LS, life satisfaction.

* $p < .05$. ** $p < .01$.

In terms of event-related well-being changes (Table 1, lower part, and Figure 1a), our findings revealed that life satisfaction and happiness already decreased, whereas sadness and anxiety already increased in the 5 years before losing a partner (anticipation effects). In the first year of bereavement (short-term effects), life satisfaction and happiness were much lower, whereas sadness and anxiety were much higher compared with all other years. After the first year of bereavement (long-term effects), life satisfaction and happiness were still lower, whereas sadness was still higher than before (long-term effects). However, life satisfaction, happiness, sadness, and anxiety recovered substantially over time (socialization effects), so that bereaved partners had reached similar well-being levels 5 years after their loss compared with 5 years before. Repeating the analyses with additional random effects for the anticipation, socialization, short-term, and long-term variable revealed highly similar results. In other words, all fixed event-related effects remained significant, indicating that all mean-level changes in subjective well-being were still seen when taking individual differences in these changes into account.

Overall, well-being changes around the death of a partner were very large and most pronounced shortly after the event. The strongest effects were found for sadness and happiness, followed by life satisfaction. For example, sadness increased and happiness decreased more than 1 *SD* (life satisfaction more than half a standard deviation) in the first year of bereavement. Anxiety changed much less. Anger was slightly lower more than 1 year after the death, but no other changes in anger were found.

Death of a child

Between 2007 and 2019, 276 individuals experienced the death of a child (women: $N = 167$, 60.51%, grand-mean age: $M = 63.30$ years, $SD = 17.53$ years, age range: 20–96 years), and

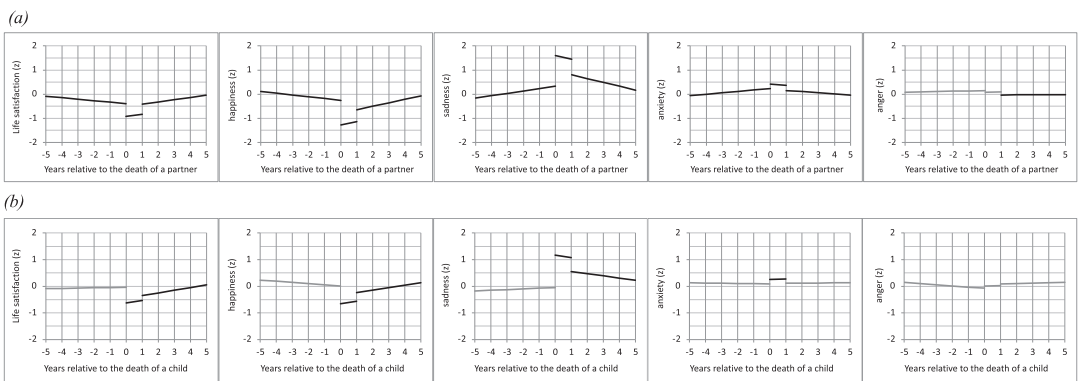


FIGURE 1 Changes in cognitive and affective well-being in the years before and after the (a) death of a partner and (b) death of a child. *Note:* The first line indicates well-being changes in the years before the event. It is based on the intercept plus the anticipation effect multiplied by the time (in years) until the event. The second line indicates well-being changes in the first year after the event. It is based on the intercept plus the short-term effect plus the socialization effect multiplied by the time (in years) since the event. The third line indicates well-being changes more than 1 year after the event. It is based on the intercept plus the long-term effect plus the socialization effect multiplied by the time (in years) since the event. A black line indicates that any of the effects during the respective time frame (first line: anticipation effect, second line: short-term effect and/or socialization effect, third line: long-term effect and/or socialization effect) was statistically significant ($p < .05$).

6 (2.17%) lost two children during the study period. Means and *SDs* for the standardised scores of life satisfaction, happiness, sadness, anxiety, and anger in the 5 years before and 5 years after the death of a child are presented in Table S5 and visualized in Figure S1b.

As shown in Table 2 (upper part), fathers were less sad and less anxious compared with mothers who lost a child. Moreover, happiness and anger decreased, whereas sadness increased with age, and life satisfaction decreased with repeated testing (control variables).

With respect to event-related well-being changes (Table 2, lower part, and Figure 1b), no anticipation effects before the death of a child were found. Other well-being changes were similar to those around the death of a partner: In the first year of bereavement, parents were considerably less satisfied, less happy, sadder, and more anxious compared with all other years (short-term effects). More than 1 year after their loss, they were still less satisfied, less happy, and sadder than before (long-term effects). However, recovery was impressive: Life satisfaction, happiness, and sadness improved substantially over time, so that bereaved parents had reached similar well-being levels 5 years after losing a child compared with 5 years before (socialization effects). All fixed event-related effects were still seen when considering random effects for the anticipation, socialization, short-term, and long-term variable in the analyses.

Similar to the death of a partner, well-being impairments around the death of a child were most pronounced for sadness, followed by happiness and life satisfaction, in the first year of

TABLE 2 Changes in cognitive and affective well-being in the 5 years before and 5 years after the death of a child ($N = 276$)

Coefficient	LS <i>b</i> (<i>SE</i>)	Happiness <i>b</i> (<i>SE</i>)	Sadness <i>b</i> (<i>SE</i>)	Anxiety <i>b</i> (<i>SE</i>)	Anger <i>b</i> (<i>SE</i>)
Intercept	-0.041 (0.094)	0.012 (0.104)	0.050 (0.089)	0.084 (0.093)	-0.074 (0.086)
Gender (men vs. women)	0.066 (0.062)	0.099 (0.069)	-0.524** (0.066)	-0.422** (0.079)	-0.101 (0.071)
Linear age	0.006 (0.044)	-0.211** (0.054)	0.091* (0.044)	-0.060 (0.047)	-0.125** (0.044)
Quadratic age	-0.025 (0.015)	-0.001 (0.017)	0.000 (0.015)	0.022 (0.016)	0.006 (0.014)
Testing	-0.013* (0.006)	0.025 (0.016)	-0.022 (0.013)	0.009 (0.014)	0.003 (0.013)
Anticipation	0.009 (0.021)	-0.044 (0.025)	0.026 (0.024)	-0.010 (0.024)	-0.043 (0.023)
Socialization	0.101** (0.031)	0.091** (0.034)	-0.081* (0.034)	0.005 (0.034)	0.016 (0.031)
Short-term	-0.590** (0.074)	-0.667** (0.079)	1.215** (0.082)	0.179* (0.080)	0.087 (0.074)
Long-term	-0.410** (0.104)	-0.338** (0.107)	0.683** (0.112)	0.023 (0.109)	0.138 (0.101)

Abbreviation: LS, life satisfaction.

* $p < .05$. ** $p < .01$.

bereavement. For anxiety and anger, almost no changes were found except that anxiety was slightly higher shortly after the event.

Death of a child versus partner

Comparing well-being changes around the death of a partner and child revealed that the anticipation effects before the death of a child were weaker (Table S5). Moreover, the short-term effect on happiness was smaller, whereas the long-term effect on life satisfaction was larger after the death of a child versus partner. That is, bereaved parents experienced a lower decrease of happiness in the first year of bereavement, but life satisfaction decreased more permanently in the years after losing a child versus partner.

DISCUSSION

In our study, the death of a loved one was associated with a huge decrease of subjective well-being that was most pronounced for sadness (followed by happiness and life satisfaction) in the first year of bereavement. Despite these large well-being impairments, bereaved individuals managed to recover impressively well in the years after their loss. On average, levels of life satisfaction, happiness, and sadness were similar 5 years after losing a partner or child versus 5 years before. Set-Point Theory was thus supported not only for cognitive but also affective well-being. More broadly, our findings emphasize that people—on average—are capable to even cope with highly stressful experiences over time.

Changes in life satisfaction

We found that life satisfaction already started to decrease in the years before the death of a partner but not child. Possibly, affected partners often anticipate their loss and experience increasing stressors when approaching the event (e.g. due to illness and nursing), which might explain this effect (Asselmann et al., 2021). In line with previous evidence (Anusic & Lucas, 2014; Denissen et al., 2019; Infurna et al., 2017; Infurna & Luthar, 2017a, 2017b; Luhmann et al., 2012), life satisfaction dropped more than half a standard deviation in the first year of bereavement but recovered in the long run. Importantly, these changes refer to an average trajectory. Previous research has shown that changes in life satisfaction and mental health more broadly vary substantially between bereaved individuals and, for example, depend on personality (e.g. perceived control), event-related (e.g. the cause and circumstances of death), and contextual factors (e.g. familial and social support) (Asselmann et al., 2021; Bonanno et al., 2015; Infurna & Luthar, 2017b; Mancini et al., 2015; Specht et al., 2011).

Changes in affective well-being

In terms of affective well-being, we found that event-related changes in sadness and (less so) happiness were similar to changes in life satisfaction but more severe. For example, the increase of sadness in the first year of bereavement was more than two times stronger than the decrease

of life satisfaction ($>1.2 SD$ after both events). High levels of sadness and low levels of happiness often come along with despair, helplessness, hopelessness, rumination, and social withdrawal (Parkes & Prigerson, 2013), which are not only typical for acute bereavement but also relate to an elevated risk of prolonged grief, depression, and other mental disorders (e.g. anxiety and substance use) (Komischke-Konnerup et al., 2021; Lundorff et al., 2017; Stroebe et al., 2007). Thus, our findings highlight the importance of mental health screenings in bereaved partners and parents to identify high-risk individuals who might profit from timely and targeted interventions (Johannsen et al., 2019; Wittouck et al., 2011).

Compared with sadness, changes in anxiety were much smaller, and anger even decreased slightly around the respective loss. In this regard, one could speculate whether anxiety and anger vary more strongly between bereaved individuals (Maciejewski et al., 2007). While most bereaved people experience grief and sadness, their susceptibility to feel anxious or angry after their loss might depend more strongly on their personality, the circumstances of death, and their social environment.

In previous studies, bereavement has been linked to smaller and less persistent impairments of affective versus cognitive well-being (Anusic et al., 2014; Luhmann et al., 2012). Our findings suggest that this is only partially true. Compared with life satisfaction, the effects were much larger for sadness and happiness but smaller for anxiety and anger. That is, there were substantial differences between individual facets of affect. These results particularly underscore the importance to distinguish between nuanced sub-facets of negative affect (e.g. sadness, anxiety, and anger), which has rarely been the case in previous work. Otherwise, strong and weak effects might average out, leading to small overall effects.

Death of a child versus partner

In our study, anticipatory declines in subjective well-being were only seen in the years before the death of a partner but not child. This difference could be explained by the fact that losing a child constitutes a less normative experience, which is typically less predictable (Infurna & Luthar, 2017b): While partners oftentimes lose their spouse due to age-related health impairments, a larger proportion of bereaved parents might lose their child due to a sudden illness, an accident, or other unforeseen circumstances.

Moreover, we found that happiness decreased less in the first year after losing a child versus losing a partner. This finding is inconsistent with our hypotheses and might be surprising at first sight. However, because parents usually live apart from their (grown-up) children, their daily routines might be disrupted less in the first year of bereavement, which could explain this result.

Finally, and in line with our hypotheses, we found that life satisfaction was impaired longer after losing a child versus partner. Because children normally outlive their parents and give a sense of meaning in life, bereaved parents might lose not only their child but also their own future plans and purpose, which might lower their cognitive well-being for several years (McNeil et al., 2021; Moor & de Graaf, 2016).

With respect to well-being theories, our findings suggest that losing a child might lead to more permanent reductions of cognitive (i.e. life satisfaction) versus affective (i.e. happiness) well-being, which is in line with some previous research (Infurna & Luthar, 2017a; Luhmann et al., 2012). However, additional research is needed to substantiate this assumption and investigate the potential underlying mechanisms (e.g. specific cognitive and emotion-focused coping strategies in daily life).

Strengths and limitations

Our data come from a large and nationally representative household panel study from Germany. Information on the death of a partner and child as well as cognitive and affective well-being was captured yearly since 2007. The huge data set allowed us modeling nuanced well-being changes not only around the death of a partner but also around the death of a child—a very rare experience. A particular strength of our article is that we not only considered changes in life satisfaction but—as one of the first studies—also changes in multiple facets of positive and negative affect from several years before until several years after bereavement.

Nonetheless, a few limitations need to be mentioned: First, each well-being facet was assessed with a single item, which might be less reliable than other, more comprehensive measures. However, the single-item measures used in the SOEP are widely used in socioeconomic and psychological research and have satisfactory psychometric properties (Schilling, 2006; Schimmack et al., 2008; Schimmack & Lucas, 2006; Schimmack & Oishi, 2005). Second, three facets of negative but only one facet of positive affect were considered. Thus, future studies may particularly focus on changes in nuanced facets of positive affect (e.g. joy, alertness, interest, or peacefulness) around the death of a loved one. Third, the fact that subjective well-being was assessed yearly may be seen as a strength or potential weakness: Especially during acute bereavement, monthly or weekly well-being assessments could be useful to analyze more short-lived well-being changes. Fourth, the sample of bereaved parents was smaller, so that the statistical power in these analyses was lower, which might explain partially weaker effects around the death of a child versus partner. Fifth, not all participants provided complete information on subjective well-being from 5 years before until 5 years after their loss. One could speculate whether heavily burdened individuals were more likely to end their study participation, which might have led to an underestimation of event-related well-being impairments. Finally, because our findings come from a nationally representative sample from Germany, they might not be fully generalizable to other countries and regions.

CONCLUSIONS

This study suggests that not only changes in life satisfaction but also changes in different facets of affective well-being in the years around the death of a loved one are in line with Set-Point Theory. Especially for sadness, impairments during acute bereavement are more than two times higher than for life satisfaction. Despite these very large effects, most bereaved people manage to recover impressively well and regain their set point of happiness within 5 years after their loss.

Future research may zoom into the processes that underlie successful adaptation and identify the core factors that relate to individual differences in changes of specific well-being facets and at different stages of bereavement (Galatzer-Levy et al., 2018). Such moderator variables may include sociodemographic factors (e.g. gender and age), personality traits, the cause and circumstances of death, and social and relationship characteristics (Asselmann et al., 2021; Specht et al., 2011). For example, subsequent studies may investigate whether well-being changes differ between parents losing a minor versus grown-up child and parents living with versus apart from their offspring. Besides, research would be useful that relies on even more fine-grained (e.g. monthly) well-being assessments and thus allows to take additional more complex developmental trajectories (e.g. quadratic changes) into account. Moreover, future

studies may test the efficacy of targeted early interventions in individuals at increased risk for prolonged well-being impairments and associated adversities (e.g. depression and anxiety disorders) after losing their partner or child.

ACKNOWLEDGMENTS

The data used in this publication were made available by the German SOEP at the German Institute for Economic Research (DIW Berlin), Berlin. The research and analysis plan were not pre-registered. Open Access funding was enabled and organized by Projekt DEAL.

CONFLICT OF INTEREST

None.

ETHICS STATEMENT

The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008. Because this study only involved secondary analyses of anonymized SOEP data provided by the DIW Berlin, ethical approval was not required.

OVERLAP WITH PREVIOUS PUBLICATIONS

Based on the SOEP data, the authors previously examined personality changes in the years around childbirth (Asselmann & Specht, 2021b), romantic relationship changes (Asselmann & Specht, 2020a), the death of a partner (Asselmann & Specht, 2020b), and the beginning and ending of working life (Asselmann & Specht, 2021a). These publications do not overlap with the current work because they focused on other personality traits (e.g. the Big Five) and other life events.

DATA AVAILABILITY STATEMENT

The SOEP data are available from the DIW Berlin after signing a contract on data distribution (https://www.diw.de/en/diw_02.c.222829.en/access.html). The analytic code is attached as supplemental material.

ORCID

Eva Asselmann  <https://orcid.org/0000-0002-2132-8852>

REFERENCES

- Anusic, I., & Lucas, R. E. (2014). Do social relationships buffer the effects of widowhood? A prospective study of adaptation to the loss of a spouse. *Journal of Personality*, 82(5), 367–378. <https://doi.org/10.1111/jopy.12067>
- Anusic, I., & Schimmack, U. (2016). Stability and change of personality traits, self-esteem, and well-being: Introducing the meta-analytic stability and change model of retest correlations. *Journal of Personality and Social Psychology*, 110(5), 766–781. <https://doi.org/10.1037/pspp0000066>
- Anusic, I., Yap, S. C., & Lucas, R. E. (2014). Does personality moderate reaction and adaptation to major life events? Analysis of life satisfaction and affect in an Australian national sample. *Journal of Research in Personality*, 51, 69–77. <https://doi.org/10.1016/j.jrp.2014.04.009>
- Asselmann, E., Klimstra, T., & Denissen, J. J. (2021). Unraveling resilience: Personality predicts exposure and reaction to stressful life events. *Personality Science*, 2, e6055. <https://doi.org/10.5964/ps.6055>

- Asselmann, E., & Specht, J. (2020a). Taking the ups and downs at the rollercoaster of love: Associations between major life events in the domain of romantic relationships and the big five personality traits. *Developmental Psychology*, 56(9), 1803–1816. <https://doi.org/10.1037/dev0001047>
- Asselmann, E., & Specht, J. (2020b). Till death do us part: Transactions between losing one's spouse and the big five personality traits. *Journal of Personality*, 88(4), 659–675. <https://doi.org/10.1111/jopy.12517>
- Asselmann, E., & Specht, J. (2021a). Personality maturation and personality relaxation: Differences of the big five personality traits in the years around the beginning and ending of working life. *Journal of Personality*, 89(6), 1126–1142. <https://doi.org/10.1111/jopy.12640>
- Asselmann, E., & Specht, J. (2021b). Testing the social investment principle around childbirth: Little evidence for personality maturation before and after becoming a parent. *European Journal of Personality*, 35, 85–102. <https://doi.org/10.1002/per.2269>
- Asselmann, E., & Specht, J. (in press). Changes in Happiness, Sadness, Anxiety, and Anger Around Romantic Relationship Events. *Emotion*. <https://doi.org/10.1037/emo0001153>
- Bonanno, G. A., Romero, S. A., & Klein, S. I. (2015). The temporal elements of psychological resilience: An integrative framework for the study of individuals, families, and communities. *Psychological Inquiry*, 26, 139–169. <https://doi.org/10.1080/1047840X.2015.992677>
- Denissen, J. J., Luhmann, M., Chung, J. M., & Bleidorn, W. (2019). Transactions between life events and personality traits across the adult lifespan. *Journal of Personality and Social Psychology*, 116(4), 612–633. <https://doi.org/10.1037/pspp0000196>
- Diener, E., Oishi, S., & Tay, L. (2018). Advances in subjective well-being research. *Nature Human Behaviour*, 2(4), 253–260. <https://doi.org/10.1038/s41562-018-0307-6>
- Galatzer-Levy, I. R., Huang, S. H., & Bonanno, G. A. (2018). Trajectories of resilience and dysfunction following potential trauma: A review and statistical evaluation. *Clinical Psychology Review*, 63, 41–55. <https://doi.org/10.1016/j.cpr.2018.05.008>
- Goebel, J., Grabka, M. M., Liebig, S., Kroh, M., Richter, D., Schröder, C., & Schupp, J. (2019). The German socio-economic panel (SOEP). *Jahrbücher für Nationalökonomie Und Statistik*, 239, 345–360. <https://doi.org/10.1515/jbnst-2018-0022>
- Headey, B. (2008a). Life goals matter to happiness: A revision of set-point theory. *Social Indicators Research*, 86, 213–231. <https://doi.org/10.1007/s11205-007-9138-y>
- Headey, B. (2008b). The set-point theory of well-being: Negative results and consequent revisions. *Social Indicators Research*, 85, 389–403. <https://doi.org/10.1007/s11205-007-9134-2>
- Headey, B. (2010). The set point theory of well-being has serious flaws: On the eve of a scientific revolution? *Social Indicators Research*, 97, 7–21. <https://doi.org/10.1007/s11205-009-9559-x>
- Headey, B., & Wearing, A. (1989). Personality, life events, and subjective well-being: Toward a dynamic equilibrium model. *Journal of Personality and Social Psychology*, 57, 731–739. <https://doi.org/10.1037/0022-3514.57.4.731>
- Hudson, N. W., Anusic, I., Lucas, R. E., & Donnellan, M. B. (2020). Comparing the reliability and validity of global self-report measures of subjective well-being with experiential day reconstruction measures. *Assessment*, 27, 102–116. <https://doi.org/10.1177/1073191117744660>
- Hudson, N. W., Lucas, R. E., & Donnellan, M. B. (2017). Day-to-day affect is surprisingly stable: A 2-year longitudinal study of well-being. *Social Psychological and Personality Science*, 8, 45–54. <https://doi.org/10.1177/1948550616662129>
- Infurna, F. J., & Luthar, S. S. (2017a). The multidimensional nature of resilience to spousal loss. *Journal of Personality and Social Psychology*, 112(6), 926–947. <https://doi.org/10.1037/pspp0000095>
- Infurna, F. J., & Luthar, S. S. (2017b). Parents adjustment following the death of their child: Resilience is multidimensional and differs across outcomes examined. *Journal of Research in Personality*, 68, 38–53. <https://doi.org/10.1016/j.jrp.2017.04.004>
- Infurna, F. J., Wiest, M., Gerstorf, D., Ram, N., Schupp, J., Wagner, G. G., & Heckhausen, J. (2017). Changes in life satisfaction when losing one's spouse: Individual differences in anticipation, reaction, adaptation and longevity in the German socio-economic panel study (SOEP). *Ageing and Society*, 37(5), 899–934. <https://doi.org/10.1017/S0144686X15001543>

- Johannsen, M., Damholdt, M., Zachariae, R., Lundorff, M., Farver-Vestergaard, I., & O'Connor, M. (2019). Psychological interventions for grief in adults: A systematic review and meta-analysis of randomized controlled trials. *Journal of Affective Disorders*, 253, 69–86. <https://doi.org/10.1016/j.jad.2019.04.065>
- Kettlewell, N., Morris, R. W., Ho, N., Cobb-Clark, D. A., Cripps, S., & Glozier, N. (2020). The differential impact of major life events on cognitive and affective wellbeing. *SSM-Population Health*, 10, 100533. <https://doi.org/10.1016/j.ssmph.2019.100533>
- Komischke-Konnerup, K. B., Zachariae, R., Johannsen, M., Nielsen, L. D., & O'Connor, M. (2021). Co-occurrence of prolonged grief symptoms and symptoms of depression, anxiety, and posttraumatic stress in bereaved adults: A systematic review and meta-analysis. *Journal of Affective Disorders Reports*, 4, 100140. <https://doi.org/10.1016/j.jadr.2021.100140>
- Kroh, M., Kühne, S., Siegers, R., & Belcheva, V. (2018). *SOEP-Core—Documentation of Sample Sizes and Panel Attrition (1984 until 2016)*. SOEP Survey Papers 480: Series C. DIW/SOEP.
- Lucas, R. E. (2007). Adaptation and the set-point model of subjective well-being: Does happiness change after major life events? *Current Directions in Psychological Science*, 16, 75–79. <https://doi.org/10.1111/j.1467-8721.2007.00479.x>
- Lucas, R. E., Clark, A. E., Georgellis, Y., & Diener, E. (2003). Reexamining adaptation and the set point model of happiness: Reactions to changes in marital status. *Journal of Personality and Social Psychology*, 84, 527–539. <https://doi.org/10.1037/0022-3514.84.3.527>
- Lucas, R. E., Clark, A. E., Georgellis, Y., & Diener, E. (2004). Unemployment alters the set point for life satisfaction. *Psychological Science*, 15, 8–13. <https://doi.org/10.1111/j.0963-7214.2004.01501002.x>
- Luhmann, M., Hofmann, W., Eid, M., & Lucas, R. E. (2012). Subjective well-being and adaptation to life events: A meta-analysis. *Journal of Personality and Social Psychology*, 102(3), 592–615. <https://doi.org/10.1037/a0025948>
- Lundorff, M., Holmgren, H., Zachariae, R., Farver-Vestergaard, I., & O'Connor, M. (2017). Prevalence of prolonged grief disorder in adult bereavement: A systematic review and meta-analysis. *Journal of Affective Disorders*, 212, 138–149. <https://doi.org/10.1016/j.jad.2017.01.030>
- Lykken, D., & Tellegen, A. (1996). Happiness is a stochastic phenomenon. *Psychological Science*, 7(3), 186–189. <https://doi.org/10.1111/j.1467-9280.1996.tb00355.x>
- Maciejewski, P. K., Zhang, B., Block, S. D., & Prigerson, H. G. (2007). An empirical examination of the stage theory of grief. *JAMA*, 297, 716–723. <https://doi.org/10.1001/jama.297.7.716>
- Mancini, A. D., Sinan, B., & Bonanno, G. A. (2015). Predictors of prolonged grief, resilience, and recovery among bereaved spouses. *Journal of Clinical Psychology*, 71, 1245–1258. <https://doi.org/10.1002/jclp.22224>
- McNeil, M. J., Baker, J. N., Snyder, I., Rosenberg, A. R., & Kaye, E. C. (2021). Grief and bereavement in fathers after the death of a child: A systematic review. *Pediatrics*, 147(4), e2020040386. <https://doi.org/10.1542/peds.2020-040386>
- Moor, N., & de Graaf, P. M. (2016). Temporary and long-term consequences of bereavement on happiness. *Journal of Happiness Studies*, 17, 913–936. <https://doi.org/10.1007/s10902-015-9624-x3>
- Möwisch, D., Schmiedek, F., Richter, D., & Brose, A. (2019). Capturing affective well-being in daily life with the day reconstruction method: A refined view on positive and negative affect. *Journal of Happiness Studies*, 20, 641–663. <https://doi.org/10.1007/s10902-018-9965-3>
- Parkes, C. M., & Prigerson, H. G. (2013). *Bereavement: Studies of Grief in Adult Life*. Routledge. <https://doi.org/10.4324/9781315829753>
- Sanders, C. M. (1979). A comparison of adult bereavement in the death of a spouse, child, and parent. *OMEGA—Journal of Death and Dying*, 10(4), 303–322. <https://doi.org/10.2190/X565-HW49-CHR0-FYB4>
- Savitz, D. A., & Olshan, A. F. (1995). Multiple comparisons and related issues in the interpretation of epidemiologic data. *American Journal of Epidemiology*, 142, 904–908. <https://doi.org/10.1093/oxfordjournals.aje.a117737>
- Schilling, O. (2006). Development of life satisfaction in old age: Another view on the “Paradox”. *Social Indicators Research*, 75, 241–271. <https://doi.org/10.1007/s11205-004-5297-2>
- Schimmack, U., & Lucas, R. E. (2006). *Marriage Matters: Spousal Similarity in Life Satisfaction (no. 623)*. DIW discussion papers.

- Schimmack, U., & Oishi, S. (2005). The influence of chronically and temporarily accessible information on life satisfaction judgments. *Journal of Personality and Social Psychology, 89*, 395–406. <https://doi.org/10.1037/0022-3514.89.3.395>
- Schimmack, U., Schupp, J., & Wagner, G. G. (2008). The influence of environment and personality on the affective and cognitive component of subjective well-being. *Social Indicators Research, 89*, 41–60. <https://doi.org/10.1007/s11205-007-9230-3>
- Specht, J., Egloff, B., & Schmukle, S. C. (2011). The benefits of believing in chance or fate: External locus of control as a protective factor for coping with the death of a spouse. *Social Psychological and Personality Science, 2*, 132–137. <https://doi.org/10.1177/1948550610384635>
- StataCorp. (2017). *Stata Statistical Software: Release 15*. StataCorp LLC.
- Stroebe, M., Schut, H., & Stroebe, W. (2007). Health outcomes of bereavement. *The Lancet, 370*(9,603), 1960–1973. [https://doi.org/10.1016/S0140-6736\(07\)61816-9](https://doi.org/10.1016/S0140-6736(07)61816-9)
- Wittouck, C., Van Autreve, S., De Jaegere, E., Portzky, G., & van Heeringen, K. (2011). The prevention and treatment of complicated grief: A meta-analysis. *Clinical Psychology Review, 31*, 69–78. <https://doi.org/10.1016/j.cpr.2010.09.005>

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Asselmann, E., & Specht, J. (2022). Dramatic effects but fast adaptation: Changes in life satisfaction and different facets of affective well-being around the death of a partner and death of a child. *Applied Psychology: Health and Well-Being*, 1–15. <https://doi.org/10.1111/aphw.12388>