# How do Life Events reveal Differences in Well-being: A multiple Case Study with German Midlife Adults

## UNIVERSITY OF TWENTE.

Laura Friedsmann

A thesis submitted for the degree of Bachelor of Science Psychology Department of Psychology, Health and Technology Faculty of Behavioural, Management and Social Sciences (BMS)

> Course code: PPT 201300125 Supervised by T.R. Elfrink & M.P.J Spijkerman June, 2019

#### Abstract

**Purpose** - The purpose of this study was to detect variations in life events as reported by middle aged adults. It further aimed to explore whether a link between life events and levels of hedonic and eudaimonic well-being can be detected. Adding insight into the relation of life-events and well-being served as a groundwork for improving future interventions on mental health. Literature proposed need satisfaction, emotional tone and redemptive story-telling are associated with general hedonic well-being whereas age reveals to be a factor for eudaimonic well-being, likewise as accommodative processing and conflict related events. Methods - A mixed method design was applied with quantitative and qualitative collection of data. Therefore, the Life Story Interview, Satisfaction with Life Scale, Positive Affect & Negative Affect Scale and Meaning in Life Scale were used to assess life events and well-being states. Results - A link was found between moderate to high levels of hedonic and eudaimonic well-being and a variety of life events namely, childhood, school, studies, occupation, partnership, parent role, life project, loss and future. Both, events of positive as well as negative nature, manifested as important events for well-being. To the most prevalent events counted life projects, childhood and experiences of loss. Value - The research gave insight into relevant life events present in people's live possessing a moderate to high hedonic well-being. A plurality of events could be assessed with the applied methods and thus, provide insight in the context of life events and well-being. Above all, the study indicated a connection between experiencing negative events and high eudaimonic well-being.

*Keywords*: hedonic well-being, eudaimonic well-being, life events, life story, qualitative and quantitative methods

## Table of content

Abstract	1
Introduction	3
Literature background	
Methods	7
Participants	7
Measures	7
Procedure	8
Analysis	9
Results	12
Inge	12
Hugo	15
Frankie	17
Kathie	19
Comparison of the cases and overall integration	21
Discussion	23
Main findings in comparison with literature	23
Value of the present study	25
Limitations and recommendations for further research	26
Final conclusion	26
References	27
Appendices:	
Appendix A: Informed consent (German version)	31
Appendix B: Demographic data (German version)	32
Appendix C: SWLS (German version)	33
Appendix D: PANAS (German version)	34
Appendix E: MLQ (German version)	35

## Introduction

Mental health became a new field of research in clinical psychology in recent years complementing the field of mental illness (Keyes, 2005). The aim of mental health is to promote positive emotions and traits (Arnarson, et al., 2016). Research already identified life events relevant for depressive symptomatology (Arnarson et al., 2016). Less is known about life events promoting effect on well-being. The reason why it is relevant to gain more insight into mental health promoting life-events lays in its' direct practicability to large parts of society. Educating people about the importance of certain life events on well-being might foster them to implement them. Possibly, the findings clear up misunderstandings about life events which were even considered as meaningless or even unhealthy. Adding to this, by identifying variations in events relevant for well-being one might detect patterns of events serving as protective factors for mental disease. These might not necessarily predict well-being but might serve as a stable feature of mental health.

Presuming life-events and mental health stand in relation with each other, in this study, the Life Story Interview was conducted to detect variations in life events. The life-story interview is a review of a collection of memories the interviewee is disposed to tell. By reviewing life events of a person, the chain of events can be analysed in their interaction and secondly, they can be assigned to the person's well-being.

Recognising that research on well-being is usually aligned with the traditional view, namely hedonistic well-being it is reasonable to take this concept as one focus in this research. According to this view, hedonic well-being mainly involves pleasure, the presence of positive affect, absence of negative affect and evaluating life as satisfying (Deci & Ryan, 2008). However, eudaemonic well-being, the other tradition of well-being, is not well-defined and lacks consistent assessment. It focuses on living a life in full accord with one's potential and values. Therefore, it adds a crucial perspective on the comprehension of well-being (Ryan & Deci, 2001).

## Literature background

Research has already focussed on the area of life events and their relation to well-being. The connection between life story identity and well-being is empirically grounded (Adler,

4

Lodi-Smith, Philippe, & Houle, 2016). For example, a study conducted by Adler (2012) reflects that motivational themes such as agency (autonomy) and communion (relatedness) are associated with well-being. In a longitudinal study with psychotherapy clients their narratives were monitored for several months and their well-being was tested by means of the self-report measure Systemic Therapy Inventory of Change (STIC, e.g Pinsof et al., 2009). He found that participants were telling stories with more frequent events of autonomy over the period of therapy, preceded by increases in well-being (Adler, 2012). Thus, events of autonomy seem to promote well-being.

Further evidence about the relation of need satisfaction with well-being is provided by Philippe, Koestner, Beaulieu-Pelletier, & Lecours from 2011. In their study which included the perspective on dispositional traits, the satisfaction of the basic need autonomy, relatedness and competence was associated with well-being (Philippe et al., 2011). What is also interesting, that even after controlling for the Big Five traits, they also found need satisfaction to predict well-being. Therefore, events of need satisfaction appear to be mental health promoting.

Not only need satisfying events but also affective themes manifest a relation with well-being. Correspondingly, King & Noelle (2005) outlined that presence or absence of an emotional tone in narratives predicted well-being. Hence, the positive manner of how to report life events already predicts well-being. This finding was also confirmed by McAdams. According to his theory about narrative identity, a lacking of positive evaluation of undesirable experiences, also called a contamination sequence, is associated with decreased well-being (McAdams, Reynolds, Lewis, Patten, & Bowman, 2001; Merrill, & Fivush, 2016). Accordingly, McAdams et al. (2001) stated the contamination sequence occurred when good things turn into bad, whereas a redemption sequence captures the opposite, when bad things turn into good. Their research showed that a redemptive narrative is associated with greater well-being and greater generosity (Mc Adams et al., 2001).

In sum, need satisfaction, emotional tone and redemptive story-telling is associated with general hedonic well-being. As pointed out earlier eudaimonic well-being composes another aspect of well-being also standing in relation with life events. Regarding eudaimonic well-being and life events, King, Scollon, Ramsey, & Williams (2000), point out that integrative meaning is an interpretative evaluation of an event where the narrator has to connect some of its content to the narrator's self. To experience meaningfulness the event can also be of devastating nature and thus, not pleasuring but offering the narrator to find meaningful changes for his or her life. This was proven in 2000 by a study conducted by King and colleagues, where parents of children with Down syndrome wrote their experience of being confronted with their child's diagnosis. They revealed the parents have a different form of integrative meaning, termed as "accommodative processing" over two years of participating in the study (King et al., 2000). Hence, as the name "accommodation" proposes, these individuals reported to have pursued an active change in their paradigm as a result of learning their child is diagnosed with Down syndrome.

Eudaimonic well-being fostered by an accommodative interpretation of events compose only one aspect of the nature of events. Next to this accommodative processing Singer (2004) found that meaning making events mostly involve a form of tension or conflict, especially those memories that expose themes of mortality or relationship. It is to consider, according to the findings of Singer (2004), only 23% of the memories contained meaning-making associations in a sample of narratives of late adolescents. Hence, meaning-making inducing events compose a considerable but little amount of the memories. Notably, studies suggest, that meaning-making is not associated with well-being but with even worse well-being in definite cases, provided by McLean and colleagues (2010). He proposed, that meaning-making in male early- and middle- adolescents was negatively associated with well-being. McLean and colleagues (2010) explain that age might be relevant for developing certain cognitive abilities to evolve meaning-making to certain events (McLean et al., 2010). These findings were only recently confirmed by Waters and Fivush (2015), who revealed that the ability to tell a coherent autobiographical narrative that focuses on identity is associated with a higher sense of purpose and meaning.

Partly contrasting the finding higher age being a factor for meaningfulness, a study which examined the nature of wisdom-related autobiographical memories, revealed that meaning making emerges already in early adulthood and is maintained through later adulthood (Bluck, & Glück, 2004). It remains to consider that age does not generally predict wisdom and meaning-making. However, age appears to be a likely predictor of meaning in life. Therefore, narratives of elderly presumingly contain more meaningfulness. That is why this study focused on midlife aged adults to further explore this assumption. For the record, age reveals to be a factor for eudaimonic well-being, same as accommodative processing and conflict related events have predictive value.

In sum, there seems to be evidence generally supporting the incremental validity of life events associated with well-being. However, more explorative data about the variations of life events should be collected. The goal of the present study was thus, to analyse individual's life events. By exploring life events, a more detailed image could be displayed how a life story reveals happiness and integrative meaning and in what interplay and tension they appear. By collecting the life events of midlife adults, it is aimed to examine whether these accounts add findings to previous literature. The research question is: To what extent do life events reveal differences in well-being in midlife adults?

#### Methods

A mixed method design was employed with questionnaires and interviews conducted over a period from April 5 and May 14. Two types of data collection procedures were applied. The qualitative part, namely interviews were conducted for the purpose of understanding the participant's life events. The quantitative part, namely self-report questionnaires were applied to describe the participant's well-being. The study was approved by the Ethical Committee of the University of Twente.

## **Participants**

Regarding the sampling strategy, the participants were purposely chosen due to the fact that only a small group of people was interviewed and the researcher had only limited access to people who met the inclusion criteria. The sample included midlife adults which were already known to the researcher. One inclusion criterion determined that the detailed life story was not known yet by the researcher to avoid biases. However, the relationship between researcher and participant had to be at a level where an atmosphere of trust was given, so that the participant was eager to provide personal data. Moreover, an inclusion criterion was the specific age group involving people above the age of 50 before retirement. People of this age group were selected because they have plentiful memories to recall and at the same time are most likely not vulnerable to poor memory capacities. The sample consisted of four German midlife adults. The age group ranged from 57 to 64, including three women and one man. The recruitment strategy was to approach the selected participants personally via Email.

#### Measures

The life stories of the participants were collected with means of the Life Story Interview (McAdams, 2008). The interview was audio recorded. The well-being measurement of hedonic well-being was assessed with the Satisfaction with Life Scale (SWLF; Diener, Emmons, Larsen & Griffin, 1985) and the Positive and Negative Affect Schedule (PANAS; Watson, Clark & Tellegen, 1988). The eudaimonic well-being was measured by means of the Meaning in Life Questionnaire (MLQ; Steger, 2006).

## Life Story Interview:

The life Story Interview was used to assess life events of the participants. The interview was constructed in a way that the interviewee could recall events out of his life like chapters in a book. The interview was divided in seven sections: life chapters, key scenes, script for the future, challenges, personal ideology, life themes and reflection. Around 4 questions in each section addressed topics like negative childhood memories, health, loss, dreams and hopes. Both negative and positive events were approached. An example question was "Moving ahead to your adult years, please identify one scene that you have not already described in this section [...]. Also, what does this memory say about you or your life?" (McAdams, 2008). Another question was e.g. "Please describe an event in your life where you behaved wisely." (McAdams, 2008). The respondent was continually asked how an event had influenced his life story.

Measures for hedonic well-being:

#### Satisfaction with life scale (SWLS):

The Satisfaction with Life scale (Diener, Emmons, Larsen, & Griffin, 1985) is a five item questionnaire and measures life satisfaction with a 7-point-rating from 1 (Strongly disagree) to 7 (Strongly agree). An example item is "I am satisfied with my life". With regards to the interpretation of the scores, the five rating values had to be be summed up. Low scores showed a low satisfaction with life, respectively higher scores indicated a high satisfaction with life. Compared with the subpopulation of 55-64 from 2010 (Van Beuningen, 2012) the norm value is M 26.08 (SD = 6.08). On this scale, the scores ranged from minimum five to

maximum 35. Scores from 30 to 35 were considered as extremely satisfied with life (Pavot & Diener, 2013).

#### Positive Affect/Negative Affect (PANAS):

The questionnaire PANAS (Watson et al., 1988) has 20 items and measures the strength of the negative affect (10 items, e.g. hostile) and positive affect (10 items, e.g. active). From 1 (Very slightly or not at all) to 5 (Extremely) the participant can rate his or her affect experienced over the past two weeks. The items for each scale were summed up, with higher scores on the negative affect scale revealing higher levels of negative affect and correspondingly, higher scores on the positive affect scale revealing higher levels of positive affect.

Measures for eudaimonic well-being:

## Meaning in Life Questionnaire (MLQ):

By means of the Meaning in Life Questionnaire (Steger, Frazier, Oishi, & Kaler, 2006) the eudaimonic well-being was measured. There are two subscales, namely Presence and Search with each five items. An example for the Presence scale is "My life has a clear sense of purpose." and is rated on a 7-point scale, from 1 absolute untrue to 7 absolute true. Item 9 is reverse coded and the scores for each scale are summed up, to calculate the scores for meaning in life. Higher scores correspond to a higher presence of meaning in life.

#### Procedure

A total of four interviews were conducted immediately after the questionnaires in May and April 2019. The first interview took place on May 5 and the last one on April 14, at the home of each participant. First of all, the participants were given a brief verbal instruction about the content and goal of the interview. Before the interviews started the participants were asked to sign an informed consent to give permission that the collected information and audio recordings will be used for the purpose of research (See Appendix A). It was indicated that the data will be treated with confidentiality and their names will be anonymised to ensure that the information cannot be traced back to them. The participants were asked to answer the questions as honest as possible. Besides, demographic data was collected as well (See Appendix B) and the option to withdraw from the interview anytime was conveyed.

Before starting the interview, the participant filled in the printed well-being questionnaires with a pen (See Appendices C, D, E). Subsequently, the face to face interview took place. The list of semi-structured interview questions, translated to German, were printed and read out by the researcher to lead through the interview. As indicated, the interviews were conducted in German, so the communication was not disrupted by translation difficulties. This was important because by talking in one's mother tongue about long past life events the recall and verbalisation of those memories was made easier than it would be in a foreign language.

Moreover, it was made sure that the participant felt comfortable and secure in the interview setting. The face to face interview was conducted in a quiet room and the procedure took approximately two hours. The shortest interview took 1 hour 35 minutes and the longest took 3 hours 55 minutes.

Subsequently, the audio recordings were transcribed. Then the German transcripts were translated to English and the names were anonymised.

#### Analysis

Life events were analysed with with codes, developed by the researcher. These codes were developed based on a bottom-up approach mixed with a top down approach. First of all, the software 'ALTAS.TI 8' was used in a bottom-up manner to examines the breadth and depth of the phenomena outgoing from the interview material itself. Specifically, the transcript of the first interview was red and detected main themes noted down. The same was done with the other three transcripts. These themes were then compared and summarised in categories to form sub codes (see last column in Table 1 on page 11).

Next, by applying a top-down strategy, guided by the interview questions, the list of main codes was formed to build more general terms, namely the main codes (see first column in Table 1 on page 11). As seen in Table 1 a short description of each main code was added to define which life events were included within a certain main code. Subsequently, the draft coding scheme plus one of the transcripts was exchanged with another researcher to be checked for the degree of agreement or consistency between two researcher's detected main themes. The agreement between the two researcher was high, merely some adjustments in the phrasing was conducted to form the final coding scheme.

Subsequently, the developed codes were then again applied to the interviews to be able to count the most and less frequent codes.

The scores of the well-being scales for each participant were interpreted according to literature and later opposed with the Life Story Interview. This was realised by comparing the life events of each participants with his/her individual scores on the well-being scales.

## Table 1

Coding scheme with 9 main codes in the first column, the explanation in the second and 26 sub codes in the third column

Main code	Explanation	Sub code		
1. Childhood	It describes events experienced during childhood, in what kind of environment the person is grown and how the relationship to family members is shaped.	<ul><li>1.1 Stable relationship to parents (trust)</li><li>1.2 Play</li><li>1.3 Siblings</li><li>1.4 Christian education</li></ul>		
2. School	It describes events experienced during school where many initial events took place, which had an impact of the persons development.	<ul><li>2.1 Friendship</li><li>2.2 Relationship to teacher</li></ul>		
3. Studies/ Training	It describes events experienced during studies, marking a decision making point what to do in life with lessening influence from the family	<ul><li>3.1 Stay abroad</li><li>3.2 Change in profession</li></ul>		
4. Life project	It describes events experienced where a person invests personal commitment into projects they find important to support next to work.	<ul><li>4.1 Social commitment</li><li>4.2 Political commitment</li><li>4.3 Hobby</li><li>4.4 Focus on family</li></ul>		
5. Occupation	It describes events experienced during work and serves as a plattform to put one's abilities and talents into practice, when it also serves as am existential basis for a living	<ul><li>5.1 Working atmosphere</li><li>5.2 Bankrupt</li><li>5.3 Relationship to boss</li><li>5.4 Mistakes</li></ul>		
6. Partnership	It describes events experienced during a partnership, often giving thr opportunity to learn about oneself and how to handle realtionship problems.			
7. Parent role	It describes events experienced during parenthood and situations when not having children.	<ul><li>7.1 Wish to have children</li><li>7.2 Relationship with child</li></ul>		
8. Loss	It describes events experienced during loosing a person and how this loss was handled.	<ul><li>8.1 Death</li><li>8.2 Illness of parents</li></ul>		
9. Future	It describes events not experienced yet, it covers dreams and hopes for the future, specific goals and ideas what to achieve in the next years.	<ul><li>9.1 Health issues</li><li>9.2 Shared apartment</li><li>9.3 Aupair-Grandma</li><li>9.4 Pension / retirement</li></ul>		

## Results

A total of four participants took part in the interview study and the prior well-being questionnaires. The participants had significant differences in terms of demographic data. A description of the four participants, their questionnaires as well as interview results served as a basis for gaining a greater insight into their mental health. They all are single, employed and between the age of 57 and 64. A description of the individual results from the questionnaires and interviews will follow.

#### Inge

## Well-being of Inge

Inge is 64 age old and mother of one adult daughter. She works as a psychiatric doctor in self employment. She was once married, had several relationships afterwards, is single now and lives alone.

In terms of the hedonic well-being measurements, her satisfaction with life score was high. Compared with the subpopulation of her age she overscored the norm (see Table 2 on page 13). Her score can be interpreted as being extremely satisfied. She presumably loves her live even though things are not perfect. Major domains of their life are going well, which does not mean they are complacent. Next, the positive and negative affect measurement revealed, that Inge can be associated with a high hedonic well-being (see Table 2 on page 13).

Considering Inge's eudaimonic well-being from the Meaning in life Scale, the result is interpreted as her life has a valued meaning and purpose, not actively exploring that meaning or seeking meaning in life. One might say that she is satisfied that she has grasped what makes her life meaningful, why she is here, and what she wants to do with her life (Steger, 2006). A comparison of meaning in life with normative data is not possible, as norms have not been established yet. All in all, her eudaemonic and hedonic well-being can be regarded as high.

#### Table 2

Questionnaire scales	Norm group M (SD)	Inge	Hugo	Frankie	Kathie
Satisfaction with life	26.08 (6.08)	31	28	24	28
Positive affect	31.3 (7.7)	33	32	40	29
Negative affect	16.0 (5.9)	14	16	27	14
Presence of Meaning in life		33	18	25	25
Search of meaning in life		7	13	10	11

Norm values of the well-being scales and the mean performance scores of the participants.

## Results from the interview with Inge

To the most frequent counted main codes belong *childhood*, *partnership* and *life project*. First, with regards to *childhood* the first sub code *stable relationship with parents* was detected multiple times. Strongly present in her memory is the connectedness with her mother. She described, she developed a strong bond to her parents as she experienced a place of trust. Another event building trust to her parents happened at young age when her aunt put her accidentally in a dangerous situation. Inge's father saved her life staying calm and supportive. Inge revealed to not have a strict religious belief but some sort of basic trust in life, which she said, she gained from the trusting relationship with her parents.

Another important sub code under childhood which was detected multiple times concerns *christian education*. Inge reported to have a double-edged attitude towards religion. This was shaped by her strict religious upbringing by her father, a subsequent exit of church as she did not found reason in religion and and a re-entry motivated through a relationship with a theologist. She explained her re-entry not as believing in god again but experiencing basic trust and belonging in the world. Respecting spiritual experiences, Inge mentioned, that even becoming pregnant at the age of 42 was biological very unlikely, but still happened similar to a miracle. The sudden pregnancy, after years of abortive trials to have a baby, showed her that her body grabbed for life, even in the most hopeless moments of life.

Second, *partnership* composes another important area of life events, present in Inges life, as she had one marriage and several relations. However she revealed, she has difficulties to establish long lasting relationships. Due to her emphasized independence, she better ends a relation before she has to give up herself. Hence, for the sub code *separation*, there could be

found likewise much material in the interview. However, it was counted only one time, because one separation was outstanding painful compared with her other break-ups.

Third, with regards to the main code *life project*, numerous events could be counted. First of all, there are events of *social commitment*. Here, Inge reported to be a promoter of non-violent solutions. Both in the family, as well as at work she tries to abolish aggression. In a current situation at work, she tries to intervene, to make the situation verbally non-violent. Further, *political commitment* manifest as well as a sub code, however encompasses more comprehensive topics exceeding social demands and commitment. More specific, Inge reported to be responsive to conservation of the environment but anti-Semitism demands notedly stronger her attention. Inge addressed diverse events under the third sub code *hobbies* which involve making music, reading and writing articles.

As the family determines as well a major aspect of her life, the sub code *focus on family* was identified. Inge pointed out, even though she likes to have grandchildren, she does not see developments like this in near future, as her daughter is still studying. However, she mentioned, she is curious about what direction the life of her daughter will take.

Less desirable life events, regarding the main code *loss* count to the fourth most detected code. Inge outlined, not having suffered many losses in her life. However, during primary school, she remembered, she felt terribly hurt by losing her crush to her younger brother, who became best friends with him. This feeling of loss was initially triggered due to the death of a similar looking sibling of her mother, who died as a child. Inge said, she heard this story when she was little and was deeply concerned. The sub code of *death* could be assigned here.

Beyond that early loss of love, she experienced more dramatic loss due to illness of her mother. The sub code of *illness of parents* could be detected in the interview. As her father is suffering from cancer at terminal stage, she already takes leave from him and enjoys last time spend together with full consciousness.

Briefly summarising the most frequent events, a balanced amount of more and less desirable events were experienced by Inge. Whereas her *childhood* and *life projects* were related to more positive feelings there was negativity associated with partnerships and loss. What is more, *occupation* and *parent role* reflected a moderate amount of life events, less frequent counted were events in *school, studies/training* and *future*.

#### Hugo

## Well-being results of Hugo

Hugo is a single man at the age of 63, lives alone and works in his own company as his own boss in the area of transport services. He has one adult daughter. He recently separated from the mother of his child.

Considering the hedonic well-being measurements, his satisfaction with life, compared with the sup-population was extremely high (Pavot & Diener, 2013). The result can be interpreted as people scoring in this area like their lives. Even though things are not perfect, live conditions are mostly good. Continuing, the positive and negative affect measurement shows, Hugo's results could be associated with a high to moderate well-being.

On the Meaning in life Scale, the result could be interpreted as he does not feel life has a valued meaning and purpose, and he is not actively exploring that meaning or seeking meaning in his life. Above all, he probably does not find the idea of thinking about his life's meaning very interesting or important (Steger, 2006). Thus, his eudaemonic well-being was rather low whereas his hedonic well-being could be considered as moderate to high.

#### Results from the interview with Hugo

The most frequently detected main code was *school* with e.g. the sub code *friendship*. During junior high school he got friends with a boy, with whom he always hung around. Later, during his years living in a shared apartment, Hugo was surrounded by people sharing similar political views against the system. He said, he really enjoyed not only doing protest activities together but building interpersonal relations with the others. After his separation from the mother of his child, he explained, he received support from his friends, he thought would long have forgotten him. Hugo described the contact with his friend as very life-giving, even little things e.g. when he receives every few days a message on how he is going. Being around his friends in good but also bad times made him feel good.

However, Hugo experienced his school as a burden most of the time. This was also aggravated through the harsh punishment the first-graders must endure by strict female teachers. He was terribly afraid of them and disgusted by school. That is why he always needed to wash his hands first when he came home to get rid of the disgust from school, stated Hugo. His *relationship to teachers* was evaluated as highly negative taken from the statements he made. Life projects composed the second most frequent codes. First, Hugo would consider his unimposing work as his *life project*, as he described it. Hugo regarded *social commitment* with considerate attention, as he stressed out, he found it important to not only donate 20 cent to somebody, but really ask if the poor needs help. Hence, this code could be assigned once. Hugo invested even more commitment into political issues, especially during his young adult years. He was part of a big political movement in the 70s, participating in anti-nuclear activities. With regards to the current topic of 'Fridays for future', Hugo pointed out that environmental protection is still his concern. Moreover, he was concerned about the current developments in the right-wing direction. He had the opinion that in the political world crucial issues are dignified with too little attention. Summing up the statements, the code of *political commitment* was addressed multiple times.

Third most detected code, concerns his *childhood*. Hugo explained, in contrast to school, where he was roughly treated, his parents were not strict with him and his brother. He described he was a well-behaved child before he later joined protesting people on the streets. The topic *play*, Hugo remembered, was a totally different world as it is nowadays. That means his childhood was characterised by great freedom to play with others and explore the environment. The next sub code *christian education* could be detected several times. During school, a strict adherence to the norms and values was desired and enforced. Additionally, to the question about spiritual experiences, Hugo mentioned not being religious but he already experienced some sort of telepathy for instance with his mother, when she called him exact the time he returned from work, even though she did not know his working times.

The event of *parent role* was similar often addressed. Hugo has an adult daughter which currently lives abroad. He remembers the birth of his child as the happiest moment of his life. He said, he was surprised by his own feelings for this child and how he suddenly developed an abandonment and care for the tiny human being. Besides, he recalled it also challenged him to be a father as it pushed him to the edge sometimes. This way he explored facets of himself he did not know before. More recently, he describes his role as a father to give advices when his daughter sometimes need help. In sum, several times events about the *relation with his child* could be detected.

Other events such as *studies/training, occupation, partnerships, loss* and *future* were mentioned, but less often addressed than the other life events. In sum, his *school* years, *life* 

*projects* and *parent role* he perceived as mainly positive in contrast to his *childhood* where he remembered certain negative experiences.

#### Frankie

#### Well-being results of Frankie

Frankie is a women at the age of 57, lives alone, has no children, and works as a laboratory doctor. She is single after several relationships.

Her hedonic well-being results with regards to satisfaction with life revealed to be moderate compared with the subpopulation. Hence, she was generally satisfied, but she probably had some areas where she very much would like some improvement by making some life changes. Next, the positive and negative affect results revealed a moderate to low well-being compared with the norm group (Crawford & Henry, 2004).

Further, in light of the Meaning in life Scale, her life had a valued meaning and purpose, not actively exploring that meaning or seeking meaning in life (see Table 2 on page 13). One might say that she was satisfied that she has grasped what makes her life meaningful, why she is here, and what she wants to do with her life (Steger, 2006). Following, her hedonic well-being could be evaluated as moderate to high, same as her eudaemonic well-being.

#### Results from the interview with Frankie

It appears, *occupation* makes up the most frequently counted main code in the interview with Frankie. As work took a considerate time of her day in, she appreciated the time spent at work to be pleasant, also with regards to the *working atmosphere*. At her old working place the relation between her and her colleagues became noticeably tense. Thus, she could not bear working with them any longer and so she discharged and moved to another city taking a new position. Quitting, was not the easiest task, she admitted, but work had to be enjoyable, so she had to find a place which matches more her requirements. At her current work place another unsatisfying situation occurred which is why she did not any extra work anymore, to her own sorrow. More to say, Franke admitted to not be very diplomatic, that is why colleagues also had sometimes difficulties with her.

Further, the sub code *relation to boss* was identified. Just before leaving her old working place her boss offered her a new contract with different conditions to make her stay,

which she did not accept but left anyway. The situation was unpromising and could be interpreted as a negative event concerning the *relation to boss* sub code. A positive event was when at the child hospital her bosses encouraged her stay abroad to get another training in the United States.

She remembers to have made a mistake during work once, when she accidentally mixed up medication for her patient. However, her colleagues jumped in and could avert more danger. Accordingly, this event accounted to the sub code *mistakes*.

Second most detected main codes were *school* and *life projects*. During *school* Frankie and Grace had been friends with form fifth grade until graduation where Grace developed an eating disorder she died off soon after. Losing a friend at that age was a difficult thing to get over, Frankie explained. The code *friendship* was counted multiple times.

Even though Frankie states she was quite lazy, one of her primary school teachers discovered that Frankie was quite clever and promoted her achievements. She developed a strong bond to this teacher, she adds. The code of *relationship to teacher* could be assigned many times.

Moreover, her life rhythm was largely determined by her work, Frankie explained. That is why there was not much time left for *life projects*. Being a good aunt to her nephews was a project once, but she terminated this project when the boys grew older and became more disrespectful. She now has only loose contact to them. This could be counted as a failure of a *life project*.

Further, social commitment was an important aspect of Frankie's life. She remembered, celebrating her 40. Birthday with a big party, was an event for the eternity. *Political commitment* was also important for Frankie. Protection of the environment and social support were her main topics.

Her dedication for her family was also considerable. She explained, she cancels any other plans when her family wants to see her. She also cared for her old father regularly. The code of focus on family was assigned several times.

Frankie experienced *loss* through *death* to a considerate amount of times. The first time was, when her mother past away, which was predictable but still painful. The other death concerned her ex-best-friend Grace, who shortly died after her diagnosis of having an eating disorder. She experienced that event as harrowing even though they did not have any contact at this time anymore.

Related to the *illness of her parents*, Frankie was only 20 years old when her mother was diagnosed with bowel cancer. For her and her brother this loss was a major challenge. Therefore, making peace with a loved is a great concern for Frankie.

Taken together, Frankie experienced quite a balanced mix of desirable and undesirable life events with regards to her *school* years and *life projects* versus her *occupation* and experienced *losses*. To the less frequently mentioned life events count her *childhood*, *studies/training, partnerships* and *future. Parent role* was not detected as she does not have children, nor she wished to have any.

#### Kathie

#### Well-being results of Kathie

Kathie is 59 years old, divorced and single, has no children, works in a pharmacy as a salesman, and she lives with a cat in a flat.

In terms of hedonic well-being measurements, she was highly satisfied with life, most domains of her life were good but not perfect. With regards to the second hedonic well-being measurement PANAS, the positive and negative affect measurement revealed, Kathie had a moderate to high well-being (See Table 2, page 13).

Finally, on the Meaning in life Scale, one might say her life had a valued meaning and purpose. She was not actively exploring that meaning or seeking meaning in life. Further, she considered her life as satisfying and she has grasped what makes her life meaningful, why she is here, and what she wants to do with her life (Steger, 2006). Thus, both her hedonic and eudaemonic well-being appeared to be moderate to high.

## Results from the interview with Kathie

Foremost frequent was the main code *life project. Social commitment* is a large part of Kathie's life. Her dedication for activities with friend is high. She even moved closer to her clients from work, when she was supposed to find a new place. She also wished to help elderly once she is retired. Working in honorary capacity was also a thing Kathie could imagine to do when she is older. Furthermore, there was the code *political commitment*. Here, Kathie advocated having a heart for animals and the environment. Kathie held high regard of the Friday-for-future movement on this account. She also liked multiculturalism, e.g. the encounters with new food from other cultures and learning new kinds of music and art. In her

leisure time Kathie followed her *hobbies*, such as nordic walking and being in nature. Her *focus on family* became visible by the fact, that she expressed great joy that she is closer again to her niches.

The second most detected main code concerned her *childhood*. Kathie spend her childhood in Romania and immigrated with 15 with her family to Germany. She revealed she had a stable relationship to her parents during childhood. This could be valued as a positive life event. She could trust on her parents. She added, her stepfather did not make a difference between her and her younger step sister and loved both of them unconditionally. Accordingly, the code of *stable relationship with parents* could be assigned here. With regards to the code play, events of playing together on the fields, celebrating birthdays with her friends, counted to the outstanding memories Kathie mentioned during the interview.

Positive memories but also frightening ones came to surface, when Kathie addressesd the topic *siblings*. A negative incident refers to the time, when a soldier showed up near their playground and tried to sexually assault her younger sister. Luckily they could escape before worse happened.

Furthermore, Kathie was raised christian. In the night when her father died because of cancer, Kathie had a spiritual experience, she explained. This event can be counted to the code of *christian education*.

*Loss* composed another dominant area of life events Kathie experienced. *Death* was counted severalfold during the interview. When her father died, who is not her biological father, she went through a hard time. Apart from that, Kathie suffered loss from death as her best friend died due to organ failure.

The *illness of her parents* was also a major challenge for Kathie. When her mother was diagnosed with cancer at the age of 40, Kathie dedicated a lot of her time to visit her at the hospital. Finally, the mother defeated the illness and still lives today. Moreover, the death of her father was a hard blow of fate, as they had a strong relationship.

The fourth most frequent main codes were *partnership* and *future*. The *divorce* of her husband happened many years ago. Kathie evaluated, it was a shock when they spit up but she soon realized he is not the right one for her. She remembered the separation as difficult. However, she finally developed a more active lifestyle, she totally missed in the relation with her ex-husband.

Frequently addressed was also the main code *future*. Staying healthy was one of her concerns, as she already had some physical complaints. The sub code *health issues* could be assigned here. To the future plans of Kathie counted, sharing an apartment when she is older (code *shared apartment*) and being an *aupair-grandma* for instance in Australia. Specifically, she likes to improve her English. Speaking of the future, she considered to go earlier in retirement to have more time for her leisure activities. *Retirement*, as a coding, reveals in those thoughts.

Finally, *school, occupation* and *parent role* form less frequent codes. However, the other codes constitute a well-balanced selection of both positive and negative life events.

## Comparison of the cases and overall integration

With regards to the Life Story Interviews, a total of nine codes described the main life events the participants experienced. These covered *childhood, school, studies/training, life project, occupation, partnership, parent role, loss and future*. Thereunder, were to find 26 sub codes, reflecting the individual facets of these main themes. When comparing the participants life stories one could see on the one hand, they all share certain experiences and on the other hand, they distinguish in some crucial aspects. In the following, the main similarities and differences are summarised and compared with the the well-being scores.

With regards, to the frequency of discovered similarities, there is to mention in eight of nine main codes the participants experienced similar events. In particular, two of four participants distinguished in code number seven, namely *parent role*. This is justified by the fact that Kathie and Frankie do not experience the role of being a parent, as they do not have children. Compared with the other two participants, this seems to be a major difference, because Hugo and Inge dedicate a lot of their life and time to their children. Apart from that, they all experienced life events in similar main categories, equally wearing and up-lifting. Considering the imbalance between positive and negative codes, as there were counted more positive than negative codes.

Considering the subcodes, ten out of 25 subcodes were experienced by all four participants. The following events account to this commonality: *Stable relationship to parents (trust), Christian education, Friendship, Social commitment, Political commitment, Working atmosphere, Death, Illness of parents and Health issues.* That means the participants faced very similar events to 36%. These events appear to be essential elements of life. What is

worth to mention, is that those codes cover almost equally both negative as well as positive memories. Hence, life contains inevitably both negative and positive experiences.

Retirement, living in a shared apartment, separation, mistakes, relationship to boss, hobbies, focus on family, change in profession, stay abroad, relationship to teacher, play, siblings and wish to have a child belong to the events experienced by two or three of the participants. 13 out of 25 codes were experienced by most of the participants. Plus, they represent the bigger group of codes compared with those experienced by all, in particular 52%. These codes reflect a group of events not experienced by all but some participants.

It appears, those events occur regularly and compose an important part of life. However, these codes which were mentioned by all and those mentioned by some participants do not diverge substantially. With regards to features such as positivity, activity and reverse, personality, whether the event was experienced together with someone or alone, all those codes share many characteristics. So, one can say there is no significant difference between these two groups of codes, discovered in this sample. Moreover, the participants indicated some events even revealed parts of their personality they were about to discover and learn about themselves. For example a stay abroad made the person more cosmopolitan, becoming an older sibling made the person more responsible. Further, the death of a loved one made the person realise how precious the own life is, filling them with gratitude. It can be assumed all participants were influenced by these events and evaluate their life as more meaningful.

Continuing, the remaining 12 %, namely 3 out of 25 sub codes embody the individual differences. In particular, experiencing *bankrupt*, having a *divorce* and planning to do *aupair* abroad represent core differences in the participant's life stories as they were mentioned by only one individual each. Whereupon *aupair* is only a future idea, and not yet experienced. These events seem to have a distinct character and make the life stories unique compared to the others.

Integrating these results with the well-being scores, the hedonic well-being was moderate to high in all participants, whereas the eudaimonic well-being was high in three of four participants. Inge stood out with both an extreme high well-being and presence of meaning in life. Frankie and Kathie scored similar with a moderate to high well-being and presence in life. However, Hugo diverged from the other three in terms of a high to moderate well-being while having no presence or search of meaning in life. Mainly, Hugo and Inge differed in their eudaimonic and hedonic well-being the most, whereat the difference was still small. Hence, all participant had rather a similar good states of well-being.

From the findings of the Life Story Interview, one can conclude, the participants experienced straining and favourable events and integrated them in their individual development. To these events account essentially, *childhood, school, studies/training, life projects, occupation, partnership, loss and future.* All four participants experienced similar painful and joyful events during the course of their life. To the three most frequent events count *life project, childhood* and *loss.* Those events compose desirable and less desirable life events, whereas *life projects* and *childhood* are predominantly associated with positive emotions, *loss* usually comes with negative feelings. Summarizing, it is to say, the variation of life events ranged widespread but some fundamental experiences were common among all persons with moderate to high hedonic and eudaemonic well-being.

## Discussion

#### Main findings in comparison with literature

The aim of this research was to explore variations in life events, reported by middle aged adults. Taking the overall good well-being in consideration, numerous life events could be discovered, nonetheless they converge in some key events. To these events account they all share experiences in having had a good *childhood*, pursuing satisfying *projects* and dealing with *losses* during their life course. With regards to Hugo, who differs negatively in the aspect of meaning in life, his life events are still similar to those of the others.

Considering main findings, first, there are identified various events which concern *childhood, school, studies and training, life projects, occupation, partnership, parent role, loss* in from of death or separation and *future* concerns. It is to say, these events are of both positive and negative nature, yet the participants' mental health state reveals to be moderate to high.

Second, next to this finding, to the most striking positive events count, a healthy relationship with parents, satisfaction with the job, companion with friends, successful

parenthood and few health issues. They might be associated with high hedonic well-being, as they majorly produced pleasure.

Third, what stands out, regarding the negative life events there were detected failures at work, separation/divorce and interpersonal loss of friends/parents.

Interpreting these three key findings, the emotionally draining sequences apparently did not decrease the overall mental health of the participants. With regard to the previous, a generally high meaningfulness was detected. Thus, it can be assumed, experiencing wearing life events promote meaning in life in midlife adults, thus, eudaimonic well-being.

As the research question was, to what extent life events reveal differences in well-being in midlife adults, a relatively wide spread variation of events could be detected. Most frequently detected events concern *childhood, life projects* and *losses*. Moreover, the interviewed midlife adults appear to have generally a good mental health state on both the hedonic and eudaimonic dimaension. of positive and negative events among participant with moderate to high well-being.

Comparing these findings with the body of literature, matching results can be recognised. First, there is the finding of King et al. (2000) who detected increased meaning making in persons who experienced a sad life event. The results of the present study show a high meaningfulness in life in those participants who suffered painful events, as well. In particular, to these events count having an abortion, death of a friend in young adult years, having a divorce and never having children. They all accepted the situation and integrated it into their life story.

Secondly, as Singer (2004) revealed tension and conflict tend to induce meaning making, this could be confirmed with the present findings. This finding matches also to the present one, as meaningfulness inducing events, such as separations and death were also present among the present participants. Explicitly, research about post-loss adjustment processes, conducted by Davis & Nolen-Hoeksema show a connection between experiencing loss and an increased meaning of life (Davis & Nolen-Hoeksema, 1998). That individuals find meaning in loss experiences and only show minor disruptions in their functionality, is lined out by Bonanno, who considers resilience as a powerful coping mechanism (Bonanno, 2004). Further support for growth after a bereavement comes from a study conducted with students, where the deaths of loved ones led to an increased meaning in life of the respondents

(Neimeyer, Laurie, Mehta, Hardison & Currier, 2008). Concerning the latter, the relation between sad events and high eudaimonic well-being stands is in line with the present findings.

Third, as proposed by McLean et al. (2010) and Waters and Fivush (2015), meaning in life was age related also in this study, as the participants were of middle age and scored generally high in meaningfulness.

As there is a large overlap with literature, this research also adds substantial new findings to the previous. First of all, considering the findings of McAdams (2016), and King & Noelle (2005) who claimed the manner of telling an event was associated with well-being. Adding onto the previous, results show the nature of events. As stated previously, these events involve childhood, school, studies and training, life projects, occupation, partnership, parent role, loss in from of death or separation and future concerns. Moreover, next to the finding that need-satisfaction predicts well-being (Adler, 2012; Philippe et al., 2011) there can be added which sorts of events serve as a stable feature of well-being.

Going out of the collected data of the present sample, the discovered high well-being among the participants and the similarities in some fundamental events allow the assumption that life events and well-being are related.

#### Value of the present study

There are several strengths of this research to consider which make the findings valuable for further research and application. At first, the Life Story Interview was a sufficient tool to deeply explore variations in life events. Further, through addressing multiple parts of life great variations of life events could be identified, possibly relevant for the well-being of a person. Life projects, childhood and loss experiences appear to be the most crucial life events, prevalent in the respondents life. This research points out, not only the possible drawback of undesirable life events but also the possibilities for growth as respondents accomplish the transition from mourning to meaning. Another strengths was the secure atmosphere between researcher and interviewee which gave room for open revealing of very personal information.

Health institutions which design interventions to promote mental health could make practical use of the relevant life events, in designing intervention. In general, these findings serve not only experts in the field of mental health but also might educate the society about the promising effects of sad life events on eudaimonic well-being. For instance, by revaluing life-events associated with negativity such as separations, higher meaning in life might be supported. To complete, the study fulfilled its' purpose of revealing variations of life events among adults with some differences in well-being.

## Limitations and recommendations for further research

It is important to keep several limitations in mind when interpreting the present findings. One aspect is a limited generalisability. First of all, the life stories are certainly influenced by peoples' subjectivity. What has to be considered in first place, is the fact, that the collected events from the interviews only reflect an extract of the full life story. On the one hand, the participant is greatly biased in the way he or she recalls life events during the interview. This has to be kept in mind when interpreting the results. Moreover, the researcher cannot avoid subjectivity despite of interrater-reliability. For further research it is recommended to increase the interrater-reliability by adding more interrater. This would generate more objective data to be able to generalise the finding to more extent.

A general problem with mood questionnaires is mood fluctuation on a daily basis. Hence, the collected well-being state might not reflect the actual one. To attain more sound data, the well-being measurements could be conducted repeatedly, e.g one week before the interview and one on the interview day.

## Final Conclusion

Above that, the question remained open whether life events are even linked to meaningfulness or whether other factors might be accountable for the high eudaimonic well-being. Presumingly, other factors also play a role in composing mental health when experiencing life events. For future studies, it is suggested, that interview questions address these factors. Additionally, further revision concerns interater-reliability and adding of replicated well-being measures. That might help to get more insight into the underlying relation between eudaimonic well-being and life events. Altogether, this study was able to show first steps in discovering the specific nature of life events among midlife adults with high hedonic and eudaimonic well-being.

## References

Adler, J. M. (2012). Living into the story: Agency and coherence in a longitudinal study of narrative identity development and mental health over the course of psychotherapy. *Journal of Personality and Social Psychology*, *102*, 367-389. Retrieved on May 23. 2019 from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.731.9247&rep=rep1&type=pdf

Adler, J. M., Lodi-Smith, J., Philippe, F. L., & Houle, I. (2016). The incremental validity of narrative identity in predicting well-being: A review of the field and recommendations for the future. *Personality and Social Psychology Review*, 20(2), 142-175. doi:10.1177/1088868315585068

Arnarson, E.Ö., Matos, A.P., Salvador, C. et al. (2016). Longitudinal Study of Life Events, Well-Being, Emotional Regulation and Depressive Symptomatology. *Journal of Psychopathology and Behavioral Assessment*, 38 (2), 159-171. doi: https://doi.org/10.1007/s10862-015-9524-8

Bluck, S., & Glück, J. (2004). Making things better and learning a lesson: Experiencing wisdom across the lifespan. *Journal of personality*, 72(3), 543-572. doi: https://doi.org/10.1111/j.0022-3506.2004.00272.x

Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events?. *American psychologist*, *59*(1), 20. doi: 10.1037/0003-066X.59.1.20

Van Beuningen, J. (2012). The satisfaction with life scale examining construct validity. *The Hague: Statistics Netherlands*.

Crawford, J.R. & Henry, J.D. (2004). The Positive and Negative Affect Schedule(PANAS): Construct validity, measurement properties and normative data in a large non-clinical sample. *British Journal of Clinical Psychology*, 43, 245–265. Retrieved on May 22. 2019 from https://onlinelibrary.wiley.com/doi/epdf/10.1348/0144665031752934.

Davis, C. G., Nolen-Hoeksema, S., & Larson, J. (1998). Making sense of loss and benefiting from the experience: two construals of meaning. *Journal of personality and social psychology*, *75*(2), 561. Retrieved on June 12. 2019 from https://www.researchgate.net/profile/Christopher\_Davis19/publication/13555054\_Making\_Se nse\_of\_Loss\_and\_Benefiting\_from\_the\_Experience\_Two\_Construals\_of\_Meaning/links/54f8 594d0cf28d6deca200ab/Making-Sense-of-Loss-and-Benefiting-from-the-Experience-Two-Co nstruals-of-Meaning.pdf

Deci, E. L., & Ryan, R. M. (2008). Hedonia, eudaimonia, and well-being: An introduction. *Journal of Happiness Studies*, *9*, 1–11. doi: 10.1007/s10902-006-9018-1

Keyes, C.L.M. (2005), "Mental illness and/or mental health? Investigating axioms of the complete state model of health", *Journal of Consulting and Clinical Psychology*, 73 (3), 539-548. doi: 10.1037/0022-006X.73.3.539

King, L. A., & Noelle, S. S. (2005). Happy, mature, and gay: Intimacy, power, and difficult times in coming out stories. *Journal of Research in Personality*, *39*, 278-298. doi: https://doi.org/10.1016/j.jrp.2004.06.002

King, L. A., Scollon, C. K., Ramsey, C., & Williams, T. (2000). Stories of life transition: Subjective well-being and ego development in parents of children with Down syndrome. *Journal of Research in Personality*, *34*, 509-536. doi: 10.1006/jrpe.2000.2285

McAdams, D. P.(2008). The Life Story Interview. Retrieved on March 15. 2019 from: https://www.sesp.northwestern.edu/foley/instruments/interview/

McAdams, D. P., Reynolds, J., Lewis, M., Patten, A. H., & Bowman, P. J. (2001). When bad things turn good and good things turn bad: Sequences of redemption and contamination in life narrative and their relation to psychosocial adaptation in midlife adults and in students. *Personality and social psychology bulletin*, *27*(4), 474-485. Retrieved on March 2. 2019 from: https://journals.sagepub.com/doi/pdf/10.1177/0146167201274008?casa\_token=Pog7cGzp4D4 AAAAA:EyedBIBwMA1QDCNQUQ7\_LrAiST5AraTjsMxtb7qmTzYMRvUO4oGAuyhJDZ I1AMdGJW5JseREVMi4IQ

McLean, K. C., Breen, A., & Fournier, M. A. (2010). Constructing the self in early, middle, and late adolescent boys: Narrative identity, individuation, and well-being. *Journal of Research on Adolescence*, *20*, 166-187. doi: 10.1111/j.1532-7795.2009.00633.x

Merrill, N., & Fivush, R. (2016). Intergenerational narratives and identity across development. *Developmental Review*, 40, 72-92. doi: http://dx.doi.org/10.1016/j.dr.2016.03.001

Neimeyer, R. A., Laurie, A., Mehta, T., Hardison, H., & Currier, J. M. (2008). Lessons of loss: Meaning-making in bereaved college students. *New Directions for Student Services*, 2008(121), 27-39. doi: 10.1002/ss.264

Philippe, F. L., Koestner, R., Beaulieu-Pelletier, G., & Lecours, S. (2011). The role of need satisfaction as a distinct and basic psychological component of autobiographical memories: A look at well-being. *Journal of personality*, *79*(5), 905-938. doi: 10.1111/j.1467-6494.2010.00710.x

Pinsof, W. M., Zinbarg, R. E., Lebow, J. L., Knobloch-Fedders, L. M., Durbin, C. E., Chambers, A., . . . Friedman, G. (2009). Laying the foundation for progress research in family, couple, and individual therapy: The development and psychometric features of the initial Systemic Therapy Inventory of Change. *Psychotherapy Research*, *19*, 143-156. doi: https://doi.org/10.1080/10503300802669973

Pavot, W., & Diener, E. (2013). The Satisfaction with Life Scale (SWL). Measurement Instrument Database for the Social Science. Retrieved on May 22 from: http://www.midss.org/sites/default/files/understanding swls scores.pdf.

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. Annual review of psychology, 52(1), 141-166. doi: 10.1146/annurev.psych.52.1.141

Singer, J. A. (2004). Narrative identity and meaning making across the adult lifespan: An introduction. *Journal of personality*, 72(3), 437-460. doi: https://doi.org/10.1111/j.0022-3506.2004.00268.x

Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The meaning in life questionnaire: Assessing the presence of and search for meaning in life. *Journal of counseling psychology*, *53*(1), 80-93. doi: 10.1037/0022-0167.53.1.80

Waters, T. E., & Fivush, R. (2015). Relations between narrative coherence, identity, and psychological well-being in emerging adulthood. *Journal of personality*, *83*(4), 441-451. doi: 10.1111/jopy.12120

#### Appendix A: Informed consent (German version)

The informed consent including information about the purpose of the study and confidential treatment of personal data.

#### Liebe/r.....,

Vielen Dank für Deine Teilnahme an meiner Forschung!

Dies ist ein Interview über die Lebensgeschichte. Als Psychologe bin ich daran interessiert, deine Geschichte zu hören, einschließlich der Vergangenheit, wie du dich an sie erinnerst, und der Zukunft, wie du sie dir vorstellst. Die Geschichte ist selektiv. Es beinhaltet nicht alles, was dir jemals passiert ist. Stattdessen werde ich dich bitten, dich auf ein paar wichtige Dinge in deinem Leben zu konzentrieren - ein paar Schlüsselszenen, Charaktere und Ideen. Es gibt keine richtigen oder falschen Antworten auf meine Fragen. Stattdessen musst du mir nur einige der wichtigsten Dinge erzählen, die in deinem Leben passiert sind, und wie du dir dein Leben in der Zukunft vorstellst. Ich werde dich durch das Interview führen, so dass wir alles in etwa zwei Stunden oder weniger schaffen.

Dieses Interview wird in Ton aufgenommen. Datensätze werden jedoch geheim gehalten und vertraulich behandelt. Es ist nicht beabsichtigt, tatsächliche Namen zu verwenden wenn Namen verwendet werden, werden sie so geändert, dass die Daten nicht zurückverfolgt werden können. Audiodateien werden nach der Analyse gelöscht.

Vom Teilnehmer auszufüllen:

Ich erkläre in einer für mich offensichtlichen Weise, über Art, Methode, Ziel und [falls vorhanden] Risiko und Belastung der Untersuchung informiert zu sein. Ich weiß, dass die Daten und Ergebnisse der Studie nur anonym und vertraulich an Dritte veröffentlicht werden. Meine Fragen wurden zufriedenstellend beantwortet.

Ich erkläre mich freiwillig bereit, an dieser Studie teilzunehmen. Ich behalte mir jedoch das Recht vor, meine Teilnahme an dieser Studie jederzeit ohne Angabe von Gründen zu beenden.

Bei Fragen wende dich an: I.friedsmann@student.utwente.nl

Name Teilnehmer: .....

Datum:.....

Unterschrift Teilnehmer .....

UNIVERSITY OF TWENTE.

## **Appendix B**: Demographic data (German version)

Fill-in questionnaire to collect participant's demographic data.

Fragebogen zum Hintergrund Ihrer Person Name:						
Vielen Dank, dass Sie sich die Zeit genommen haben, diesen Fragebogen auszufüllen.						
1. Geschlecht:						
2. Nationalität:						
3. Wohnort:						
4. Alter:						
5. Welche der folgenden Aussagen beschreibt Ihre Wohnverhältnisse am besten?						
Alleine leben						
Mit einem Partner leben						
Andere: Wenn andere, bitte spezifizieren:						
6. Berufliche Tätigkeit:						
7. Wenn Sie Kinder haben, geben Sie bitte an, wie viele:						

## Appendix C: SWLS (German version)

Self-report measures to collect participant's satisfaction with life.

Life Satisfaction (SWLS)

Name: \_\_\_\_\_

Anweisungen:

Im Folgenden finden Sie fünf Aussagen, denen Sie zustimmen oder nicht zustimmen können. Geben Sie mit der unterstehenden Skala von 1 bis 7 Ihre Zustimmung zu jedem Artikel an, indem Sie die entsprechende Nummer in die Zeile vor diesem Artikel einfügen. Seien Sie bitte offen und ehrlich in Ihrer Antwort.

- 1 starke Ablehnung
- 2 Ablehnung
- 3 leichter Ablehnung
- 4 weder Ablehnung noch Zustimmung
- 5 leichte Zustimmung
- 6 Zustimmung
- 7 starke Zustimmung

\_\_\_\_\_ In den meisten Punkten ist mein Leben meinem Ideal nahe.

\_\_\_\_\_ Meine Lebensbedingungen sind hervorragend.

\_\_\_\_\_ Ich bin zufrieden mit meinem Leben.

\_\_\_\_\_ Ich habe bisher die wichtigen Dinge, die ich mir vom Leben wünsche, auch

bekommen.

Wenn ich mein Leben noch einmal leben könnte, würde ich fast nichts

ändern.

Ed Diener, Robert A. Emmons, Randy J. Larsen and Sharon Griffin as noted in the 1985 article in the Journal of Personality Assessment.



## Appendix D: PANAS (German version)

Self-report measures to collect participant's positive and negative affect during the past 2

weeks.

Positive and negative Affect Schedule (PANAS-SF) Name: \_

Nun möchte ich gerne von Ihnen wissen, wie Sie sich fühlen. Die folgenden Wörter beschreiben unterschiedliche Gefühle und Empfindungen. Lesen Sie jedes Wort und tragen Sie dann in die Skala neben jedem Wort die Intensität ein. Sie haben die Möglichkeit, zwischen fünf Abstufungen zu wählen. Geben Sie bitte an, wie Sie sich in den letzten 2 Wochen gefühlt haben oder fühlen.

Geben Si den letzte haben.	e an, wie weit Sie sich in en 2 Woche so gefühlt	Gar nicht	Ein bisschen	Einigerma ßen	Erheblich	Äußerst
Panas 1	Interessiert					
Panas 2	Bekümmert					
Panas 3	Angeregt					
Pana 4	Verärgert					
Panas 5	Stark					
Panas 6	Schuldig					
Panas 7	Erschrocken					
Panas 8	Feindseleig					
Panas 9	Begeistert					
Panas 10	Stolz					
Panas 11	Irritiert					
Panas 12	Wach					
Panas 13	Beschämt					
Panas 14	Freudig angeregt					
Panas 15	Nervös					
Panas 16	Entschlossen					
Panas 17	Aufmerksam					
Panas 18	Gereizt					
Panas 19	Aktiv					
Panas 20	Ängstlich					

UNIVERSITY OF TWENTE.

#### Appendix E: MLQ (German version)

Self-report measures to collect participant's meaning in life.

The Meaning in Life Questionnaire	Name:
-----------------------------------	-------

Der Sinn des Leben

Bitte nehmen Sie sich einen Moment Zeit, um darüber nachzudenken, was Ihnen im Leben wichtig ist. Bitte antworten Sie auf die folgenden Aussagen so wahr und genau wie möglich. Denken Sie auch daran, dass dies sehr subjektive Fragen sind und es keine richtigen oder falschen Antworten gibt. Bitte antworten Sie anhand der untenstehenden Skala:

1	2	3	4	5	6	7
absolut falsch	Meistens falsch	Etwas falsch	Kann nicht sagen ob falsch oder wahr	Etwas wahr	Meistens wahr	Absolut wahr

- 1. \_\_\_\_\_ Ich verstehe den Sinn meines Lebens.
- 2. \_\_\_\_\_ Ich suche etwas, das mein Leben sinnvoll erscheinen lässt.
- 3. \_\_\_\_\_ Ich bin immer auf der Suche nach dem Zweck meines Lebens.
- 4. \_\_\_\_\_ Mein Leben hat einen klaren Sinn.
- 5. \_\_\_\_\_ Ich habe ein gutes Gefühl dafür, was mein Leben sinnvoll macht.
- 6. \_\_\_\_\_ Ich habe einen befriedigenden Lebenszweck entdeckt.
- 7. \_\_\_\_\_ Ich bin immer auf der Suche nach etwas, das mein Leben bedeutend macht.
- 8. \_\_\_\_\_ Ich suche einen Zweck oder eine Mission für mein Leben.
- 9. \_\_\_\_\_ Mein Leben hat keinen klaren Zweck.
- 10.\_\_\_\_\_ Ich suche nach einem Sinn in meinem Leben.

#### UNIVERSITY OF TWENTE.

Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The meaning in life questionnaire: Assessing the presence of and search for meaning in life. *Journal of counseling psychology*, *53*(1), 80.