Developing well-being as one grows older: A mixed method study

Lars Bauger

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Doctoral Dissertation

University of Agder

Faculty of Health and Sport Sciences

2019

Acknowledgements

First and foremost, I would like to thank my main supervisor Rob Bongaardt and my co-supervisor Elling Bere for their valuable input on the project and on me as a researcher. Especially Rob, who has been my main supervisor from the start of the project, deserves a special mention. From the start, my interview for the PhD position at Telemark University College in the fall of 2012, throughout the PhD period ending with the submission of this thesis, you have challenged and inspired me. You have been instrumental in most of the choices during my PhD period, with an important one being your support of me getting to spend a semester in the US. This was a terrific experience for me. And what fun we had when you visited me in Dayton. I hope for continued scientific cooperation with you, but even more that our personal relationship continues. Elling you first became attached two years ago, but nevertheless you have had a positive impact. You have a good eye for details, as well as the bigger picture, with insightful comments on the structure of this thesis. I hope in in the future that we can cooperate in an even more significant way. Even though he did not serve in any official role as a supervisor on my project, the contribution of Jack Bauer to this project has been important. You were a perfect host during my research stay in Dayton and included be both academically and socially. Your knowledge about well-being and development psychology has been a valuable resource for me trying to grapple with the complex topics in this thesis. I have learned a lot from our cooperation on one of the papers in this thesis.

There are several colleagues that deserve mentioning for their importance for me having a great PhD period at Telemark University College. From the social lunches with Gro Frøyen, Ragnhild Riis, Anne-May Teige, Olav Tangvald-Pedersen and Børge Baklien, to the more academic "stipendiatmøtene" with the other PhD students. A special thanks to both Børge and Olav for the valuable discussions about phenomenology in the now derelict f-brakka. Thank you, Thor-Arne Haukedal, Siv Roel, Kjersti Røsvik and Marit De Bortoli for the support and other perspectives that you have provided me with through our 'faux' literary club. To all my colleagues in the health promotion group in the department of Health, Social and Welfare Studies; thank you for your interest and support during my final stages of the project. Especially, Liv who accommodated this process, and Catherine and Susanne for your insightful comments and questions to my project.

I would also like to thank the participants in this project. You opened yourself and in some cases your home to me; this project would not have been possible without you

Most of all I want to thank my mother and father and the rest of my family for their lasting support of me. During the PhD period I have met you Anette, the love of my life, and have started my own family with you. I am ever grateful for all your love and support through the process. You, Ola and Tuva have been a haven to come home to in times of struggle with the PhD process. Although I have written a PhD thesis on the topic of the good life, it is through you three that I have gotten a new perspective on what matters in life, and what the good life consists of for me.

Summary

Living the good life has been a topic of interest for centuries and is often captured by the phenomenon of well-being. However, there are different opinions on what well-being consists of and what the good life entails. The different understandings of well-being are typically categorized as concerned with either hedonia (feelings and experiences) or eudaimonia (positive functioning), but there are also integrated approaches that combine the two perspectives. Most would agree that the experience of both hedonia and eudaimonia can be considered the greatest form of well-being. In addition to the interest in understanding what well-being consist of, there are substantial investigations into the phenomenon's relationship with, and effects on, other phenomena. In this thesis, old age and the capacity for self-authorship are two phenomena which well-being is investigated in relation to.

Regarding old age, the great accomplishment of lifespan increases in the 20th century have resulted in the period of old age being more heterogenous, which can be demarcated into a positive and negative period of old age. The positive period is by some called the third age, where one as retired still has relatively good health, active social engagements and personal fulfilment. The negative period is called the fourth age and includes the final period of life, categorized by functional decline. It is a public health concern to ensure that the increasing lifespan includes more healthy and good years and not just a prolongation of the period of illness and morbidity; i.e., it is a goal to increase the period of third age while compressing the fourth age. In this thesis, the promotion of well-being in retirement is argued to have value in this ideal of extending the third age. However, in such work it is important to understand what the characteristics of the period is, as well as how well-being is experienced by the retirees themselves. The characteristics of the period can be argued as having few social structures and socially defined roles, compared to the former period of adulthood.

This freedom *from* and freedom *to* can be a blessing for many in the third age. Nonetheless, this thesis proposes that to act on this freedom requires the psychological maturity of self-authorship. That is, the retirees need to have an internal capacity to determine who you are, what you believe and what you value being very free with few norms. Such self-authorship is a concern in constructive developmental theories and is one of the main topics in this thesis, in addition to well-being and aging.

The overarching aim of the thesis was to explore how well-being is experienced by people in the third age, which factors contribute to well-being, and how the promotion of well-being could benefit from a constructive-development perspective. This overarching aim led to three specific aims, addressed in three separate paper: (1) to explore the theoretical arguments for health promotion in the third age, (2) to explore the lived experience of well-being among recently retired individuals, and (3) to investigate if psychological maturity is a significant predictor of well-being in old age.

To achieve the overall aim of the thesis, both an empirical and a theoretical approach were employed. This thesis is comprised of two empirical papers and one theoretical paper. The two empirical papers investigated the phenomenon of well-being by employing qualitative and quantitative methodology; the thesis thus presents a mixed method study. In paper 1, no empirical data was collected. Based on existing research literature, a novel approach to health promotion initiatives in the third age was proposed by employing constructive-developmental theory. Paper 2 was based on interview data collected in 2015. The data consisted of nine phenomenological interviews with recent retirees about their lived experiences with the phenomenon of well-being. The interviews were analyzed according to the descriptive phenomenological method of Giorgi and the main results consisted of a general meaning structure of the phenomenon as it was experienced by the retirees. From this meaning structure four constituents were identified: (1) an awareness and gratitude for a healthy and functioning body, (2) a new experience of time presenting possibilities for action, (3) a heightened sense of agency, and (4) being-in-place in relationships. The constituents were interrelated and not independent of each other, but rather emerge from one another and loops back and facilitate each other. Paper 3 was based on cross-sectional data collected in the Study of Adult Life and Transitions (SALT). Based on written descriptions from 223 participants (*M* age = 46,4 years) about a highpoint of their time at university, we were able to score the description for its level of psychological maturity. This was investigated in relation to eudaimonic factors, personality, age and subjective well-being (SWB). We hypothesized that psychological maturity would moderate the relationship between age and SWB. That is, we hypothesized that the psychological maturity level of self-authorship would be significant for SWB in old age, but not in adulthood. We did not find support for this hypothesis. Surprisingly we found that self-authorship was related to SWB for participants in adulthood, while there was no relation for those in the third age.

This thesis also includes a methodological innovation. In the quantitative study an already established measure (Subject-Object Interview) was reworked to enable it to be applicable to short descriptions, rather than interviews, for which it was originally developed. Although the measure loses some specificity in the process when used with short written narratives (compared to interviews), the results are promising and make it feasible to include it in larger sample studies.

This thesis and its three papers expand on the current understanding of well-being and present a novel approach for health promotion efforts to increase individuals' experience of well-being. The use of a mixed-method approach to explore the phenomenon of well-being led to the emergence of a detailed description of the phenomenon in this study. The findings acknowledge both hedonic and eudaimonic aspects, as well as aspects which previously have not been associated with, or considered as constituents of, well-being. In sum, the three studies empirically and theoretically highlight the capacity for self-authorship as an important aspect of individuals' well-being.

List of Papers

Paper 1

Bauger, L., & Bongaardt, R. (2017). Structural developmental psychology and health promotion in the third age. *Health Promotion International*. doi:10.1093/heapro/daw104

Paper 2

Bauger, L., & Bongaardt, R. (2016). The lived experience of well-being in retirement: A phenomenological study. *International Journal of Qualitative Studies on Health and Well-being*, 11. doi:10.3402/qhw.v11.33110

Paper 3

Bauger, L., Bongaardt, R., & Bauer, J. J. Maturity and happiness: The development of self-authorship, eudaimonic motives, generations, and subjective well-being. Manuscript submitted for publication to the *Journal of Happiness Studies*

Appendices

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1   Introduction

This thesis revolves around three major topics within the field of psychology: well-being, aging and psychological maturity. The focal point is well-being. Through this project, I have appreciated that the phenomenon of well-being is complex and that what it entails is somewhat different in various research fields. I will therefore outline and review these different understandings of well-being, as well as how I understand and use it in my thesis. However, I am not just interested in what well-being is; I am also interested in well-being in relation to growing older. My interest in this relationship is both at the individual level, in terms of how one's well-being is affected by growing older, and at a more global level, in how societies can contribute to the well-being of an increasingly older population. I, and many others, view well-being as an important phenomenon in this global demographic shift, since it can enhance life outcomes and serve as protection against disability, disease and early mortality. In addition to well-being having positive outcomes, it could arguably be considered the most important outcome in itself. I argue in this thesis that health promotion efforts towards the aging population should target the promotion of well-being in old age.

It is important to appreciate the nuances of the terms employed here. Old age is a period categorized by considerable heterogeneity and it is therefore helpful to differentiate between a third and a fourth age, or the young-old and the old-old. Here, the third age is the period after retirement from work, when many people have a generally positive experience of growing older, with good physical and mental health and the means and opportunities for self-fulfillment and self-reliance. The other side of old age, the fourth age, covers the final period of a person's life, characterized by functional and biological decline. My focus is on the period of third age and the opportunities to extend this positive period, while compressing the "negative" fourth age. Although the promotion of well-being is important or valuable in all phases of life, in this thesis, I argue that the entry to third age is especially important for health promotion initiatives, as retirement is a period with limited established norms or social structure. I suggest that retirees or third agers are left to their own devices and are required to be their own catalyst for the life they want to live. However, not all those who retire may have developed such an internal capacity for self-authorship, which I argue would have a negative impact on the third agers' well-being.

This capacity for self-authorship is a theme in theories of psychological maturity and is the third and final (major) topic in my thesis. Here I highlight the capacity for self-authorship, i.e. the ability to generate and coordinate one's beliefs and values oneself rather than depending on external influences for this, as a contributing factor to third agers' well-being. In psychological maturity theories, the increasing capacity for complex thinking about oneself and others is considered unrelated to a person's well-being, the consensus being that more complex does not equal better, just more complex. Contrary to this, I argue that at least the more complex way of thinking that is self-authorship is in fact related to a person's well-being.

I view the combination of the three topics of well-being, aging and Psychological maturity as the novelty of my thesis; where previous research and dissertations have investigated one or two of these points, I have yet to see the three combined. The overall research aim for this thesis is therefore to explore the phenomenon of well-being in the third age, the essential characteristics of the phenomenon, the factors that significantly predict it, and to what extent and how the developmental capacity of self-authorship is essential for well-being in the third age.

In this chapter, I review the literature on the three main points of my study (well-being, aging and psychological maturity), as well as how they are connected.

1.1 Well-being

As mentioned above, well-being is a complex term that has different understandings in different research traditions. To complicate matters further, the often-used translation in Norwegian (velvære), has a different colloquial understanding than its English equivalent. A quick Google search for the term velvære results in several websites for various spa, fitness and skincare facilities, in addition to the Wikipedia page for velvære (the Norwegian counterpart to the English language Wikipedia page for well-being). The same procedure for the term well-being results in a different selection of results, mainly concerned with research, health and public policy. In addition to the book edited by Næss, Moum, and Eriksen (2011) on the topic of the good life, recent efforts by Carlquist (2015, 2016) have explored how the phenomenon of well-being is, or can be, understood in the Norwegian context. The interest in well-being in the Norwegian context folds into an increasing general interest in well-being, both in research (Vik & Carlquist, 2018) and in public policy (Taylor, 2015).

1.1.1 Well-being in philosophy

To appreciate the current understanding of well-being in psychology, it is useful to connect the concept to its philosophical underpinning. In her survey of philosophical theories of well-being, Tiberius' (2013) reasons that they can be defined as either subjective or objective theories. In this dichotomy, the subjective theories hold that subjective qualities of our experience are the essence of a good life, while the objective theories value the quality of the "activities and achievement themselves (as distinct from how we experience them)" (Tiberius, 2016, p. 566). Michalos and Weijers (2017) use a similar distinction between subjective and objective in their review of the different traditions of well-being.

Hedonic theories, which are considered to be subjective, view well-being as the presence of pleasure and the absence of suffering (Haybron, 2016). The hedonic understandings of the good life can be traced back to Greek philosophy, with Antiphon (c. 480-411 BC) and Democritus (c. 460-370 BC) being among the earliest records of the good life as a pleasurable life or a life seeking pleasure (McKirahan, 2010; Michalos & Weijers, 2017). However, the ancient philosopher most associated with the hedonic tradition in philosophy is Epicurus (c. 341-271 BC) who in his letter to Menoeceus called pleasure "the alpha and omega of a happy life. Pleasure is our first and kindred good". As Feldman (2004) notes, hedonism in modern everyday language suggests "something a bit vulgar and risqué" (p. 21), but this was also a common (mis)understanding that Epicrus complained about. He wrote that

> [w]hen we say, then, that pleasure is the end and aim, we do not mean the pleasures of the prodigal or the pleasures of sensuality, as we are understood to do by some through ignorance, prejudice, or willful misrepresentation. By pleasure we mean the absence of pain in the body and of trouble in the soul (para. 6).

In fact, Epicurus advocated an ethic of moderation and forgo some pleasures while striving towards a healthy body and peace of the soul (Lenoir, 2015). The modern roots of hedonic theories of well-being can be found in the classic utilitarianism of Jeremy Bentham (1748-1832) and John Stuart Mill (1806-1873). Following in the tradition of Epicurus, Bentham (1789/2017) opens his classic book *Introduction to the Principles of Morals and Legislation* by stating that "Nature has placed mankind under the governance of two sovereign masters, pain and pleasure. They alone point out what we ought to do and determine what we shall do" (p. 6). For Bentham happiness

entailed having the most amount of pleasure while minimizing experiences of pain. In measuring the amount of pleasure and pain felt at any moment, or from a potential action, Bentham points to the duration, intensity, certainty, extent and nearness of the experience as important, where the momentary happiness could be calculated by summing the total pleasures minus the total pains (Michalos & Weijers, 2017). A common critique of Bentham's hedonic utilitarianism is that it considers all pleasures as equal and measured against the criteria above in the same way, where no additional value is put upon moral or intellectual pleasures (Weijers, 2012). This critique is often referred to with Thomas Carlyle (1795-1881) description of hedonic utilitarianism as the philosophy of the swine (Crisp, 2017). In Mill's (1863/2009) further development of utilitarianism, the quality of the pleasure was taken into account when calculating their value. He argued that "[i]t is quite compatible with the principle of utility to recognise the fact, that some kinds of pleasure are more desirable and more valuable than others" (Mill, 1863/2009, p. 16). Mill distinguished between higher and lower pleasures, where lower pleasures were those of the body (e.g. eating, drinking, having sex), while the higher pleasure were those of the mind (e.g. reading poetry, philosophy, listening to opera)[1]. Although the subjective experience of the person is the focal point in hedonic approaches, it can also encompass a collective good (Carlquist, 2016). An example is hedonistic utilitarianism and its principle of maximizing the sum total of well-being (Tännsjö, 2007), where, in contrast to hedonistic egoism, the well-being of everyone is given equal weight (Weijers, 2012). With hedonic theories considering pleasure and pain as the only thing of ultimate importance, they are distinctive and philosophically interesting, while also quite unpopular (Weijers, 2012). They are often criticized for missing something meaningful besides the experience of pleasure (Tiberius, 2013). This is often illustrated by using Nozick's (1974) thought experiment[2] of an experience machine that you could plug into, which could give you any experience you desired. The point of Nozick's

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[1] The famous statement from Mill (1863/2009) illustrates the distinction between the two pleasures and address the philosophy of swine critique: *It is better to be a human being dissatisfied than a pig satisfied; better to be Socrates dissatisfied than a fool satisfied. And if the fool, or the pig, is of a different opinion, it is because they only know their own side of the question. The other party to the comparison knows both sides* (p. 19).

[2] The thought experiment of Nozick (1974): *Suppose there was an experience machine that would give you any experience you desired. Super-duper neuropsychologists could stimulate your brain so that you would think and feel you were writing a great novel, or making a friend, or reading an interesting book. All the time you would be floating in a tank, with electrodes attached to your brain. Should you plug into this machine for life, preprogramming your life experiences? [...] Of course, while in the tank you won't know that you're there; you'll think that it's all actually happening [...] Would you plug in?* (pp. 42-45)

argument is that few people would want to plug into such a machine, indicating that other things than pleasure are important to us (Tiberius, 2013), e.g. "doing and knowing (as opposed to just seeming to do and thinking we know) can matter to us" (Tiberius, 2013, p. 22).

Responding to the critique of hedonic theories of well-being, desire or preference theories developed. These theories generally propose that one's well-being corresponds with having "one's (intrinsic) desires satisfied" (Kagan, 1992, p. 170). Regarding the pleasure machine, there is something that we want which the machine cannot produce. The benefit of these theories is how they account for individual differences in causes and components of well-being (Tiberius, 2013), i.e. people become happy because of different things. One problem in such theories is that we sometimes desire things that turn out to be not good for us (Heathwood, 2014). To account for these instances, it is argued that we would not in fact desire these things if we had full information, in what is called informed desire theories (Tiberius & Hall, 2010). In addition to this being an improbable ideal, such fully informed desires could be quite different from how individuals actually feel about things (Tiberius, 2013). A related, subjective well-being theory is the life satisfaction theory, which posits that well-being consists of a positive evaluation of one's condition or circumstance in life (Sumner, 1996). However, this evaluation only 'matters' and can be considered well-being if it is informed and autonomous. For example, an oppressed person's positive evaluation of his/her current circumstance in life would not be considered well-being. Criticizing the life satisfaction theory, Haybron (2008b) argues that our actual evaluations are somewhat arbitrary, and "whether you are satisfied with your life depends on how you look at it" (p. 95). This, in combination with the argument that people do not regularly think about how their life is going, makes these judgements susceptible to influences from contextual factors (Haybron, 2008b).

These subjective experiences of well-being are contrasted in objective theories of well-being, which highlight items or conditions that are good for a person, independent of a person's subjective experience of them (Carlquist, 2016). Based on this distinction, subjective and objective approaches are often respectively called 'state of the mind' and 'state of the world' theories of well-being. One version of the objective approach is objective list theories (Arneson, 2006), "which list items constituting well-being that consist neither merely in pleasurable experience nor in desire-satisfaction" (Crisp, 2017). What is included as items on the list varies according to the theory, but in

general they tend to be items that intuitively appear to be good, such as friendship, knowledge and achievement (Crisp, 2017; Tiberius, 2013). In being detached from people's experiences and desires in claiming what is good for them, objective list theories have been criticized as elitist or paternalistic (Crisp, 2017). Another critique highlights how these theories lack a necessary explanation as to why/how the items on the list are objectively valuable, where it appears to be "mere lists of ingredients, not recipes that explain the presence of the ingredients on the list" (Tiberius, 2013, p. 26). Other objective approaches argue that certain items are on the list as essential to our nature, and by realizing them we are realizing our full potential (Haybron, 2008a). These theories are often rooted in Aristotle (384-322 BC) and linked with the Greek term eudaimonia (Tiberius, 2013), which was the highest good for Aristotle (350 BC/2009). The direct translation of eudaimonia is often given as happiness, but this could be misleading as this term implies an affective state (positive) or life satisfaction (Carlquist, 2016). According to Nussbaum (2012) this is a modern understanding of happiness in the English language following Bentham's oversimplification of the term, while the Aristotelian understanding of happiness dominated before Bentham. The Aristotelian understanding of the term eudaimonia is "living a fully realized human life" (Fowers, 2016, p. 67), where any positive affective state was considered as a result of living well, not a component of eudaimonia itself. This pursuit of living a fully realized human life is considered as an end in itself and intrinsically valuable, whereas wealth and power are useful for something else and therefore hold extrinsic value (Aristotle, 350 BC/2009) According to Fowers (2016), the concept of eudaimonia for Aristotle has several features, such as being an ethical concept (living the best kind of life), a virtuous activity (a way of living that actualizes the virtues and not limited to a subjective state), having multiple constituents (humans as social reasoning beings who flourish thorough friendships, justice, politics and many other goods), complete life (concerns one's life coming together as a whole and not a series of psychological states).

Tiberius (2014) suggests there is a tradeoff between the subjective and objective approaches, where in the subjective approach, the greater focus there is on peoples' subjective states, the less there is of an ideal and aim for human life. On the other hand, the focus of the objective approach on objective features outside of a person's psychological state makes it less of an obvious concern for individuals. In attempting to resolve the dilemma/tradeoff, she introduced a hybrid theory which highlights a person's values as the key psychological state of interest (not desires or pleasure),

while also explaining why well-being is something people care about (Tiberius, 2014). In this theory, labelled the value fulfillment theory of well-being (VFT), the best life is to have the most of what one values (affected by one's personality and environment), and what one should do in the moment is what contributes to one's best 'value full' life.

1.1.2 Well-being in psychological research

How the concept of well-being is understood and applied in psychology is often divided into two different approaches, the hedonic and eudaimonic perspectives on well-being (A. Adler & Seligman, 2016; Huppert & Ruggeri, 2018; Huta, 2017; Ryan & Deci, 2001; Waterman, 1993). These two different 'umbrellas' align closely with the subjective vs. objective distinction in philosophy. In his simplified depiction, Vittersø (2016, p. 6) describe[3] hedonic well-being as being happy *in* life, as well as being happy *with* your life, while eudaimonic well-being is *having* a happy life. Another conception of the two approaches is Ryan, Huta, and Deci (2008) understanding of hedonic well-being as focusing on a specific outcome, while eudaimonic well-being focuses on the "*content* of one's life, and the *processes* involved in living well" (p. 140, emphasis in original). Hedonic well-being in psychology includes both the affective experiences of philosophical hedonia and the life satisfaction approach. The eudaimonic approach to well-being tends to focus on what constitutes well-being, following the objective list tradition and mostly a collection of approaches or theories that "do not rely on an explicit affective component" (Kashdan, Biswas-Diener, & King, 2008, p. 221).

1.1.2.1 Hedonic well-being – emotions and satisfaction with life

The most accepted conceptualization of well-being in the hedonic approach is Diener's (1984) tripartite model of subjective well-being (SWB), which identifies positive and negative affect (how we feel), and life satisfaction (what we think). The dimensions of 'how we feel' and 'how we think' can be evaluated at levels ranging from a general to a more specific or immediate level (Vittersø, 2013a), i.e. we can evaluate our satisfaction with life in an overall sense, or how satisfied we are in this moment, as well as a more intermediate level of the last weeks/months. Researchers in this tradition have investigated SWB extensively and in relation to a wealth of topic, e.g. individual and social predictors of SWB (Carlquist, 2016), cultural differences in SWB

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[3] In his introduction to the Handbook of Eudaimonic Well-Being, he uses the term happiness 1 and happiness 2 for hedonic and eudaimonic well-being, respectively.

(Biswas-Diener, Vitterso, & Diener, 2005), positive effects of SWB (Diener & Chan, 2011), trajectories of SWB across the lifespan (Luhmann, Hofmann, Eid, & Lucas, 2012), promotion of SWB (Lyubomirsky, Dickerhoof, Boehm, & Sheldon, 2011), to name a few (for a recent review see Diener et al. (2017)). SWB has recently been argued as a valuable indicator for public policy (Diener, Lucas, Schimmack, & Helliwell, 2009; Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004) with the aim of improving societies across the globe (Diener, Oishi, & Lucas, 2015).

The SWB tradition has operationalized the dimensions of subjective well-being using factor analysis, with separate measures for life satisfaction and positive and negative affect. Evaluations of one's own life are (obviously) performed by self-reporting, and predominantly measured using the five-item Satisfaction With Life Scale (SWLS) (Diener, Emmons, Larsen, & Griffin, 1985; Pavot & Diener, 2008). Participants are asked for their level of agreement (on a seven-point scale) with the following five statements: In most ways my life is close to my ideal; The conditions of my life are excellent; I am satisfied with my life; So far, I have gotten the important things I want in life; If I could live my life over, I would change almost nothing. There are also single-item measures of satisfaction with life, with either a direct question (all things considered, how satisfied are you with your life) (Bjørnskov, 2010; OECD, 2013) or the Cantril ladder (imagine a ten-step ladder, with ten being the best and zero the worst possible life; which step are you on?) (Bjørnskov, 2010; Cantril, 1965). The single-item measures have been employed in large international surveys such as World Values Survey (direct question) and the Gallup World Poll (Cantril's ladder) (Bjørnskov, 2010; Diener, Inglehart, & Tay, 2013). However, the multiple item measures of life satisfaction are more frequently employed in psychological research and demonstrate better reliability than the single item measures (Krueger & Schkade, 2008). In addition to information on reliability, the psychometric properties of multiple-item measures have been extensively investigated and validated (Diener et al., 2013).

The other component of SWB is people's emotional experiences, which are often referred to as the balance of positive and negative affect (Kahneman & Deaton, 2010). Two popular measurements of both positive and negative affect are the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) and the Scale of Positive and Negative Experiences (SPANE; Diener et al., 2010). The PANAS comprises ten positive and ten negative feelings (e.g. interested, excited, inspired,

hostile, ashamed, upset), to which the participants rate, on a five-point scale, the extent to which they are feeling each of the feelings. The PANAS is the preferred scale to measure this emotional component of well-being, considered the gold standard (Jovanović, 2015), and has demonstrated good psychometric properties (Crawford & Henry, 2004). However, it has been criticized for including items that are not normally considered as emotions (active, alert, strong), as well as not including basic emotions such as happy or sad (Diener et al., 2010; Jovanović, 2015). The SPANE is a recent development aiming to overcome the limitations of the PANAS (Jovanović, 2015), with both general (positive) and specific emotions (sad). The SPANE also uses a five-point rating scale but does not ask for the intensity of the feeling (how strong); instead, the scale is based on the frequency of the feeling (how often). It consists of 12 items, six positive (e.g. positive, good, pleasant) and six negative (e.g. negative, bad, unpleasant). The scale has demonstrated adequate psychometric properties (Diener et al., 2010), validated in several different cultures (Li, Bai, & Wang, 2013; Rahm, Heise, & Schuldt, 2017; Silva & Caetano, 2013; Sumi, 2014), and preliminary research has found it a better predictor of well-being than the PANAS (Jovanović, 2015).

1.1.2.2 Eudaimonic well-being – positive functioning

The eudaimonic approach argues that well-being consists of "more than just happiness" (Ryan & Deci, 2001, p. 143), which is an often-used synonym for subjective well-being (Diener, Suh, Lucas, & Smith, 1999; Kashdan & Steger, 2011). The eudaimonic tradition in psychology is often considered to be rooted in an Aristotelian framework (Carlquist, 2016), where eudaimonia is defined as "[…a character of persons that entails living in accordance with reason and moderation, and aiming toward excellence and the realization of a complete human life" (Ryan et al., 2008, p. 143). In contrast to the hedonic approach, there are several understandings of what constitutes eudaimonic well-being, without a consensus on theory or methodological approach (Disabato, Goodman, Kashdan, Short, & Jarden, 2016; Kashdan et al., 2008). The eudaimonic approaches mentioned below are only a selection of a multiple attempts to define eudaimonic well-being, illustrated by Vittersø's (2016) list of 41 different conceptualizations of eudaimonia. In general terms, some see the eudaimonic well-being approach as a convergence on positive human functioning (Huppert & So, 2013), living well and actualizing one's human potentials (Deci & Ryan, 2008), and the exclusion of an affective component (Kashdan et al., 2008). These perspectives draw on pioneers in humanistic psychology such as

Maslow (1968), Rogers (1961) and Allport (1961), who have acted as inspiration for one prominent eudaimonic theory of well-being (Ryff, 1989a). According to Vittersø (2016), three theories dominate the field of eudaimonic well-being: the theory of psychological well-being (PWB; Ryff, 1989b), eudaimonic identity theory (Waterman, 1993) and the self-determination theory (SDT; Ryan & Deci, 2000). PWB is a broad theory of well-being and was originally proposed as a critique of the prevailing hedonic understanding of well-being (Deci & Ryan, 2008). This theory was inspired by humanistic, developmental and clinical psychology and proposed six different aspects that constitute psychological well-being: self-acceptance, personal growth, autonomy, relationships, environmental mastery, and purpose in life (Ryff, 1989a, 1989b; Ryff & Singer, 2008). The definitions of these dimensions were based on each of their respective conceptual underpinnings, which was the starting point for the operationalization of the different dimensions (Ryff, 2018). Such a theory-driven research approach is argued to be more prominent in the eudaimonic tradition (Kashdan et al., 2008). Ryff (2016) argues that this theoretical foundation, as well as being subject to "rigorous empirical scrutiny" (p. 96), is a reason for the PWB model's perseverance in the literature. PWB is usually measured with either the long form 84-item version (14 items for each dimension) or the shortened 42-item version (seven items for each dimension) version (Ryff, 2014).

Waterman's eudaimonic identity theory is concerned with eudaimonic well-being (EWB). In this theory, essential dimensions are the notion of self-realization, understood as the identification and development of one's true potential, and well as the achievement of self-expressed goals are essential dimensions (Vittersø, 2016). Such goals are chosen voluntarily and considered as a representation of the self or realization of our human nature (Ryan et al., 2008). Where other famous paradigms of identity focus on the process of how the identity is formed and expressed (e.g., Erikson & Erikson, 1982/1997; Marcia, 1966), eudaimonic identity theory aims to address the quality of the so called identity decisions, where better quality identity choices being those that a person could be more successful at compared to other alternatives (Waterman, 2014). The better identity choice can be identified as experiences of personal expressiveness (Waterman uses this term interchangeably with eudaimonia, see Waterman & Schwartz, 2013), which involve a sense of being engaged and connected with a particular activity, which feels right and something one is meant to do (Waterman, 2014). Put in other words, personal expressiveness can be considered as the "feeling that follows from having one's best potentials actualized" (Thorsteinsen

& Vittersø, 2018, p. 91). Two notable instruments have been developed to study eudaimonic identity functioning, one at the within-person level focusing on particular activities called the Personally Expressive Activities Questionnaire (PEAQ) (Waterman, 1993), and one at the between-person level called Questionnaire for Eudaimonic Well-being (QEWB). The PEAQ asks participants to identify five activities that are important for them and could be used to describe themselves to another person, and they are then asked to rate the activities on a 7-point scale for the feelings of personal expressiveness. The activities with average item-scores at or above 6 can be considered to reflect eudaimonic functioning (Waterman & Schwartz, 2013). The operationalization of EWB was inspired by eudemonic philosophy (Waterman & Schwartz, 2013) and resulted in the 21-item Questionnaire for Eudaimonic Well-Being (QEWB; Waterman et al., 2010). The QEWB is considered as a unidimensional scale, i.e. an overall index of EWB (Waterman & Schwartz, 2013), but there have been indications that the scale should be considered multidimensional (Schutte, Wissing, & Khumalo, 2013).

Similar to Waterman's focus on self-expressed goals, Ryan and Deci (2000), in their self-determination theory (SDT), highlight intrinsic goals and values as an important aspect for human beings. For Ryan et al. (2008), eudaimonic living is the pursuance of such intrinsic goals for their own sake, behaving autonomously, being mindful and aware, and behaving in ways that satisfy the basic psychological needs of competence, relatedness and autonomy. SDT has been linked with eudaimonic well-being since Ryan and Deci (2001) reviewed the literature on well-being; however, research on SDT emerged as early as the 1970s and entails a plethora of topics apart from merely eudaimonic well-being (Huta & Waterman, 2014). Although most of the empirical work has been in the SDT framework, connections with eudaimonia have been extensively described at the theoretical level (Ryan et al., 2008; Ryan & Martela, 2016), and have been investigated empirically with different SDT measures (Huta & Waterman, 2014). In particular SDT's mini-theory[4] of basic psychological needs propose that the satisfaction of the three needs (competence, relatedness and autonomy) are essential for optimal development, integrity and well-being (Ryan & Deci, 2017). In line with Aristotle, SDT propose that happiness (SWB) is a byproduct of living a fully functioning life, or as "one symptom or indicator of wellness" (Ryan & Huta, 2009, p. 203), and that such a way of living is also associated with other

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[4] Ryan and Deci (2017) describe six mini-theories within the Self-Determination Theory.

elements of wellness. The satisfaction of the three psychological needs in relation to well-being have been demonstrated both in between-person and within-person studies (Ryan & Deci, 2017). Where individual differences in need satisfaction have been used to predict different well-being indicators. In Chen et al. (2015) cross-cultural study where the satisfaction of the three basic needs was positively associated with life satisfaction and vitality, while the frustration of these needs was negatively associated with life satisfaction. Another example is Martela, Ryan, and Steger (2018) who through three studies found the satisfaction of needs to significantly predict different measures of meaning in life, which is often considered a key aspect of eudaimonic well-being (Steger, Shin, Shim, & Fitch-Martin, 2013), even when controlling for positive affect. One example of a study at the within-person level is Ryan, Bernstein, and Warren Brown (2010) study into the weekend effect on well-being among an adult working population. They sampled the participants' experiences three times a day over a period of 21 days and found that participants had enhancements in well-being during the weekend or nonworking times. Interestingly these differences in well-being was mediated by the satisfaction of the needs of autonomy and relatedness, which supported Ryan et al's (2010) hypothesis that the weekend is positive for one's well-being as it provides more opportunities for satisfying the psychological needs of autonomy and relatedness.

In addition to these three dominant approaches to eudaimonia, several other understandings of what constitutes eudaimonic well-being exist. One such approach is Vittersø's functional well-being approach (Vittersø, 2013b; Vittersø, Søholt, Hetland, Thoresen, & Røysamb, 2009), which highlights positive emotions (other than pleasure) that are not considered hedonic (Vittersø, 2013a). Such feelings include interest, engagement and inspiration, and have been called eudaimonic feelings (Vittersø, 2013a). According to Vittersø, hedonic pleasurable feelings function as a way to tell that a goal has been reached, however other feelings are necessary for stimulation of behavior that strives towards a goal (Vittersø, 2013b). He states: "the role of HWB [hedonic well-being] is to facilitate stability and adaption, whereas the role of eudaimonic well-being is to facilitate growth and accommodation" (Vittersø, 2013a, p. 51). Another approach is Steger's conceptual model of meaning in life (Steger, 2012; Steger, Frazier, Oishi, & Kaler, 2006), which highlights meaning as foundational for well-being (Steger et al., 2013). In this model, meaning in life is understood as the degree to which a person has a sense of comprehension (their life makes sense) and a sense of purpose in life (Steger et al., 2013). Recently, the model

has also included significance as one of the cornerstones of meaning in life (Martela & Steger, 2016; Steger, 2016). The Meaning in Life Questionnaire (MLQ; Steger et al., 2006) is frequently used to measure meaning. The MLQ consists of 10 items and differentiates between presence of meaning (how meaningful one considers one's life) and search for meaning (a desire to discover more or new meaning in one's life). Bauer (2016) argues the eudaimonic concept of meaning as a good umbrella term for the qualities of the good life that is not SWB. Here meaning can be understood in many ways, e.g. as the degree to what kinds of meaning one is drawn towards (growth motivation; Bauer, Park, Montoya, & Wayment, 2015), the degree to which a person experiences meaningfulness (Steger, Frazier, Oishi, & Kaler, 2006), as well as the organizing structure of the meanings (Kegan, 1982, 1994).

Critiques have questioned the validity and usefulness of the distinction between hedonic and eudaimonic well-being (Kashdan et al., 2008; Sheldon, 2013). In their review of the hedonia-eudaimonia research literature, Huta and Waterman (2014) summarized three challenges to the field. Firstly, they point to the plethora of conceptualizations of both hedonia and eudaimonia, leading to different research approaches yielding inconsistent findings. Secondly, the two concepts are often asymmetrically defined, e.g. hedonia as a way of feeling while eudaimonia as a way of behaving (Huta & Ryan, 2010), while comparisons between the two often assume that they are symmetrically defined. Lastly, they point out that the looseness of how eudaimonia is treated places it at risk of becoming a catch-all term of positive psychology (Kashdan & Steger, 2011), where affect and satisfaction in SWB are "the only positive psychology constructs definitely *not* included in the EWB category" (Sheldon, 2018, p. 118, emphasis in original). The issue might not be resolved yet, but most psychologists seem to see value in both of these approaches (Henderson & Knight, 2012), and suggest that a life where one is experiencing the combination of both hedonia and eudaimonia is associated with the greatest well-being (Huta & Ryan, 2010). Integrated approaches to well-being have been proposed where high levels of both types of well-being are described with the term flourishing (Diener et al., 2010; Huppert & So, 2013; Keyes, Shmotkin, & Ryff, 2002; Seligman, 2011).

Both the eudaimonic and hedonic approaches to well-being, as well as the integrated approaches, primarily rely on quantitative studies using scale measurements (Delle Fave, Brdar, Freire, Vella-Brodrick, & Wissing, 2011). This can be considered a limitation as it does not include participants' own idea of what well-being is and may

also perpetuate a Western ideal of well-being (Christopher & Hickinbottom, 2008). A notable distinction lies between individualism and collectivism (Hofstede, 2001), where, compared to Western countries, the ideas of well-being in South and East Asian countries seem to be less contingent on personal achievement (Uchida, Norasakkunkit, & Kitayama, 2004). In their pragmatic mixed-method study, Delle Fave et al. (2011) developed a project that explored both qualitative and quantitative aspects of well-being[5]. Through the qualitative analysis, the researchers investigated how people define happiness and what they consider most meaningful to them. The quantitative analysis compared happiness and meaningfulness across different life domains and explored the relationship between meaningfulness, happiness and life satisfaction. The participants defined happiness as both involving contextual life domains and an inner psychological state, where the most frequent contextual definition highlighted interpersonal relationships with family and significant others, while the most frequent psychological definition revolved around the concept of inner harmony (Delle Fave et al., 2011). The importance of social connectedness in lay persons definition of well-being was not surprising, as it has been highlighted by several eudaimonic approaches; however, the dimension of harmony has previously been overlooked in well-being research (Delle Fave et al., 2011). In a further exploration of lay persons' conceptions, Delle Fave et al. (2016) found the same trend of inner peace as the most mentioned aspect in psychological definitions, while family and social relationships dominated the contextual definitions. This is an illustration of how a qualitative approach to well-being, which is rarely used, has the potential to deepen our understanding of the phenomenon.

This section has outlined the different philosophical understandings of the term well-being and how they appear in empirical research. This thesis employs a broad psychological understanding of the phenomenon of well-being, including both eudaimonic and hedonic aspects. It also explores people's experiences of well-being by providing, in one of the papers, a phenomenological in-depth description of the lived experiences of the phenomenon. As this thesis relies on subjective experiences with the phenomenon, both hedonic and eudaimonic well-being, some would argue that this approach aligns philosophically with the subjective approach, i.e. the

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[5] Delle Fave et al. (2011) preferred the term happiness for aspects of hedonic and eudaimonic well-being that can be investigated empirically, while well-being was understood as an overarching umbrella construct that may have multiple understandings which also include happiness

eudaimonic theories are theoretically based in the objective tradition, but when they are operationalized they measure people's subjective experience of these objective ingredients (Carlquist, 2016).

1.1.3 Well-being in health promotion

Well-being is a frequently used term to describe the positive aspects of health (Green, Tones, Cross, & Woodall, 2015), and a key component of the World Health Organization (1946) definition of health as: "[a] state of complete physical, social and mental well-being, and not merely the absence of disease and infirmity".

Even though this definition rejects a dichotomous view of health as not being sick, Kimiecik (2011) argues that this understanding of health has been, and still is, a persistent view in the field of medicine. Nevertheless, there is a growing interest in what contributes to good health (Langeland & Vinje, 2013). This new era has been called the third revolution[6] in health, where health is seen as a resource for everyday living (Breslow, 2004). Building on their holistic view of health, the World Health Organization defined health promotion in the Ottawa Charter as "the process of enabling people to increase control over, and to improve their health" (World Health Organization, 1986, p. 1). This process is complex and comprehensive; in addition to a focus on strengthening the skills and capacities of the individual, it also considers social and political processes (Nutbeam, 1998). Although there are some differences of opinion on the theoretical underpinnings of health promotion, health promotion researchers seem to agree that the focus should be on health rather than disease (Eriksson & Lindström, 2008). One such approach is the theory of salutogenesis, pioneered by Antonovsky (1979, 1987, 1996), which views health and disease on a continuum and focuses on the factors which move a person, on the continuum, towards being healthy and experiencing well-being. The experience of well-being can then be viewed as a goal for health promotion efforts.

The concept of well-being is the defining characteristic in how the World Health Organization defines mental health as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (World Health Organization, 2004). In this understanding of mental

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[6] The first and second revolution being the epidemiological revolutions against communicable and chronic diseases, respectively (Milton, 1983).

health, it is more than just the absence mental illness, and the capacities and states are perceived as valuable in themselves. As mental health is a constituent of health, the traditions of health promotion also incorporates mental health promotion (World Health Organization, 2004). As with health, mental health promotion focuses on positive indicators of well-being and aim towards achieving positive mental health. WHO's broad definition of mental health is in line with Vaillant (2003, 2012a) conclusion that mental health should be defined broadly and in a culturally sensitive and inclusive way. Vaillant (2012a) review of seven different conceptualizations of mental health[7] illustrate that well-being, as it was outlined above (section 1.1.2) and used in this thesis, can be considered an overlapping concept, and for some an alternative term for positive mental health. In relation to psychopathology, positive mental health or well-being are related constructs that are not mere opposites of each other (Lamers, Westerhof, Glas, & Bohlmeijer, 2015).

The positive conception of health and mental health parallel the development and growth of positive psychology as a field of study in psychology. The launch of positive psychology addressed the predominant focus on pathology in psychology and argued the need for psychological research on strengths and virtues (Seligman & Csikszentmihalyi, 2000). Well-being was one of several topics in individual articles in the seminal edition of American Psychologist, both at an individual level and in terms of how individual experiences are embedded in the social context.

With the increase of well-being research in general and arguments for well-being as a target for health promotion initiatives, the concept has gained in importance for governments across the globe. An influential contribution to this development was a report by Stiglitz, Sen, and Fitoussi (2009) on measures of economic performance and social progress. In this report, commissioned by the French president Nicolas Sarkozy in 2008, Stiglitz et al. (2009) argue that "the time is ripe for our measurement system to shift emphasis from measuring economic production to measuring people's well-being" (p. 12). Similar initiatives have also been launched in other countries as well (J. Helliwell, 2014); Germany, Australia, Switzerland and the UK have large ongoing panel studies which include measures of well-being (Diener et al., 2015). In recent

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[7] The seven different conceptualizations of mental health was mental health as: (1) above normal, (2) a presence of multiple human strengths, (3) maturity, (4) positive emotions, (5) socio-emotional intelligence, (6) subjective well-being, and (7) resilience.

years, several reviews of available well-being measures and their desirable properties as indicators of social progress have emerged (Barrington-Leigh & Escande, 2018). Most recently, efforts in Norway culminated in a report with a national guideline for how well-being[8] should be measured (Nes, Hansen, & Barstad, 2018). In such national initiatives, subjective experiences of well-being are seen as complimentary to the already established objective measures such as economic development (Diener et al., 2015). Even though well-being is increasingly recognized as important for governments (McDaid, 2014), Huppert and Ruggeri (2018) suggest that research on well-being is not sufficiently used to inform policy and practice. This is somewhat surprising, as the subjective well-being tradition has a wealth of research that would seem salient for public health and policy (Diener et al., 2009; Diener et al., 2015; J. Helliwell, 2014). For example, SWB has been associated with longer life (Boehm, 2018; Diener & Chan, 2011; Steptoe, Deaton, & Stone, 2015; Wiest, Schüz, Webster, & Wurm, 2011), a buffer against negative health outcomes (Lyubomirsky, King, & Diener, 2005), psychopathology (Keyes, Dhingra, & Simoes, 2010), work productivity (De Neve, Diener, Tay, & Xuereb, 2013) and having supportive social relationships (Diener et al., 2017).

Even though the eudaimonic well-being tradition appears to have had a less significant impact on public policy discussion than the SWB tradition, significant contributions have been made. Meaning, a eudaimonic aspect, has emerged as associated to physical health in a recent review (Roepke, Jayawickreme, & Riffle, 2014) and meta-analysis (Czekierda, Banik, Park, & Luszczynska, 2017). Meaning and the lived experiences of individuals and communities have been argued as important elements to take into account in health promotion efforts (Kimiecik, 2011). Roepke et al. (2014) found that the presence of meaning in people's lives was associated with several health benefits, compared to those who were still searching for meaning, and health promoting behaviors were also more frequent among people with meaning in their lives. Purpose in life, a similar concept to meaning, has been linked with longevity, a buffer against negative health outcomes and engaging in preventive health behaviors (Ryff, 2017).

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[8] They use the term quality of life which includes both subjective and objective aspects. Subjective quality of life encompasses people's subjective experiences and corresponds with how well-being is used in this thesis, while objective aspects include life conditions such as health, material wealth, work and living conditions.

If we acknowledge that well-being can have positive health consequences and is arguably the most important outcome in it itself, the promotion of well-being should be considered an important target for public health efforts. However, for such pursuits to be fruitful the question of whether well-being is malleable or not soon emerges. In terms of SWB, early evidence pointed to SWB as a relatively stable phenomenon in the classic study by Brickman, Coates, and Janoff-Bulman (1978) who found that extreme events, such as winning the lottery and experiencing spinal-cord injury, did not lead to any lasting changes in SWB, compared to a control group. That is, those who had experienced spinal-cord injury reported higher well-being than could be expected. However, as Lucas (2007) rightly pointed out, those who had experienced spinal-cord injuries did in fact have substantially lower well-being compared to lottery winners and the control group. Nevertheless, the findings as interpreted by Brickman et al. (1978) did influence many scientists understanding of SWB as relatively stable and adapting to people's circumstances (Diener, Lucas, & Scollon, 2006). Support for this notion came through studies demonstrating that life circumstances accounted for very little of the variation in individuals SWB (Diener et al., 1999). Explaining the stability in SWB, set-point theory argued that although individuals may experience fluctuations in their SWB in response to life events, the changes in SWB would be short-lived before returning to a genetically determined set-point (Lykken & Tellegen, 1996). According to Luhmann and Intelisano (2018) most of the original empirical studies supporting the set-point theory were cross-sectional, while recent longitudinal studies have nuanced the picture somewhat, demonstrating that circumstances and life-events also can contribute to long lasting changes in well-being (Anusic, Yap, & Lucas, 2014; Fujita & Diener, 2005). Another important explanation for the stability of SWB have been the association between personality and SWB, where personality factors appear to be one of the most reliable predictor of SWB (Diener et al., 1999), and the association between personality and SWB tend to be enduring (Røysamb & Nes, 2018). Personality traits are also influenced by genetic factors and some studies indicate that the entire heritability of SWB can be accounted for by the personality-related genetic aspects of SWB (Røysamb & Nes, 2018). According to Røysamb and Nes (2018) the stable component of SWB accounting for approximately 50 % of the total variation in SWB, while the estimates of the heritability of this stable component is between 70-90 %. While still acknowledging the hereditary aspect of SWB, researchers in this tradition are now increasingly considering SWB as malleable and influenced by a person's circumstances and choices (Diener et al., 2017; Sheldon & Lucas, 2014).

SWB interventions have primarily focused on encouraging positive behavioral or cognitive exercises, while the difficulties and ethical challenges of intervening in individual's life circumstances have made such approaches rarer (Tay & Kuykendall, 2013). There have also been some indications that interventions promoting behavioral, cognitive and volitional changes can lead to higher changes in SWB compared to changes in life circumstances (Sheldon & Lyubomirsky, 2006). In their meta-analysis of positive psychology interventions, Bolier et al. (2013) found that they significantly enhanced well-being and reduced depressive symptoms, with moderate to small effect sizes, and that the effects were partly sustained over a period of time. In interventions that employ positive exercises (such as keeping a journal of thing one is grateful for and committing acts of kindness), the individuals needs to be sufficiently motivated to do the positive activities, and the activities need to be structured correctly (Lyubomirsky et al., 2011). To ensure this, the choice of positive activity should fit with the person's personality, interest and values, additionally the activities should consider variation and timing to avoid the tendency for hedonic adaption (Tay & Kuykendall, 2013). Summarizing the current view on interventions targeting SWB, Diener, Lucas, and Oishi (2018) noted that the early results are promising, that the interventions would get stronger as more information about SWB and its underlying processes emerges, and that the large-scale studies tracking of population well-being gives researchers the opportunity to investigate the effect of policy changes on population SWB.

According to Kimiecik (2016) eudaimonic based interventions appear promising for enhancing eudaimonic well-being, with studies showing well-being therapy grounded in Ryff's model of PWB as being more effective than cognitive behavioral therapy in a clinical setting. Adapting the well-being therapy to a school environment, Ruini et al. (2009) found that a six-week intervention increased the participants psychological well-being, in particular the dimension of personal growth, compared to the placebo group. There are also studies that have explored how and if enhancing eudaimonia can increase the likelihood of healthy behaviors (Kimiecik, 2016). One example of this is Lewis, Kimiecik, Horn, Zullig, & Ward (2014) eight-week eudaimonic-enhancement experience aiming to emphasize each person's unique gift, where in addition to increasing subjective vitality the participants increased their average daily steps by 1600 steps. Bolier et al. (2013) meta-analysis of positive psychology interventions also

included 20 studies who used PWB as an outcome measure, found a significant small effect of these interventions (Cohen's $d = 0.20$).

With both hedonic and eudaimonic well-being research demonstrating their value for health promotion and public health efforts, Huppert and Ruggeri (2018) argue that it should be treated as equally important to other outcomes of an intended policy or even as the pinnacle of success for all policy. In their discussion of the role of well-being's role in public health, Huppert and Ruggeri (2018) conclude that:

> Regardless of where anyone sits on views of well-being, it remains important: if you believe treatment is most important, then well-being is critical in recovery; if you believe prevention is important, well-being can reduce risks of illness; if you believe well-being is ultimately what everyone wants from life, then it should be the target and indicator of ultimate interest (p. 138).

1.2 Aging

The remarkable increase in longevity during the 20th century of approximately 30 years gain inn life expectancy (Christensen, Doblhammer, Rau, & Vaupel, 2009), combined with falls in fertility rates contributes to an increase in the proportion of the older population (Beard et al., 2016). The global proportion of the population aged 60 years or older was 11 % in 2010, while in 2050 the projected proportion is 22 % (Lutz, Sanderson, & Scherbov, 2008). An even larger proportion above 60 is projected in Western Europe in 2050 with 37 % compared with 21 % of the total population in 2010 (Lutz et al., 2008). The longevity expansion is viewed as a great accomplishment of the 20th century (Christensen et al., 2009), and is considered to be primarily due to a decline in infectious diseases and death among children and young people and enhanced treatment of cardiovascular diseases and cancer (Crimmins, 2015). With this increasing lifespan, researchers have asked whether the added years are healthy or unhealthy (Chatterji, Byles, Cutler, Seeman, & Verdes, 2015; Suzman, Beard, Boerma, & Chatterji, 2015), i.e. are people having more healthy years or is it the period of ill-health that is expanding (Fries, 1980)? Three different hypotheses have been proposed to answer this question (Crimmins & Beltrán-Sánchez, 2011). The compression of morbidity theory (Fries, 1980) argues that the lifetime burden of illness could be reduced if the onset of disability is postponed. Accordingly, increases in longevity would entail a longer "healthy" life while the period of terminal decline would be relatively short (Fries, 2003). In contrast, the expansion of morbidity hypothesis argues

that the increased life expectancy is not a result of a better overall health, but rather a prolongation of the period of illness and disability (Gruenberg, 1977/2005). This is, according to Gruenberg (1977/2005), a result of health policies focusing on preventing mortality without the prevention of morbidity. The status quo or equilibrium hypothesis argues that the total period of morbidity remains unchanged with an expanding life expectancy (Manton, 1982), where both the onset of morbidity and death are delayed. As of now, there is no definitive answer as to which of the theories is 'true', since there are divergent results in the literature supporting the different theories (Chatterji et al., 2015; Langballe & Strand, 2017). Even though there is no conclusive evidence that we now have more healthy years, Beard et al. (2016) argue that that there is no reason why this could not be the case in the future. To achieve this, they argue that there need to be focused and concerted efforts across different sectors and stakeholders, and they point to the recent WHO's policy framework for healthy aging (World Health Organization, 2015) as promising. In this framework, the WHO views healthy aging as the "process of developing and maintaining the functional ability that enables well-being in older age" (World Health Organization, 2015, p. 28). Here, functional ability is understood as comprising both intrinsic capacity (physical and psychosocial capacities), relevant environmental characteristics (all the factors in the extrinsic world that form the context of a person's life), and the interaction between the individual and the environment. The healthy aging framework further develops and replaces the previous policy framework on active aging (World Health Organization, 2002b).

Active aging is defined as "the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age" (World Health Organization, 2002a). In this approach, as with their healthy aging approach, the primary interest of the WHO is to shape and develop policies that are inclusive and not exclusive with regard to the understanding of what aging well means (Zaidi & Howse, 2017). The term active may have immediate connotations to physical activity or participation in the workforce, but these are not the only components in this approach (Foster & Walker, 2015); it also includes a "continuing participation in social, economic, cultural, spiritual and civic affairs" (World Health Organization, 2002b, p. 12). Even with this broad understanding of the term active, the approach has been criticized for its oppressive potential and danger of a disproportionate focus on physical activity to the detriment of the other important factors (Walker & Maltby, 2012). Another problematic aspect of active aging policies is their normative nature of

presenting a standard of active aging that for many will be difficult to reach (van Dyk, Lessenich, Denninger, & Richter, 2013). These critiques and several others have been addressed in an expansion of the WHO approach by Walker (2002) and Foster and Walker (2015), where active aging is understood as an ideal that should involve a comprehensive strategy to maximize participation and well-being as one grow older. The active aging approach has been the dominant understanding in Europe, while the notion of successful aging has been more prevalent in the aging discourse in the United States (Foster & Walker, 2015).

The term successful aging was introduced by Havighurst (1961, 1963), but gained momentum with Rowe and Kahn's (1987) argument of disease and aging as separate processes, and the distinction between usual aging and successful aging. Rowe and Kahn (1997) further developed their model by specifying three important aspects of successful aging, namely (1) a low probability of disease and disability, (2) high cognitive and physical functioning, and (3) an active engagement with life. It is the combination of these three aspects that represent successful aging in its entirety, yet there is a certain hierarchy between them (Rowe & Kahn, 1997, 1998). Avoiding disease is considered the most important factor while engagement with life is considered the least important in this hierarchy. This approach has received immense research interest (Rowe & Kahn, 2015), although it has been less used in policy development than the active aging approach (Zaidi & Howse, 2017). The approach is not without its critics, and an early concern was the use of the adjective successful, as it implies a contest with winners and losers (Pruchno, Wilson-Genderson, & Cartwright, 2010). In a recent review of the approach (Martinson & Berridge, 2015), the critiques were clustered in four different topics. The first cluster was critiques of the model's lack of criteria for successful aging, or arguments for a looser criterion for successful aging in the current model. The second cluster focused on the lack of subjective experiences and definitions from the older adults themselves. The third cluster contained 'hard-hitting' critiques of the model and questioned its use and value for gerontology. The fourth cluster had similarities with the 'hard-hitting' cluster, but also launched alternative models for 'positive aging'. Parallel to the successful aging approach, theories of well-being in old age have developed in psychology (Rowe & Kahn, 2015), e.g. the Selection Optimization Compensation model (SOC; Baltes & Baltes, 1990) and the theory of psychological well-being (Ryff, 1989a).

SOC is a model of successful aging that focuses on the process of how individuals maximize the positive and minimize the negative aspects of growing old and is more concerned with how people successfully age rather than what successful aging is (M. M. Baltes & Carstensen, 1996). This theory takes a life course approach and sees SOC as a general frame for developmental theory and inherent to any developmental process (Baltes, 1997). The model is argued to be one of several important approaches in supporting the aging journey, such as social policies, age-friendly support structures and health prevention initiatives (Baltes & Smith, 2003). One of their most used illustrations of selective optimization with compensation is Arthur Rubinstein thriving as an acclaimed concert pianist in his 80s. In response to questions as to how he was able to continue playing at such a high level, Rubinstein named three reasons:

> He played fewer pieces, but practiced them more often, and he used contrasts in tempo to simulate faster playing than he in the meantime could muster. Rubinstein reduced his repertoire (i.e., selection). This allowed him the opportunity to practice each piece more (i.e., optimization). And finally, he used contrasts in speed to hide his loss in mechanical finger speed, a case of compensation (Baltes & Smith, 2003, p. 132).

In this approach, those individuals who are selecting, optimizing and compensating are argued to be experiencing higher degrees of well-being. This is also true of societies, where a society that supports older individuals in their selection, compensation and optimization assists in maximizing the potentials of old age (Baltes & Smith, 2003).

Ryff's model of psychological well-being was presented above in the eudaimonic well-being section, but it is also an influential theory within positive conceptions of old age and the understanding of successful aging. Ryff's model is, as previously mentioned, theoretically guided and an integrated model of well-being. In relation to successful aging, Ryff's theory takes a developmental approach; here successful aging is seen as positive functioning in old age, which is related to development across the life course (Bowling, 2007). This theory suggests six important criteria for successful aging: to have positive interactions with others, a sense of purpose, autonomy, self-acceptance, personal growth, and environmental mastery (Ryff, 1989a). Importantly, Ryff (1989a) emphasized successful aging as a human construction, requiring researchers to investigate how scientific understandings of successful aging correspond with how it is understood by older individuals themselves. In this work, open-ended qualitative research approaches are important. Qualitative studies of older individuals' own understanding of successful aging have found support for Ryff's

dimensions (Fisher, 1995; Fisher & Specht, 1999; Knight & Ricciardelli, 2003). However, the concept of health is a recurring theme that often emerges from such qualitative studies as a key factor of successful aging (Bowling, 2007; Fisher & Specht, 1999; Jopp et al., 2015), and health is not a dimension in Ryff's model. Quantitative studies have found that two dimensions in particular appear vulnerable to aging; purpose in life and personal growth decline with age (Ryff, 1989b; Ryff, Heller, Schaefer, van Reekum, & Davidson, 2016; Ryff & Keyes, 1995; Springer, Pudrovska, & Hauser, 2011).

Both the active and successful aging approaches acknowledge old age as period of substantial heterogeneity, and emphasize positive aspects of growing old and how to promote this positive period for as long as possible, i.e. "more life to years, not just years to life" (Vaillant, 2004, p. 561). This approach corresponds with the differentiation in gerontology between a third and fourth age (Baltes, 1997; Baltes & Smith, 2003; Laslett, 1996; Neugarten, 1974). Here, third age is usually characterized by retirement from the workforce and as a period with many positive aspects of growing old with relatively good health, active social engagement and personal fulfillment (Laslett, 1996). By contrast, the fourth age is usually described as a period that includes the final years of life, which is characterized by functional decline (Smith, 2002). These are the beginning and endpoints of old age, but there are different estimations of when one transitions from third to fourth age. Some define the entry to fourth age based on demographic characteristics in society, while others argue that the definition should be based on the potential life span of the individual rather than that of the population (Baltes & Smith, 2003). The population-based definition would mean that, in Western societies, one enters the fourth age around 80-85 years old, while in the individual approach, the transitions to the fourth age could occur at different ages. The different positive conceptions of aging (healthy/active/successful) highlight the importance of maintaining or developing functional abilities and engagement in old age, and how this facilitates well-being. This aligns with the aim of extending the third age period while compressing the fourth age period. In the support of healthy/active aging, retirement from work (the entry to third age) has been identified as an important period for health promotion efforts (Golinowska, Kowalska-Bobko, Ricciardi, Poscia, & Magnavita, 2017; Stenholm & Vahtera, 2017; Whitehead, 2011; Wilson & Palha, 2007). However, it is still underutilized as a period for such initiatives, at least in the research literature (Loureiro et al., 2015).

1.2.1 Aging and well-being

Population well-being is increasingly becoming a key aspiration for societies in general (Steptoe et al., 2015), with well-being in old age as particularly interesting as Western countries are experiencing an aging population (López Ulloa, Møller, & Sousa-Poza, 2013). One of the reasons why well-being has been considered important in old age is its association with physical health and longevity, e.g. high levels of well-being have been associated with longer survival (Steptoe et al., 2015) and as a protective factor for health (Lyubomirsky et al., 2005). Even though the relationship between the two phenomena has been investigated extensively since the emergence of positive psychology, it is still a debated issue (López Ulloa et al., 2013). In the literature on the topic, as in well-being research generally, there is a tendency to treat hedonic and eudaimonic well-being separately (Araujo, Ribeiro, & Paúl, 2017).

In terms of SWB, the relationship with aging has been considered as u-shaped, inversely u-shaped or linear (López Ulloa et al., 2013). The different relationships on average are illustrated in Figure 1.
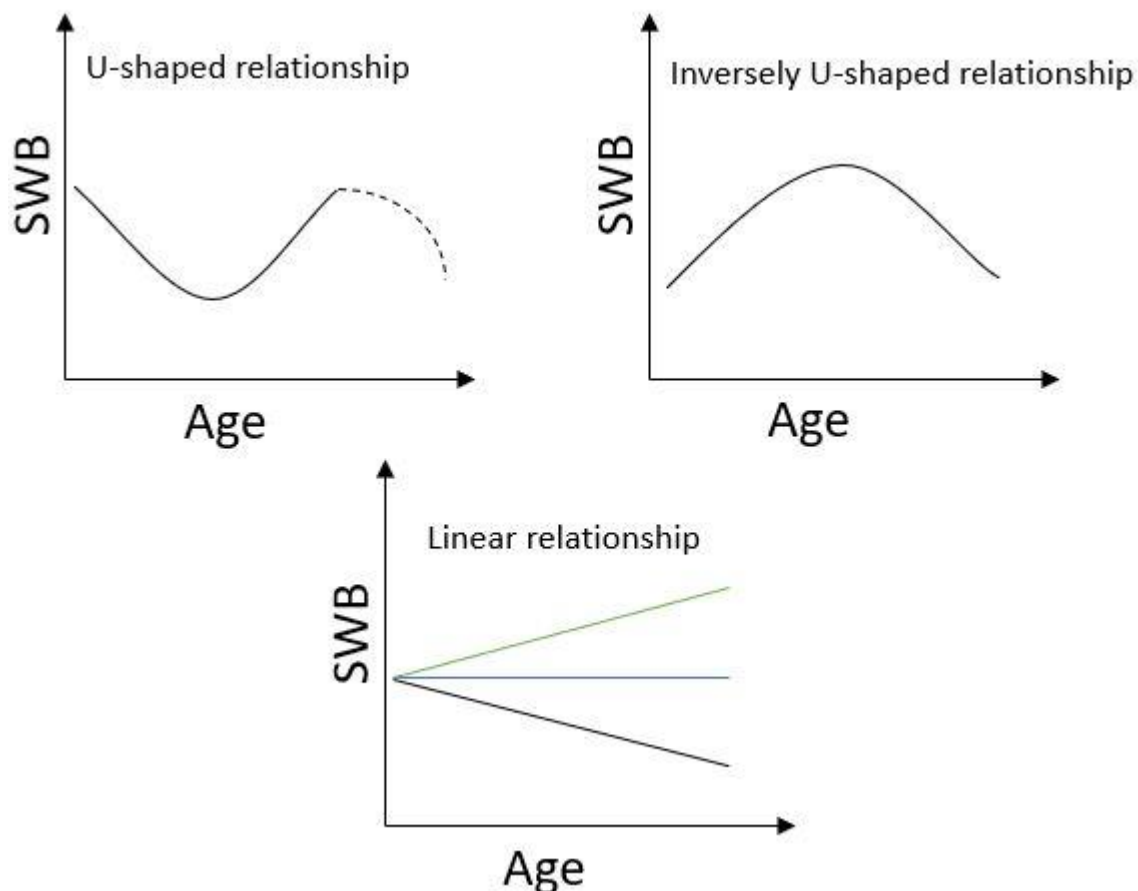

Figure 1 Illustration of the different proposed relationships between age and SWB

The u-shaped position is prevalent in economic research literature (Frijters & Beatton, 2012), and describes a pattern of well-being throughout lifetime where a well-being 'low point' occurs in midlife, preceded and followed by higher levels of well-being (Blanchflower & Oswald, 2008, 2016). This same midlife crisis has been demonstrated to occur in non-human primates (Weiss, King, Inoue-Murayama, Matsuzawa, & Oswald, 2012). One explanation for the u-shape is that midlife is a period where one could be facing the regrets of unmet aspirations (Schwandt, 2016), which are then abandoned or adjusted as one grows older. According to Hellevik (2017), the u-shaped relationship is only true for one part of SWB (satisfaction with life) and not for the emotional aspect of well-being. Some scholars have argued that the u-shaped relationship is a Western phenomenon (Steptoe et al., 2015); this contradicts psychological research, which has found no such relationship (Frijters & Beatton, 2012). It is important to note that this trend is true up to a certain age, before well-being decreases again for the oldest old (J. M. Bauer, Levin, Munoz Boudet, Nie, & Sousa-Poza, 2017; Gerstorf et al., 2010), which has been called an s- or wave-shaped relationship (Fischer, 2009). Morgan, Robinson and Thompson (2015) investigated the proposed u-shaped relationship in their study on well-being and aging in 29 different European nations, and although they did find evidence for u-shaped dip in midlife, the magnitude of the effect was minimal. They did however find that national GDP had a moderating effect on the relation between well-being and age, where in poorest countries there was a 'negativity effect' with substantial decreases in well-being across the lifespan, while the more affluent countries the relationship was relatively stable.

The inverse u-shape finds limited support in the literature (López Ulloa et al., 2013). In this inverted u-shape, well-being increases from 18 years to its highest point in midlife before it declines (Easterlin, 2006). Easterlin (2006) found some support for the inverse u-shape of well-being, but the differences were rather minor. Mroczek and Spiro (2005) also found a curvilinear relationship between age and well-being, with a highpoint of well-being occurring at 65 before decreasing. However, this is not necessarily incompatible with the u-shape relationship, which has also been argued to only hold up to a certain age.

A linear relationship between well-being and age has also been reported in the literature. Here well-being is constant, increases, or decreases throughout the lifespan (López Ulloa et al., 2013). The findings of Morgan et al. (2015) presented above is an

example of studies showing both stability and decreases in SWB across the lifespan. Results that demonstrate well-being as relatively stable in a person's life emerge from research investigating how changes in life circumstances account for only a small portion of subjective well-being (Anusic et al., 2014). Rather, well-being appears to be relatively stable over time, has a heritability aspect and implies adaptations to (good and bad) circumstances (Diener et al., 1999). As an explanation for the stability of SWB, the set-point theory of well-being has been widely accepted as both reasonable and empirically founded (Diener et al., 2006). According to this theory, a person may experience changes in their SWB in response to events and circumstances in their life (Diener et al., 2006), but the changes are short-term before SWB returns to its hereditary set-point (Lykken & Tellegen, 1996). Another theory that is relevant to a relative stable SWB across the life span and especially in old age, is the Socioemotional Selectivity Theory (SST; Carstensen, Isaacowitz, & Charles, 1999). The theory argues that individual perspective on time is essential for the goals one pursue and which social relations they seek to fulfill the goals. Since there is an apparent association with perceived time left in life and chronological age, as one get older one prioritize goals that are achievable and derive emotional meaning, compared to goals that may have long-term effect in the distant future (Löckenhoff & Carstensen, 2004). This has been one way to explain the findings that older individuals, despite negative factors associated with old age, are as happy or happier than younger people are (Carstensen, 2006).

Based on the review of the research done on the relation between SWB and aging, (López Ulloa et al., 2013) found it difficult to draw any general conclusions as to this relationship, but they still offered some general observations. One aspect to keep in mind is cohort effects, which is the effects one circumstances during adolescence which may lead to unique data trends (López Ulloa et al., 2013). An illustration of such an effect would be an individual born in Germany in the early decades of the twentieth century who would have lived through both the great depression and the two world wars, could understandably experience the latter half of the century as better or more desirable (Schilling, 2005). If this is the case, Schilling (2005) reasons that this could lead to a positive effect of the older individual's evaluation of their current life, such as measures of life satisfaction do. To be aware and account of such potential cohort effects makes it possible for researchers to explore actual aging effects; However, such cohort effects are difficult to control for in cross-sectional data (López Ulloa et al., 2013). Another important observation of López Ulloa et al. (2013) is that

what variables one controls for is very important. Typically, the 'ceteris-paribus' (other things equal) analytical approach aim to measure the marginal effects of age on SWB after controlling for other relevant socioeconomic influences (Blanchflower & Oswald, 2017; Blanchflower & Oswald, 2008). Interestingly, Frijters and Beatton (2012) found that when they included the 'usual suspects' of socioeconomic variables in a regression model predicting satisfaction with life, that the u-shape relationship between age and life satisfaction was more prominent. The 'usual suspects' were the often-used socioeconomic variables such as income, gender, education, children, marriage, employment, non-participant, and unemployment. However, this u-shape relationship disappeared when they included fixed-effects that control for unobserved individual characteristics. Frijters and Beatton (2012) explained this result by a reverse causality issue where "happiness-increasing variables, like getting a job, a high income, and getting married, appear to happen mostly to middle-aged individuals who were already happy" (p. 540). In addition to the selection of control variables, the measure of SWB also appear to play a role as well, e.g. in Hellevik's (2017) recent analysis of Norwegian survey data, he found that life satisfaction had a u-shaped relationship, but not in regard to feelings of happiness.

Most of the studies reporting on the relationship between age and SWB is often cross-sectional, and do not follow the phenomenon within persons across time (longitudinal studies). That there is an overweight of cross-sectional studies could also have some implications for the assumed relationship between age and well-being, e.g. the u-shaped pattern is mainly found in studies using cross-sectional data (Biermann, Bitzer, & Gören, 2019). However there seems to be a growing number of longitudinal datasets that makes it possible to follow the phenomenon of well-being within person's across time. Examples of large scale longitudinal studies which well-being indicators are measured include the English Longitudinal Study of Ageing (ELSA; nine biannual waves from 2002), the German Socio-Economic Panel (SOEP; 34 annual waves from 1984), the US Health and Retirement study (13 biannual waves from 1992), the Survey of Health, Ageing and Retirement in Europe (SHARE; seven biannual waves since 2004), and the Norwegian study on Life Course, Ageing and Generation (NorLAG; three waves collected since 2002). Studies using longitudinal data lend support to both a linear and u-shaped model. In their longitudinal study, Galambos, Fang, Krahn, Johnson, and Lachman (2015) followed individuals from early adulthood to midlife and found an upward trend in their well-being (or happiness as they label it). In their analysis of four different datasets, following within-person changes in well-

being, Cheng, Powdthaveem, and Oswald (2017) found support for the u-shape relationship with well-being reaching the lowest point in midlife.

Even though eudaimonic well-being and its relation to aging has been less investigated than SWB (Araujo et al., 2017), the topic has received considerable attention, and findings indicate a relationship between the two phenomena (Ryan & Deci, 2001; Ryff, 2017). In an early attempt, Ryff (1989c) found that good relationships with others were emphasized by both those in midlife and old age when they defined psychological well-being. However, there were age differences in other aspects of well-being, where the younger individuals emphasized self-confidence, self-acceptance and self-knowledge, while the older cohort emphasized the capacity to accept change as important for their well-being. In addition to conceptual differences across age groups, there are also different age trends in the different dimensions of psychological well-being (Ong & Patterson, 2016; Ryff, 1991). Examples are increases in environmental mastery and autonomy from young adulthood to midlife and decreases in purpose in life and personal growth from midlife to old age (Ryff, 1989b, 1991; Ryff & Keyes, 1995). Longitudinal studies have also found support for decreasing personal growth and environmental mastery in old age (Ryff, 2017). However, Springer et al. (2011) point out in their longitudinal study that age-related changes are quite small in well-being, with even greater variation within ages than between age periods. Due to the variability of well-being in old age, the different aspects of well-being in relation to health and longevity have received considerable focus and appear to collectively serve as a protective buffer against physiological consequences of comorbidity (Ryff, 2017). Especially higher levels of purpose in life have repeatedly emerged as a protective factor for health and longevity (Cohen, Bavishi, & Rozanski, 2016; Hill & Turiano, 2014; E. S. Kim, Strecher, & Ryff, 2014). The positive effects of eudaimonic well-being even persist when controlling for healthy behaviors (Boehm & Kubzansky, 2012; Steptoe et al., 2015). Using an overall measure of eudaimonic well-being, Morgan et al. (2015) found similar eudaimonia-age trajectory as they did for hedonic well-being (reported above), where eudaimonic well-being was relatively stable across the lifespan in the richer countries, while in the poorer countries a negative trend was observed. Mackenzie, Karaoylas, and Starzyk (2018) explored age differences within self-determination theory among younger, middle aged and older individuals, and found that age was positively associated with eudaimonic living. Specifically, they found that the older age group had higher scores than the young and middle age group on basic psychological need fulfillment

(autonomy, competence and relatedness), and that they scored higher than the younger age group on goal autonomy and intrinsic aspiration. Meaning in life is another notable eudaimonic constructs which have been investigated in relation to age. In Morgan and Robinson (2013) cross-sectional study they explored five different sources of personal meaning. They found a positive relationship between age and having an accomplished, principled and exciting life, while having a valued and purpose life demonstrated a u-shaped pattern with a low point in midlife. Although using a different measure of meaning, Steger et al. (2009) found a similar pattern with high presence of meaning in life for the older age groups, with a small dip among those in young adulthood (22-44).

Another approach to the study of the relation between age and well-being is studies investigating the relation between age and aspects of personality that are related to well-being. However, as (Ryff, 2008) points out aging, personality and well-being "have typically been examined as independent twosomes" (p. 399). Where the well-being-aging twosome is concerned with stability and change in level of well-being across the life-course (outlined above), the personality-aging tradition focus on stability and change in personality across individuals life-course, while the personality-well-being research explore the influence of personality characteristics versus life circumstances in accounting for levels of well-being. According to Ryff (2008) the research on personality and aging has developed from conceptual models of changes in personality throughout adult development to rigorous empirical trait perspectives holding that few mean level changes in traits occur after the age of 30. However, Roberts, Walton, and Viechtbauer's (2006) meta-analysis of longitudinal studies did find that mean level changes do occur across the lifespan. The final twosome is research into the relation between personality and well-being, where particularly the traits of neuroticism and extraversion have been linked with SWB, where neuroticism is negatively associated with SWB while extraversion is positively associated (DeNeve & Cooper, 1998; Steel, Schmidt, & Shultz, 2008).

In summary, how aging affects well-being is still a contested area in research. It is possible that the increasingly available and long-lasting panel studies could clarify this picture in the future, and even more so when these studies will have followed representative individuals throughout their life. Even though it is interesting to examine how SWB changes or not throughout the lifespan, it is important to note that "doing so allows no conclusion to be drawn about the effect of age alone" (López

Ulloa et al., 2013, p. 240), and most likely, these different findings could indicate that the relationship between age and well-being is not universal (Mackenzie et al., 2018).

1.2.2 Well-being and retirement

Both hedonic and eudaimonic approaches appear to acknowledge well-being as malleable and associated with health, and knowledge about what promotes or hinders well-being in old age is seen as important (Baumann & Eiroa-Orosa, 2017). Health promotion efforts targeting the promotion and maintenance of well-being in old age are necessary, and retirement has been proposed as an important period for such efforts. The reasoning here is the transformational nature of such an event, with multiple lifestyle adjustments that could "affect health and well-being" (Heaven et al., 2013, p. 223). There does not appear to be a uniform way in which retirement affects a person's well-being. Luhmann et al. (2012) found in their meta-analysis that retirement was a neutral life event, which includes positive and negative consequences, in terms of a person's SWB. In their review of the psychological research on retirement, Wang and Shi (2014) found that among retirees 70-75% of retirees experienced small changes in their well-being, 9-25% experienced negative changes to well-being, while 5-15% experienced positive changes in well-being. This was supported by Henning, Lindwall, and Johansson (2016) recent review on the impact of retirement, who conclude that for the majority, retirement has little effect on their well-being. Nonetheless, Henning et al. (2016) note that some studies indicate that there is substantial heterogeneity and dynamic effects of the transition to retirement. One example of this is Robinson and Stell (2015) qualitative study into so-called crisis episodes in the third age, with one of the characteristics of the crisis episodes being that it entailed at least two stressful events, and retirement was the second most common loss-inducing event contributing the crisis experience in this period. Robinson and Stell (2015) acknowledged that "[w]hile retirement is perceived as a positive event by many, it is also a loss-inducing event, for it means the loss of status, the loss of routine and the loss of social networks" (Robinson & Stell, 2015). Retirement as a loss-event was also a characteristic among those who experience compromised well-being in retirement in Henning et al's (2016) review, where they experienced more substantial losses (e.g. involuntary retirement) and/or had less resources to cope with retirement related changes.

To explore the different experiences of adjustment to retirement Wang, Henkens, and van Solinge (2011) proposed a resource-based dynamic model where retirement

adjustment is considered a longitudinal process, and that their level of adjustment varies according to the variation in the retiree's total available resources. The model tries to integrate major theories (such as: Role-, Continuity-, Stage- and Life Course theory) that have been forwarded in the study of adjustment to retirement (Wang et al., 2011), and offers a range of different antecedents that impacts the retirees available resources and therefore their level of adjustment (Wang & Shi, 2014). These antecedents range from the macro level (e.g., social norms and governmental policies), organizational level (e.g., human resource practices), job level (e.g., job satisfaction and attachment), household level (e.g., marital quality), and individual level (e.g., psychological resilience, lifestyle) (Wang et al., 2011). The total available resources include physical, cognitive, motivational, financial, social and emotional resources. In this model, the variation in well-being in retirement is considered a result of resource changes. I.e. if the total resources available does not change from pre-retirement, no significant changes to well-being will be expected in retirement, but if the total resources significantly increase or decrease one expect that level of well-being increase or decrease in retirement (Wang & Shi, 2014). The model has found considerable support, but most of the research have primarily investigated some of the resources, not all in combination, where health and financial resources appear to be the most investigated while social and psychological resources are less frequently studied (Hansson, Buratti, Johansson, & Berg, 2018). Hansson, Buratti, Thorvaldsson, Johansson, and Berg's (2017) study into effects of retirement on life satisfaction, investigated all six resource domains in combination with type of retirement transition. They found that individual differences in resources available was particularly important for life satisfaction in those who retired abruptly (working at T1 and retired at T2) compared to those who retired gradually (working at T1 and bridge employed at T2). Among the six types of resources, self-esteem, autonomy, self-rated cognitive ability and financial resources were significantly associated with changes in life satisfaction after retirement, while level of social support and self-rated physical health were not associated with changes in life satisfaction. Following up on their previous study, Hansson et al. (2018) found that autonomy, self-rated cognitive ability and social support could compensate for the negative effects of poor health and a lack of financial resources on the retirees' satisfaction with life.

Exploring both within and between person changes in the three basic psychological needs for autonomy, relatedness and competence (introduced above in section 1.1.2.2), Henning et al. (2019) found all three needs to be positively associated with life

satisfaction when transitioning to retirement at the within person level. However, at the between-person level the significant association were only found for autonomy and relatedness and not for the need for competence. One of the main points of Henning et al's (2019) study was to explore if the relation between psychological needs and life satisfaction would change over the retirement transitioning period. They only found support for this at the within-person level, where level of autonomy was more strongly related to life satisfaction after retirement than before. A different pattern of relation between the psychological needs and well-being indicators was found in the study of Vanhove-Meriaux, Martinent, and Ferrand (2018), where competence and relatedness emerged as significant predictors of well-being while autonomy did not. It is important to note that Vanhove-Meriaux et al. (2018) did not study retirement transition, but included participants who were retired and living at home int their 70's and 80's. Nevertheless, both Vanhove-Meriaux et al (2018) and Henning et al. (2019) findings could indicate that the relationship between satisfaction of basic psychological needs and well-being indicators might change in older age.

1.3 Psychological maturity

The third and final topic in this thesis is the psychological development of self-authorship. This capacity for self-authorship is one way of meaning making and is rooted in the constructive-developmental psychology of Robert Kegan (Kegan, 1980, 1982, 1994). This developmental approach is interested in patterns of meaning making, called meaning-making structures, and how they evolve throughout an individual's life (Baxter Magolda & King, 2012). These meaning-making structures do not refer to *what* we think, but *how* we think; they evolve over time and become increasingly complex. This increasing complexity is captured by Werner's orthogenetic principle: "wherever development occurs, it proceeds from a state of relative lack of differentiation to a state of increasing differentiation, articulation, and hierarchic integration" (Werner & Kaplan, 1956, p. 866). The organized structure of meaning-making from a developmental perspective is often referred to as psychological maturity (Staudinger, Dörner, & Mickler, 2005), and the interest in this evolving capacity for complex thought is shared by other prominent developmental approaches in psychology, e.g. the psychosocial theory of Erikson and Erikson (1982/1997), the humanistic approaches to development of Maslow (1968, 1970) and Rogers (1961), the theory of ego development (Loevinger & Blasi, 1976), and Kohlberg's (1969) theory of moral reasoning. These different theories of development have both structural and conceptual similarities, which could indicate "that a common

maturational process underlies an array of critical psychological dimensions (e.g., cognitive, affective, reflective, and personality-related) across the human lifespan" (Fossas, 2019, p. 1934). Several of these developmental approaches have outlined a model of development that describes distinct stages that psychological maturity goes through. Although these different stages are often illustrated in a stepwise way (e.g. as a staircase), Baxter Magolda and King (2012) argue that such development should be considered as a continuous and a gradual process. However, Kegan and Lahey (2009) argue that there are qualitatively different, discernable plateaus of meaning-making, and that this development includes both periods of stability and periods of change. An alternative image of this developmental process which engages a less goal directed concept of development (reaching the top of the stairs) was given by Carol Gilligan: "[as] the expanding ripples produced when a stone is dropped into a pond. Each older ripple encompasses, yet never obliterates, the circles emanating from the younger ones" (Vaillant, 2012b, p. 149). While phasic theories differentiate the phases into age-spans and periods of life, the stages of development in constructive-developmental theories are not aligned with specific chronological ages (Bugenhagen & Barbuto, 2012; Cook-Greuter, 2010). For example, in Erikson's developmental perspective[9], a person in their 70s would have gone through the seven preceding developmental phases (possibly with various levels of success), and now be at the last phase where one is concerned with looking back on one's life and evaluating how it has transpired. By contrast, in constructive-developmental theory, a person in their 70s could be at a different stage of their developmental journey than their neighbor with a similar chronological age.

Kegan's developmental theory (Kegan, 1982, 1994; Kegan & Lahey, 2009) describes five qualitatively different stages of psychological maturity. The first two (the impulsive and instrumental mind) are primarily limited to childhood and adolescence, while the last three (the socialized, self-authoring and self-transforming mind) are seen in adulthood. In each of these different stages, some elements are subject while others are object, and it is the particular subject-object balance which defines the stage (Baxter Magolda & King, 2012). Here, subject refers to elements that we are embedded in, identified with or tied to, while object refers to elements that we can see,

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[9] Erikson's developmental theory is considered a phasic theory in this thesis; however, Crain (2014) argue that the theory meets the criteria of a stage as outlined by both Kohlberg and Piaget, although Erikson is more concerned with emotional development, while the latter were concerned with cognitive development.

reflect on and take control of (Kegan, 1994), i.e. we *have* object, we *are* subject. According to Kegan (2009), we cannot be responsible for things we are subject to, as they are not perceivable to us. This subject-object balance is not a permanent state, rather it evolves, and development in Kegan's theory is the gradual process of being able to perceive these previously invisible elements through them becoming object to us. This is considered a development of a more mature way of thinking, which subsumes the previous way of knowing. In the so-called subject-object interview (SOI; Lahey, Souvaine, Kegan, Goodman, & Felix, 1988/2011), it is the subject-object balance that is examined to assess which stage of psychological maturity a person is operating within. A brief description of the three different stages in adulthood is presented here (for a detailed description see Eriksen (2006); Jones and Daniel (2018); P. M. Lewis (2011)). It is important to note that these are the 'big' stages, or plateaus as Kegan and Lahey (2009) call them, and that there are several transitional stages between each of these plateaus. These transitional stages, and how to determine which meaning-making structure a person is at, are described in the Subject-Object Interview Manual (Lahey et al., 1988/2011). The core idea of the interview is to tease out how a person makes meaning of different experiences they have had with different interview topics (e.g. success, change, anxious), i.e. the interview topics are a way to facilitate content, while the SOI primarily explores how this content is structured by the interviewee.

Composite samples within Kegan's developmental framework indicate that most of the adult participants were making meaning according to the socialized mind (Kegan, 1994). At this stage, individuals can take their desires and interests as object and are able to accommodate these to those of others. At this stage of psychological maturity, individuals are capable of abstract thinking and reflection on their own and others' actions. However, individuals at this stage do not have a sense of what they want, outside of their societal role or what others expect of them. Therefore, individuals at this stage can find themselves torn and in two minds if there is a conflict between important others (Fitzgerald & Berger, 2002). At this stage, a person does not have an independently constructed self, but rather the self is determined by external evaluations. In subject-object terms, individuals at this stage are subject to their interpersonal relations and feel responsible for others' feelings as well as holding others responsible for their own. According to Kegan (1994) and Kegan and Lahey (2009), this is the stage where most of the adult population make meaning.

Some adults develop the capacity for a self-authoring level of psychological maturity. Individuals at this stage have created a self that is independent of the relationship to others, i.e. the interpersonal relationships are now object to them, and they have developed an autonomous self (Modlin, 2018). In contrast to those at the socialized mind, they have developed an internal set of rules or a self-governing system which they use and are no longer dependent on an external authority guiding them (Fitzgerald & Berger, 2002; Helsing & Howell, 2014). People at this stage will be concerned with meeting their own standards, which contrasts to the socialized stage, where the concern is meeting others' standards. Individuals at the self-authoring mind value relationships with others as much as at the previous socialized stage but is not beholden to these relationships to create their identity and sense of self (Helsing, 2010).

The self-transforming mind is rare and seldom observed before midlife (Kegan, 1994). Here one has learned the limits of one's own system and even the limitations of a full identification with an inner system (Kegan, 1994). One can look across to other systems and see the similarities among them although they previously looked different. At this stage, one is more likely to see the world not in black and white but rather as varying shades of grey (Fitzgerald & Berger, 2002).

1.3.1 Psychological maturity and aging

Two large-scale studies (Kegan, 1994; Torbert, 1987) on the distribution of stages among the adult population indicate that most adults make meaning according to either the socialized or the self-authoring mind. The findings (Figure 2) were illustrated by Kegan and Lahey (2009) and show that 80-90% of adults have a profile between the socialized and the self-authoring mind. Both Kegan and Torbert used composite samples in a US population, and there was no overlap in the samples included. Kegan's composite (N = 342) was based on 12 dissertation, and one published study, who used random sampling procedures. Torbert's[10] composite sample was based on, nonpublished, separate studies of professionals (supervisors, nurses, managers and executive). It is important to note that the samples for both composite studies are not representative of the adult population, as they were primarily white, middle-class and

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[10] Torbert's approach makes explicit use of Kegan's developmental theory, but the composite sample reported on used Loevinger's Sentence Completion Test as a measure of psychological maturity. Kegan (1994) argues that rough approximations from these findings to Kegan's subject-object balance could be made, and these findings are presented in figure 2.

college educated, with few individuals above 60 years. However, Kegan (1994) also made a more representative composite by only including the studies which had a sample representing a "fuller range of the socioeconomic classes and which include adults who do not have college and graduate degrees" (p. 196). In this sample (N = 75) fewer had developed the capacity the self-authoring mind or higher (21 % compared to 41 % in the composite). Kegan does note that although there are always things to critique with the design of any one of these studies, they do present a recurring pattern that is harder to discount. Both these composite samples are based on data collected in the US and it is difficult to know if they have any relevance in European samples. Nevertheless, one can speculate that they could be relevant also for the European context, as there appear to be similarities in how European and American cultures construe their sense of self, compared to east Asian cultures (Markus & Kitayama, 1991; Robinson, Lopez, Ramos, & Nartova-Bochaver, 2013).
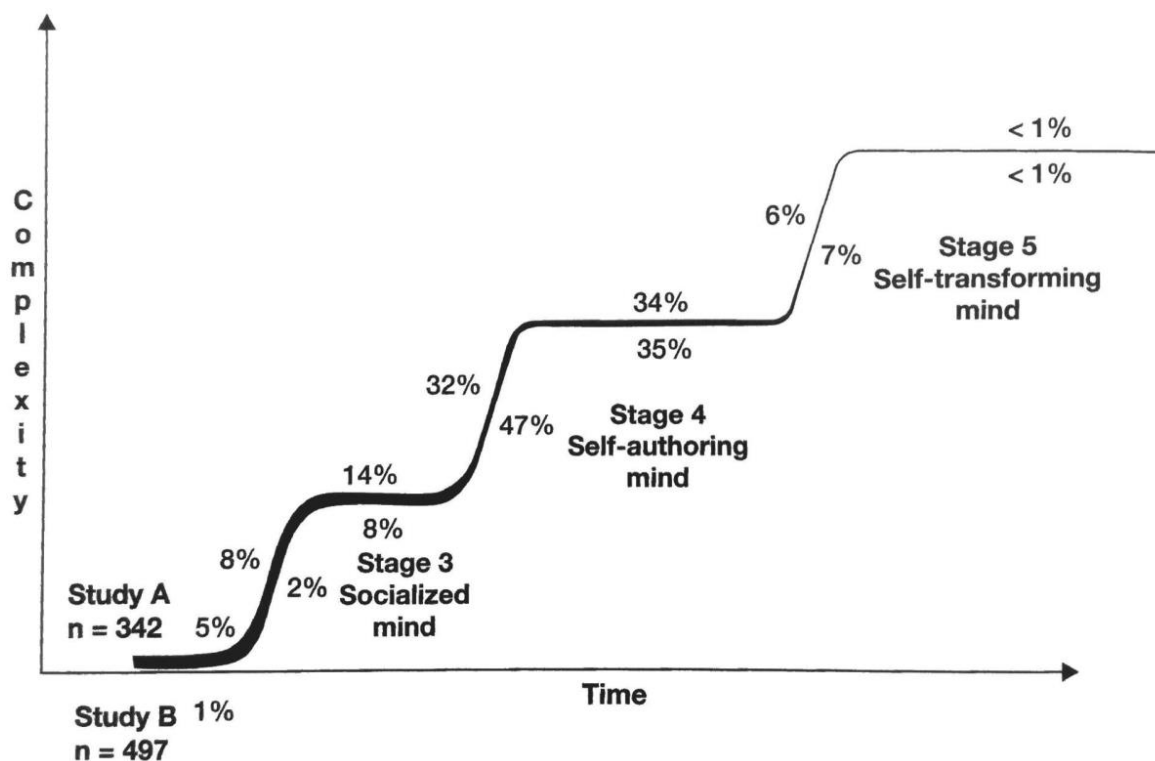
Figure 2. The distribution of the population on the different stages of psychological maturity. Source: Kegan, R., & Lahey, L. L. (2009). Immunity to change: How to overcome it and unlock potential in yourself and your organization. Boston, MA: Harvard Business Press. (p. 28).

A sample also including older individuals could reveal a shift in the distribution across the different stages, with more individuals demonstrating a capacity for more mature meaning-making. The reasoning for this assumption is that development is a

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continuing process over the lifespan, where older individuals would have had a longer life and more opportunities for growth. However, the association with age and development is theorized to be small (Bugenhagen & Barbuto, 2012; Helsing & Howell, 2014), and only detectable in a large enough sample (Kegan & Lahey, 2009). As illustrated in Figure 2, it appears that the intervals between the transformation of the meaning-making structure become longer and longer at the more mature stages in adulthood, with fewer individuals reaching the self-authoring or self-transforming mind (Kegan & Lahey, 2009). This levelling-off effect, where the meaning-making structure stabilizes in adulthood, has also been demonstrated in research using a similar developmental theory. In a meta-analysis of age trends in Loevinger's (1976) theory of ego development, Cohn (1998) found a moderately high correlation (r = .40) between development and age in adolescent samples, while in adult samples age and development were unrelated (r = .04). It is important to note that these studies investigating age and developmental stage have primarily used cross-sectional data and few longitudinal studies have been reported. Among those conducted, Kegan (1994) presented findings from a four-year study of 22 individuals, showed increasing maturity in meaning making over the four-year period, but the changes were very gradual. Another study indicating developmental growth in adulthood is Lilgendahl, Helson, and John's (2013) study of ego development over an 18-year period, using Loevinger's (1976) model of ego development[11], as measured by the Washington University Sentence Completion Test (WUSCT) (Hy & Loevinger, 1996). Lilgendahl et al. (2013) found that participants had a significantly higher mean ego level at age 61 than at age 43. The increases were relatively small in this study; most of the participants had increased one developmental stage, while some had increased two, but few had increased three or more ego stages. Another important point made by Lilgendahl et al. (2013) was that approximately half of the participants did not show increases. Although it is still too early to conclude on the relationship between age and developmental stage, it is reasonable to assume that there is a slight positive relationship between the two.

As most of the adult population make meaning according to either the socialized or self-authoring mind, these are the stages in focus in this thesis. Kegan's (1994)

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[11] In Loevinger's theory (Loevinger & Blasi, 1976), ego developmental is differentiated into nine stages, compared to five in Kegan's model. Even though the theories have different numbers of stages, they are comparable, since Kegan's theory also has transitional stages between the main meaning-making structures that correspond to Loevinger's stages.

reworking and further exposition of his developmental theory in his book "In over our heads: The mental demands of modern life", also focused primarily on these two dimensions. Here, one of Kegan's main points was that in many cases modern society demands or assumes that people have developed the capacity for self-authorship. That is, as parents, partners, employers, employees and students, there is a demand for the ability to be an independent individual with an internal capacity to determine who you are, what you value, and what you believe (Kegan, 1994). This contrasts with the socialized mind, where one is defined by others' expectations and ideas of who you are (Kegan & Lahey, 2009). The development of the socialized mind is an important achievement usually occurring in adolescence (at least starting to emerge) and entails the capacity to internalize and identify with the values and beliefs in our social surroundings, which makes it possible to indeed be a part of society as the society has become a part of oneself Kegan (2009). However, this capacity could be considered more fitting to the demands of adolescence, while modern adulthood demands the capacity to have some distance from the socializing press. In terms of intimate relationships in adulthood we are called upon to be psychologically independent from, but closely connected to our partners (Kegan, 1994). That is, a relationship where one person is required to serve as an organizer of the others' ideas and values, rather than both having a clearly defined sense of self, would not appear as an ideal relationship. Working life does not just put demands on our knowledge and skills relevant for the job one has, it also demands something of our psychological maturity in the same way as our roles as partners. Some of the requirements which Kegan (1994) details is the demand for us as workers to be self-initiating, self-correcting, self-evaluating, rather than wholly dependent on others to this. These characteristics demand the capacity to have an internal standard, which could be challenging for the socialized stage as one at this stage is reliant on external influences. With such arguments and the hierarchical nature of constructive-developmental theories, the theories can be understood normatively, i.e. higher or more mature stages are better than less mature stages (Blumentritt, 2011). This might not necessarily be correct, as the 'better' stage depends on what your daily life requires of your meaning-making system (Kegan, 1994). If your everyday life constantly requires you to have a more mature way of thinking than you currently have the capacity for, the notion of 'higher' would be 'better'. An example could be if you are working as a branch manager in a paper company and you are required to develop a strategy and direction for the branch. The capacity for self-authorship could be argued to be required for such a task. At the stage of the socialized mind, it is feasible that the branch manager could be overwhelmed by

such an ambiguous task without clear directions from others as to what they 'should' do.

According to Kegan (2009), the socialized mind is more than able to meet the challenges of traditionalism, where there is a relatively agreed upon definition of how one should live that is supported be unifying arrangements and norms in the society. This contrasts with modernism which is "characterized by ever-proliferating pluralism, multiplicity, and competition for your loyalty to a given way of living" (Kegan, 2009, p. 52). Modernism then requires more of us than being socialized, we also must develop an internal capacity to see and evaluate the expectations or claims that we are flooded with from many directions. In this regard the self-authoring mind could be considered as well-equipped to solve the challenges we face in modern societies (Kegan, 2009).

1.3.2 Psychological maturity and well-being

Even though these developmental theories can be criticized for implying that a higher developmental level is 'better', empirical studies of this aspect have routinely shown that developmental stage and measures of well-being are unrelated (Bauer, Park, Montoya, & Wayment, 2015; Bonnett, 2016; Noam, 1998). I.e. developmental level "is not simply an index of mental health or well-being" (Duffy, Ruegger, Tiegreen, & Kurtz, 2017, p. 41). According to King (2001), psychological maturity and SWB are, at least empirically, independent of each other and follow different pathways. Based on several narrative studies with individuals who have experienced significant life events (divorce: King & Raspin, 2004; having a child with Down's syndrom: King, Scollon, Ramsey, & Williams, 2000; coming out of the closet: King & Smith, 2004), it appears that those aspects of their stories which relate to well-being are unrelated to those aspects which deal with developmental growth. Similarly, Bauer, McAdams, and Sakaeda (2005) found that those who scored high in well-being focused on different aspects in their narratives than those who were at the higher developmental stages. When telling stories about their high points, low points, and turning points in life, people scoring high on well-being focused on growing personally or interpersonally, while people scoring high on development focused on having reached new levels of conceptual understanding (Bauer et al., 2005). In a recent study, Fossas (2019) found that well-being was both quantitatively and qualitatively associated with developmental stage. Here, quantitative measures of hedonic and eudaimonic well-being were positively correlated with developmental stage. However, when controlling

for demographic variables, only hedonic well-being was significantly predicted by psychological development. For both kinds of well-being, the relationship with development was indicated as curvilinear, with well-being peaking at the self-authoring stage (Fossas, 2019). The participants at different developmental stages also conceptualized well-being in qualitatively different ways; those at the stage of the socialized mind to a larger extent perceived well-being as contingent on positive changes outside of the self, while for those at the stage of the self-authoring mind it was contingent on positive changes occurring within the self (Fossas, 2019). Thus, the stories of well-being for those at the socialized stage "included receiving validation from others, seeing external payoff for hard work, and having unique experiences that improved one's perceived standing in relation to others" (Fossas, 2019, p. 1946), while themes at the self-authoring stage involved "agency, control, growth, and/or achieving a pleasant internal feeling state such as relaxation or gratitude" (Fossas, 2019, p. 1946).

Although the relationship between psychological maturity and well-being is somewhat unresolved, high scores on both aspects have been argued to be indicative of living the good life (Bauer, 2011; Bauer, McAdams, & Pals, 2008). Additionally, Bauer, Schwab, and McAdams (2011) have argued that while there is little empirical evidence that higher development is associated with higher well-being in general, the highest developmental level, which they equate to Maslow's concept of self-actualization, does in fact lead to higher well-being. This contrasts with Fossas (2019), who found that those who scored at the second highest developmental level had higher well-being than those at the highest level.

The constructive developmental framework has had an influence on the development of the self-determination theory (SDT), which is one of the dominant approaches to eudaimonic well-being. SDT takes an organismic view on human development where humans are seen as an active, growth-oriented organism, while also acknowledging that the individual's environment can both facilitate and/or impede such development (Ryan & Deci, 2002). In particular, the SDT focus on the wellness of the self, which is the

> integrated set of processes, structures, and representations that are the basis of autonomous functioning rather than the attainments of recognition, status, esteem, or rewards upon which some types of identity so often precariously

ride. […] It is when the organism is integrated, therefore fully self-organized, vital, and coherent, that wellness is in evidence (Ryan & Deci, 2017, p. 241).

In the early development of the theory, Deci and Ryan drew from Lovingers theory of ego development, particularly on the idea of the self having an assimilative or synthetic function (Ryan & Deci, 2017). This is in line with Kegan's developmental perspective, which is also outlines a developmental process of the self that occurs from an individual's active participation in one's own development. Additionally, the psychological maturity level of the self-authoring mind has notable similarities with the items comprising the authorship subscale of the Index of Autonomous Functioning (IAF; Weinstein, Przybylski, & Ryan, 2012), which is a trait measure of autonomy within the SDT tradition. This subscale has showed positive relation with SWB (Weinstein et al., 2012).

It is also worth noting that there are theoretical approaches that integrate both psychological maturity and the phenomenon of well-being or combines positive personality adjustment and positive personality growth as Staudinger and Kunzmann (2005) puts it. Staudinger and Kunzmann (2005) distinguishes between these two types of development, where personality adjustment is developmental changes that has adaptive value and increases the individual's functionality in the society, while personality growth concerns development that refers to some ideal endpoint human development, such as have been outlined by many different theories of psychological maturity (Staudinger & Kunzmann, 2005). One theory that incorporates these two types of development is Labouvie-Vief's (2003) theory of dynamic integration. In this theory Labouvie-Vief (2003) integrate affect optimization and affect differentiation/complexity. Where high optimizers tend to minimize negative experiences and augment positive experiences, while high differentiators tend to analyze their emotions and exhibit high tolerance of ambiguity. The combination of these two factors can result in four different emotional styles: 1. Dysregulated (low differentiation, low optimization), 2. complex (high differentiation, low optimization, 3. Self-protective (low differentiation, high optimization), and 4. Integrated (high differentiation, high optimization). In this theory, the integrated type is seen as the most ideal as individuals with this emotional style "displayed the most positive development: They scored high in positive but low in negative affect; reported high well-being, empathy, and health; and indicated they had a secure relationship style" (Labouvie-Vief, 2003, p. 204).

1.4 Knowledge gaps

The phenomenon of well-being in relation to aging is a topic that has received notable attention from both researchers and policy makers, yet there is still discussion as to what the relationship consists of. Much of the research has primarily been quantitative, and less is known of the qualitative accounts of well-being as people get older. Such accounts would benefit health promotion efforts aimed at well-being in old age, which is considered an important part of extending the positive period of old age (the third age). Moreover, although level of psychological maturity has consistently been demonstrated as unrelated to subjective well-being in adulthood, little is known about the relationship in old age. One of the challenges with using the developmental construct, as it is understood in constructive-developmental theories, is that the assessment of development is time-consuming and labor intensive. A short-form version of the already established assessment is therefore needed to further explore if and how development and well-being are related.

2   Aims of the thesis

The overarching aim of the thesis was to explore how well-being is experienced by people in the third age, which factors contribute to well-being, and how the promotion of well-being could benefit from a constructive-development perspective. This overall aim was addressed by the specific aims of the three papers forming the foundation of this thesis.

Aim 1: To explore the theoretical arguments for health promotion in the third age (Paper 1)
What differentiates third age from fourth age?
Can health promotion focusing on well-being in the third age "add more life to years"?
How can constructive-developmental theories inform health promotion initiatives in the third age?

Aim 2: To explore the lived experience of well-being among recently retired individuals (Paper 2).
What is the general meaning structure of well-being?
What are the constituents of this meaning structure?
How does the lived experience of well-being relate to established well-being theories?

Aim 3: To investigate if level of psychological maturity could be considered a significant predictor of SWB, if this proposed relation holds up when controlling for other eudaimonic predictors of SWB, and if age group moderate the relation between maturity and SWB (Paper 3). As a methodological concern, another aim of this study is to explore the feasibility of employing a psychological maturity measure, using the theory of Kegan (1982, 1994) with shorter written narratives. The following hypotheses were developed.
Hypothesis 1: Higher levels of psychological maturity in written narratives (Kegan's self-authorship stage, compared to the socialized stage) predict higher levels of well-being, controlling for age group, big-five traits, authenticity, experiential growth motivation, and meaningfulness in life.
Hypothesis 2: Maturity moderates the relation between age group and well-being. More specifically, we expect to find a significant interaction such that psychological maturity in narratives predicts SWB in old age but not in young or middle adulthood.

3   Materials and methods

3.1 Study design

To achieve the overall aim of the thesis, we employed both an empirical and a theoretical approach. This thesis is comprised of two empirical papers and one theoretical paper. The two empirical papers investigated the phenomenon of well-being by employing qualitative and quantitative methodology; the thesis thus presents a mixed method study. This is in accordance with Johnson and Onwuegbuzie's (2004) definition of mixed method research as "the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study" (p. 17). The relationship between the quantitative and qualitative tradition has historically been tense, with purists on both fronts (Johnson & Onwuegbuzie, 2004). A central aspect of the paradigm "wars" is the incompatibility thesis, which argues that the two paradigms cannot and should not be combined (Howe, 1988). This is considered a false dichotomy by mixed method researchers, who critique that methodological purists "tend to focus on the *differences* between the quantitative and qualitative philosophies rather than on the *similarities*" (Onwuegbuzie & Leech, 2005, p. 376, emphasis in original). Mixed method researchers align with pragmatic philosophy and argues that researchers should "choose the combination or mixture of methods and procedures that works best for answering your research questions" (Johnson & Onwuegbuzie, 2004, p. 17). The benefit of mixing methods is its potential to enhance understanding of the phenomenon in question (Tashakkori, Teddlie, & Sines, 2013), and mixed-method studies have steadily grown in popularity in recent years (Clark, 2010; Leech & Onwuegbuzie, 2009). Tashakkori et al. (2013) describe the outcome of mixed-method research as a gestalt, where the different kinds of studies enable the researcher to see a bigger picture than the sum of its parts.

Even though mixed methods, in simple terms, include the mixing of a qualitative and a quantitative element, a plethora of different ways of 'mixing' the methods exist (Leech & Onwuegbuzie, 2009). To create an integrated typology of these mixed-method designs, Leech and Onwuegbuzie's (2009) content analysis of mixed-method designs utilized in the literature found three dimensions where the designs could vary. With different variations on these three dimensions, the designs could be characterized as eight different mixed-method designs (Figure 3; see Leech and Onwuegbuzie (2009) for a detailed description and examples of the eight designs). In Leech and

Onwuegbuzie's (2009) framework, the design of this thesis would be categorized as a 'partially mixed sequential equal status design'. It is partially mixed since the qualitative and quantitative elements were completed in their entirety before being mixed at the stage of interpretation of result stage, i.e. this study includes a qualitative and a quantitative paper that represent two separate sub-studies and are first mixed at the interpretation of results in this thesis. For our study to be fully mixed, we would have had to include quantitative elements in the retirement study and/or include qualitative elements in the SALT study. This study was sequential as the different sub-studies were conducted after one another and not at the same time. Finally, it was "equal status", since qualitative and quantitative elements were given equal emphasis in addressing the aims of the thesis.
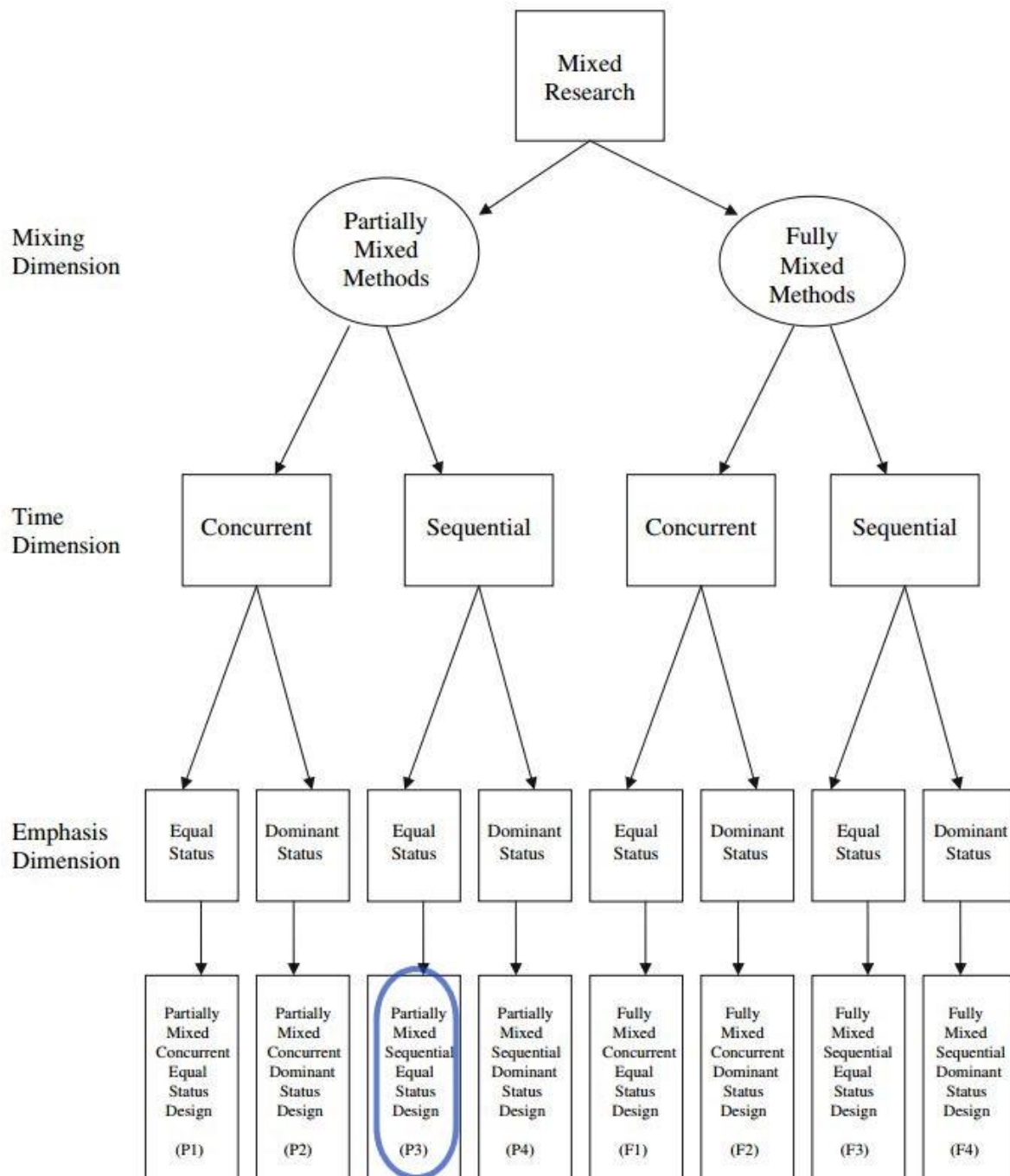
Figure 3 Leech & Onwuegbuzie's (2009, p. 273) typology of mixed method research design. The study design used in this thesis is highlighted in blue.

The theoretical paper functioned to review and connect the major terms used in this thesis, as well as being a methodological reflection on how developmental psychology could inform the promotion of well-being. The ideas launched in this paper informed both empirical studies in this thesis. The design and process of this PhD project is illustrated in Figure 4.

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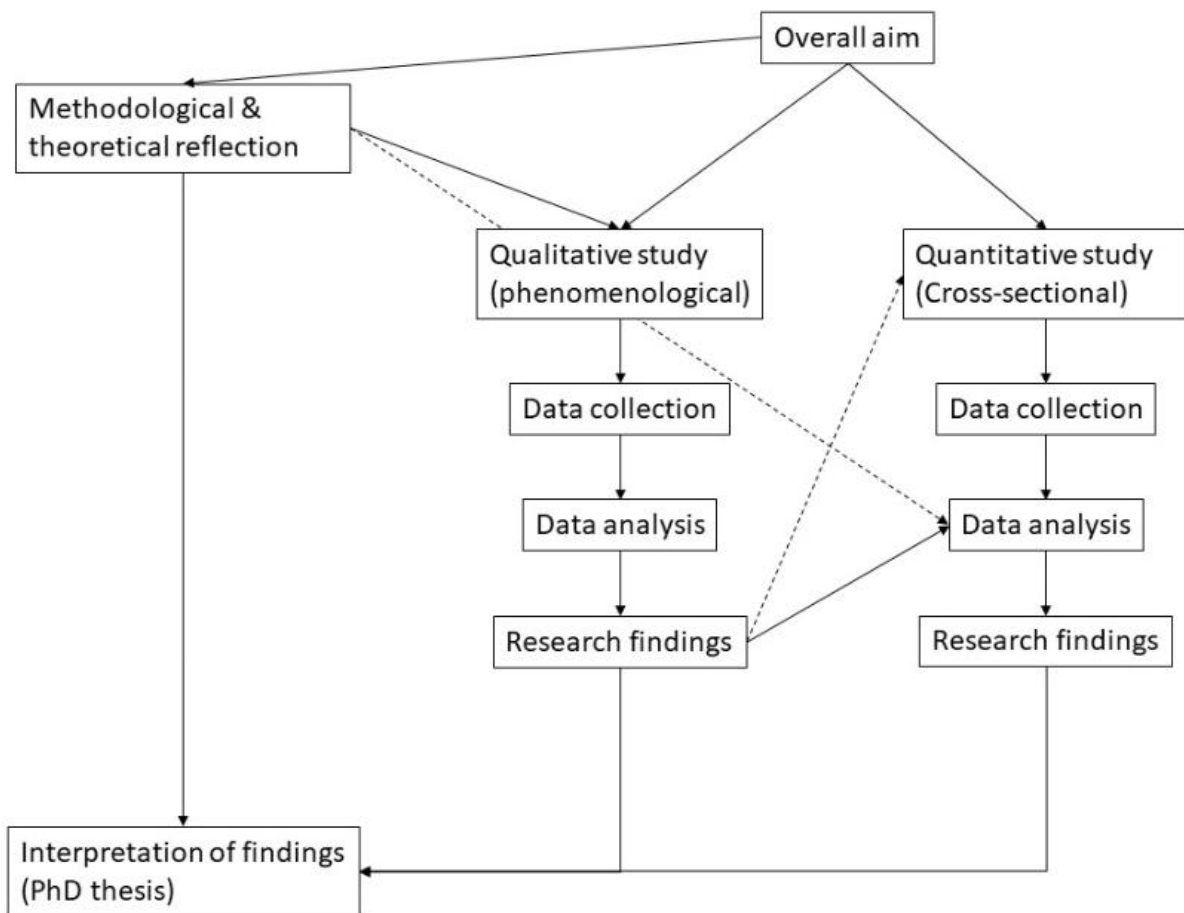
Figure 4 Illustration of the research design and process of the studies

The figure illustrates how the overall aim gave direction to all segments of the study. The project had four phases: phase one was the writing of the methodological and theoretical paper, phase two was the qualitative study, phase three was the quantitative study and phase four was the interpretation and discussion of the different studies in relation to one another (PhD thesis). The unbroken lines in the figure represent how the separate parts directly informed one another, while the broken lines indicate a more indirect path of influence. As illustrated in the figure, the methodological reflection in phase one, in addition to the overall research question, informed the design of the qualitative study in phase two. The findings of the qualitative study then informed the analysis of the data collected in the quantitative study. That is, based on our findings of agency and self-authorship as essential features of retirees' well-being, we operationalized this as a factor to include in the regression analysis. The dotted line between our findings in the qualitative study and the design of our quantitative study represents an indirect influence. That is, the findings gave us a direction for what we wanted to explore in the large cross-sectional dataset made available to us. However,

the designing of the questionnaire was completed before the findings of the qualitative study were known. The theoretical paper informed the analysis in the quantitative study indirectly, through a further development of the subject-object measurement described in the methodological paper. Finally, informed by the methodological reflection and the two empirical studies, the findings were interpreted and discussed (this thesis).

In the following sections, the methods of each of sub studies are described. To ease the readability, the text has been organized according to each sub study, rather than according to design, sample, measure(s), etc.

3.2 The theoretical study (Paper 1)

For Paper 1, no original empirical data were collected. Based on an examination of the literature on the topics of aging, retirement and well-being, we proposed a novel approach to health promotion initiatives. We highlight how a person interprets and makes meaning of themselves and others in the world around them (their level of psychological maturity), as a key factor that health promotion initiatives should consider. We argue for this as a mid-range approach to tailor health promotion initiatives to a targeted population. This paper proposes a novel combination of two different interviews, which contributed to the design of both the qualitative and quantitative study.

3.3 The qualitative study (Paper 2)

3.3.1 Design

Paper 2 is based on data collected in 2015. The data consisted of phenomenological interviews with recent retiree about their lived experiences with the phenomenon of well-being. This qualitative sub-study was grounded in the descriptive phenomenological method of Amedeo Giorgi (2009). In his approach, Giorgi has developed and modified Husserl's philosophical phenomenology into a rigorous and applicable research method. This method was preferred as we were interested in exploring the lived experience of well-being in retirement (the second aim of this thesis). The phenomenon in question is an extensive topic within psychology, having different understandings and definitions. Rather than advocating for one specific understanding of the phenomenon, we were interested in approaching the phenomenon as openly as possible without theory or our own preconceived notions of the

phenomenon guiding us. In the descriptive phenomenological approach, the essential meaning of the phenomenon is based on descriptions from the participants' experience of the phenomenon and described in an integrated statement that captures all participants' experiences (Laverty, 2003). In this process the researcher should not interpret and "go beyond what is given in the data in order to assist in explaining the meaning of what is already present in the data" (Applebaum, 2012, p. 62).

As we were interested in well-being in retirement, we preferred to talk with those who have firsthand experience of the phenomenon. Recently retired individuals were interviewed about experiences where they had felt a sense of well-being after retirement. To recruit these participants, we posted adverts in the local papers inviting people who had recently retired to talk about their experiences of well-being after retirement. To increase visibility and interest, we managed to persuade a local paper to write a feature article about the project. We also applied a more targeted approach, where the project and my contact details were presented at a municipal meeting for recently retired individuals. The interviews with the retirees were conducted successively as they elected to take part in the study.

This qualitative study originally intended to explore and compare the essential meaning structure of well-being among retirees who make meaning in two (or possibly three) qualitatively different ways (the design is outlined in Paper 1). In order to ascertain how the participants made meaning in their life, we first conducted subject-object interviews (Lahey et al., 1988/2011) with each participant. This meant that for all nine participants in this study, two interviews were completed: a subject-object interview (SOI) and a phenomenological interview. Due to a small number of participants, the SOIs and associated analysis were not included in the second paper. The analysis of the SOI's revealed that all but one of the participants were scored as making meaning from the self-authoring mind, while participant who differed was scored according to the socialized mind. Even though the SOIs were unused in Paper 2, our experience was that their implementation was nevertheless beneficial for the phenomenological interview. That is, when we returned for the second interview (phenomenological) with the retirees, the first interview had established a valuable rapport with the participant. Giorgi (2009) considers the establishment of such rapport as critical to the data collection phase.

3.3.2 Study sample

A summary of the participants in the qualitative study is presented in Table 1. Nine retirees, seven female and two males, participated in this study, all of whom lived in south-eastern Norway. Most had retired within the last year, while a few had been retired for some years, median time since retirement was six months (ranging from one month to 6.5 years).

Table 1.

Overview of participants in Paper 2

Participant	Age	Gender	Time since retirement	Relationship status	Persons in household
1	67	F	6 mo.	Divorced	1
2	65	F	1 mo.	Married	2
3	67	F	7 mo.	Married	2
4	67	F	1 mo.	Divorced	1
5	68	F	6.5 yr.	Widow	1
6	71	M	4 mo.	Married	2
7	70	F	3.5 yr.	Married	2
8	62	F	6 mo.	Married	2
9	65	M	1.5 yr.	Married	2

Mo. = month(s), yr. = year(s), F = Female, M = Male

3.3.3 Instrument and measures

A total of nine phenomenological interviews were conducted, one with each participant. In these interviews, the focus was the participants' experiences of well-being after retirement. Although there is no single prescribed method of conducting such interviews (Englander, 2012), we aimed at fulfilling the phenomenological criterion stated by Giorgi: "What one seeks from a research interview in phenomenological research is as complete a description as possible of the experience that a participants has lived through" (2009, p. 122). To ensure this we had developed a short interview guide (Appendix 4) with a specific opening question, where we asked the participants to describe (in as much detail as possible) a situation after retirement where they had experienced a sense of well-being. In addition to this question, the interview guide included possible aspects of the experience (e.g. when, where, who) that we could direct the participants toward if they moved off topic or had nothing more to say. This did not entail "leading" the participant into any specific topic, but

rather directing them towards elaborating on the experience. All interviews were recorded and transcribed verbatim and lasted between 25 and 55 minutes.

3.3.4 Analysis

The transcribed interviews were analyzed according to the descriptive phenomenological method of Giorgi (2009). This analysis process consists of four steps: (1) reading to gain a general sense of the whole, (2) identifying meaning units, (3) transforming the meaning units into scientific language, and (4) writing a general meaning structure. Before these are described in more detail, it is important to note that the researchers following this method perform a phenomenological reduction before starting the analysis process. To ensure that we gained as much insight as possible into the experiences of the retirees, we also performed this "bracketing of past knowledge" (Giorgi, 2009, p. 91) about the phenomenon in question was also assumed when conducting the interviews. The process of suspending once natural attitude is known as the epoché (Englander, 2016). The concept of bracketing or epoché was daunting at first, as we first assumed that we had to be a blank slate and forget everything we knew, which is a common misinterpretation according to Englander (2016). However, the idea of being a blank slate proved to be difficult and unattainable, and we appreciated bracketing as a skill that one had to practice. In this process we were inspired by Varela, Vermersch, and Depraz (2003) description of the three principal phases of accomplishing the epoché. The phases are: (1) suspending one's pre-judgment of how things are, (2) redirecting from the exterior to the interior, and (3) moving from "'looking for something' to 'letting something come to you', to 'letting something be revealed'" (Varela et al., 2003, p. 31). The epoché is considered a prerequisite of the phenomenological psychological reduction adopted in Giorgi's method (Englander, 2016; Morley, 2010). Giorgi does not consider the epoché and the reduction as separate steps, but for the novice it was beneficial to see them as separate but connected steps. When assuming the phenomenological psychological reduction, "everything in the raw data is taken to be how the objects were experienced by the describer, and no claim is made that the events described really happened as they were described" (Giorgi, 2009, p. 99).

After we assumed the attitude of phenomenological psychological reduction, we were ready to embark on the analysis steps in Giorgi's methodology. The first step was to read the interview to gain a sense of the whole description of the experience for the retiree. At this first step, one is not supposed to make notes or try to make explicit any

meaning in the description, rather it is about getting a sense of the whole while maintaining the reduction. After re-reading the descriptions several times, we achieved a sense of the entire description and moved on to the second step, where the description was divided into meaning units. As these descriptions garnered from interviews are lengthy, they are impossible to analyze holistically, and are therefore broken into parts at this second step (Giorgi, 2009). This is done by reading the interview from the beginning again and marking places in the text where one gets the sense of a change in meaning in the description. At this stage, one does not try to investigate the meaning units; the focus is on establishing them and breaking down the text into manageable units of analysis. According to Giorgi, the establishment of the meaning units is associated with the researcher identifying them, and "there are no 'objective' meaning units in the description as such" (2009, p. 130). After breaking down the descriptions into a series of meaning units, we moved onto the third step, which is considered the heart of the method. In the third step, we transformed the meaning units into a psychologically sensitive language. In this transformation process, the general meaning of the meaning units was identified by so-called imaginative variation. This is a mental process of removing aspects of the data to see whether this "transforms what is presented in an essential way" (Giorgi, 2009, p. 69). If the meaning changes due to the removal, it can be considered essential, while if the meaning is still recognizable it is probably not an essential feature. It is through the method of imaginative variation that we can carry out the eidetic reduction (Englander, 2016), which is the process of reducing the object to its essence. The third step meant going back to the beginning of the description and the original meaning units, and "interrogating each meaning unit to discover how to express in a more satisfactory way the psychological implication of the lifeworld description" (Giorgi, 2009, p. 131). Practically speaking, we arranged the process in a spreadsheet with each meaning unit in a separate row and the subsequent transformations of it in the next column(s). Some meaning units went through several transformations to arrive at the invariant expression of the meaning unit, while others went through one transformation. In the fourth and last step, the transformed meaning units were synthesized to one coherent general meaning structure of the experience of well-being in retirement. Free imaginative variation and the eidetic reduction were also employed in this process.

The analysis process is visualized in Figure 5. As the figure illustrates, there was an intermediate step, between Giorgi's third and fourth step, where we synthesized the individual description into an essential meaning structure for each participant, which

then formed the basis for the general meaning structure encompassing all nine individual meaning structures. This was preferred due to the amount of data collected and analyzed in the study, which made it difficult to formulate a holistic structure that encapsulated the experiences of all the participants, without first trying to distill the individual experience of the phenomenon. However, the interest of our study was not an individual structure, but the general structure of the phenomenon as arrived at in the fourth step, which was the primary result presented in Paper 2.

Step in Giorgi	Description	Interviews 1 2 3 4 5 6 7 8 9
1	Read for whole	
2	Identifying meaning units	
3	Rewriting meaning units	
my intermediate step	Synthesizing the transformed meaning units into one coherent story expressing the structure of the phenomenon as it is experienced for that participant	Individual meaning structure's of well-being
4	Synthesizing all "individual" meaning structures of the phenomenon, into one holistic grand structure. Representing all participants' experiences with well-being after retirement	General meaning structure of well-being in retirement

Figure 5 Illustration of the analysis process for paper 2.

3.4 The quantitative study (Paper 3)

3.4.1 Design

Paper 3 is based on cross-sectional data collected in the Study of Adult Life and Transitions (SALT). The data were collected digitally through a web-based questionnaire. These cross-sectional data represented the first data gathering point in a recently launched longitudinal study. The questionnaire comprises several psychological measurements, demographic and socioeconomic questions, as well as

questions specific to participants university experience. The data used in my third paper are from the first wave of the study completed in the early fall of 2015.

3.4.2 Study sample

754 participants responded to the questionnaire. As the primary aim of the third paper was to investigate psychological maturity in relation to well-being, the final number of participants in our paper was limited to those who had provided written narratives about the highpoint of their time at university, which were sufficient in length to analyze according to the proposed analysis scheme. The final sample in this study consisted of 223 participants, of whom 135 were females (60%) and 87 males (40%). The participants' age ranged from 22 to 84 years, with a mean age of 46.4 years (SD = 16.9). With one of the study's focus concerned old age compared to a younger age group, we constructed a dichotomous age variable where older age was categorized as 60 years or older, while the younger age groups were 59 years and younger. As mentioned previously, old age is a period of substantial heterogeneity and some differentiate between a third and fourth age. Where the onset of the third age clustering around 60-5 years and the usual cut-off point between third and fourth age for research purposes is 85 years (Robinson, 2013). With participants in the old age category ranging from 60 to 84 years old, it could be argued as primarily consisting of the so-called third agers. Table 2 presents mean scores on the main study variables according to the two age groups.

Table 2

Mean scores on main study variables for the younger and older age group

| | Age group | |
| | Younger | Older |
Study variables	M(SD)	M(SD)
Age	37.5 (11.2)	67.5 (5.5)
SWB	4.5 (0.6)	4.7 (0.5)
Neuroticism	2.9 (1.3)	2.3 (1.1)
Extraversion	4.6 (1.7)	4.8 (1.6)
Authenticity	5.7 (0.9)	6.1 (0.7)
Presence of meaning	5.2 (1.1)	5.8 (0.9)
Experiential growth motivation	5.7 (0.9)	5.9 (0.6)

Note. M = mean, SD = standard deviation, SWB subjective well-being

Apart from age, there were no significant difference between the included and excluded participants. In terms of age, those who provided a narrative were significantly older (M = 46.22) compared with those who did not (M = 43.38).

3.4.3 Instrument and measures

The web-based questionnaire (Appendix 5) was developed by using the software Survey Monkey (San Mateo, California, USA. https://www.surveymonkey.com). The questionnaire was a part of a recently launched prospective longitudinal called the Study of Adult Life and Transitions (SALT). The aim of SALT is to track and investigate several phenomena across the lifespan. As the study has several interests, the questionnaire consisted of a multitude of measures of which a selection was used in this paper. The questionnaire was wholly in English. The instruments used in Paper 3 were already established and validated psychological scale measures. The one exception to this was our measurement of psychological maturity, which was operationalized by using an existing method for analyzing a particular type of interviews (SOI) and reworking it to fit shorter written descriptions. As the SALT questionnaire includes several measures that were not relevant for the aims of this paper, only the relevant measures for this study will be presented. The details of the different measures can be found in the paper. A brief description of them is given here, with a focus on the development and operationalization of psychological maturity.

Demographic. The questionnaire assessed sociodemographic information such as sex, age, educational attainment, relationship status, employment, income level, employment status and religious status.

Well-being was the outcome variable in this study and was represented by subjective well-being (SWB), which was a compound measure calculated by the scores from the Satisfaction With Life Scale (SWLS) (Diener et al., 1985) and the Scale of Positive and Negative Experiences (SPANE) (Diener et al., 2010). The SWLS is a short measure of overall life satisfaction. The SPANE consist of two subscales measuring experiences of positive and negative feelings.

The presence of meaning in life was assessed using the Meaning in Life Questionnaire (MLQ) (Steger et al., 2006). The MLQ consists of two subscales, presence and search, which measure the extent to which the person is experiencing a presence of and a search for meaning, respectively.

A person's dispositional authenticity was assessed using the Authenticity Scale (AS) (Wood et al., 2008). This scale consists of three subscales: self-alienation, authentic living, and accepting external influences.

Growth motivation was assessed by the newly proposed Growth Motivation Index (GMI) (Bauer et al., 2015). This instrument measures two facets of growth motivation: reflective and experiential.

Personality was assessed using the Ten-Item Personality Inventory (TIPI) (Gosling, Rentfrow, & Swann, 2003), which is a short instrument measuring the big five personality traits: neuroticism, extraversion, openness to experience, conscientiousness, and agreeableness.

Psychological maturity was operationalized by analyzing answers to an open-ended question in our questionnaire. The question, about the participants' favorite memory from the university, was identified as having the potential to elicit narratives demonstrating a person's level of psychological maturity. The question asked for a detailed description of the event (what, when and where), what they were thinking and feeling at the time, what they think caused it, why it was so good, and the reflection of how it might have shaped them as a person. As a result, most participants wrote relatively long narratives of the event as well as their thought process. In the analysis of these answers, we relied wholly on Kegan's developmental theory (1982, 1994) and the subject-object interview already established by Kegan and his colleagues (Lahey et al., 1988/2011). The subject-object interview (SOI) guide describes and gives examples of how the distinct levels of psychological maturity can be differentiated in those parts of the text where a person's meaning-making process is demonstrated. The guide outlines how the researcher in structured interviews can probe reflections that demonstrate how individuals understand themselves and the world around them (their level of maturity). Both in the interview and in the analysis of the interview, the researcher is interested in differentiating what the person can take as object and reflect upon, and what they are subject to and unable to reflect upon.

We were interested in investigating the feasibility of applying this method of analysis to written descriptions gathered in our questionnaire. The completion of a full SOI analysis, as described in the guide, is time-consuming and therefore unfeasible to

include in large sample studies, such as SALT. Therefore, we proposed that employing this method and way of thinking on shorter descriptions hold great value for such large sample studies. This would make the developmental construct a realistic factor to investigate in relation to other factors in cross-sectional and longitudinal studies.

For us to apply the SOI guide to the participants' description of their "university highpoint", it had to be of a sufficient length to allow a glimpse of their meaning-making process. This meant that those who did not provide a description, or whose description was brief (e.g. "when I met my wife"), were excluded from our analysis. The descriptions were analyzed by the first and the third authors of Paper 3 separately. They were both proficient in Kegan's theory. The first author had completed a course in conducting and analyzing SOIs and had been certified as a reliable scorer. The first author served as the gold standard/master coder (Syed & Nelson, 2015) and analyzed all the descriptions in the dataset, while the third author, to establish interrater reliability, analyzed a randomly chosen subset of the descriptions. We scored the descriptions according to the SOI guide (Lahey et al., 1988/2011), and a condensed "cheat sheet" highlighting the different stages of psychological maturity and the subject-object balance (i.e. what one is subject to and what one can take as object). This cheat sheet was a part of the course material made available to the participants of a subject-object workshop[12], which the first author had attended. The SOI guide also outlined the transitional phases between the different stages of psychological maturity in adulthood, as illustrated in Figure 6. However, to discriminate between these different transitional stages, one needs several examples of a person's meaning-making process (Lahey et al., 1988/2011). As we only had one such instance for each of our participants, we were only able to score the narrative for the dominant level of maturity. Although Kegan's theory describes three separate levels of psychological maturity for the adult population (socialized, self-authoring and self-transforming mind), our analysis found only the socialized and the self-authoring mind present in the narratives. This meant that our operationalization of psychological maturity resulted in a dichotomous variable, i.e. either socialized or self-authoring.

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[12] The Subject Object Interview (SOI) Course hosted by Subject-Object Change - http://www.subjectobjectchange.com

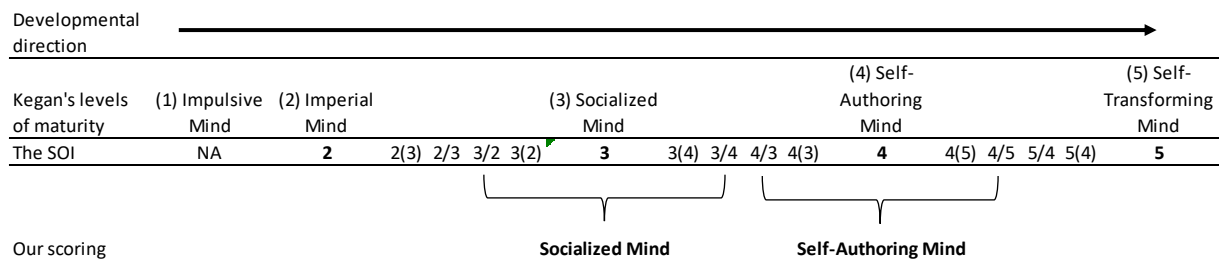| Developmental direction													

Figure 6 Illustration of our scoring of the narratives in relation to the SOI and Kegan's levels of maturity

The shortest narratives scored in our analysis was 14 words while the longest narrative was 847 words. Approximately 95 percent of the narratives scored was more than 30 words, while approximately 90 percent were above 50 words. The mean number of words in the narrative was 148 while the median was 116. The length of the narratives and level of psychological maturity was slightly correlated, $r(222) = .25$, $p < .001$.

3.4.4 Analysis

The statistical analyses were performed using the statistical software package IBM Statistics Version 25.0 (IBM Corp., Armonk, NY, USA). A two-sided p-value of <.05 was considered statistically significant.

The main analysis in paper 3 was a hierarchical multiple regression model with SWB as the dependent variable. The hypothesized predictors were entered in the model in five separate steps: (1) age group, (2) maturity, (3) personality factors, (4) eudaimonic factors, (5) interaction term age group x maturity. We checked the assumption of the regression model and found that the basic assumption of the regression model was met. Scatterplots indicated a linear relationship between SWB and the predictor variables. The collinearity statistics showed that VIF scores were well below 10. The values of the residuals were independent (Durbin-Watson = 1.96). Our plot of standardized residuals vs standardized predicted values showed no obvious signs of funneling, indicating that the assumption homoscedasticity was met. The P-P plot for the model indicated that the residuals were normally distributed. Finally, Cook's Distance values (highest value = .06) indicated that there were no influential cases biasing the model.

3.5 Ethical considerations

The project as sketched in the theoretical paper (Paper 1) was approved by the Norwegian Centre for Research Data (NSD) (Appendix 1). Since we were unsure as to whether health information would be a part of the participants' description (Paper 2),

we applied for approval from the Regional Committee for Medical and Health Research Ethics (REK) (Appendix 2). REK considered the project to be outside of their purview, and the approval from NSD was deemed satisfactory. As mentioned previously, the design of the study changed somewhat during the project period due to difficulties in recruiting participants. However, as the changes were to have fewer participants, and no change in the procedure for each participant, the original approval covered the data collected in Paper 2. Written informed consent were obtained from the participants before any data was collected (Appendix 3).

The SALT study has been approved by the University of Dayton Institutional review Board, which is a committee at the University of Dayton following the national guidelines (US) for the protection of human subjects in research. Informed consent from the participants were obtained electronically as a prerequisite for the participants to start the electronic questionnaire (Appendix 5).

4   Main results

This thesis contains three papers that explore the phenomenon of well-being in old age. Two of the papers have been published in different journals. Paper 1 has been published in *Health Promotion International*, while Paper 2 has been published in *International Journal of Qualitative Studies on Health and Well-being*. Paper 3 has been submitted to *the Journal of Happiness Studies*. The papers are attached in their entirety at the end of this thesis. A summary of the main results for each paper are presented in this section, followed by a discussion of our findings.

4.1 Paper 1: "Structural developmental psychology and health promotion in the third age"

Paper 1 is a theoretical paper where we explored the increase in human lifespan and the challenges and opportunities this presents for people growing older as well as for the societies in which they live. In this paper, we focused on the distinction of old age into two separate periods (third and fourth age), and the potential to increase the positive third age, while compressing the negative fourth age. Retirement from work is considered the starting point of the third age and is a period we argued could be especially ripe for health promotion efforts. We suggested that such efforts should facilitate experiences of well-being, not only because well-being is inherently valuable for individuals in itself, but also because it has several positive health and longevity associations. Such efforts should employ a bottom-up approach to the phenomenon of well-being, where what constitutes the phenomenon in this period must be based on the retirees' experience of the phenomenon. We further proposed that the phenomenon of well-being would be experienced differently according to how the retirees made meaning. We presented Kegan's developmental theory to outline three distinct ways adults (typically) make meaning and sketched a research proposal to investigate if the different ways of meaning-making also constitute different experiences of well-being. The paper concludes that the developmental theory of Kegan is a useful way of thinking for the development of health promotion efforts aiming to increase well-being.

4.2 Paper 2: "The lived experience of well-being in retirement: A phenomenological study"

Paper 2 presents a phenomenological study. In this paper, we identified and described the general meaning structure of well-being after retirement. The meaning structure

was a holistic description of the phenomenon that mapped onto all nine lived experiences of well-being. The structure was presented in Paper 2 and represented the main findings. The general meaning structure was lengthy and therefore not presented in its entirety here. In line with phenomenological practice, we could identify four constituents of the phenomenon: 1. an awareness and gratitude for a healthy and functioning body, 2. a new experience of time presenting possibilities for action, 3. a heightened sense of agency, and 4. being-in-place in relationships. As Figure 7 illustrates, the constituents are interrelated and not independent of each other, but rather emerge from one another and loops back and facilitate each other.

Figure 7 The constituents of the general meaning structure of well-being in retirement

(1) For our retirees, a healthy and functioning body was implicit in their experiences of well-being. There were two variants of the healthy and functioning body, one variation was an experience of the body being "good enough" without putting limitations on their life. The other variation was an experience of presence of a strong and able body with potential for action. (2) As the retirees were no longer working, time, as they had previously experienced it, had transformed from running their lives by to now being on their side. The new sense of time was threefold and included having more time, time to live according to their priorities, and being able to enjoy the moment by being fully present for significant moments in their life. (3) In their experiences of well-being as retirees, their autonomy was complete and solicited their agency. This enabled them to take initiatives and engage in already enjoyable as well as new relationships and activities. Some were deliberately arranging for situations that they were likely to enjoy, while for others this happened more unwittingly, while still not being the result

of randomness or luck. There was also tension resulting from the autonomy and agency, as some were anxious about not fulfilling the potential in their life. (4) The final constituent of the general meaning structure involved the retirees' experience of being-in-place in relationships; this meant having meaningful relationships where they were a part of and had an influence on others' lives, and vice versa. However, they were protective of their newfound autonomy and did not want to be controlled by these relationships. For some this being-in-place was concerned with the present moment, where the positive relationship with others indicated their value and competence in mastering the here and now. For others, the being-in-place represented their role in a relationship through generations and the ability to link the past, present and future in a coherent narrative. This was represented by the desire to have a footprint on the world that would still exist after their passing.

4.3 Paper 3: "Maturity and happiness: The development of self-authorship, eudaimonic motives, generations, and subjective well-being"

Paper 3 is a quantitative study using multiple linear regression to investigate significant predictors of subjective well-being. Our hypotheses in paper 3 were that higher psychological maturity would be a significant predictor of SWB, that this relationship would hold up when controlling for established predictors of SWB, and that maturity would moderate the relation between age group and SWB, where level of maturity would predict SWB in old age but not in young or middle adulthood. A hierarchical multiple regression model (Table 3), entering age group (young and middle adulthood vs old age), psychological maturity (socialized vs self-authoring mind), personality factors (neuroticism and extraversion), eudaimonic factors (authenticity, presence of meaning and experimental growth motivation, and the interaction term age group x psychological maturity, revealed a final model accounting for significant proportion of variance in SWB scores, $R^2 = .55$, $F(9,211) = 32.99$, $p < .001$). In support of Hypothesis 1, psychological maturity continued to predict well-being, even when controlling for age group, personality traits of neuroticism and extraversion, authenticity, meaningfulness in life, and experiential growth motivation

(model 4). Notably, age group ($b = .14$, $t(211) = 1.79$, $p = .075$) and authenticity ($b = .06$, $t(211) = 1.50$, $p = .134$) did not contribute significantly to the final model.

Table 3

Results of the multiple regression analysis for SWB

Model		b	SE$_b$	β	F	R^2	ΔR^2 change	95 % CI	VIF	p
1	Age group	.22	.08	.18	7.16**	.03		[.06-.39]	1.000	.008
2	Age group	.23	.08	.18	7.77**	.07	.04	[.07-.39]	1.000	.006
	Psychological maturity	.21	.07	.19				[.07-.36]	1.000	.005
3	Age group	.10	.07	.08	31.35***	.37	.30	[-.04-.24]	1.042	.160
	Psychological maturity	.19	.06	.16				[.06-.31]	1.005	.003
	Neuroticism	-.20	.02	-.46				[-.25- -.15]	1.045	.000
	Extraversion	.10	.02	.30				[.07-.14]	1.002	.000
4	Age group	.04	.06	.03	36.60***	.54	.17	[-.01-.30]	1.073	.548
	Psychological maturity	.16	.05	.14				[-.08-.15]	1.008	.003
	Neuroticism	-.12	.02	-.28				[.06-.27]	1.313	.000
	Extraversion	.04	.02	.12				[-.17- -.08]	1.193	.020
	Authenticity	.06	.04	.09				[-.02-.14]	1.686	.141
	Presence of meaning	.12	.03	.23				[.06-.18]	1.691	.000
	Experiential growth motivation	.20	.04	.28				[.12-.28]	1.571	.000
5	Age group	.14	.08	.11	32.986***	.55	.01	[-.01-.30]	1.917	.075
	Psychological maturity	.23	.06	.20				[.11-.36]	1.435	.000

Neuroticism	-.12	.02	-.26		[-.16- -.07]	1.355	.000
Extraversion	.04	.02	.11		[.01-.07]	1.197	.026
Authenticity	.06	.04	.09		[-.02-.14]	1.686	.134
Presence of meaning	.13	.03	.24		[.06-.19]	1.704	.000
Experiential growth motivation	.20	.04	.29		.[12-.28]	1.574	.000
Age group x Psychological maturity	-.24	.12	-.14		[-.47- -.01]	2.270	.045

Dependent variable: SWB, ** p < .01 *** p < .001, Age group = 0 represents those under 60 years old, while 1 represents 60 years or older. Psychological maturity = 0 represents socialized mind while 1 represents self-authoring mind.

As we hypothesized (hypothesis 2), the interaction term age group x psychological maturity was significant in the final model, (b = -.24, $t(211)$ = -2.01, p = .045). However, through plotting our findings (Figure 8) we found that the relationship was different than we hypothesized. That is, psychological maturity was only positively related to SWB for those who were in the young age group (b =.23, $t(211)$ = 3.66, p < .001) and not for those in old age (b = -.01, t (211) = -.08, p = .94). Thus, those in the young age groups who had provided a narrative that was scored as self-authoring (more mature) had higher SWB than those who had narratives that were scored as

socialized (less mature), while there was no difference in SWB scores for those with socialized or self-authoring narrative in the older age group.
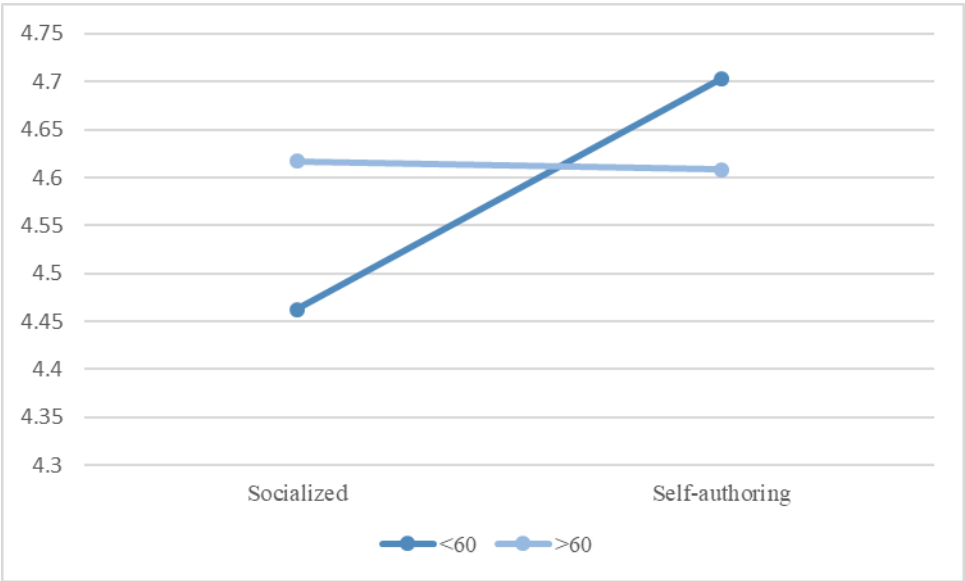

Figure 8. Moderation of the relation between socialized and self-authoring narratives by age group

5   Discussion

This thesis has argued that experiences of well-being of the increasingly older population in Western societies form an important basis for efforts to extend the positive third age, while compressing the more negative fourth age. In order to elicit experiences of well-being, a naïve exploration of the experiences of recently retired individuals, bracketing any preconceived notions of the phenomenon, was argued to be a suitable starting point (Paper 1). With previous research indicating that individuals at different levels of psychological maturity experience the same phenomenon differently, we proposed that this aspect was also worth exploring in relation to the phenomenon of well-being.

The main result of the qualitative study (Paper 2) was a general meaning structure of the phenomenon of well-being, based on the participants' first-hand experiences. The constituents of this meaning structure partly aligned with well-known eudaimonic factors (social relationships and agency/autonomy), while traditional hedonic aspects were less apparent in the meaning structure. Aspects such as a healthy and functioning body as well as a new experience of time, the two other constituents, have not traditionally been considered as constituents of well-being. Even though a healthy and functioning body has been associated with well-being in research, it has primarily been considered an antecedent or a consequence of well-being. However, in the capability approach of philosophers Sen (1993) and Nussbaum (2011, 2012), such functioning is considered central to well-being. In Nussbaum's (2012) list of central or core capabilities, bodily health is one of ten capabilities, while being in good health is considered an elemental functioning, according to Sen (1993). Similarly, the experience of time has not been considered as well-being in itself, but researchers have found that how one thinks about and arranges one's time can affect well-being (Sellier & Avnet, 2014). In an experiment by Mogilner (2010), thinking about time, compared with thinking about money, led to increases in participants' hedonic well-being. Interestingly, in Mogilner's study it was not thinking about time itself that was a significant predictor, rather that thinking about time led to more socially connecting behavior, which accounted for enhanced hedonic well-being. The fact that the participants in this qualitative study were retirees could be one of the reasons why both time and social relationships emerged as constituents of well-being. Growing older draws attention to time (Carstensen, 2006), and in many cases one's remaining time, which can be one of the reasons why older individuals are more inclined to spend time

with people with whom they already have a close relationship (Fredrickson & Carstensen, 1990).

The general meaning structure and its constituents highlighted some similarities with the psychological maturity level of self-authorship, which was outlined (Paper 1) as one of the ways individuals make meaning according to Kegan (1994). Time, agency and social relationships could all be viewed as experiences of living out one's capacity of self-authorship. This might not be surprising, since most of the participants had developed such a capacity (see section 5.4.2 in the methodological discussion for more on this point). Nevertheless, this inspired us to explore whether the capacity of self-authorship could be a significant predictor for SWB in old age (Paper 3). As we expected the psychological maturity level of self-authorship to be particularly important for SWB in old age, we were surprised that our findings indicated an opposite relation. That is, a more mature narrative (those scored as self-authoring), was positively associated with SWB for the younger cohort, while there was no relation for those in the old age category.

While each of the papers in this thesis includes a discussion of results, the following sections contain integrative reflections on the findings of this thesis and discuss limitations of the studies and the thesis.

5.1 Understandings of well-being

This thesis employed a broad psychological understanding of the phenomenon of well-being, including both eudaimonic and hedonic aspects, without aligning with one specific theory of well-being. In adopting this approach, we acknowledge the inherent value in both positions and contribute to a more comprehensive understanding of well-being (Henderson & Knight, 2012). In the qualitative study, we noted that the meaning structure of well-being could be interpreted as reflecting a more eudaimonic conceptualization of well-being, while in the quantitative study we investigated how such eudaimonic factors could predict hedonic well-being. It is not a new perspective to combine the two approaches in research; there is a growing interest in the distinction between the two (Huta & Waterman, 2014), and most researchers believe both forms of well-being to be important (Huta, 2017) and they have substantial overlap in their genetic causes (Baselmans & Bartels, 2018).

In our theoretical paper, we proposed that the content of well-being could vary qualitatively according to different levels of psychological maturity making. However, we were unsuccessful in recruiting participants with the two predominant levels of maturity in the adult population. Therefore, we were not able to explore the proposed difference in the experience of well-being between individuals with a socialized level of maturity and those with a self-authoring level of maturity. Regarding our theoretical paper, a recent study by Fossas (2019) lends support to our original notion. In his study, Fossas found both quantitative and qualitative differences in well-being for individuals with different levels of psychological maturity. For those individuals who were predominantly making meaning according to the socialized mind, well-being was often connected to favorable changes outside of the person. Such favorable changes included "receiving validation from others, seeing external payoff for hard work, and having unique experiences that improved one's perceived standing in relation to others" (Fossas, 2019, p. 1946). By contrast, those who were making meaning at the more mature level of self-authorship conceptualized well-being as connected to changes taking place in themselves. These included aspects such as agency, growth, control and feelings of gratitude or relaxation (Fossas, 2019). There were some differences in how we and Fossas explored well-being qualitatively. Fossas explored participants' thoughts and reflections on what well-being was, while we explored participants' experiences of well-being purely through descriptions without eliciting their reflections on the experiences (Paper 2). Nevertheless, the meaning structure of well-being in our qualitative study has striking similarities to how well-being was conceptualized by people at the self-authoring stage in Fossas' (2018) study; agency, control and feelings of relaxation were also present in the general meaning structure of our qualitative study. Again, almost all participants in our study were scored as self-authoring, so the similarities between the two conceptualizations could be a result of the participants' similar level of psychological maturity. Our study and Fossas' study are part of a small number of studies (e.g. Carlquist, Ulleberg, Delle Fave, Nafstad, & Blakar, 2017; Delle Fave et al., 2011; Delle Fave et al., 2016) which have investigated the layperson experience and/or definition of well-being. Carlquist et al. (2017) identified two ways of conceptualizing well-being, as being concerned with external life domains and internal psychological dimensions. Although they did not investigate psychological maturity, these two forms of well-being are similar to Fossas' (2019) distinction between the socialized and the self-authoring minds' conceptualizations of well-being. Carlquist et al. (2017) also found differences in how older and younger participants conceptualized well-being, with older participants being more likely to

include external life domains in their conceptualizations. This finding could be indicative that "experiences of well-being are contingent on the developmental stage of the individual" (Carlquist et al., 2017, p. 499). Since we did not have younger participants in our qualitative study, we cannot say that the meaning structure is an indication of older individuals being more, or less, concerned with external life domains or internal psychological dimensions, compared with younger cohorts. But if we compare our findings with how Carlquist et al. (2017) understood life domains (e.g. family, interpersonal relations, health) and psychological dimensions (e.g. growth, purpose, autonomy, self-actualization, meaning), the meaning structure includes both these aspects. However, the internal psychological dimensions appear to be more emphasized than external life domains in our meaning structure.

5.2 Self-authorship and well-being

Robert Kegan's (1982, 1994) constructive-developmental theory has been an important influence throughout this thesis. In the theoretical study (Paper 1), we proposed that different stages of psychological maturity could lead to qualitative differences in experiences of well-being, and that knowledge of these potential differences could be relevant for health promotion initiatives aiming to improve the well-being of retirees. With previous research indicating that most of the adult population's level of psychological maturity is at the socialized or the self-authoring stage (including the transitional space between the stages), we had a specific focus on these two stages of psychological maturity in this thesis. In Paper 1, we made it clear that we had neither the interest nor the intention to highlight a specific stage as better or worse than another. We were concerned with this value judgement, since constructive-developmental theories are by some, especially their critics, perceived as philosophically normative and thus elitist, assuming that it is better or ideal to have developed to the "higher" stages (Blumentritt, 2011). However, such criticisms seem to mistake descriptive claims for normative claims (Bauer et al., 2015). The fact is that, descriptively speaking, people do construct meaning with structures that are relatively less complex or more complex, and less complex structures develop earlier and are less adaptive than are more complex structures (e.g. Bauer, King, & Steger, 2018; Cohn, 1998). But more complex thinking is only one facet of personhood. Complex meaning making has little to do with, for example, moral behavior (Blasi, 1980) or other aspects of eudaimonia. Notably subjective well-being, as decades of research reveal that "people who think complexly about their lives are just as likely to be happy as unhappy" (Bauer & McAdams, 2004, p. 576). However, when the

findings in our qualitative study (Paper 2) drew attention to the aspect of self-authorship in the retirees' experiences of well-being, we were interested in exploring how self-authorship could be associated with subjective well-being in old age. With this interest we still embraced the idea of well-being as independent of psychological maturity per se but hypothesized that this capacity was important for subjective well-being for older individuals (Paper 3). Our argument was that old age, compared to adulthood, is a period where one is left to one's own devices with fewer social norms or expectations, requiring retirees to have developed the capacity to be self-authoring.

We were surprised by the results indicating that psychological maturity was significantly associated with subjective well-being (Paper 3). This finding contrasted with the notion of maturity being orthogonal to mental health (Noam, 1998) and empirical studies reporting no correlation between the two (Bauer & McAdams, 2010; Bauer et al., 2005; King, 2001; King et al., 2000). Recently, Fossas' (2019) study found quantitative differences between the different levels of psychological maturity, in addition to the qualitative differences in well-being described above. His finding suggested that the relationship between the two constructs was curvilinear, with well-being increasing from the socialized to the self-authoring mind, before decreasing at the greater psychological maturity of the self-transforming mind. Fossas reasons that the operationalization of both hedonia and eudaimonia could be a reason why well-being peaked in the self-authoring mind. When reviewing the questions in the well-being measures, Fossas (2019) argues that measures of both subjective and psychological well-being seemingly rely on or require the capacity of self-authorship, i.e. well-being instruments appear to measure a self-authoring conceptualization of well-being.

5.2.1 Facilitating development of self-authorship

Our findings that one of the constituents of retirees experience of well-being highlighted the capacities of the self-authoring mind (Paper 2), and that this level of maturity could be considered a buffer for SWB in adulthood, but not for those in the third age (Paper 3), is a relatively new finding in the literature, and further studies are required to ascertain whether there is a causal relationship between the two. Nonetheless, an interesting question in this regard is whether developing the capacity of self-authorship could lead to increased well-being, as well as how to promote or facilitate such development. Inspiration for this work could come from research in higher education, which has been interested in the development of self-authorship

among students. The concept of self-authorship has received particular attention here, as students are expected to not just expand their knowledge and skills in an area (informational learning), but also shift the way they make sense of that knowledge (transformational learning) (Baxter Magolda, 2014). In transformative learning, the focus is on "how we learn to negotiate and act on our own purposes, values, feelings, and meanings, rather than those we have uncritically assimilated from others" (Mezirow, 2000). This need for a shift in ways of knowing follows Kegan's (1994) analysis of modern society as demanding the psychological maturity of self-authorship to face the adaptive challenges of adult life (Baxter Magolda, 2008). If college educators aim to facilitate the development of self-authorship among their students, P. M. King (2009) highlights two aspect that the educators should be aware of: (1) both support and challenge are needed, and (2) development occurs in response to a perceived disequilibrium. The first principle was introduced by Nevitt Sanford (as cited in P. M. King, 2009), and states that if support is too high there is no need for adaption, while if challenge is too high it is common to feel overwhelmed and disconnect from the problem. As a result, one needs to have a balance between the two. The educational setting appears to be an ideal place for such balance, where one can introduce challenging issues and tasks to students, as well as being able to provide feedback and support various opportunities for practice (P. M. King, 2009). This approach would serve as a scaffold or holding environment for development. However, development in terms of shifting one's maturity is not easy and requires hard work. Experiences that have been shown to promote self-authorship among students are called developmentally effective experiences (P. M. King, Baxter Magolda, Barber, Brown, & Lindsay, 2009). These experiences differ substantially in their content, context, timing and effect. In a similar study, Barber and King (2014) found three clusters in these developmentally effective experiences, two of which were challenging while one was supportive. The first challenge was being exposed to new ideas, situations or people from diverse backgrounds, the second challenge was experiencing discomfort leading to actions, while the third cluster concerned conditions of support in students' education. In a longitudinal study of developmental changes among college students, Bauer and McAdams (2010) found that the students in general displayed significantly more mature meaning making after a three-year period. There were some trends in how the students talked about their major life goals (growth goals) and the kind of growth that took place over the three-year period. Those students who planned for conceptual learning and exploration tended to increase their psychological maturity. This was also the case for those who aimed for a deeper

understanding of themselves and a strengthening of personally meaningful abilities. The other types of growth goals in Bauer and McAdams' (2010) study concerned the deepening of relationships and contributing to society, which predicted increases in well-being but not psychological maturity. Bauer and McAdams' (2010) findings indicate that just thinking about one's life in terms of growth can prospectively predict growth in psychological maturity.

Facilitating growth in psychological maturity has also been a topic outside of the educational setting. In an active approach to promote development of psychological maturity [13], Manners, Durkin, and Nesdale (2004) argued that such development was possible in adulthood and that these changes are accommodations to specific life experiences that "are structurally disequilibrating for the person's existing ego stage, personally salient, emotionally engaging, and of an interpersonal nature" (p. 20). Their intervention consisted of a training program focusing on personal skills (e.g. self-awareness, communication, stress management, goal setting), where the content of the program was structured at greater level of psychological maturity than the socialized mind, i.e. based on a mix of the socialized and the self-authoring mind. This strategy was to ensure that the program would be disequilibrating for the participants (Manners et al., 2004), meaning that the situation would demand somewhat more complex meaning making than some of the participants had developed the capacity for. Overall, the participants in the intervention group had significant increases in their psychological maturity compared to the control group, and those participants at the socialized mind at pretest were more likely to have maturity increases, compared to those who had already developed to the self-authoring mind (Manners et al., 2004). The program was thus most successful for those participants for whom it was most disequilibrating on their current level of psychological maturity. The study by Manners et al. (2004) demonstrates that development is possible through experiences that includes necessary aspects that are structural (disequilibrating) and nonstructural (personally meaningful, engaging emotionally, interpersonal and at a time when one is ready for change).

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[13] The research was conducted using Loevinger's theory of ego development. Their aim was to facilitate development from the self-aware ego stage, which corresponds with Kegan's socialized mind.

5.2.2 Self-authorship in health promotion

For the purposes of this thesis, which has had a specific focus on the third age, we hold that health promotion efforts aiming to increase well-being in the transition to the third age could benefit from employing constructive-developmental theories. In our theoretical study (Paper 1), we proposed that such efforts should be psychologically spacious and not focused on promoting one specific stage of psychological maturity. This was supported by our quantitative study (Paper 3), at least if the target of such efforts is SWB increases, with our findings of no relation between psychological maturity and SWB for those in the third age. However, the concept of well-being entails more than the hedonic aspects of emotions and satisfaction with life. That is, well-being also includes eudaimonic aspects such as positive human functioning, meaning, living well and actualizing one's potentials (Bauer, 2016; Deci & Ryan, 2008; Huppert & So, 2013). According to Bauer (2016) the concept of meaning also includes the organizing structure of meaning, which includes "degrees of integrative complexity, perspective-taking or differentiation and integration in […] thinking about the self and others" (p. 153). This type of organizing structure is identical to the term psychological maturity in this thesis, i.e. psychological maturity can arguably be considered as an aspect of eudaimonia. Particularly the self-authoring mind, which is one stage of psychological maturity in Kegan's theory, seem of relevance to the eudaimonic tradition as this stage is characterized by the emergence of notable eudaimonic concepts such as autonomy, agency and authenticity (Fossas, 2019). We also found some support for the link in our qualitative study (Paper 2), where one of the constituting elements of well-being could be considered as representing the notion of self-authorship.

With this broader understanding of well-being, our thoughts have evolved towards appreciating the value of trying to facilitate the development of self-authorship in initiatives aiming to increase well-being among retirees. Inspired by Manners et al. (2004), such health promotion initiatives should be personally meaningful, emotionally engaging, have an interpersonal focus and come at a time when one is ready for change. Importantly, the efforts should be structured at the more complex meaning-making capacity of the self-authoring mind, which will potentially be disequilibrating for those at the stage of the socialized mind. As has been pointed out several times in this thesis, retirement is a period with fewer social structures and socially defined roles (Freund, Nikitin, & Ritter, 2009), which could make this group

more difficult to reach. One way to address this could be to target such approaches to the period before retirement, such as in the last years of working life through a retirement preparation program. These programs are important as planning for retirement is assumed to lead to more positive outcomes for both the retirees and the society (Cohen-Mansfield & Regev, 2018). Historically, these programs and research on retirement planning have focused strongly on financial aspects of retirement, but recently psychosocial topics have been acknowledged and included (Cohen-Mansfield & Regev, 2018). In the Norwegian context, so-called 'seniorkurs' (courses for seniors in the workforce) could be an appropriate setting to include facilitating the development of self-authorship. There is not *one* universal senior course offered to all individuals approaching retirement age; rather, the courses are arranged by the employer (in some large organizations) or the employer purchases the service from a private or public organization. There are also instances where the employer does not provide this option for their employees. One example of a 'seniorkurs' is hosted by the Norwegian Public Service Pension Fund, which is the main provider of public occupational pensions in Norway (Statens Pensjonskasse, 2018a). This course takes three days and includes a detailed introduction to the pension system in Norway and other topics, such as financial issues, legal issues, health and well-being, that are relevant for retirees (Statens Pensjonskasse, 2018b). This program could match or be tailored according to the necessary points highlighted by Manners et al. (2004). That is, it can be considered personally meaningful as the prospective participants enroll in the course voluntarily, even if the employer 'foots the bill'. It could be emotionally engaging, if the teaching methodology employed in the program included exercises that require the participants to consider the practical implication of the topics discussed in their own lives. Similarly, it could be interpersonal if it included individual and group interactions on how the topics relate to participants' lives, as well as how social relationships could be fostered or established in the new period as retirees. For the program to promote self-authorship, it could be disequilibrating to those at the socialized mind by structuring most of the content according to the self-authoring mind.

In general terms, the promotion of self-authorship among retirees, or the general population, has some similarities to the empowerment approach in health promotion, where the individuals' autonomy and right to choose are essential aspects (Stang, 2009). However, autonomy is not something individuals automatically have if no one interferes with them, it also requires information, critical thinking, skills and personal

capacities, as well as freedom from internal and external sources of domination (Griffiths & West, 2015). The understanding of empowerment as supporting people to achieve their greatest possible agency over their own affairs has been accepted as a value orientation in health promotion (Christens, Peterson, & Speer, 2014). Empowerment in health promotion is usually considered multileveled and includes individual, organizational and community empowerment (Lindacher, Curbach, Warrelmann, Brandstetter, & Loss, 2018), and these different levels of empowerment are inextricably linked (Green et al., 2015).

Empowerment at the individual or psychological level is most relevant in relation to this thesis, as it includes a similar aspect to self-authorship. That is, self-authorship can be considered an individually oriented conception of empowerment as it entails the individuals' capacity to define their own identity, values and social relationships. However, this intrapersonal aspect is just one of three components of psychological empowerment (Zimmerman, 1995), which also includes an interactional and behavioral component, and is more concerned with the psychological aspects of empowering processes and outcomes that are involved when people participate in organizational and community settings (Christens et al., 2014). Psychological empowerment is thus not just about the individual's capacity, but also the "active engagement in one's community and an understanding of one's sociopolitical environment" (Zimmerman, 1995, p. 582). Nevertheless, we hold that the capacity of self-authorship is *one* important factor for a person's well-being and a prerequisite of autonomy, and that the facilitation of this capacity could have a place within empowerment approaches in health promotion.

5.3 Discussion of the constructive-developmental approach

The studies described above (in section 5.2.1) indicate that it is feasible to facilitate the development of psychological maturity in a more mature direction. However, it is important to note that there is still little research on this topic regarding a general population or an older population, as in this thesis. Rather, constructive-developmental theories appear to have had particular importance in the business setting with several approaches focusing on psychological maturity in relation to leadership development (Harris & Kuhnert, 2008; Helsing, 2010; Helsing & Howell, 2014; Kegan & Lahey, 2010; McCauley, Drath, Palus, O'Connor, & Baker, 2006; Rooke & Torbert, 2009).

Constructive-developmental theories in general, and Kegan's theory in particular, have been lauded for their richness and utility across several fields. However, the number of published empirical studies employing the theory is underwhelming. This could be a result of the complexity and nuances of the theory, as well as the fact that the research tool associated with the theory, the subject-object interview, is a time-consuming endeavor. Since it requires a considerable amount of training and practice to master, both in conducting an analyzing the interviews, its use in research has mostly been limited to PhD dissertations.

Within the constructive-developmental tradition there is also a plethora of terms for what develops, and the lack of stringency in the terms employed in research is often confusing. The developing aspect can have different terms within the same theory as well, e.g. Kegan uses meaning-making structure, orders of mind, personal epistemology, and mental complexity. This is also the case in this thesis, where both the individual papers and the thesis employ several terms when referring to what develops. This was due to several reasons. Firstly, it reflects the field and when referring to other studies, the terms used by the respective researchers have for the most part been honored. Secondly, it was due to a belief that the flow and readability of the text benefits from language variations. Lastly, the terms employed have been in accordance with terms appropriate for the different journals where the research has been reported, as well as changes in the manuscript because of the peer review process.

5.4 Discussion of methods

5.4.1 Study design - Mixing methods

The final design of this PhD thesis was a pragmatic solution to difficulties in recruiting participants according to the design sketched in in the theoretical paper. This meant that PhD project was not originally outlined as a mixed-method study and realized without changes. As described above (section 3.3.1), I had some difficulties in recruiting participants in the qualitative study, which made it impossible to complete the design sketched in the theoretical paper. A critique to the original design could be that it was a bit naïve and did not account for the difficulties that could emerge when trying to recruit participants with different levels of psychological maturity. A valuable lesson here was the need for a somewhat formulated backup plan if the original design proved difficult. Pragmatically then, some of the original design had to be reworked to

have data to write a third paper. Through a semester abroad I was introduced to a recent effort into launching a longitudinal study of adult life and transition, which had several overlapping topics to this PhD project. With several overlapping topics, as well as the collected data having a potential to also explore psychological maturity (through written narratives), the choice was made to base the third article on this data set. In an ideal research design of this PhD project, the quantitative study would have been designed from scratch, which would have allowed for the selection of bespoke measures that could correspond to all the results from the qualitative study. In addition, such a design would allow the inclusion of eudaimonic well-being measures in the quantitative study so that the predictive ability of psychological maturity on eudaimonic well-being could be investigated a well. However, as I did not design the SALT study, and the data had already been collected, it was not possible to shape the selection of measures according to the findings in the phenomenological study.

The final design of this thesis combined qualitative and quantitative approaches through a mixed-method design to contribute to well-being research. By using this approach, we were able to tease out elements of well-being which have not previously received as much attention. It is a relatively novel approach in positive psychology (Donaldson, Dollwet, & Rao, 2015; H. Kim, Doiron, Warren, & Donaldson, 2018), which can be defined as "the science and practice of improving wellbeing" (Lomas, Hefferon, & Ivtzan, 2014, p. ix), where well-being is the most researched topic and 78% of published empirical articles use only quantitative methods (Donaldson et al., 2015). The need for qualitative methods in positive psychology has been argued by Rich (2001) since its inception, but it is only recently that Rich (2017) has seen signs of qualitative methods being increasingly used and argued for in positive psychology (Donaldson et al., 2015; Hefferon, Ashfield, Waters, & Synard, 2017), as well as in psychology in general (Gergen, Josselson, & Freeman, 2015). The qualitative study of retirees' experience of well-being in this thesis is a contribution in this respect. Viewed separately, the studies comprising this thesis cannot be considered mixed methods. However, the overall design of this PhD thesis is arguably a mixed method approach and can be categorized as a 'partially mixed sequential equal status design' (Leech & Onwuegbuzie, 2009). An essential part of mixed method research is how qualitative and quantitative findings are integrated (Tashakkori & Creswell, 2007). To genuinely integrate the findings, the researcher should interpret and discuss them findings in ways where both the qualitative and quantitative elements are "mutually illuminating" (Bryman, 2007, p. 8). According to Fetters, Curry, and Creswell (2013), the

integration can be implemented at three levels: the design level, the methodology level and the interpretation and reporting level. It is primarily through the discussion in this PhD thesis that the findings have been integrated. Here, findings from the individual studies have been interpreted and discussed in relation to each other as well as an effort in weaving them together to glimpse a fuller picture of the phenomenon in question. However, as illustrated in Figure 2, the design and methods have also had some degree of integration of the two approaches; findings from the theoretical and qualitative study informed the design, hypotheses and methodology in the quantitative study.

Qualitative studies do not allow for generalization of the research findings in the same way as quantitative studies. According to Polit and Beck (2010) the "goal of most qualitative studies is to provide a rich, contextualized understanding of human experience through the intensive study of particular cases" (p. 1452), which would make it difficult to generalize findings according to the model of generalization in quantitative research (statistical generalization). However, according to Kvale and Brinkmann (2009) it is possible to make a so-called analytical generalization, which is a reasoned judgement of the transferability of the findings to other subjects and situations. This is achieved through rigorous analysis. In the qualitative study in this thesis, using Giorgi's (2009) rigorous descriptive phenomenological method, the result was elevated through the so called phenomenological psychological reduction and the following eidetic reduction (Englander, 2016), from the particular and idiographic to a more general or essential level. This process makes it reasonable to assume that the findings will be useful for understanding well-being in other older individuals in similar situations. The usefulness and transferability of our findings has been critically discussed in the individual paper as well as in this thesis, but another important aspect here is the critical evaluations by the readers of the research (Kvale & Brinkmann, 2009). One such critical evaluation by readers has been the peer reviewers and editor of the journal where the paper was published.

Since our quantitative study was a cross-sectional study, it is not possible to draw any inferences regarding cause and effect since both well-being and its predictors were measured at the same time. With this design we were only able to explore the association between these factors. In terms of the generalizability of our findings in the quantitative study, an important aspect is how representative our sample was of a larger population. As noted in Paper 3, the sample consisted exclusively of college

graduates, which precludes the generalizability of the findings to the general population. Further efforts to investigate our findings in terms of their representativity of a large population as well as the causal relationship between the phenomena are needed.

5.4.2 Study sample

The proposed study sketched in the theoretical paper (Paper 1) proved difficult to accomplish as it was difficult to recruit participants across the different levels of psychological maturity in our qualitative study. The assessment of psychological maturity (the SOI) was time-consuming, and with participants repeatedly scoring at the self-authoring stage, we had to choose between continuing the recruitment (in the hope of finding persons at the socialized or self-transforming mind) and moving on to the phenomenological interviews had to be done. With a target of three individuals at each stage for the phenomenological interviews, continuing to recruit participants for SOIs would lead to several of the recruited participants being excluded from the full study. If we had already found individuals at the other developmental stages, this could have been within acceptable limits, but since this was not the case, the decision was made to move on to the phenomenological interviews. Even though we had recruited more participants than are usually necessary for a descriptive phenomenological study, we chose to conduct phenomenological interviews with all nine participants. With all participants assessed as self-authoring, apart from one scored as socialized, the question of the developmental stage did not feature as an element in our qualitative paper.

There are some important points about the sample of the phenomenological study that should be acknowledged. All nine participants were from the southeastern region of Norway, they were self-selected by responding to advertisements in the local paper and local community centers, able bodied, for the most part healthy, and almost exclusively categorized as being at the self-authoring level of psychological maturity. This means that the findings may be contextualized; however, as discussed above, the phenomenological method used in this study still claim that the essential aspect of the phenomenon as relatable to others in a similar situation. The sampling in phenomenological studies do play a role in the trustworthiness of the results, but it is not necessarily the representativeness in terms of demographic aspects that is the most important (Sousa, 2014). More important is the recruitment of participants that have experiences with the phenomenon in question. The recruitment of participants through

advertisement in the paper asking for participants to tell us about their experiences of well-being after retirement, is arguably a good strategy to recruit participants who have "fertile examples of the theme under study" (Sousa, 2014, p. 214).

Based on the prevalence of the different levels of maturity indicating that almost 60% of the population develops the capacity of self-authorship, it was somewhat surprising that almost all our participants in the qualitative study were scored as predominantly self-authoring. However, considering that Kegan's (1994, pp. 194-195) composite sample included few participants over 55 years old, whereas the participants in the qualitative study were older, it makes sense that the self-authoring mind was dominant in this sample. The argument here is that development occurs through interactions and experiences throughout one's life, which would be more likely in older individuals just because they have lived longer. We also had a higher prevalence of self-authorship in our quantitative study than could have been expected from the literature. Again, this could be a result of a sizeable proportion of our participants being over 60 years old.

5.4.3 Instruments

The interview guide in the phenomenological interview (Appendix 4) was short and consisted of one open question to elicit the phenomenon. The guide included some potential areas that could be useful in the elaboration of the experience, as well as what the interviewer should focus on during the interview. As the first author was a novice in phenomenological interviewing, the open structure of the interview was daunting, even after conducting several practice interviews with colleagues. One option could have been to pre-structure the interview in some sense. The drawback with this approach is the risk of the interviewer leading interviewees instead of directing them (Giorgi, 2009), which can be a challenge for inexperienced interviewers (Englander, 2012). The fact that an SOI with the participant was completed before the phenomenological interview was beneficial for the rapport with the participants and made the unstructured interview less overwhelming for both the interviewer and interviewee. This allowed the interview to be more focused on the phenomenon through shifting from a subject-subject relation to a subject-phenomenon relation (Englander, 2012).

The web-based questionnaire was the main instrument in the quantitative study. All the measures comprising the questionnaire were validated and often used in psychological research. The one exception was our measure of psychological maturity

which used the guide for analyzing SOIs (Lahey et al., 1988/2011) on shorter narratives collected in the questionnaire. Even though the SOI guide was developed for the analysis of structured interviews, we concluded that our narratives were appropriate to score according to the SOI guidelines. However, in this process we prefaced that our scoring of the narratives was just that, and not necessarily a representation of the full meaning-making process of the person. As mentioned above, subject-object interviews were a part of the original plan for the qualitative study (Paper 2). In preparation for this, the first author completed a course in the administration and analysis of subject-object interviews and was certified as a reliable scorer. This experience and competence were crucial in the scoring of the narratives in the quantitative study (Paper 3). To ensure that the analysis process was detailed, transparent and trustworthy, we gave examples of different narratives and how they were scored in the appendix of the paper. Using the SOI guide for shorter narratives showed promise as a reliable measure. However, we did not investigate the measures validity, which is one of the major limitations of the study. Therefore, further research is research is needed to assess the measure's utility value as well as its validity.

A potential concern with the narrative measure of psychological maturity is that the situation the participants described was about a specific highpoint of their college experience. With participants age ranging from 22 to 84 years, the described situation would have been a recent occurrence for some while for others the situation could have happened 60 years ago. This means that the narrative could be a product of selective recall as well as representing a past level of psychological maturity. According to Adler et al. (2017), a common critique of the narrative approach is how accurate the content of the memory in question is. However, they argue that this question misses the point since narratives of personal experiences are dynamically reconstructed representations of event. Where "Each time a memory is recalled, the retrieval process is a complex interaction between the internal neural context and external sociocultural context, modulated by the functions that remembering serves in that moment" (Adler et al., 2017, p. 520). In other words, the narrative is a dynamic reflection of several aspects, and not just a 'retrieval' of a memory that has been stored unchanged since the event. In addition (McAdams, 2008b) argues that "autobiographical memory is notoriously unstable" (p. 246) and the memories salience could change over time where some moments could increase in importance over time, while others fade into the background. The narrative prompt also invokes a current reflection about the memory which reduces the concern that narrative represents a past

level of psychological maturity. This narrative prompt mirrors one of the prompts used in in life-story interviews (McAdams, 2008a), which includes several elements: a specific moment, bounded scene, a request for detailed elaboration, and a (current) reflection about the moment. In sum, regardless of how long ago the moment the participant is describing in our third paper, it should be considered as representing a current understanding of the memory and therefore also appropriate measure of current psychological maturity.

5.5 Implications

The overarching aim of this thesis was to explore how well-being is experienced by people in the third age, which factors contribute to well-being, and how the promotion of well-being could benefit from a constructive-developmental perspective. The studies empirically and theoretically investigated well-being, its constituents and correlates. Taken together, the three papers expand on the current understanding of well-being and present a novel approach for health promotion efforts to increase individuals' experience of well-being. The use of a mixed-method approach to explore the phenomenon of well-being led to the emergence of a detailed description of the phenomenon emerged in this study. The findings acknowledge both hedonic and eudaimonic aspects, as well as aspects which previously have not been associated with, or considered as constituents of, well-being. In sum, the three studies empirically and theoretically highlight the psychological maturity of self-authorship as an important aspect of well-being. Although further research is needed into this relationship, we have allowed ourselves to outline some ways our findings could have value for research. Our quantitative study demonstrated the possibility of assessing psychological maturity in a large-scale questionnaire, which also provides new opportunities to investigate it in relation to other phenomena than well-being. Even though our study demonstrated that the process was reliable, further research is necessary to assess the validity of this measure. The investigation of our measure's concurrent validity in regard to the established Subject-Object Interviews would be a natural next step. It would be interesting to study how narrative level of maturity develops over time in longitudinal studies. Even though our process was rough and only able to delineate the dominant psychological maturity (socialized or self-authoring), it could be that further development of the analysis process is possible where also the transitional stages can be demarcated.

The qualitative study enabled us to explore and describe the lived experience of well-being in retirement. This rich description could give some indication of elements that could be important and valuable in this period of old age, which could provide inspiration to individuals who are about to retire or have retired, or have a social or familial relationship with retirees, or in some way work with this group. After the publication of the paper, the first author has several times presented the findings to cohorts of retirees, as a part of larger health promotion initiative in a local municipality in southeastern Norway. The presentation has been followed by a reflection with the retirees on how it relates to their own situation. Even though the participants were older than the participants in our study, most of the feedback was that the experiences are comparable to their own situation. This is interesting, as the comparison with (recent) working life was present in the general meaning structure in our qualitative study. However, these older retirees' feedback to our findings is just an observation; it would be interesting if future research could also explore the lived experience of well-being in an older population, where retirement from work is not a recent experience.

6   Conclusion

This thesis has argued for the period of retirement as important period for health promotion initiatives, and that such initiatives should aim to promote well-being. In this context, we have also argued that constructive-developmental theory could be a useful theoretical framework. Our findings have indicated that particularly the capacity of self-authorship is important for well-being, and we have argued that initiatives aiming to enhance well-being could also benefit from efforts to facilitate self-authorship. In order to validate our findings and strengthen our arguments, our results need to be supported by future studies.

According to Ryan and Martela (2016), the more we know about what a good life is, the better we as a society are able to promote and support such a life for all citizens. I suggest that this thesis has contributed a piece to the great puzzle of what the good life entails.

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Structural developmental psychology and health promotion in the third age

OXFORD

Perspectives

Structural developmental psychology and health promotion in the third age

Lars Bauger[1],* and Rob Bongaardt[2]

[1]Department of Nursing and Health Sciences and [2]Department of Health, Social and Welfare Studies, Faculty of Health and Social Sciences, University College of Southeast Norway, Porsgrunn, Norway

*Corresponding author. E-mail: lars.bauger@hit.no

Summary

In response to the ever-increasing longevity in Western societies, old age has been divided into two different periods, labelled the third and fourth age. Where the third age, with its onset at retirement, mostly involves positive aspects of growing old, the fourth age involves functional decline and increased morbidity. This article focuses on the entry to the third age and its potential for health promotion initiatives. Well-being is an important factor to emphasize in such health promotion, and this article views the lifestyle of third agers as essential for their well-being. The structural developmental theory of Robert Kegan delineates how a person's way of knowing develops throughout the life course. This theory is an untapped and salient perspective for health promotion initiatives in the third age. This article outlines Kegan's approach as a tool for developing psychologically spacious health promotion, and suggests future directions for research on the topic.

Key words: health promotion programs, quality of life, qualitative methods, older people

INTRODUCTION

Retiring from work is a major transition in life and in many countries. It is the social marker of entering into old age (Kloep and Hendry, 2006). The conception of old age altered dramatically during the late 20th century as people lived increasingly longer. As one consequence of this, researchers now distinguish between the 'third age' and 'fourth age' (Baltes, 1997; Baltes and Smith, 2003; Laslett, 1996). In gerontology the last stage of a person's life is often called the fourth age (Koss and Ekerdt, 2016), which is a period characterized by functional decline and an increased dependency. The third age, with its onset in retirement, is seen as a period of relatively good health with the potential of active social engagement forming a solid base for healthy ageing (Robinson, 2013). Even though the third age has a positive ring to it, it may come with some challenges that are specific for this period of life. Retirement itself, whether it comes voluntarily or, as may happen, involuntarily, may be experienced as troubling (Daatland and Solem, 1995) and can have a negative effect on the well-being of the retiree (Wang, 2007). Studies of retirement effects on the person's well-being have demonstrated that between 9-25% experience negative effects to their well-being after retirement (Wang, 2007; Pinquart and Schindler, 2007). In their recent review, Wang and Shi (2014) highlighted different factors pre, during and post

retirement that affected the well-being of the retiree. The negative factors were ill health, involuntary retirement, a concern with the maintenance of social status and contacts, and strongly identifying with one's work role (Wang and Shi, 2014). Health promotion may help retirees to find a suitable place in society and improve well-being in spite of these negative factors. In addition, health promotion will prolong this third age period and as a consequence likely compress morbidity during the fourth age period (Whitehead, 2011). Whitehead (2011) also suggests that during the fourth age, persons may draw on existential forces to overcome adversity, forces that are built up during earlier stages of life, including the third age. Health promotion is apt to endorse such existential forces. In other words, health promotion during the third age may postpone the onset of the fourth age, make it shorter and more endurable once the person faces adversity.

Health promotion typically targets large populations and may be unable to address individual differences. The third age population, however, is characterized by an immense heterogeneity (George, 2011; Wang, 2007), and many third agers have acquired a unique professional competence, a specific way of living, and a network that intertwines two or three generations of family and friends. Ideally, health promotion should be individually tailored to the needs of each third ager. However, the group's heterogeneity renders that unfeasible. In this article we outline a feasible approach to shaping health promotion, directed at the intermediate range between a large population and the unique individual. We do so by introducing the structural developmental theory to the healthy ageing discourse and linking this to the policy making and practice of healthy lifestyle promotion. The specific purpose of this article, then, is to outline a structural developmental approach to the field of health promotion that targets the well-being of third agers. Before presenting the structure of the rest of this article, we will first delineate some central concepts.

The structural developmental theory focuses on consecutive stages of mental structures in a person's life. Such a theory is perhaps best introduced by contrasting it to phase theories of life course development that emphasize normative phases of life, such as birth, childhood, education, young adulthood, marriage, parenthood, working life and retirement (e.g. Erikson, 1980). Whereas the phase developmental theory focuses on the content of age-dependent periods of life, structural developmental stage theory underscores how this content is put into perspective by the person – i.e. the extent to which one takes responsibility for the unfolding of events, and, ultimately, how the story of one's life is told

at any particular moment in time. The development of these perspectives is referred to as the development or growth of complexity of mind (Kegan, 1994).

The field of health promotion often refers to the life style concept. However, definitions of the lifestyle concept abound. We assume that lifestyle is made of the fabric of a person's attitudes, manners, behaviours and practices, which are all woven into a Gestalt (Cockerham, 2005; Elstad, 2000). In our view, a person's complexity of mind underpins his or her lifestyle. We thereby emphasize coherence in what are often presented as separate lifestyle 'factors', such as smoking, diet, exercise, etc. (cf. Veal, 1993). Furthermore, lifestyle and well-being can be seen as reciprocally related – well-being is embedded in lifestyle and takes shape through it. Well-being is a heavily debated topic within health psychology and we are not advocating for any of its schools of thought. In this article, we take a broad perspective and focus on the subjective experience of the phenomenon. Nevertheless, our use of well-being is in line with how Huppert (2009 p.137) defines psychological well-being, i.e. 'the combination of feeling good and functioning effectively'. Feeling good, then, is not just concerned with happiness and contentment but additional emotions such as 'interest, engagement, confidence and affection' (2009, p. 138), whereas functioning effectively captures 'the development of one's potential, having some control over one's life, having a sense of purpose (e.g. working towards valued goals), and experiencing positive relationships' (2009, p. 138).

The structure of this article is as follows. We first review and present the key concepts of our article; the third age, health promotion and lifestyle. Then we summarize Kegan's theory of structural development of the mind. After that, we present the design of a study that addresses the experience of well-being premised on complexity of mind, and, finally, discuss the logical implications of a psychological developmental approach to tailoring health promotion for third agers.

HEALTH PROMOTION AT THE ONSET OF THE THIRD AGE

A positive perspective on the third age is well captured by the gerontology term 'successful ageing'. The term gained popularity during the last decades of the 20th century (Baltes and Smith, 2003). It was introduced by Rowe and Kahn (1987) who reacted to the tendency in gerontology to distinguish only between older people with disease or disability and those without such conditions. They introduced successful ageing as a positive concept in order to address high cognitive and physical

functioning and an active engagement with life, in addition to a low probability of disease and disability. In the newfound optimism in the field of gerontology, the perception of ageing changed from a passive experience to a process of active engagement and participation (Baltes and Baltes, 1990).

This more optimistic perspective on ageing has influenced political discourse (Villar, 2012), as witnessed by the introduction of the term 'active ageing' by the World Health Organization (2002). The WHO defines active ageing as 'the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age' (2002, p. 6). The WHO policy is to promote active ageing as a way to address societal and economic challenges stemming from an ageing population as well as individual challenges associated with getting older (World Health Organization, 2002). Here the focus is on adding 'more life to years, not just years to life' (Vaillant, 2004, p. 561), which is a hallmark of health promotion in the third age. Wilson and Palha (2007) argue that health promotion during this transitional period will not only assist in maintaining existing health but could also improve health and well-being simply because this is a period when one has more time to attend to health-related needs than when one was working. The third age is a period where one is left more to one's own devices with few established social structures and socially defined roles (Freund *et al.*, 2009). People are often more free to do what they want, but those who do not know or have not planned for what to do with this new freedom could easily become 'passive and couch ridden' (Solem, 2012, p. 88; our translation).

It is evident that retirement is seen as an important period for health promotion efforts. However, retirement-specific research on health promotion is still in its early stages. Reviewing the research, Wilson and Palha (2007) identified 20 studies on the topic. Their content analysis of these studies revealed four major themes in the research on health promotion at the onset of the third age, i.e. retirement: (1) the considerable effect of retirement and the need to support positive retirement, (2) the identification and overcoming of barriers to health promotion at retirement, (3) the best methods to promote and sustain healthy lifestyle changes among retirees and (4) the short and long-term benefits of health promotion at retirement (Wilson and Palha, 2007). Given the aim of the present article, we will elaborate on theme (3), which links successful ageing to the promotion of healthy lifestyles.

We emphasized above that the Gestalt of a person's attitudes, manners, behaviours and practices can be seen as his or her lifestyle. A lifestyle approach to health promotion builds on the assumption that the individual can amend this lifestyle (Elstad, 2000; Nutbeam, 1998). Although studies show that adopting a healthy lifestyle may be beneficial for healthy ageing, the literature reports some difficulty in promoting a healthy lifestyle through interventions (Zhang *et al.*, 2013). The main focus has been restricted to financial planning (Osborne, 2011), whereas psychological or social changes that might occur after retirement have received hardly any attention (Kloep and Hendry, 2006). Health promotion initiatives usually communicate messages about healthy lifestyles to a large target population through health education booklets or pamphlets. Kreuter *et al.* (1999) have criticized this way of promoting health for its 'one-size-fits-all' approach, with little consideration of individual needs and personal relevance. In response to this criticism, there has been a growing interest in tailoring interventions to different individual users and user groups (Davis, 2008; Orji and Mandryk, 2014). We share this interest and wish to contribute. Our contribution to the development of tailor-made methods to promote and sustain healthy lifestyle changes among retirees is based on structural developmental theory, which we describe in the following section.

STRUCTURAL DEVELOPMENTAL THEORY

Neo-Piagetian psychologist Robert Kegan developed a structural developmental theory (1982, 1994) which proposes that individuals interpret and make meaning of their world in qualitatively different ways. These ways of meaning-making develop throughout the life course along an invariant path whereby more complex ways of meaning-making build upon and transform earlier ways of meaning-making. The ways of meaning-making are termed structures or orders of mind. Kegan (1982) has described three orders of mind that capture most of the adult population. He refers to these orders as the socialized, the self-authoring, and the self-transforming mind (Kegan, 1994). Each order captures what an individual can take as an object – can see 'in front of' him or her – and what an individual is subject to – is part of and thereby lacks a perspective on.

Individuals who have developed a socialized order of mind can think in abstract terms and have the capacity to internalize the meaning systems of others, such as family values, social values, professional culture, etc. They have the ability to subordinate their own desires and be guided by the norms and standards in the ideologies, institutions or people that are most important to them (Fitzgerald and Berger, 2002). At this order of mind, one easily sees beyond one's own needs and can

adopt a larger picture, in which one is part of a socially defined reality. Even though one has the capacity to internalize others' points of view, one is embedded in these points of view and is essentially dependent on them. That is to say, the individual's experience of being a person or 'self' is entangled with 'the quality of ... internal experiences of others' experiences of them' (Lewis, 2011, location 692). This means that at this order of mind one does not 'have the capacity to stand apart from the values, beliefs, expectations, or definitions of one's tribe, community, or culture and make independent judgments about them' (Kegan, 1998, p. 201).

Individuals who make meaning with a self-authoring mind have distanced themselves from the sense of being entangled in others' feelings and ideas about themselves. They now have the capacity to be in charge of their own feelings and generate an internal personal meaning system, theory or ideology. Thus, one is able to take as an object the values, beliefs and expectations of others (one's 'tribe', local community, or culture) that one was subject to earlier. Individuals making meaning with this order of mind perceive others as independent entities, with their own integrity, distinct from themselves. Unlike individuals at the socialized order of mind who may struggle heavily with conflicting internalized views, the self-authoring mind tolerates such conflicts or resolves these by invoking a system of self-authored values and knowledge. This system has typically developed over a period of years, gradually integrating the experiences and reflections of personal encounters with a wide variety of other knowledge and value systems (Kegan, 1994). This system of 'self' requires strong boundaries, which may prevent the person from recognizing the constructed nature of the system itself. When meeting this construction of self, others may experience it as a somewhat distant way of being, an obstacle to gaining direct contact. However, '[t]his greater psychological independence does not mean that [the person is] any less committed to you and to ... other close relationships' (Lewis, 2011, location 1111).

Those individuals who make meaning according to the self-transforming mind have gained a perspective of their own identity construction, and are no longer 'blind' to their self-authored identity. At this order, the construction of identity is object to them. This implies that they are now hesitant to see personhood as coinciding with 'a single system or form' (Kegan, 1994, p. 313), but rather see their system of self as incomplete and in continuous development. At this order, individuals view the 'other as part of oneself' (Souvaine *et al.*, 1990, p. 253) and they are characterized by their embeddedness in a multisystem perspective (Rosen, 1991). These individuals are less likely to view the world in dichotomies, and 'suspicious of their own tendency to feel wholly identified with one side of any opposite and to identify the other with the other side of that opposite' (Kegan, 1994, pp. 311-312). Meaning-making with this order of mind concerns the reflections on the process of making meaning itself more than the outcomes of this process. The individual reflects on his or her own need for meaning while acknowledging that knowledge is always partial, and he or she thrives on 'rending every new veil that comes into awareness, because ... closure and fixed boundaries [are] restrictive' (Cook-Greuter, 1999, p. 107).

In his book *In over our heads: The mental demands of modern life*, Kegan (1994) asks whether people make meaning in accordance with society's demands. In other words, he asks what order of mind is required to successfully parent, partner, work, learn, heal, and collaborate as modern society frames these life tasks. He shows that society implicitly demands a self-authoring mind for all these tasks. In a composite study sample of adults (Kegan, 1994, p. 195), about half of the persons did not construct their experiences as complexly as the self-authoring mind.

What are the mental demands on ageing in our modern Western society? Does the ageing population meet these demands? Currently, hardly any empirical research exists that answers these questions. Newhouse (as referenced in Kegan, 1998) suggests a number of tasks and expectations typical of the third age: giving up a central identity formed around work and a career, changing from a highly structured to a less structured everyday life, needing to create new friendships after the loss of a ready-made social network, and remaining relatively independent of the care-taking resources of family or society. Kegan infers from Newhouse's list that it is '*the self-authoring mind* that constitutes the implicit mental threshold for successfully handling this curriculum, a threshold many adults will not yet have reached in old age, and not having done so, will be 'at risk' for poorer outcomes thereby' (1998, p. 209; italics in original). Therefore, he argues that it may be 'an absolutely crucial educational or mental health goal serving as a protective factor against decline and depression in old age' (Kegan, 1998, p. 212) to develop a self-authoring mind since it is with this order of mind that one can meet the demands of ageing. Moreover, if it is true that more people make meaning with a self-authoring mind, then the social institutions relevant to the third age are challenged to provide the space for the personal paths and demands that are so typical for individuals with this order of mind.

It is against the backdrop of Kegan's theory and its possible implications for the third age that we now turn to outlining the research we envision. In the following section, we juxtapose the promotion of healthy lifestyles during the third age with Kegan's psychological development theory.

DEVELOPING HEALTH PROMOTION FOR THIRD AGERS

Structural developmental theory has informed classroom practice in educational psychology, where developmentally conscious teachers are teaching in ways that encourage students to make meaning in an increasingly complex way, while also meeting students at their stage of development (Helsing *et al.*, 2004). In the context of business coaching and counselling, Berger (2012) refers to this practice as keeping conversations 'psychologically spacious'. Inspired by such thinking, we envision health promotion initiatives to be psychologically spacious and tailored to a person's order of mind. Neither our aim nor our interest is in highlighting or facilitating the development towards one specific order of mind (e.g. self-authoring). Our contribution is rather to raise awareness of the qualitatively different ways of making meaning in the world, and, where possible, outline how health promotion can be formulated in developmentally spacious ways, to enable more people to be reached and feel included.

In order to do so, we require a knowledge base that links a person's lifestyle to his or her stage of structural development. Our research will hopefully help to establish this knowledge base. The rationale for our research is that much information can be gained from the experiences of individuals who report that they have recently transitioned successfully into the third age. In other words, our preferred starting point is narratives concerning a successful lifestyle during retirement, i.e. one that leads to an experience of well-being. True to this experience-oriented bottom-up approach, we employ no specific definition of well-being. The next logical step in our rationale is to relate these situation-specific experiences to a person's order of mind. Kegan's measure of order of mind indicates in general terms how a person structures his or her life in terms of responsibility allocation and perspective taking, that is, how a person understands him- or herself to play a role in his or her own life. The assumption is that persons with different orders of mind structure retirement-specific experiences in different ways, because lifestyle and the ensuing experience of well-being are dependent upon order of mind.

More concretely, our research will unfold as follows. We will recruit participants recently retired from working life and reporting having done so satisfactorily according to their own expectations and standards. To assess the participants' orders of mind, we will conduct subject-object interviews (SOI) (Lahey *et al.*, 1988/2011) with all our participants. During the SOI, ten emotionally laden probes (e.g. 'Can you tell me of a recent experience of being quite angry about something?') are presented to a participant, and he or she is asked to write down recent experiences brought to mind by the probes. The participant then selects some of the experiences to elaborate on. During the interview, the interviewer listens sympathetically and confirms the content of the participant's experience, while also probing for the structuring of the experience. The combination of the emotionally laden probes and the why-questions invites the participants to describe their experiences at the borderline between what is and is not explicitly reflected upon. An analysis of transcripts from the interview allows the researcher to score where participants are on their developmental journey according to Kegan's developmental theory (1982, 1994). This score indicates whether the participants are currently at one order of mind or in transition between two orders of mind, where four sub-stages can be distinguished. The inter-rater reliability for the SOI ranges between 0.82 to 1.00 for agreement within one discrimination unit (Kegan, 1994; Lahey *et al.*, 1988/2011). We have completed training in subject-object interviewing, are experienced and reliable scorers, and we will establish and report on our inter-rater reliability within this study. If a participant scores at a transitional order of mind, we will allocate him or her according to the dominant order. We are interested to include all adult orders of mind in this study, preferably three participants within each order. However, we are aware of the difficulty of recruiting persons who make meaning at the self-transforming mind as they are few and far between (Kegan, 1994). Knowing this, and given the resources necessary to conduct and analyse such SOIs, it is unlikely that we will be able to recruit enough participants at the self-transforming mind. It is likely that we can include at least three persons at the socialized mind and three at the self-authoring mind, as these are the two orders where most of the adult population makes meaning (Kegan, 1994).

We will conduct an in-depth phenomenological interview with each of the participants. This form of the open qualitative interview will allow us to reveal the phenomenon of well-being as it emerges in the participants' descriptions of their experiences of the

phenomenon (Giorgi, 2009). We have found that three such interviews suffice to make valid inferences about the participants' experiences with the phenomenon under investigation. That is mainly because a descriptive phenomenological analysis makes use of all data material and is not guided by themes that are established beforehand. We will analyse the descriptions separately for each of the orders of mind, resulting in so-called general meaning structures. Such a general meaning structure reveals the shared meaning across many variations of how participants experience the phenomenon in their daily life (Giorgi, 2009). In a final analysis, we will compare and discuss differences and similarities in the general meaning structure of the phenomenon between the orders of mind. The results of this will feed into the next stage of the project.

SHAPING STRUCTURAL DEVELOPMENTAL HEALTH PROMOTION

We referred earlier to a quote that a hallmark of health promotion is the aim to bring 'more life to years, not just years to life' (Vaillant, 2004, p. 561). One way to bring more life to years is to facilitate experiences of well-being through the promotion of a lifestyle pervaded by such experiences. We will endeavour to make our research results accessible to retirees as well as to the policy-makers and welfare and health promotion professionals who are engaged in their well-being. What do we expect to be able to tell them? What does our research underscore or explicate? In the following, we present a preliminary sketch along three lines of the contribution value of the rationale presented above.

First, both forms of interview will most likely provide information about the shift from working life to retirement. The phenomenological interview aims to capture the general meaning structure of well-being during early retirement. The SOI explores how the individual structures some of his or her recent experiences with change, success, feeling torn, etc. A change of lifestyle that comes with a major shift (such as retiring) appears in the light of a structural developmental approach as either solving a technical problem or overcoming an adaptive challenge (Heifetz and Linsky, 2002). The latter implies a change in order of mind, whereas the former means that the person maintains the same order of mind while incorporating new activities in his or her daily life. For instance, the third age could be lived so that time is increasingly spent on previously well-established activities, or it could incorporate new activities that facilitate or emerge with the structural development of mind. An awareness of the differences between these changes

assists the retiree, welfare professional and policy-maker alike in choosing or recommending one activity in favour of another.

Second, both types of interview will provide information about how well-being takes shape in different orders of mind. Following Labouvie-Vief *et al.* (1989), Noam, Young, and Jilnina (2006) have argued that people at various levels of mental complexity may experience and understand their well-being in qualitatively different ways. Bauer (2011) researched the content of the growth stories told by persons with late stages of mental growth (with what he refers to as 'postconventional selves'). He found that, on average, later stages of development do not necessarily make a person more happy as measured by established quantitative measures of well-being (Diener *et al.*, 1985), which is consistent with Kegan's theoretical assumptions. One finding, however, stands out, namely that the individuals with the highest score of mental complexity had indeed higher levels of well-being on average when compared to the other stages (Bauer *et al.*, 2011). However, Bauer *et al.* (2011) findings are preliminary, given the relatively small number of participants who scored in the highest stage. Mental complexity, Bauer and colleagues confirm, taps into different aspects of well-being, but their research is inconclusive as to how the first-person experience of well-being relates to mental growth, especially concerning individuals who have not reached the very late stages of development, i.e. the majority of the population.

Kegan (1982, pp. 267-268) has looked into what can be called psychological 'ill-being' and its relation to mental complexity. He analysed patient journals at a psychiatric hospital and inferred three different kinds of depression, characterized by three types of loss, respectively: a loss of one's own needs or the increasing costs of trying to satisfy these needs, a loss of an interpersonal relationship leading to loneliness or even a loss of parts of oneself, and loss of control over meeting one's own standards. Upon first measuring mental complexity and then relating it to these three types of depression, a strong association between type of depression and mental complexity was observed.

We aim to follow up on the interest of Noam *et al.* (2006) and Bauer et al. in the link between mental complexity and well-being, and use a research design inspired by Kegan's study of depression. Here we will first divide our participants up into groups according to their SOI score, and then interview them to discover how they experience well-being.

Third, the combination of both interviews will provide essential information to suggest new opportunities for tailoring interventions to the intermediate range

between the unique individual and larger cohorts of the population. Tailored interventions have been defined as follows: 'Any combination of information or change strategies *intended to reach one specific person*, based on characteristics that are unique to that person, related to the outcome of interest, and have been *derived from an individual assessment*' (Kreuter and Skinner, 2000, p. 1; italics in original). For our purposes, this may be an unattainable ideal considering the amount of resources required. At the other end of the continuum, health promotion that is specific to cohorts, though economically more manageable, may risk not reaching all the members of the targeted population. Consequently, we prefer an intermediate range at which to target the population of retirees. In other words, understanding how individuals with different orders of mind experience well-being differently allows programme developers to tailor psychologically spacious programmes while avoiding individual time-consuming assessments. Moreover, health care and welfare professionals will benefit from an awareness of structural development, lest they under- or overshoot their communication with the target population concerning health promotion activities. Therefore, our research may also help to provide these professionals with knowledge of lifelong development and learning as well as active ageing.

CONCLUSION

In this article we have outlined perspectives which have as yet not been combined. We have emphasized the notion of adding more life to years as well as the potential for structural developmental thinking in health promotion initiatives. This is an area largely untouched in the health promotion literature, and we see its inclusion as a contribution to extending the positive period of the third age while also aiding the compression of the fourth age.

We have underscored the reciprocity of well-being and lifestyle and have argued that the experience of well-being may have quite different manifestations for different persons when seen through the lenses of a structural development approach. We have sketched a feasible mid-range approach to tailoring health promotion initiatives. This approach attends to the orders of the mind within the target group and has the potential to overcome the practical difficulties of developing unique individual health promotion initiatives.

We have presented one structural developmental theory within the neo-Piagetian tradition as a contrasting view to the current phase theories employed in ageing research, but there are many others which we have not discussed. Notable examples of others in this tradition are Kohlberg (1969), Fowler (1981), Commons *et al.* (1998), Gilligan (1982), Basseches and Mascolo (2009), Cook-Greuter (1999) and Loevinger and Blasi (1976). Kegan's theory of adult development in health promotion serves our purpose well, which is why we have not focused on other potentially appropriate theories of adult development or mental growth. We conclude that a sensitivity towards the complexity of mind with respect to the experience of well-being will provide healthcare professionals and policy-makers with a powerful tool in their health promotion toolbox.

ACKNOWLEDGEMENTS

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The lived experience of well-being in retirement: A phenomenological study

EMPIRICAL STUDY

The lived experience of well-being in retirement: A phenomenological study

LARS BAUGER, PhD Student, MA Psychology & ROB BONGAARDT, Professor, PhD

Faculty of Health and Social Sciences, University College of Southeast Norway, Porsgrunn, Norway

Abstract
This phenomenological study aimed to identify and describe the general meaning structure of the experience of well-being after retirement. We interviewed nine retirees about their lived experiences with well-being and analysed the data with Giorgi's descriptive phenomenological method. The general meaning structure described well-being in retirement as a phenomenon that interweaves four constituents: (1) an awareness of and gratitude for a healthy and functioning body, (2) a new experience of time presenting possibilities for action, (3) a heightened sense of agency, and (4) being-in-place in relationships. We discuss these findings in relation to relevant literature of successful aging, the perception of time, eudaimonic and hedonic well-being and generativity. Our findings contribute to the field by comprehensibly describing the phenomenon of well-being as it is experienced by retirees, which we conclude to be a valuable contribution for initiatives promoting well-being in retirement.

Key words: *Retirement, aging, perception of time, agency, generativity, well-being, phenomenology, qualitative methods*

(*Accepted: 4 October 2016; Published: 3 November 2016*)

Transitioning into retirement is a major life event, marking the entry into old age, where one is no longer in paid employment and left more or less to one's own devices. The aging population as witnessed in the Western world in recent decades has been a towering achievement of lifespan extension, though not completely without challenges at both the individual and societal level. The demographic shift could increase the burden of health and welfare costs for governments, due to a "top-heavy" population where an increasing proportion is outside the workforce (Butterworth et al., 2006). At the individual level, this longer lifespan might not just involve an increase in "good" years of life but also more "bad" years.

Researchers have wondered whether this increase in lifespan has resulted in people experiencing more healthy years or more years with ill-health (Fries, 1980). A currently popular answer, which is strongly supported by data, is provided by the so-called compression of morbidity theory (Andersen, Sebastiani, Dworkis, Feldman, & Perls, 2012; Christensen, Doblhammer, Rau, & Vaupel, 2009; Doblhammer & Kytir, 2001; Faria, 2015; Fries, 2003; Romeu Gordo, 2011; Wilmoth & Simpson, 2013). This

theory states that increases in longevity entail a longer "healthy" life while the period of terminal decline is relatively short (Fries, 2003). Being the dominant paradigm for healthy aging today (Swartz, 2008), this compression theory underscores the idea that old age can add "more life to years, not just years to life" (Vaillant, 2004, p. 561).

The increase in longevity and the heterogeneity of old age led to the argument for a division of old age into two separate phases, the third and fourth age (Laslett, 1996). The third age starts at retirement and is characterized as a period with many positive aspects of growing old, including relatively good health and active social engagement (Robinson, 2013). The fourth age, in contrast, is often described as a period of functional decline, including the final years of life and ultimately death (Smith, 2002). This distinction between a third and fourth age resonates with a similar distinction made between successful and pathological aging (Baltes & Smith, 2003; Rowe & Kahn, 1987, 1997).

When old age is understood in this way, health promotion and prevention initiatives targeting the health and well-being of people in the third age can

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be essential in extending this positive and independent period while compressing the fourth age period (Whitehead, 2011). However, it is problematic to target effectively health promotion in such large populations (Brawley, Rejeski, & King, 2003), as the third age cohort can be considered to be, and a more individualized approach has been proposed (Heaven et al., 2015). Heaven et al. (2015) argue that life transitions are periods when "individuals may be making normative lifestyle changes, thus presenting opportunities to intervene and promote healthier behavior" (p. 2). This is why the retirement transition might be a particularly salient period for initiatives to promote health. An integral part of the concept of health is the notion of psychological well-being (PWB) (World Health Organization, 1946). There are many different definitions of PWB (Forgeard, Jayawickreme, Kern, & Seligman, 2011), but in this article we adhere to the broad definition of well-being by Huppert as being "the combination of feeling good and functioning effectively" (2009, p. 137). The conceived causal link between well-being, longevity and health (Diener & Chan, 2011; Veenhoven, 2008), and life transitions as ideal periods for establishing new behaviors, makes retirement and the third age an ideal period for specific initiatives aiming to enhance well-being.

To effectively promote well-being in this important period, research has been directed at describing the effects of retirement on well-being outcomes, but there appears to be no uniform way that retirement affects a person's well-being (Wang & Shi, 2014). Some studies have demonstrated a significant negative relationship between retirement and well-being indicators such as life satisfaction (Elwell & Maltbie-Crannell, 1981) and psychological distress (Bossé, Aldwin, Levenson, & Ekerdt, 1987; Bossé, Aldwin, Levenson, Workman-Daniels, & Ekerdt, 1990; Drentea, 2002). While researchers previously viewed retirement only as a "crisis" event, which created challenges to the individual's well-being (Van Solinge & Henkens, 2008), studies have revealed a more nuanced picture in that retirement can also have positive effects on well-being. For instance, Syse, Veenstra, Furunes, Mykletun, and Solem (2015) found in their study on the effect of retirement on mental and physical health, that retirees were more likely than people in employment to report improvements in mental health indicators. Based on their results, Syse et al. (2015) argued that retirement "[...] appears to increase the likelihood of feeling better and experiencing fewer difficulties due to suboptimal mental health" (p. 22). However, as Syse et al. note, this increase is relative and does not mean that retirees' mental health improves, just that for retirees it decreases less rapidly than for those who continue to work. Other researchers have found similar positive effects of retirement on mental health indicators (Aase, 2015; Mein, Martikainen, Hemingway, Stansfeld, & Marmot, 2003; Midanik, Soghikian, Ransom, & Tekawa, 1995; Salokangas & Joukamaa, 1991; Wang, 2007). In a recent review of psychological research on retirement, Wang and Shi (2014) highlighted retirees' work role identity, type of job, marital status, retirement transitional factors (voluntariness, planning), and post-retirement activities as important factors in how retirement affects retirees' well-being.

The studies mentioned here have primarily investigated well-being in the transition to retirement using quantitative methods and varying measures of well-being. Few have, to our knowledge, explored well-being qualitatively with respect to this transition. In this article, our interest lies in a qualitative understanding of well-being in retirement. Here we aim to develop an understanding of how retirees experience well-being after retirement. We use a phenomenological research approach that teases out the structure of psychological meanings that constitute this phenomenon.

Method

Participants

Recently retired individuals in the southeastern region of Norway were recruited through a notice in two local papers and through local retirement communities. As this was a phenomenological study to outline the meaning structure of well-being as it is experienced after retirement, we wrote in our recruitment notices that the participants needed to have experience with the phenomenon in question. To ensure that the experience would be fresh in the participants' mind, we pointed out that we were interested in talking to people who had made the transition to retirement recently. We did not define "recently" in terms of years or months since retirement, the rationale being that participants who volunteered would perceive their experience as recent. Our chronological age category had soft boundaries; we did not have a specific age cut-off point when recruiting participants (cf. Heaven et al., 2015).

Our final selection amounted to nine participants, seven females and two males. The age range was 62–71 years, with a median age of 67 years. Time since retirement ranged from 1 month to 6.5 years, and six of our participants had retired within the last year. Six were married and lived in a two-person household; three lived in a single-person household, two of whom were divorced, while one was a widow.

Interviews

This study is a part of a larger study that explores retirees' experiences of well-being in a life-long developmental perspective (Bauger & Bongaardt, 2016). We first conducted a developmental interview called Subject-Object Interview (Lahey, Souvaine, Kegan, Goodman, & Felix, 1988/2011), and after a period of 2–6 months returned and conducted in-depth phenomenological interviews. These latter interviews form the basis of this article. In the phenomenological interviews, we had one opening question, inviting the participant to describe a situation after retirement where he or she had experienced a sense of well-being. The rest of the interview was based on the participant's responses, where we asked for clarification or elaboration on the experience. We did not lead the participant into any specific topic, but at times the participants were directed back to the phenomenon in question, which is in line with Giorgi's (2009) method as described in the following section. The interviews lasted between 25 and 55 min, were audiotaped, and transcribed verbatim.

Data analysis

The interviews were analysed using Giorgi's (2009) descriptive phenomenological psychological method. This method is anchored in Husserl's philosophical phenomenology, and developed and modified to be applicable as a scientific research method. When using this method, the researcher brackets or suspends his or her personal experiences and any theoretical assumptions concerning the phenomenon in question. This bracketing of preconceptions leads to a fresh approach to the data (Giorgi, 2009, p. 100), and a way to stay "more true to what is being expressed in the data" (von Essen & Englander, 2013, p. 3). This process of suspending the natural attitude is in phenomenology referred to as the epoché (Englander, 2016) and is considered a prerequisite for the phenomenological reduction (Morley, 2010) (there are different levels of phenomenological reduction; we adopted the phenomenological psychological reduction (cf. Englander, 2016)). It is important to note that the epoché does not mean that we as researchers forget "everything one previously knew to arrive at a kind of blank slate; but rather that one brackets one's natural attitude" (Englander, 2016, p. 4), which in turn makes it possible to illuminate an essential structure of the phenomenon in question. To aid us in achieving the epoché we took hints from Varela, Vermersch, and Depraz's (2003) three principle phases of accomplishing the epoché. In the first phase, we often reminded ourselves to suspend our pre-judgment and hold onto this mode of thinking. The process was demanding, described by

Varela et al. (2003) as circular, where one constantly returns to the process of suspension. In the next phase, we redirected our attention from the natural world description to the descriptions of meanings as experienced by the participants. In the final phase of the epoché, our attention went from actively directing and redirecting our attention toward something to a mode of letting "something be revealed" (Varela et al., 2003, p. 31). Although Giorgi does not consider the epoché as a separate step before the phenomenological psychological reduction (Giorgi, 2009), we found it helpful for our own purposes to think of them as two separate, but connected, steps. That is, a process that would help us assume the phenomenological psychological reduction we adopted in our analysis. In brief, this reduction means the "raw data is taken to be how the objects were experienced by the describer, and no claim is made that the events described really happened as they were described" (Giorgi, 2009, p. 99).

With this frame of mind we followed Giorgi's four steps for analysing interviews: (1) reading to gain the sense of the whole, (2) identification of meaning units, (3) rewriting (transforming) meaning units into psychologically sensitive expressions through the use of free imaginative variation, which implies probing the meaning units through repeated reformulation to zoom in on invariant meanings, and (4) inferring the general meaning structure of the experience from the transformed meaning units (Giorgi, 2009, 2012). In this inference of a general meaning structure, we once again used the imaginative variation to determine what is "truly essential for the phenomenon to present itself to a consciousness" (Giorgi, 2009, p. 201). The analysis process was demanding, as Giorgi's approach requires all parts of text to be included in all the steps of the analysis. That is, the whole interview was read, divided into meaning units, rewritten in psychologically sensitive expressions, and finally distilled into an invariant structure. With so many as nine participants with transcribed interviews ranging from 11 to 30 pages, our amount of data was considered to be more than sufficient for a phenomenological study.

Ethical considerations

Participants were informed about the study in writing and orally before the interview, and informed consent was collected from all participants. Due to the possibility of health information forming part of their descriptions, we applied for approval from the Norwegian Regional Committee for Medical and Health Research Ethics (REK) (2013/1540). As the REK considered their approval unnecessary,

approval from the Norwegian Centre for Research Data (NSD) was obtained (35948/2/LB).

Results

Based on the empirical variation of the experience of well-being for the retirees in our study, the descriptive phenomenological method garnered a so-called general psychological meaning structure of well-being in retirement. This structure is a general description representing all of our participants' experiences with the phenomenon and represents our main findings, and in line with common practice in descriptive phenomenology (von Essen & Englander, 2013), we first present the meaning structure of the phenomenon, before presenting the constituents of the phenomenon. It is important to note that the constituents are interrelated, not independent of each other, and that "the structure is the relationship among the constituents" (Giorgi, 2009, p. 102). In our general meaning structure, we use P to denote a compound person, representing all our retirees' experiences with the phenomenon. When presenting the constituents, each participant is referred to by their participant number: P1–P9.

The general meaning structure of well-being in retirement

Gratefully capitalizing on a well-functioning body, retiree P transitions into a landscape that offers new possibilities to act upon. Now that time is on P's side, it takes on a different quality. P's own initiatives structure the timing of daily life; he or she can now "linger" and "take his or her time." Thus, a new autonomy announces itself; more options for physical activity and social interaction increase the potential for experiencing well-being in P's life. The emergence of increased autonomy solicits P's agency, which may be experienced as enlivening, yet occasionally also as daunting. Realizing the potential of increased autonomy is a balancing act. P desires to be present to, and influences the lives of, good friends and family, but does not want to be constrained by them. During retirement, the balancing act between being a parent and engaging in one's own interests takes a new form. Being a parent of parents, P wishes to attain—through reflective and balanced choices— a good relationship with his or her children and grandchildren while maintaining and developing his or her own interests. P lets everyday happenings unfold, but may also take the initiative to plan activities together with friends and family. P engages in friendships, vacations, nature, hobbies, or sports, based on his or her established patterns of leisure. He or she may spend more time on the same activities but also seek out novelty in his or her engagements.

In other words, P is actively and to some degree consciously facilitating the situations in which he or she expects to thrive—even if this comes with uncertainty or anxiety about his or her own competency to master the task or situation at hand. P endeavors to let his or her skills come to full fruition. This is especially true of the social settings P is a part of: When others provide positive feedback and thereby acknowledge P's contributions, he or she experiences a sense of being-in-place. Two particular variations of this sense of being-in-place occur: in the first, P adequately handles the here-and-now; in the second, P adequately handles the continuum between past, present, and future. The latter typically implies reflective awareness of P's role across generations, whereas the former concerns embeddedness in the present moment.

We identified the four constituents of the phenomenon: (1) an awareness and gratitude for a healthy and functioning body, (2) a new experience of time presenting possibilities for action, (3) a heightened sense of agency, and (4) being-in-place in relationships. The constituents emerge from one another while also feeding back into and facilitating each other. For instance, the awareness and gratitude of a healthy and functioning body make the retiree able to notice and appreciate the opportunities coming from a paradoxical feeling of having time on their side. This highlights the possibility for action, which solicits the agency of the person. When in control of what they want to do and can do, they are able to reflect on what their role was in relationships.

Constituent 1: An awareness and gratitude for a healthy and functioning body. The retirees were quick to stress that a functioning body was implicit in their experiences of well-being, yet this remained somewhat understated in their descriptions. They have seen others in their cohort, either in their own personal network or through the media, who have some loss of functioning due to a frail body. One variation of this awareness and gratitude of having a healthy and functioning body was primarily expressed as physical health being "good enough" and not an impediment in life. For P5, the sense of security in the functioning of her body was a concern, but this concern was dispelled through physical activity (a morning swim): "I've had heart problems, is my body able to handle this? You get a lot of thoughts like that. However, these disappear completely when you've gone down into the [cold] water." For P1, her recent experience with physical pain due to a medical condition made her grateful because "[...] when the pain is relieved, then you're able to focus on others as well [...] you're able to get involved in other people's well-being. Not just your own problems." This perception of having "good enough" health was confirmed through the

experience of still managing to do physically exhausting things, such as looking after the grandchildren. P3 stated after a recent experience of this kind, "If we have them [grandchildren], we can still be responsible for them. My arms and legs are not like 'Wow, I can't handle this'. So it's also nice to know my health's good."

Another variation of this constituent is a sense of not just the body and physical health being "good enough," but also that there is a sense of a strong and able body. P6 experienced such a strong body after he had restarted his hobby of sailing a one-man boat:

> [...] you feel that in your body. That's because it gives you a sort of ... yes, a good feeling, a shudder through your body you might call it. This sensation is something I've noticed in a lot of other physical activity [...] But it works. I can throw myself to the other side and ... balance the boat. And then it ... it's a nice feeling of mastery inside, which makes me ... I think that's a nice feeling.

The activities that the retiree already masters allow him or her to appreciate the presence of a fully functioning body with much potential for action. As P9 described in a moment from a fishing experience, "you feel a tug [on the line]—these are fish between 50 and 100 kg—and when you're standing there with your fishing rod [...] your heart's beating fast [...] that's when you feel alive."

Constituent 2: A new experience of time presenting possibilities for action. Upon retirement, time changed from being something they were bound and controlled by to something that was on their side. Through this transformation, a new space emerged for our participants to act within. This new sense of time was threefold and consisted of literally having more time, the time to live according to one's own priorities, and being able to be present in and enjoy the moment. P3 enjoyed the new space where she had more time available "Basically I can spend my time as I please. There's no one that ... I don't have to be at work at eight in the morning [...] I can make whatever plans I want."

With the experience of having time, rather than time having them, our retirees were able to linger, reflect, and live according to their own priorities. P2 appreciated this as it made her able to explore who she was:

> When you're working you have to compromise in many areas, and I'm delighted to be free of all that. I feel [...] it's easier to be myself, that is, to find your own strengths and weaknesses and to have the time to evaluate them compared to when you're in a system.

Similarly, P6 appreciated how he was less controlled by the watch on his wrist "and the freedom this gives me is why I can now say that I now, all the time in my life, can choose from the top shelf what I want to do."

Through this transformation of time, the retirees were able to attain a sense of being-in-place that for some was expressed through the sense of being fully present in moments of significance for them. This was highlighted on a round of golf for P5, when two deer emerged from the woods and crossed the fairway right in front of them: "This was a feeling of being present at something very important or right [...] At least for me, that was wonderful." The new experience of time increased the retirees' sense of being autonomous individuals.

Constituent 3: A heightened sense of agency. The increased sense of autonomy solicited the agency of the retiree, which was an enjoyable feeling. The retirees took the initiative and engaged in both physical and social activities, which could be an extension of their interests and relationships already established before retirement, while they also dared to venture into new interests or relationships. P8 cherished the chance to volunteer for a friend in need of help in her daily life, due to a physical impairment. Although she had helped this person while she was working, she found it rewarding to be able to increase this involvement. Referring to a recent visit to her friend, P8 stated:

> You get like a ... you're energized. Or, I feel I'm energized and get a happy feeling inside by thinking about how good it is that she gets a nice experience. And I also feel that this gives me meaning and strengths as well. So I think ... Yes, it's nice for both of us.

The retirees used their heightened agency to facilitate situations where they were able to thrive and feel competent through mastering the tasks at hand. This desire for mastery was nicely put by P9 when he described a special fishing experience:

> That's why you go to those places, and when you get it ... You've tied your own flies and kind of learned where they [fish] are in the water [...] And when you succeed in getting a real steelhead, jumping and rushing down the river [...] then you're on top, that is deep down in yourself [...] you feel that now ... things couldn't be better.

Some retirees deliberately arranged situations they were likely to enjoy, while others made such situations happen more unwittingly. An illustration of the former was P2's desire to continue to develop after

retirement, and how that made her "[...] start with something [an activity] that's suitably difficult, which I know I won't master immediately. So I expect it to take some time." An illustration of a more unwitting approach was P7's continued duty as president of a housing co-op board, as it gave her tasks which required her problem-solving capacity to complete: "When I got that through, after working on it for 10 months. Free labor, notice that it's free labor, not so much as a bottle of wine as a thank you. Then I feel a strong sense of success."

With the heightened agency and its associated possibilities, retirees could feel some uncertainty or anxiety about whether they would be successful in their chosen endeavor. This tension was felt by P4 when she was considering accepting an offer to be a board member in a social club, "That's something I really want, but at the same time it's frightening. That is ... of course it is. But then I think, ok, what's the worst thing that could happen?" Similarly, P2 enjoyed being in the driving seat when choosing what to do, especially as she had noted down some of the interests she wanted to pursue in retirement. However, she also feared not being able to take full advantage of the potential for action, or as P2 put it: "Then the question is: what will I do when I've done everything I've wanted to do."

Constituent 4: Being-in-place in relationships. The last constituent of the phenomenon was the retirees' awareness of their role in relationships, both with their friends but even more expressed toward their family. The retirees desired to have meaningful relationships, by being a part *of* and having an influence *on* others' lives, and vice versa. However, they were determined not to be controlled by the relationships and were almost protective of this newfound autonomy and agency. As P6 told us about spending time with his grandchildren:

> I can well understand how some grandparents get very "grandparenty" and want to spend time with them all the time [...], but for me I feel this is ... I want more of a variation. So that's a part of it, but just a part. I want lots of other things as well.

The reflective awareness of oneself in relation to others gave the retirees a sense of being-in-place. For some this being-in-place dealt with the present moment and how they achieve value through relationships by feeling they are able to master life and function in the here-and-now. For P1 the being-in-place was experienced during a recent lunch with a friend: "When you get feedback, kind of, and she thinks it's nice to meet me and I think it's nice to meet her, then you get a transfer of emotions."

The other variant of being-in-place was a consciousness around their role through the generations and a wish to create a coherent narrative that connected one's personal past, present, and future. This way of being-in-place was concerned with having a footprint in the world, which could remain even after their death. When P4 made a traditional Norwegian national costume for her oldest grandchild's confirmation ceremony, the "long tail" of such an event was highlighted for P4 when she gave her the costume: "I think I was quite moved. I think I was ... I remember I ... I took a picture of her [...] and then I felt wow ... this ... was really something." Reflecting on why she was so moved by the moment, she explained:

> ... the feeling that this is something you're giving to a grandchild and she'll have it for the rest of her life [...] That's a good feeling, compared to embroidering a national costume and selling it to someone you don't know.

Another example of this connection of past, present, and future was P6's recent return to sailing as a hobby which was "primarily for my grandkids, because I think I might be able to get some of my grandkids to be interested in that kind of sea life". P6 could see the effect this had on his grandchildren: "And they're good. They learned port and starboard before they learned left and right. And I think that's because of this." P6 was aware of his role with his grandchildren and was conscious of how his role as a grandparent was meaningful and different compared to being a parent:

> What's nice [...] is to have the chance to follow their development. That is, I see a big difference from our own kids [...] as I was working the whole day [...] so the experiences were shorter and totally different. We were responsible for them becoming good people. With the grandkids, we can just spoil them, as it's not really our responsibility to bring them up. So there's a great difference being with the grandkids, compared to the time when we were parents ourselves.

Discussion

In line with descriptive phenomenological research, the epoché or bracketing is dissolved in the discussion of our findings. In the discussion, we facilitate a dialog between the constituents and the research literature with the aim to deepen our understanding of each of the constituents and to explicate how they mesh into each other. The selection of research and theories we dialog with emerges from the general meaning

structure and its constituents. As the phenomenon in our study is well-being in retirement, we discuss our structure in regard to established theories in this field. Retirement and aging research are also seen as natural dialog partners, as we are interested in the phenomenon in context of retirement. Rather than structure the discussion according to the four constituents, we choose to structure it according to the relevant research literature on aging and well-being. This is because the constituents are interrelated and, therefore, relevant to discuss in sync with some of the literature we reference (e.g., constituent one and four is natural to discuss jointly with the successful aging literature). We picture the discussion taking shape as a tapestry woven on the warp of the constituents and the weft of four themes that are relevant in the research literature on aging and well-being. The four themes form the headers in the discussion.

Successful aging

Retirement is a major transition in a person's life and is often considered as the event which marks the entry to old age. For the same reasons that the idea of old age has changed in recent years, the idea of what it means to be retired has also changed. To retire with good health and remain active is now largely an expected phase of life; the image of retirees defined as not working and without social value is no longer valid (Weiss, 2005). The first constituent (an awareness and gratitude for a healthy and functioning body) appears to be fundamental for the retirees' experiences of well-being. Several of the participants emphasized that they felt somehow lucky as they had few, if any, limitations due to an "aging" body. The maintenance of physical and high cognitive functions is one of the defining characteristics in successful aging as described by Rowe and Kahn (1987, 1997), the other two being avoiding disease and engagement with life. One of the forms of engagement with life is relating to other people (Rowe & Kahn, 1998). Although our fourth constituent might appear similar to Rowe and Kahn's paradigm, it includes a different perspective on social relationships. They view it as the giving and receiving of social support, which can be instrumental and socio-emotional. Instrumental support involves assistance, while socio-emotional support involves expressions of affection, respect, or self-esteem, which assures people that they are valued (Rowe & Kahn, 1998). In our fourth constituent, the supportive role of relationships was one variation of being-in-place. However, the constituent also included a different variation of being-in-place where the relationship was seen as a connection across generations and a potential for

one's footprint in the world to be present even after death.

Rowe and Kahn (1998) argue that there is a form of hierarchical ordering of the three components of successful aging, where not being ill makes it easier to maintain physical and cognitive functioning, which in turn facilitates an active engagement with life. These three components collectively "represent the concept of successful aging most fully" (Rowe & Kahn, 1998, p. 39). In a similar way to this hierarchical ordering, our constituents emerge from one another—as mentioned earlier—where the healthy and functioning body enables the other three constituents, which in turn can be seen to contribute to maintaining a functioning body.

Perception of time

Time is an essential component of the retirement experience that one has to deal with (Ekerdt & Koss, 2015). According to Weiss (2005), retirement is perceived as a "desired release from obligation [...] [v]itality remains, and now there is freedom to do with it whatever one wishes" (p. 10). This newly emerged sovereignty over their time was an important aspect of the retirees' experience of well-being. They no longer felt bound by others' impositions on their time, nor by the sense of not having enough time available to do what they wanted. In qualitative studies of the retirement transition, the ability to control one's own time has been shown to be one of the biggest advantages of retirement (Ekerdt & Koss, 2016; Van Dyk, Lessenich, Denninger, & Richter, 2013; Weiss, 2005).

The transformation of time to "being on their side" gave our retirees increased autonomy where they were able to "finally" live according to their own priorities. Being retired gave them both the freedom from work-related obligations and the freedom to engage in activities, hobbies, reflection, and relationships. It was this "freedom to" which contributed largely to the increase in autonomy and the heightened sense of agency for our retirees. Weiss (2005) argues that "freedom to" is what makes retirement extraordinary and without comparison; if one is healthy and has enough money, one is able to choose how one's day should proceed at one's own pace. Further, Weiss describes how the retiree in this process is facing two risks, venturing into too much or venturing into too little. The retirees in our study were doing neither of these. Their anxiety and concerns were rather at a reflective level, about whether they were able realize their full potential in this new period of life. To successfully "solve" how to realize fully the newfound autonomy in retirement, Ekerdt and Koss (2015) found that daily routines were essential; activities were

seldom improvised, and often well organized. The retirees in Ekerdt and Koss' study showed that routines served to give one's life order and purpose, while also being a way of signaling "conformity with the ideals of active ageing" (p. 13). The term "busy talk" was coined by Van Dyk et al. (2013) to capture their participants' desire to demonstrate an adherence to the active aging paradigm. These participants also desired to be dissociated from a passive retirement narrative, which they perceived as existing in society. The need for establishing and maintaining daily routines did not emerge as an important part of our retirees' experiences of well-being. Rather their experiences could be described as involving departures from whatever daily routine existed, where they appreciated having the time and opportunity to linger and be present in the moment (cf. the second constituent).

Eudaimonic and hedonic well-being

The newly emerged sovereignty over time led to a heightened sense of agency (i.e., the third constituent of well-being). The retirees demonstrated this agency through choosing activities and interests that they had enjoyed earlier, while also seeking out novel and challenging activities. In addition, they were proudly aware of their new initiatives, which confirmed their increased agency. As described above, agency was closely tied to the retirees' increasing autonomy after retirement. Autonomy is one of six dimensions in Ryff's conceptualization and measurement of PWB (Ryff, 1989, 2014; Ryff & Keyes, 1995) and has been shown to increase with age (Ryff, 1995). Ryff's model was developed as a response to how well-being was narrowly conceptualized in the research literature to include only the hedonic approach, focusing largely on "happiness, life satisfaction and positive affect" (Ryff, 2014, p. 11). Ryff's PWB is a eudaimonic approach to well-being, which generally defines well-being as "the actualization of human potentials" (Ryan & Deci, 2001, p. 143). Another eudaimonic approach to well-being is the self-determination theory (SDT) by Ryan and Deci (2000), where the need for autonomy is one of three fundamental psychological needs in humans, the other two being a need for competence and a need for social relatedness. In SDT, these basic needs must be satisfied through a person's life before they can experience an "ongoing sense of integrity and well-being or 'eudaimonia'" (Ryan & Deci, 2000, p. 75). Although there is an overlap in how autonomy is understood in SDT and PWB, differences do exist (Deci & Ryan, 2008). While autonomy in SDT concerns the experience of choice and reflectively approving one's own actions, autonomy in PWB involves self-determination, independence, and the regulation of behavior (Deci & Ryan, 2008). In other words, in SDT it is possible to be autonomous while relying on others, while for Ryff being autonomous concerns the ability to be independent from others and self-regulate one's behavior (Ryff, 2014). In the third constituent, we observed both variations of autonomy; there was the experience of choice as well as the appreciation of being independent from others and self-authoring one's aims and desires.

We also see similarities with the eudaimonic approach in the fourth constituent (being-in-place in relationships). In our study, this constituent involved the desire for meaningful reciprocal relationships with friends and family, while still maintaining autonomy and agency. Similarities with this constituent can be observed in Ryff's PWB, where having positive relationships with others is one of the core dimensions (Ryff, 2014). In PWB, positive relations with others include having fulfilling relationships, being concerned with others' welfare, capacity for strong empathy and intimacy, and understanding the give and take of human relationships (Ryff, 2014). Having positive relationships with others, as measured in Ryff's model, increases with age, although the pattern does not seem as consistent as with autonomy (Ryff, 1995). The fourth constituent could be viewed as similar to the need for social relatedness, which is one of three basic needs in SDT and is concerned with "feeling connected to and cared about by others" (Ryan, Huta, & Deci, 2006, p. 153). However, we understand the relational aspect in our retirees' experience of well-being to be broader and deeper than positive relations with others in PWB and social relatedness in SDT. Our fourth constituent encompasses the joy of experiencing social relatedness in the here-and-now, while also including a concern or aspiration for significant relationships that exceed one's lifetime. The retirees' consciousness of their own role across generations was seen as a way of constructing a coherent narrative about themselves in the situation, which incorporated past, present, and future. This variant of the constituent emphasizes the retirees as authors of their own life story, which is one significant way a psychological self may be construed, according to McAdams (2013). It was not surprising that the retirees emerged as interested in forming a coherent narrative about themselves, as this ability has been argued to be a developmental achievement (McAdams, 2013), which grows in positive affect, capacity, and complexity with age (Pennebaker & Stone, 2003).

The eudaimonic approach stems from the philosophy of happiness developed by Aristotle, who "distinguished between happiness as experiencing

pleasure (i.e., hedonia) versus happiness as living well (i.e., eudaimonia)" (Ryan et al., 2006, p. 143). One might argue that our phenomenological interview, where the retirees described an experience after retirement where they had felt a sense of well-being, was largely conducive to expressions of the hedonic pleasure conception of well-being. The rationale here is that when people are asked to recollect a specific situation after retirement, it might be that situations with a pleasurable outcome come to mind more easily, as they could be perceived as a clear-cut response to the researcher's request. However, the general meaning structure of well-being as experienced by retirees reads as an instance of a eudaimonic conception of the phenomenon, with some variations, including a more hedonic conceptualization. We see the value of both these conceptions of well-being and appreciate how they in unison illustrate the complexity of well-being in our qualitative study. We also recognize the contours of an answer to Henderson and Knight's (2012) call for future studies to capture comprehensively the phenomenon of well-being in a person's lifeworld.

Generativity

One aspect of the fourth constituent was the desire to have a footprint on earth, more specifically an impact on the life of grandchildren that remains after death. This is closely related to Erikson's (1982/1997) understanding of generativity in his theory of psychosocial development. In this theory, generativity versus stagnation is a primary concern in adulthood. A generative outcome entails a concern for the following generations and an increased desire to leave a legacy (Grossbaum & Bates, 2002). Although generativity was introduced as a concern in midlife and not in old age (where Erikson uses the term integrity vs. despair), Tabuchi, Nakagawa, Miura, and Gondo (2015) argue that generativity is important well into old age due to the societal trend of postponing marriage and children. Additionally, the increase in lifespan allows people to have a longer period as grandparents than earlier, which contributes to generativity becoming "[...] an increasingly salient phenomenon later in life" (Cheng, 2009, p. 46). Some have argued that the achievement of generativity is a substantial contributor to well-being in late life (An & Cooney, 2006). Others, however, have demonstrated that the relationship is more complex and mediated by the degree to which one's actions are appreciated or rejected by the younger generations (Tabuchi et al., 2015). Our retirees' desire to leave a legacy appeared to be independent of the attitude of the younger generation. We take it that the ability to form such a desire independently

of the recipients' attitude further highlights how our retirees were able to self-author their own life story. This again emphasizes how the four constituents of well-being, as it emerged in our study, were interrelated.

Conclusion

Well-being is an important aspect of a person's life irrespective of how old they might be. In this article, we have focused on the third age and explored the phenomenon of well-being through the experiences of nine retirees. Retirement might be an ideal period for health promotion initiatives in general, and well-being specifically. To enhance our understanding of well-being in this period, we have in this study bracketed established theories of well-being and aging, and set out to explore well-being from the perspective of the retirees themselves. Based on their firsthand experience of well-being in retirement, a general meaning structure of well-being was formulated. The structure had four interrelated constituents, which were separated for the sake of presentation and discussion. We observed several similarities between these four constituents and other concepts such as successful aging, the perception of time, eudaimonic and hedonic well-being, and generativity. Although similarities with other approaches were observed, we argue that the structure contributes to the field with nuanced and rich descriptions. In addition, the strength of our structure is how it captures the totality of the experience emerging from the retirees themselves. We conclude that the insights condensed in the general meaning structure, and its constituents are valuable contributions to initiatives that aim to promote experiences of well-being after retirement.

Conflict of interest and funding

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Maturity and happiness: The development of self-authorship, eudaimonic motives, generations, and subjective well-being

Maturity and happiness: The development of self-authorship, eudaimonic motives,

generations, and subjective well-being

Lars Bauger[1], Rob Bongaardt[1] and Jack J. Bauer[2]

[1] Department of Health, Social and Welfare Studies, Faculty of Health and Social

Sciences, University of South-Eastern Norway, 3603 Kongsberg, Norway

2 Department of Psychology, College of Arts and Sciences, University of Dayton,

Dayton, Ohio 45469-1430, USA

Corresponding author:

Lars Bauger

lars.bauger@usn.no

+47 35 57 54 49

ORCID: 0000-0001-7993-3281

ORCID Jack Bauer: 0000-0003-2912-7980

Abstract

In this article, we investigate psychological maturity and other eudaimonic phenomena to predict subjective well-being (SWB) as a function of age. To assess psychological maturity we analyzed 223 participants' narratives of a high point in their life, according to Kegan's (1994) theory of adult development and the accompanying subject-object interview (SOI) guide. In a hierarchical multiple regression analysis, we found support for our first hypothesis that level of psychological maturity in the narratives significantly predicts SWB when controlling for other eudaimonic phenomena like meaning in life, growth motivation, and authenticity. We found support for our second hypothesis that psychological maturity moderated the relation between age and SWB, but not in the expected direction. That is, maturity predicted SWB only for those under 60 years old and not for the older age group. These are novel results as psychological maturity has traditionally not been associated with well-being. We discuss our findings in relation to similar constructs such as autonomy that have traditionally been linked with SWB.

Keywords: Psychological maturity; Well-being; Aging; Development; SWB; Eudaimonia

Our inquiry begins with a contradiction in what it means to live a good life. On the one hand, the cultivation of wisdom is a cultural ideal in societies around the world and throughout written history, for example, from ancient Greece to India to China (Taylor, 2012). On the other hand, a critical component of wisdom from the Aristotelian perspective—that is, thinking complexly rather than simplistically—has been routinely found to have no empirical correlation with pleasure-based measures of happiness (Flanagan, 1991; e.g. Bauer, McAdams, & Sakaeda, 2005; King, Scollon, Ramsey, & Williams, 2000)

However, practical wisdom is not merely a matter of thinking complexly, because complex thinking can be selfish or otherwise egoistic. Practical wisdom also involves thinking humanely, that is, thinking complexly about the experiential welfare of the self and others in balance—as opposed to thinking complexly in ways that merely benefit the self (Bauer, King, & Steger, 2019). Humane thinking itself has a well-established tie to well-being, notably in the research on self-determination theory (Deci & Ryan, 2012; e.g. Kasser & Ryan, 1996). Thinking complexly and humanely is more typically called *psychological maturity*, *psychosocial maturity*, or *personal maturity* (Staudinger, Dörner, & Mickler, 2005). Kegan's (1982, 1994) developmental theory of meaning making captures this combination of thinking complexly and thinking humanely and is used to operationalize psychological maturity of written narratives in this study. In the present study, we examine the role of two of Kegan's constructs – the socialized and self-authoring mind - among noted features of a good life in predicting happiness.

Psychological Maturity and Well-Being in Kegan's Model

The organizing structure of meaning making from a developmental perspective is a key feature of wisdom and is often referred to as psychological maturity (Staudinger et al., 2005). The term includes many different developmental theories such as the humanistic approaches to personality development of Maslow (1968, 1970) and Rogers (1961), the

psychosocial developmental theory of Erikson and Erikson (1982/1997), ego development (Loevinger, 1976), moral reasoning (Kohlberg, 1969), and meaning-making system (Kegan, 1982, 1994). According to Fossas (2018), the conceptual and structural similarities between different theories of development "suggest that a common maturational process underlies an array of critical psychological dimensions (e.g., cognitive, affective, reflective, and personality-related) across the human lifespan" (p. 2). These different theories focus on the development of an increasing capacity to think complexly and integrative about the welfare and experience of both oneself and others (which in the present study we are calling *psychological maturity*). This developmental focus is by some labeled constructive-developmental (Vincent, 2014), which holds that we construct our understanding of our world, as opposed to stumble upon it (constructivism), and the how the way we construct evolve through qualitatively more complex stages (developmentalism) (Kegan, 1982, 1994). In contrast to adult phasic theories, which differentiates separate phases in adulthood with specific themes that everyone goes through (e.g. Erikson & Erikson, 1982/1997), not everyone develops the capacity for higher stages of development in a constructive-developmental theory. Whereas adult phasic theories focus on the *content* of meaning-making (e.g., types of psychosocial concerns like identity, intimacy, generativity in Erikson), constructive-developmental theories focus on the organizational *structure* of meaning-making and their degrees of complexity.

One such constructive developmental theory is Robert Kegan's theory of adult development (1982, 1994), which is the theory that guide our process of operationalizing psychological maturity in this study. However, unlike other constructivist-developmental models that have roots in Piaget (1970), such as Loevinger (1976) and Kohlberg (1969), Kegan's model integrates Piaget's focus on cognitive development with Erikson's focus on *healthy* development. The primary reason that measures of Loevinger's ego development

generally do not correlate with psychological health and well-being is that thinking complexly has little to do (either way) with feeling good about one's life. Kegan's measure of self-development incorporates the structural, organizational focus of constructivist development (Piaget) as well as the experiential and self-integrating focus of psychosocial development (Erikson).

In his theory, Kegan describes five qualitatively different levels of psychological maturity, where the first two levels (impulsive and instrumental mind) are primarily limited to childhood and adolescents while the following three are in adulthood: the socialized, self-authoring and self-transforming mind. Each successive level of maturity reflects an increasing capacity for more complex perspective taking at a cognitive (what is knowledge), intrapersonal (who am I) and an interpersonal (how do I relate to others) level (Kegan, 1994). In this study, we focus on the socialized and the self-authoring maturity and propose that the distinction between the two could be associated with SWB. The two levels of maturity also appear be the most common levels in adulthood. According to Kegan and Lahey (2009) approximately 80-90 % of adults make meaning between the socialized and self-authoring maturity level, while the self-transforming mind is seldom seen (less than 1 %).

Kegan's theory is concerned with perspective-taking and each of the levels of psychological maturity are defined by the subject-object balance, where subject refers to what one is embedded in and unable to take a perspective on, while object refers to those aspect that one is able to have a perspective and act upon (Berger, 2005). I.e. "[w]e *have* object; we *are* subject" (Kegan, 1994, p. 32, emphasis in original). In the gradual development from one level of maturity to the next (the journey includes several in-between levels), one is "able to *look at* what the prior way of knowing could only *look through*" (Kegan & Lahey, 2010, p. 438, emphasis in original). At the maturity level of the socialized mind, one can have a perspective on one's desires and interests and accommodate these to those of others. Here

one's sense of self is fused with the values and expectations of one's surrounding (Helsing & Howell, 2014). At this level of maturity, it can be a challenge if the surrounding people (e.g. parents, friends, society) expect different things, since one has not yet developed an independent internal system that can mediate or resolve such a divide. At the self-authoring level of maturity, one has a more "integrative" self that expands on and incorporates the capacities from the socialized level (indeed each level is more complexly integrative than the previous level). The capacity for self-authorship can be defined as "the internal capacity to define one's beliefs, identity and social relations" (Baxter Magolda, 2008, p. 269). Here one has developed an internal system that is no longer solely dependent on others, which makes it possible to discriminate between others and one's own opinion (Kegan & Lahey, 2010). Individuals at this level do not value relationships with others any less than at the preceding socialized level, but one is able to have a perspective on the relationships. This contrasts with being "within" the subjective perspective where one's interpretations of the relationship are not "interpretations" at all but rather are in fact the only extant reality of that relationship.

The concept of self-authorship in Kegan's theory draws similarities with the construct of autonomy, which is an important aspect of eudaimonic accounts of both maturity and well-being. However, "autonomy" means many things. For Kegan, autonomy has more to do with a kind of individuation that develops after one has wrestled with the ways in which one is both independent of others and dependent on others—a kind of interdependence that generally does not emerge until young adulthood at the earliest (Loevinger, 1976). This is certainly not the basic autonomy in Erikson's (1968) stage of autonomy versus shame and doubt in the second year of life. Autonomy here is also not the same as in Ryff's (Ryff, 1989; Ryff & Keyes, 1995) dimension of psychological well-being, where autonomy refers to a sense of being independent. Autonomy here is closer to the autonomy of self-determination theory (Ryan & Deci, 2000), where autonomy is not about merely adolescent strivings for

independence but rather, at higher forms of development, about a matter of cherishing the principle of autonomy, not just for oneself but for others as well (as in "autonomy support"; Weinstein & Ryan, 2010). Most closely, autonomy reaches its zenith in Kegan's self-transforming stage, which is comparable to Loevinger's autonomous stage. The emergence of autonomy as well as other similar constructs such as agency, authenticity and self-actualization are argued to be one of the characteristics of the transition from the socialized to the self-authoring level of maturity (Fossas, 2018).

In Kegan's (1994) analysis of what modern society demands of adults' level of psychological maturity, he argues that for most of the tasks in adulthood, modern society demand the capacity for self-authorship. The demand in modern society on individuals' capacity to be self-authoring presents a conflict for many, as data indicate that that about half of the adult population have yet to develop such a capacity for self-authorship (Kegan, 1994), and instead make-meaning in terms of socialized mind, relying on external perspectives in forming one's belief about oneself and the world. This dissonance between capacity and demand, lead Kegan to describe people as "in over their heads" (Kegan, 1994). In this paper, we predict that psychological maturity is a significant predictor of a person's SWB, where the psychological maturity level of the self-authoring mind would be positively associated with SWB, compared with the socialized mind.

In addition to this overall positive relation between SWB and psychological maturity, we propose that the period of old age can entail an extra demand for the self-authoring mind. Particularly as this period is "characterized by fewer social norms and expectations guiding the setting, pursuing, and maintaining of goals, as well as the disengagement from them" (Freund, Nikitin, & Ritter, 2009, p. 28). With the socialized mind being reliant on the surroundings for regulation and creation of the self and one's values, this level of maturity appears ill-equipped (compared to the self-authoring mind) when there is fewer expectations

from the surroundings. There are also some indications that self-authorship is important for elder's well-being, e.g. in a recent qualitative study, self-authorship was one of constituting elements in retirees' experiences of well-being (Bauger & Bongaardt, 2016).

Kegan (1994) emphasizes that how levels of psychological maturity relate to well-being depends on how they match with individuals' daily life requires of them. For instance, if a person consistently finds them self in situations that require them to have a more mature way of thinking than they have developed the capacity for, then their well-being may suffer. To illustrate the point Kegan (1994, pp. 100-101) uses the analogy of driving a car, where he compares the capacity to drive a car with stick-shift transmission (more complex) and the capacity to drive a car with automatic transmission (less complex). In this case, one cannot necessarily say that stick-shift or automatic drivers are better or safer drivers, but there is a difference in the two capacities. Namely, that the capacity to drive a stick-shift also includes driving an automatic car, which is not necessarily the case for automatic drivers. If there is plentiful supply of automatic cars and the circumstances do not require one to drive a stick-shift, then the more complex capacity to drive a stick-shift is unnecessary. However, if most of the world consisted of manual transmission cars, not having this capacity would be a serious hindrance to your car driving abilities. In other words, Kegan is claiming that if we have developed a level of maturity in our thinking, matching or exceeding the actual, lived experience of the person or persons in question, then we are more likely to adapt satisfactorily to life's situations.

Age, psychological maturity, and Well-Being

According to Bugenhagen and Barbuto (2012) there is not a direct relation between psychological maturity and chronological age, except at especially low levels, as there is some constraint where most theories claim that less-mature stages are appropriate properties of

childhood and adolescence (Loevinger, 1976; Morros, 2001). In Cohn's (1998) meta-analysis of the relation between level of Loevinger's ego development and age, a moderate correlation ($r =.40$) was reported among adolescent samples, while in adult samples there was no relation ($r =.04$). Chronological age and ego development tend not to have a linear relation in adulthood. Lilgendahl, Helson and John (2013) found support for such a positive trend in their longitudinal study of level of ego development, where a mean-level increase was observed from age 43 to age 61. However, Kegan's measure of maturity is not as exclusively tied to cognitive complexity as Loevinger's measure. For Kegan's measure, there appears to be a levelling off in adulthood where for many their level of maturity stabilizes (Vincent, 2014), and fewer individuals reach the more mature levels (Kegan & Lahey, 2009). Additionally, Kegan and Lahey (2009) emphasize how, on the individual level, maturity is not a continuous unfolding but instead involves periods of stability and periods of change.

Meaningfulness, Growth Motivation, and Authenticity

As mentioned above, psychological maturity is one of several aspects of eudaimonia (Bauer, 2016). Most measures of eudaimonia in psychology (including Kegan's) address questions of fulfillment, satisfaction, and meaningfulness (i.e., well-being, as typically modeled). In contrast, developmental, psychological maturity in Kegan's model also involves a dimension of integrative complexity in thinking about the self and others, which is unique among those measures (Bauer et al., 2019). In this article, we are interested in exploring how levels of psychological maturity predict SWB, while also controlling for three eudaimonic factors that are established predictors of SWB: meaning in life, growth motivation, and authenticity. Kegan's maturity includes elements of each of these but also the unique, developmental factors just mentioned, allowing for a test of maturity's incremental validity in predicting SWB.

One factor that has been considered a key factor of eudaimonia is meaningfulness in life (i.e., "having meaning in life"), in addition to also being associated with SWB (Steger, Shin, Shim, & Fitch-Martin, 2013). Meaning in life is argued to consist of feeling that your life matters, makes sense and has purpose (Martela & Steger, 2016). Considerable empirical evidence has found positive effects of meaning in life on several aspects of physical and psychological well-being and have been argued as a flagship indicator of well-being (Steger et al., 2013). For example, high levels of meaning in life have been associated with lower mortality (Krause, 2009), decreased risk for Alzheimer's disease (Boyle, Buchman, Barnes, & Bennett, 2010), self-actualization (Compton, Smith, Cornish, & Qualls, 1996), feeling that you know your 'true self' (Schlegel, Hicks, King, & Arndt, 2011), satisfaction with life (Steger, Frazier, Oishi, & Kaler, 2006; Steger, Oishi, & Kesebir, 2011), and high positive affect and low negative affect (King, Hicks, Krull, & Del Gaiso, 2006).

The development of eudaimonia over time has been called *eudaimonic growth* and can be considered as increases in both psychological maturity and well-being (Bauer & McAdams, 2010). The desire for growth in both these areas has been coined growth motivation (Bauer, Park, Montoya, & Wayment, 2015) and can be characterized as experiential and reflective. Whereas experiential growth motivation is the desire to cultivate personally meaningful activities and relationships, reflective growth motivation concerns the desire toward developing one capacity for complex thinking, deeper conceptual understanding and intellectual development, and wisdom (Bauer, 2016). An important distinction here is that this construct is not concerned with the presence of either maturity or well-being, but to what degree a person is motivated towards these two aspects of eudaimonia (Bauer et al., 2015). Nevertheless, they, respectively, are positively associated with measures of maturity and well-being respectively (Wayment & Bauer, 2018). In narrative meaning-making, motivational themes for reflective growth have predicted increases in demonstrated maturity three years

later, whereas motivational themes for experiential growth have predicted increases in well-being over that time (Bauer & McAdams, 2010; also see Lilgendahl & McAdams, 2011).

Inspired by humanistic/existential psychology (e.g. Maslow, 1968; Rogers, 1961), the concept of authenticity can be considered as an important aspect for individuals well-being. Here authenticity is understood as the degree to which a person is experiencing congruence between one's behaviors, emotions and deeply held values and beliefs (Wood et al., 2008). In research, overall authenticity has been associated with both eudaimonic and hedonic measures of well-being (Di Fabio & Palazzeschi, 2015). In Wood et al. (2008) much used conception of authenticity, the concept is tripartite: self-alienation, accepting external influences and authentic living. Self-alienation is the degree to which one feels in contact with or in touch with one's 'true self', authentic living is the degree to which your behavior is consistent with your ideals and values, and accepting external influences is the degree to which one conforms to the expectations of others. Within this conceptualization of authenticity, authentic living has a positive relation with hedonic and eudaimonic measures, while the two others are negatively associated with both hedonic and eudaimonic well-being (Wood et al., 2008).

Personality traits have been proposed as an important part in understanding why levels of well-being are relatively stable, and research into the relation between the two factors have been substantial (Anglim & Grant, 2016). In meta-analyses (DeNeve, 1999; Steel, Schmidt, & Shultz, 2008), the traits neuroticism and extraversion have emerged with the highest correlations with SWB. Where extraversion is positively associated with SWB, while neuroticism is negatively associated. This was also supported by a recent study on both hedonic and eudaimonic aspects of well-being in relation to personality (Anglim & Grant, 2016), where the other personality traits (agreeableness, openness and conscientiousness) were important correlates of several eudaimonic aspects of well-being.

The Present Study

We aim to explore the relation between psychological maturity and well-being. In particular, we want to investigate if level of maturity could be considered a significant predictor of SWB, and if this proposed relation holds up when controlling for other eudaimonic predictors of SWB. This means that our approach is in line with Sheldon's (2013, 2016) model of using eudaimonic factors as predictors of hedonic well-being. We are also interested if age group moderate the relation between psychological maturity and subjective well-being. As a methodological concern, another aim of this study is to explore the feasibility of employing a psychological maturity measure, using the theory of Kegan (1982, 1994) with shorter written narratives. We have developed the following hypotheses.

Hypothesis 1: Higher levels of psychological maturity in written narratives (Kegan's self-authorship stage, compared to the socialized stage) predict higher levels of well-being, controlling for age group, big-five traits, authenticity, experiential growth motivation, and meaningfulness in life.

Hypothesis 2: Maturity moderates the relation between age group and well-being. More specifically, we expect to find a significant interaction such that psychological maturity in narratives predicts SWB in old age but not in young or middle adulthood.

Method

Participants

This is a cross-sectional study and the participants in this study were selected from a larger study, the Study of Adult Life and Transitions (SALT). SALT is a recently launched prospective longitudinal study with the aim of studying phenomena across the lifespan. Participants in the study are the alumni of a private research university in the Midwestern United States. In the first wave of data collection in the SALT study, 754 participants

responded to the questionnaire. From this larger sample, we selected the participants who had given a detailed description of a significant memory from their college years, so that we could analyze those narratives for their psychological maturity. Our final sample consisted of 223 participants (table 1), 135 (60 %) were female while 87 (40 %) where male, 220 participants completed all data points and the regression analysis involved these 220. The mean age of participants was 46.4 years (SD = 16.86), ranging from 22 to 84 years old. As our second hypothesis concerned old age compared to a younger age group, we constructed a dichotomous age variable where the old age group comprised those 60 years or older, while the younger age group comprised those 59 years or younger. Regarding the two age groups most of our participants were below 60 years old (71 %), while a minority of the participants were 60 years or older (29 %). With the exception of chronological age, there were no significant differences between those who had provided a description of a college high point (our final sample) and those who did not. In terms of age, those who had provided a narrative were significantly older (M = 46.23, SD = 16.80) compared to those who did not (M = 43.36, SD = 16.70), t (674) = 2.10, p = .036.

Table 1.

Demographic information of participants

| Age group | Gender | | Total |
	Female	Male	
Younger (<60)	106 (79 %, 67 %)	52 (60 %, 33 %)	159 (71 %)
Older (=> 60)	29 (21 %, 45 %)	35 (40 %, 55%)	64 (29 %)
Total	135 (60 %)	87 (40 %)	223

Note. One participant in the younger category identified as 'other' on gender. The percentages in the parentheses are representing proportions of gender and age group respectively

Measures

Subjective well-being (SWB). SWB was a compound measure calculated by the scores from Satisfaction With Life Scale (SWLS) (Diener, Emmons, Larsen, & Griffin, 1985) and the Scale of Positive and Negative Experiences (SPANE) (Diener et al., 2010). SWLS is a short and effective 5-item measure of overall life satisfaction. The scale has demonstrated good psychometric characteristics (Pavot & Diener, 2008). Items include "In most ways my life is close to my ideal" and "If I could live my life over, I would change almost nothing". The participants rated the items on a 7-point scale ranging from *strongly disagree* (1) to *strongly agree* (7). SPANE is a recently developed scale, measuring a broad range of pleasant and unpleasant feelings. The scale consists of 12-items grouped into two subscales, one for positive and one for negative feelings. The scale asks participants to report how much they have experienced the given feelings the last four weeks, six positive and six negative feelings. The feelings are rated on a 5-point scale ranging from *very rarely or never* (1) to *very often or always* (5). The scale has shown good psychometric properties in its original publication (Diener et al., 2010), supported by validation studies in Portugal (Silva & Caetano, 2013), Canada (Howell & Buro, 2015) and China (Li, Bai, & Wang, 2013), with Cronbach's alpha ranging from .81 to .92. An aggregated SWB score was calculated first by standardizing the component variables and then by adding satisfaction with life with positive feelings and then subtracting the negative feelings. In this study, Cronbach's alphas were .89, .86 and .83 for SWLS, SPANE positive and SPANE negative respectively.

The Meaning in Life Questionnaire (MLQ). Meaning in life was assessed using the MLQ (Steger et al., 2006) and its two subscales, presence and search, measuring the extent to which the person is experiencing a presence of and a search for meaning, respectively. For our purposes, we used the presence subscale, consisting of five statements about the persons

experience of meaning in their life, which they rated on a 7-point scale from *absolutely true* (1) to *absolutely untrue* (7). Statements included "My life has a clear sense of purpose" and "I understand my life's meaning." The presence subscale has demonstrated adequate psychometric properties in the original research paper (Steger et al., 2006), as well as in a recent global study were the Cronbach's alpha ranged from .85 to .92 (Disabato et al., 2016). In this study, Cronbach's alpha was .90 for the presence of meaning subscale.

Authenticity Scale (AS). The dispositional authenticity was assessed using the Authentic Personality Scale (Wood et al., 2008). The scale is based on the person-centered conception of authenticity and consists of three subscales that capture three aspects of authenticity; self-alienation; authentic living; and accepting external influences. Self-alienation reflects the degree to which a person feels he or she does not know or feel in touch with their true self. Authentic living reflects to which degree the person feels they are true to themselves and living according to their beliefs and values. Accepting external influences reflects the degree to which the person accepts the influence of other people and whether they feel obliged to conform to other's expectations of oneself. The AS asks the participant to rate to what degree they agree with 12 statements on a 7-point scale, ranging from *does not describe me at all* (1) to *describes me very well* (7). Items include "I don't know how I really feel inside", "I always stand by what I believe in" and "I usually do what other people tell me to do". The scale has demonstrated good psychometric properties (Wood et al., 2008). Cronbach's alphas were .79 for authentic living, .86 for accepting external influences, .86 for self-alienation and .85 for the aggregate authenticity. For ease of presentation, we use the aggregate measure of authenticity.

Growth Motivation Index (GMI). The GMI (Bauer et al., 2015) measures two facets of growth motivation: reflective and experiential. Where reflective growth motivation captures the "desire for conceptual learning, exploration, and gaining new perspectives on

one's psychosocial life" (Bauer et al., 2015, p. 191), experiential growth motivation captures the "desire for deepening and strengthening one's experience or relationships, helping others, and building skills in activities of personal interest" (Bauer et al., 2015, p. 191). The GMI asks the participant to rate eight items on a 7-point scale: how often they do eight activities and/or reflections for the purpose of either reflective or experiential growth, with the scale ranging from *never* (1) to *always* (7). Items include "I try to do things that I find personally enjoyable, interesting, or engaging" and "I make sure to spend time with people who are dear to me". The measure has demonstrated adequate psychometric properties (Bauer et al., 2015). Cronbach's alpha was .81 for reflective growth motivation and .67 for experiential growth motivation. For our purposes, we used the scale of experiential growth motivation, since this dimension has been theorized and demonstrated as related to SWB (see Bauer et al., 2015).

Ten-Item Personality Inventory (TIPI). Personality was assessed using the TIPI (Gosling, Rentfrow, & Swann, 2003), which is a popular brief instrument measuring the big-five personality traits. The measure includes two items measuring each of the big-five dimensions, asking the participant to rate, on a 7-point scale, to what degree they feel they agree with each statement. The scale ranges from disagree strongly (1) to agree strongly (7). Items include "I see myself as extraverted, enthusiastic", "I see myself as anxious, easily upset" and "I see myself as sympathetic, warm". The scale has shown low to moderate Cronbach's alpha (α = .40 - .68) which is common for short scales (Ziegler, Kemper, & Kruyen, 2014). According to Gosling et al. (2003) a better reliability measure for such short measure would be test-retest reliability, which the TIPI has demonstrated substantial stability (mean r = .72). It has also demonstrated substantial correlation with longer personality trait measures ($r > .65$). In sum the instrument has been demonstrated adequate psychometric properties to serve as a proxy for longer personality instruments (Gosling et al., 2003). Cronbach alphas for extraversion and neuroticism was .78 and .60 respectively.

Psychological maturity. Psychological maturity was operationalized by analyzing the participants' answers to the open-ended question: "Please take a moment to think about a favorite or especially important memory from your days at [college]. It is important for this question that you think about a specific event—not a broad period or phase in life—that stands out as an especially good or meaningful experience." Participants were then instructed to describe the who, what, where, and when of the event as well as why or how it was or is meaningful. We based our analysis on Lahey, Souvaine, Kegan, Goodman, and Felix (1988/2011) guide to the subject-object interview (SOI), which the authors were experienced in. The SOI is a method developed to assess the different meaning-making systems outlined in Kegan's theory of adult development (Kegan, 1982, 1994). As the name of the measure suggests, the SOI distinguishes what the person's able to take as object and reflect upon and what one is subject to and unable to reflect upon.

In the present study, we tested whether the SOI protocol to measure for stages of development applies to the measurement of narratives that are elicited from simpler prompts than that of the SOI. The SOI includes prompts to describe situations that involve ten different experiences (e.g., angry, sad, success, importance to self) as well as semi-structured prompts that the interviewer uses to get the interviewee to elaborate. This is of course a time- and resource-intensive method. Instead, we used prompt to elicit a personally meaningful memory, in written (rather than vocal) form, with no prompts other than the original question. We treated the SOI like other narrative coding protocols that are used with memories of discrete, personally significant events in life (e.g., Adler et al., 2017). Thus, the present narratives were shorter than typical for SOI research.

To employ the SOI protocol, the written narratives had to be of sufficient length to glimpse the meaning-making process of the person and describe why the given event was a highpoint for them. This meant that those who did not provide an answer to this question, or

their answers were too brief (e.g. "when I met my wife" as the entire response), were excluded from our study. Examples of narratives and how they were scored are presented in the supplemental material. To establish inter-rater reliability, we randomly selected 99 of the 219 narratives to be coded by two researchers. Their inter-rater reliability, using intraclass correlation, was .85. In those instances where there were differences in scores (n = 12), the scores of the author who was certified as a 'reliable scorer' was recorded, as were the rest of the narratives, according to the gold standard or master coder system (Syed and Nelson (2015).

Even though the subject-object analysis was not developed for our purposes, we argue that our narratives were eligible for such analysis, as long as we preface the scores to reflect the narrative and not necessarily a reflection of the person's full meaning-making system. Although Kegan's developmental theory describes three separate meaning-making systems most prevalent in the adult population (socialized, self-authoring and self-transforming mind), our analysis found only socialized and self-authoring narratives. Thus, for all analyses to follow, the psychological maturity variable was a dichotomous variable with scores indicating either a socialized or a self-authoring narrative. It was not surprising that the narratives could be scored as either socialized or self-authoring for two reasons. First the narratives were relatively short and not conducive to long descriptions demonstrating a very complex meaning-making system, which the self-transforming mind is. Second, individuals who have developed the meaning-making system of the self-transforming mind are 'far and few between' (Kegan & Lahey, 2009).

Results

Gender did not emerge as significantly related to any of our main study variables. Table 2 shows how the narratives were scored across the two age groups. The narratives were quite evenly scored as either socialized or self-authoring, with a few more socialized (55 %)

than self-authoring (45 %) narratives. No association was found between psychological maturity and age group X^2 (2, N = 223) = 1.06, p = .59.

Table 2

Scoring of narratives for psychological maturity

Age group	Psychological maturity		Total
	Socialized mind	Self-authoring mind	
Younger (<60)	86 (70 %, 54 %)	73 (72 %, 46 %)	159 (71 %)
Older (=>60)	36 (30 %, 56 %)	28 (28 %, 44 %)	64 (29 %)
Total	122 (55 %)	101 (45 %)	223

Note. The percentages in the parentheses are representing proportions of psychological maturity and age group respectively

Correlations

The zero-order correlation between key variables in this study are presented in table 3. All variables correlated significantly with SWB. Chronological age correlated significantly with several of the variables as well, but it was not related to the personality factor extraversion, or growth motivation. Psychological maturity was not related to any of the other study variables apart from SWB. Setting up hypothesis 1, the proposed personality traits of extraversion and neuroticism, authenticity, meaningfulness in life, and experiential growth motivation correlated with SWB.

Table 3
Zero-order correlations between variables (N = 220)

	1	2	3	4	5	6	7	8
1. SWB	-							
2. Age (years)	.22**	-						
3. Psychological maturity	.19**	-.06						
4. Neuroticism	-.49***	-.33***	-.07					
5. Extraversion	.31***	.06	-.02	-.02				
6. Authenticity	.51***	.30***	.04	-.43***	.26***			
7. Presence of meaning	.57***	.31***	.07	-34***	.31***	.52***		
8. Experiential growth motivation	.56***	.12	.05	-.26***	.33***	.49***	.52***	

Note. $* p < .05$, $** p < .01$, $*** p < .001$. Psychological maturity = 0 represents socialized mind while 1 represents self-authoring mind.

Regressions

Table 4 presents a hierarchical multiple regression of SWB on predicted variables. In support of Hypothesis 1, psychological maturity continued to predict well-being, even when controlling for age group, big-five traits of neuroticism and extraversion, authenticity, meaningfulness in life, and experiential growth motivation (model 4). Notably, age did not remain a significant predictor of SWB when controlling for personality (model 3), while authenticity did not contribute significantly when it was entered in model 4.

To test Hypothesis 2 that age group moderated the relation between psychological maturity and SWB we entered the interaction term of age group x psychological maturity in model 5. This interaction term was significant and accounted for additional variance ($\Delta R^2 = 0.01$, $\Delta F = 4.05$, $p = .047$). In this final model, psychological maturity still accounted for significant variance of SWB, while age groups ability to predict SWB come close to significance ($p = .075$).

Table 4

Results of the multiple regression analysis for SWB

Model		b	SE$_b$	β	F	R^2	ΔR^2 change	95 % CI	VIF	p
1	Age group	.22	.08	.18	7.16**	.03		[.06-.39]	1.000	.008
2	Age group	.23	.08	.18	7.77**	.07	.04	[.07-.39]	1.000	.006
	Psychological maturity	.21	.07	.19				[.07-.36]	1.000	.005
3	Age group	.10	.07	.08	31.35***	.37	.30	[-.04-.24]	1.042	.160
	Psychological maturity	.19	.06	.16				[.06-.31]	1.005	.003
	Neuroticism	-.20	.02	-.46				[-.25- -.15]	1.045	.000
	Extraversion	.10	.02	.30				[.07-.14]	1.002	.000
4	Age group	.04	.06	.03	36.60***	.54	.17	[-.01-.30]	1.073	.548
	Psychological maturity	.16	.05	.14				[-.08-.15]	1.008	.003
	Neuroticism	-.12	.02	-.28				[.06-.27]	1.313	.000
	Extraversion	.04	.02	.12				[-.17- -.08]	1.193	.020
	Authenticity	.06	.04	.09				[-.02-.14]	1.686	.141
	Presence of meaning	.12	.03	.23				[.06-.18]	1.691	.000
	Experiential growth motivation	.20	.04	.28				[.12-.28]	1.571	.000
5	Age group	.14	.08	.11	32.986***	.55	.01	[-.01-.30]	1.917	.075
	Psychological maturity	.23	.06	.20				[.11-.36]	1.435	.000
	Neuroticism	-.12	.02	-.26				[-.16- -.07]	1.355	.000
	Extraversion	.04	.02	.11				[.01-.07]	1.197	.026
	Authenticity	.06	.04	.09				[-.02-.14]	1.686	.134

Presence of meaning	.13	.03	.24		[.06-.19]	1.704	.000
Experiential growth motivation	.20	.04	.29		.[12-.28]	1.574	.000
Age group x Psychological maturity	-.24	.12	-.14		[-.47- -.01]	2.270	.045

Dependent variable: SWB, ** p < .01 *** p < .001, Age group = 0 represents those under 60 years old, while 1 represents 60 years or older. Psychological maturity = 0 represents socialized mind while 1 represents self-authoring mind.

To explore the significant interaction effect, we plotted the relation between psychological maturity in narratives and SWB for the old and young age group. As shown in figure 1, psychological maturity was only positively related to SWB for those who were in the young age group (b =.23, t(211) = 3.66, p < .001) and not for those in old age (b = -.01, t (211) = -.08, p = .94). Thus, those in the young age group who had provided a narrative that was scored as self-authoring (more mature) had higher SWB than those who had narratives that were scored as socialized (less mature), while there was no difference in SWB scores for those with socialized or self-authoring narrative in the older age group.
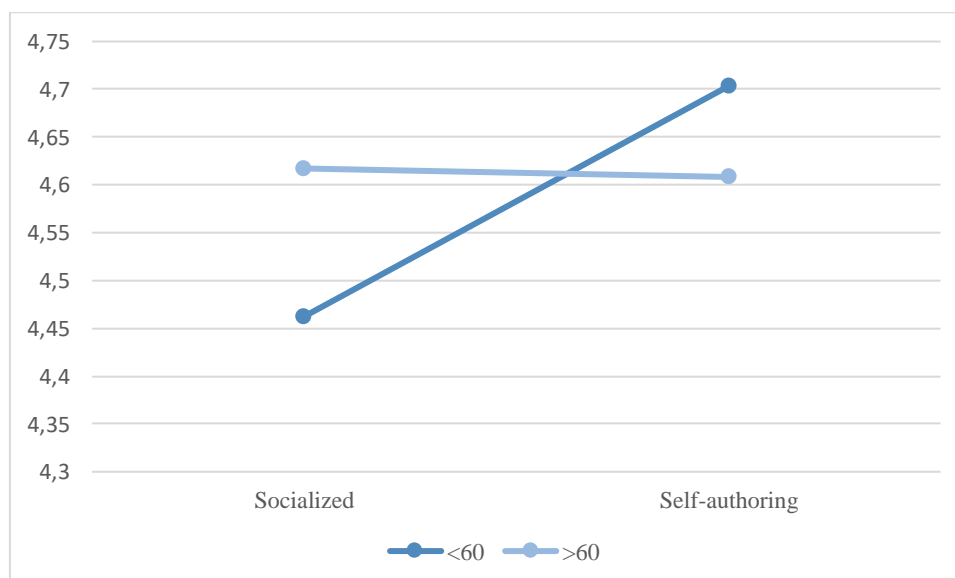

Figure 1. Moderation of the relation between socialized and self-authoring narratives by age group

We also explored if the moderating effect of age on the relation between psychological maturity and SWB was different with age as a continuous predictor. The result of the regression indicated a significant overall model with similar variance explained ($R^2 = .55$, $F(8,210) = 31.69$, $p < .001$) In this model, the interaction term did not emerge as significant and did not account for any additional variance ($\Delta R^2 = 0.005$, $\Delta F = 2.41$, $p = .12$). The other notable difference in models with using age as a continuous predictor was that the coefficient of psychological maturity was higher ($b = .39$, $t(210) = 2.49$, $p = .014$) compared to the model with age as a dichotomous predictor.

Discussion

This study aimed to investigate the relation between psychological maturity, other eudaimonic personality factors, age group, and SWB. First, we hypothesized that psychological maturity was related to well-being. Second, we hypothesized that this relation was moderated by age, such that level of psychological maturity would significantly predicting SWB for those individuals who were in old age group. We found support for the first hypothesis but only partial support for the second. As for the second hypothesis, psychological maturity did moderate the relation between age and well-being, but not as we expected. Maturity predicted well-being only for the younger mid-life adults, not older adults, whereas we had predicted the reverse, that maturity would predict well-being for the older adults.

Maturity and Well-Being

Our results indicate that the kind of narrative maturity that we studied—Kegan's self-authoring mind compared to socialized mind—is a significant predictor of SWB. Despite the fact that some theories of psychological maturity (notably Loevinger's theory of ego development) as well as empirical research have suggested that maturity and well-being are

not related (Bauer & McAdams, 2004; Bauer et al., 2015; Duffy, Ruegger, Tiegreen, & Kurtz, 2017). However, recently Fossas (2018) found a curvilinear relation between the present measure of maturity (Kegan's) and SWB, with SWB peaking at the maturity level of self-authoring mind.

Kegan's (1982) approach to maturity combines Piagetian complexity of thinking with Eriksonian concern for human welfare (of both the self and others). The structural complexity of thinking itself is theoretically orthogonal to content-focused concerns for humanistic versus materialistic/egoistic concerns (Bauer et al., 2019). Furthermore, Kalliris (2017) argues from a philosophical perspective that accounts of self-authorship are essential for a person's well-being. Here, self-authorship is understood as the "autonomous shaping of one's own life" and includes both a freedom from external interference as well as a positive freedom with a presence of options that one is free to choose (Arvanitis & Kalliris, 2017). To be able to assess and make decisions regarding the available options, Kalliris (2017) argues it requires the necessary mental capacities, and these capacities need only to be moderately developed. Kalliris is not explicit in what the criterion for such a mental capacity should be, but briefly refers to adulthood as a requirement for this capacity. This contrast with Kegan's theory on self-authorship as a capacity, which might be required in adulthood, that considerable proportion of the adult population have not yet developed the capacity for (Kegan, 1994). Our finding lends support for Kegan's argument, with about half of the narratives scored as socialized, while the other half were scored as self-authoring (see similar findings with ego development; e.g., Cohn, 1998).

Following Kegan's (1994) analysis that the modern western society requires or demands, to larger extent, the capacity to be self-authoring, it is reasonable that this capacity emerged as a significant predictor of well-being in our findings. In addition, with our study conducted in the US, a culture that is widely considered individualistic (Hofstede, 2001) and

emphasizing autonomy and independence (Lu, 2008), the significance of self-authorship for SWB is reasonable. However, a positive relation between autonomy and SWB have been found in cross-cultural studies as well (Inglehart, Foa, Peterson, & Welzel, 2008; Ng, 2015; Ng & Diener, 2014; Ngamaba, 2017; Welzel & Inglehart, 2010).

Several theorists have proposed that the highest level of maturity may correspond to higher well-being (e.g., Loevinger, 1976; Maslow, 1968). Bauer, Schwab, and McAdams (2011) found that those who scored at the two highest stages in Loevinger's (1976) ego development theory had higher levels of well-being compared to the lower stages. Bauer et al. (2011) emphasize that even though they found significant differences in well-being, their findings should be interpreted with caution, as few of their participants scored at the highest stages. We note that the most mature narratives in our study was those who could be scored as self-authoring, which is less mature than the highest stages in Kegan's, Loevinger's, and others' theories. As was expected we did not score any of the narratives in our study as self-transforming (which corresponds to Loevinger's autonomous and integrated stages), so it is impossible to know if this same trend would hold here as well. However, Fossas (2018) study could indicate that this might not be the case, where the self-transforming mind was associated with lower scores on SWB than for the self-authoring mind.

Maturity and Well-being, Controlling for Traits and Motives

For Kalliris (2017), self-authorship is considered parallel to autonomy, and while he argues that it is an essential aspect of a person's well-being, he also points out that it is not "all there is to living well" (Kalliris, 2017, p. 32). This is also evident in our finding that psychological maturity was just one of several significant predictors of SWB. This confirmed our first hypothesis that other well-known predictors would emerge as significant predictors of SWB. The personality traits extraversion and neuroticism were significant predictors in our regression model, with neuroticism being a moderate negative predictor, while extraversion

was a minor positive predictor of SWB. This is in line with previous findings that these are the two strongest predictors of SWB (Steel et al., 2008). In a recent attempt exploring personality factors and autonomy's predictive ability of SWB, Olesen, Thomsen, and O'Toole (2015) found that autonomy was a stronger predictor of SWB than extraversion, while neuroticism was the strongest predictor. Although we had a different measure than Olesen et al. (2015), self-authorship as it is conceptualized by Kegan entails the emergence of autonomy (Fossas, 2018), we observed the same trend in our results. That is, in our final model self-authoring narratives was also a stronger predictor than extraversion.

As for the eudaimonic measures of in our final regression model, authenticity was not a significant predictor of SWB. Whereas authenticity's significant bivariate correlation with SWB is consonant with previous research (Ariza-Montes, Giorgi, Leal-Rodríguez, & Ramírez-Sobrino, 2017; Robinson, Lopez, Ramos, & Nartova-Bochaver, 2013), we found that this relation no longer held when controlling for other variables in our model. The other eudaimonic predictors, experiential growth motivation and presence of meaning in life, held their relations to SWB (Bauer et al., 2015; Steger et al., 2006; Steger et al., 2011). Notably, these factors and psychological maturity were independent of each other in predicting SWB.

These findings support the notion that psychological maturity is relatively unique among eudaimonic predictors of SWB. That is, with self-authorship representing a capacity to generate an independent sense of who you are, what you believe and who you want to spend time with, it has similarities with authenticity. Like psychological maturity, the intrapersonal view of authenticity is concerned with the self, however we see differences in how the construction of self is viewed in the different theories. For example, one can have the experience of knowing oneself (one characteristic of authenticity), even if the self is primarily constructed by and dependent of others (characteristic of the socialized mind), or if the self is constructed independent of others (characteristic of self-authoring mind). Similarly, it is

arguably possible to live according to one's values (another characteristic of authenticity), independent of whether these values are dependent or independent of others.

Furthermore, the narrative method itself likely played a role in the independence of psychological maturity in predicting SWB: Whereas the other measures involved self-report scales, the maturity measure involved personal narratives, in which the individuals were asked to think about an actual, lived event that was especially important in their lives. Context-rich meaning-making is part of the reason that narrative measures exhibit consistently strong incremental validity among other measures of personhood and well-being (Adler, Lodi-Smith, Philippe, & Houle, 2016).

Age, Maturity, and Well-Being

Although age and SWB had a significant positive correlation, age did not emerge as a significant predictor of SWB when controlling for personality and eudaimonic factors. It is important to note that our regression models included a dichotomous age predictor (over/under 60 years old), and therefore could be argued as too rough of a predictor to discover any relation between the two phenomena. However, in a separate regression analysis with continuous-level chronological age as the predictor, we found the same non-significant relation between age and SWB when controlling for psychological factors like traits and motives.

However, age did play an interactive role in the relation between maturity and SWB. Maturity moderated the relation between age group and SWB, as predicted. However, we had proposed that level of psychological maturity was especially important for the older age groups' SWB, but the results indicated that it was only important for the younger age group. We were surprised by this finding as we argued that the period of old age could include an extra demand for the capacity of self-authorship, and not having developed such capacity could have the potential of being "in over their heads." The rationale here was that if your

daily life consistently requires a more mature form of meaning-making than one typically exhibits, then one's well-being will suffer. However, our findings are less surprising if we look to Kegan's (1994) examination of the demands from modern society on psychological maturity. Here Kegan focused almost exclusively on the period of adulthood, encompassing the younger age group in our study, and went into detail on how modern society demands the capacity to be self-authoring in adulthood. The period of old age was not given much attention in this book, but Kegan (1998) has since suggested that the demand for a self-authoring mind also extends to the period of old age. It is the mismatch between demand and capacity of psychological maturity than can have negative effects on well-being, and we argued above that in adulthood the environment could compensate for the lack of having developed the capacity for self-authorship. However, it might well be that the environment in adulthood contributes to the experience of being in over their heads. For example, adulthood seems more likely to include experiences of conflicts in what significant others and society expect from you in the role as a student, partner, parent, and worker. Such competing expectations might be difficult to resolve with a socialized mind as it entails being embedded in the values and expectations of others (Helsing & Howell, 2014), rather than having an independent self that can mediate the conflict, which is a characteristic of the self-authoring mind. If the period of old age has fewer social norms and expectations (Freund et al., 2009), it could mean that there are fewer experiences that demand a self-authoring mind and therefore fewer experiences of being in over one's head. In other words, based on our findings, level of maturity could be considered a buffer for young adults' SWB but not for that of older adults.

Furthermore, older adult may also have developed successful strategies for maintaining well-being that are unrelated to the psychological maturity dimension that we measured in our study. One example of successful strategy is found in the socioemotional selectivity theory (Carstensen, Isaacowitz & Charles, 1999; Carstensen, Fung, & Charles,

2003). According to this theory as on grows older the time horizon tend to be limited and ones goals therefore to shift towards those that can be "realized in the present and which tend to focus on savoring, emotional meaning, and satisfaction" (Carstensen & DeLiema, 2018, pp. 7-8). This motivational shift has been one way to explain how increasing age is associated with better emotional balance (Steptoe, Deaton & Stone, 2015), with fewer experiences of negative and more positive emotions (Löckenhoff & Carstensen, 2004). Younger adults' relative lack in such capacities may put them, compared to older adults, more in a position of being "in over their heads."

Socioemotional selectivity theory (Carstensen et al., 1999) is consonant with narrative identity theory (McAdams & McLean, 2013), particularly with regard to psychological maturity, age, and well-being (Pasupathi, 2001). Older adults narrate their lives with heightened degrees of "autobiographical reasoning," which is a constellation of narrative meaning-making processes that features the integration of emotion-laden interpretations of important life events with one's broader understanding of self (Pasupathi & Mansour, 2006). Measures of mature meaning-making in personal narratives have been shown to mediate the relation between measures of age and well-being, notably demonstrating incremental well-being beyond self-reported traits and motives (Bauer et al., 2005; King, Scollon, Ramsey, & Williams, 2000; Lilgendahl & McAdams, 2011; for a review of incremental validity, see Adler et al., 2016). One reason that narrative measures predict well-being either better than or independently of self-report measures is that narrative reflect implicit, appraisals of personal motives and characteristics as they manifest in the context of people's lived events, rather than such appraisals in abstract, explicit, decontextualized self-reports.

On a methodological note, our study involved a novel approach to assess psychological maturity in large quantitative studies. We employed the SOI protocol to analyze shorter descriptions of participants reflecting on a significant highpoint in their life. Although

the process of analysis is laborious and require detailed knowledge of Kegan's developmental theory, with good inter-rater reliability, we see the inclusion of this dimension is such large-scale studies as promising. However, further investigations and scrutiny is needed.

Limitation of our study

First, we had a correlational, cross-sectional design, which means that we are unable to make either causal or longitudinal inferences from our findings. At most we can say that psychological maturity is associated with SWB even when controlling for other eudaimonic constructs and big-five traits. Furthermore, we cannot claim to have studied or found "age effects," as our findings may reflect generational differences. Future studies should therefore employ longitudinal design to investigate this link. Second, our findings are limited to a Western, Educated, Industrialized, Rich and Democratic (WEIRD) populations. Further, our sample consisted exclusively of US college graduates, which makes generalizing the results to a larger population difficult. It is possible that the relation between psychological maturity and SWB could be moderated by culture and that a different relation could be found within a more collectivistic sample; however, Halvorson (2016) did find a positive relation between maturity and well-being in a more collectivistic sample as well. Replications of our study with random and cross-cultural sample would fare stronger in generalizing the results to the general population. Third, in consideration of survey length we used a brief measure of personality with only two items per higher order traits. Even though the Ten-Item Personality Inventory has demonstrated adequate psychometric properties (Gosling et al., 2003), a more comprehensive measure of the big 5 could have provided more reliable results. Fourth, although our analysis of the narratives demonstrated good inter-rater reliability, some nuance of the original SOI protocol was lost when having a single narrative, compared to interview data which garners several detailed descriptions (through continuing probing of the persons meaning making). This means that our measure of psychological maturity should be

interpreted with caution and not seen as representing the complete picture of the persons level of maturity. Fifth, even though the measure was reliable, this does not give any indication about the measure's construct validity. As the study we selected our sample from (SALT) was not designed with the purpose of validating our process of scoring narratives with Kegan's measure, we were not able to include relevant additional measure to establish its validity. That said, two coders were able to establish inter-rater reliability using the coding protocol.

Conclusion

In this study, psychological maturity, assessed by scoring written narratives according the developmental theory of Robert Kegan, was a significant predictor of a SWB, even when controlling for other well-known predictors. In addition, this maturity moderated the relation between age group and SWB, such that level of maturity was related to SWB for younger and mid-life but not older adults. As this is a novel finding, we suggest that further research is necessary. Our employment of the SOI protocol to shorter narratives showed promise for using Kegan's measure of maturity with a wider range of personal narratives, particularly given the time-intensive nature of the SOI.

Appendix

Table 5 gives examples of participants' narratives of important experience(es), whether they were scored as socialized or self-authoring mind, and the reasoning behind the score.

Table 5

Examples of participants' narratives of important experience(es), whether they were scored as socialized or self-authoring mind, and the reasoning behind the score.

Narrative	Description of an important experience from their periods at college	Psychological maturity score	Reasoning for why it was scored one way or another
1	I had several professors in the education department who were very encouraging. At one point during my student teaching career, a professor pointed out how well I was doing, and how a lot of the examples he used in other classes came from what I was doing in my experiences. This made me feel very capable, successful, and supported	Socialized	The experience of being successful and capable is defined by the teacher's evaluation of whether he/she is capable.
2	I decided to pledge one of the local sororities […]. My roommate and I decided to pledge due to our knowledge	Self-authoring	This excerpt describes the discovery or developmental capacity for self-authorship. Through the negative

of a couple of seniors in the group. After two weeks, I realized that this was not for me. There were two events that helped me see that I didn't need this to have friends. The first occurred in the common area when we were talking with some of the sisters, who then needed to sign our book that we had spent time talking to them. I spent almost fifteen minutes with one senior and we had what I felt was a nice conversation with some good sharing. When I asked her to sign my book, she said no, I hadn't "earned' her signature yet. Just shortly after that we were told that we needed to bring our homecoming date to the sorority house prior to the dance and they would "approve" of our choice and that we could only go to the

experience of needing validation from sorority she identifies this as a pivotal point for her now self-authoring self. "I value myself" not being dependent of others to know who she is. Her use of "approved" in quotes suggests a sense of autonomy and a mocking of the forces that limit autonomy. Can take relationships as object, i.e. she can reflect and examine what kind of relationships *she wants*.

dance with others from the
sorority. I had a very good
friend who was not pledging
and with whom we were
planning to double date. At
that point I decided that I
didn't need to be humiliated or
treated poorly in order to fit in
and have friends. This was a
pivotal point in my life as I
realized that I valued myself
much more than to be treated
badly in order to fit it. This
helped me with my self-
confidence and built my sense
of independence. I think it was
an event during my freshman
year that set a tone for me that
I continue to the this day -
feeling good about being
independent, treating everyone
with respect and not feeling
the need to "conform" in order
to have good friends and
relationships.

| 3 | Before deciding about housing for our senior year, my group of friends had to decide on who would be in which house. We split ourselves up in the best way we could decide. From there, we each picked roommates. I wanted to room with Katie [names changed to protect confidentiality], and out of worry that Katie may have other plans, I confided in another friend, Karen, about my hopes. Karen assured me that Katie would probably love to room with me. After feeling a bit anxious about things, Karen's reassurance prompted me to be roommates with Katie. This came about after years of friendship, time that I spent as an RA living without a roommate, to the deadlines for on-campus housing. It was great to be assured that Katie | Socialized | Is subject to the other person's perspective on who he/she is. Anxious of Katie not liking her, assured by Karen. Her value in that relationship is defined by others, and they are held responsible for her feelings (e.g., to "assure" her of their friendship). Appears intertwined with others without being able to view them as separate autonomous entities. Also, the person knows that this is an important event, but does not hazard a guess at what it says about her. |

would want to be my roommate, because I cherished her friendship, and was so happy to hear that she felt the same. After spending our final year as roommates, we grew quite close, and in the past 5 years were living in the same city, enjoying more of life's adventures. I'm sure things would be extremely different if we hadn't shared a room at UD. I'm not sure what this says about me as a person. There are so many wonderful memories from UD, I simply picked one that seemed simple and specific enough.

| 4 | At our house on [centrally located street] senior year, we would often have several of our friends over before going out for the night. I remember one night toward the end of the year, we had the usual group | Self-authoring | The person holds somewhat contradicting feelings with both missing this carefree period as well as it informs her on aspects that she has determined herself to be important for her (having |

of 4 or 5 girls over and we blasted our favorite songs on the living room stereo, jumping up and down shouting the lyrics. I jumped so hard on the couch I actually broke the middle cushion (which was hilarious to us all at the time). It was just so fun and carefree. We were all seniors and had plans for graduation in a few weeks. I formed some really meaningful friendships that year and I have a picture of that night which reminds me how great that year was with those girls. Thinking about it now, I miss that carefree feeling that I had at that time. With the responsibility that comes after graduation, I can no longer spend my nights like I did then, but thinking about that reminds me it's important

good friends and letting loose). The person contextualizes the time as youthful, indicating to the reader that they know the difference between what was funny then versus now.

	to have good friends and let loose every once in awhile!		
5	I introduced my girlfriend from home to my room mates, friends and fraternity brothers during a visit she mead to [university]. I was proud to be with such a special woman and all of my friends were envious of me. She visited me at [university] to attend a formal year end banquet /dance sponsored by my fraternity and she got to watch me play football for [university]. We had been dating for about a year, I was a senior at [university] and this was the first opportunity she had to visit me at school. I married this special woman [decades] ago and we had navigated the trials and tribulations of life together since then. That was a very special weekend and we	Socialized	The experience seems valued for how it gave him/her responses from others (positive), one way he/she knows she is a special woman is that others like her (envious of him). Proud to be with her because it says something about him/her? A self-authoring narrative would be less contingent on others evaluation of his/her girlfriend.

have supported each other through life.

| 6 | 1. When I arrived on campus in [year] drinking age for 3.2 beer was 18. Party with beer on campus in front of old bookstore […]. Great feeling! (Now: I guess that was a natural feeling after having come from a 21 year old state—[…]. It is ironic that the temporary [religious place] is now at the old bookstore. I attended [religious service] there several weeks ago. I find it part of God's humor!) 2. Finding out when I went to [my dorm] as a Freshman that I had an accent--never knew we had one in [home city]! [still find it gratifying!] 3. Moving into the [student neighborhood] with 6 other guys from [home city]--one of the greatest events of my life. | Self-authoring | This story charts the narrator's development of his self-authoring way of thinking. The person reflects on why these episodes were important. The concerns are not with others liking him or other forms of social status, but more about the intrinsic value of the experiences themselves as well as becoming who he is. The self is defined and relies on internal authority. |

[still treasure that time and still

stay in touch with several old

roomates] 4. Discovering that I

wanted to be a teacher instead

of a medical doctor [Perhaps it

was just being away from

home or perhaps the

environment and classes at

[this university], but my

greatest discovery!]

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Appendix 1

Confirmation of Research clearance from NSD

Lars Bauger
Institutt for helsefag Høgskolen i Telemark
Postboks 203
3901 PORSGRUNN

Vår dato: 28.10.2013	Vår ref: 35948 / 2 / LB	Deres dato:	Deres ref:

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 17.10.2013. Meldingen gjelder prosjektet:

35948	*The experiences of psychological well-being when transitioning from working life through retirement, and are these experiences differently according to where the individuals are at developmental continuum?*
Behandlingsansvarlig	*Høgskolen i Telemark, ved institusjonens øverste leder*
Daglig ansvarlig	*Lars Bauger*

Personvernombudet har vurdert prosjektet og finner at behandlingen av personopplysninger er meldepliktig i henhold til personopplysningsloven § 31. Behandlingen tilfredsstiller kravene i personopplysningsloven.

Personvernombudets vurdering forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeskjemaet, korrespondanse med ombudet, ombudets kommentarer samt personopplysningsloven og helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema, http://www.nsd.uib.no/personvern/meldeplikt/skjema.html. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, http://pvo.nsd.no/prosjekt.

Personvernombudet vil ved prosjektets avslutning, 31.12.2016, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Vigdis Namtvedt Kvalheim

Lene Christine M. Brandt

Kontaktperson: Lene Christine M. Brandt tlf: 55 58 89 26
Vedlegg: Prosjektvurdering

Dokumentet er elektronisk produsert og godkjent ved NSDs rutiner for elektronisk godkjenning.

Avdelingskontorer / *District Offices*:
OSLO: NSD. Universitetet i Oslo, Postboks 1055 Blindern, 0316 Oslo. Tel: +47-22 85 52 11. nsd@uio.no
TRONDHEIM: NSD. Norges teknisk-naturvitenskapelige universitet, 7491 Trondheim. Tel: +47-73 59 19 07. kyrre.svarva@svt.ntnu.no
TROMSØ: NSD. SVF, Universitetet i Tromsø, 9037 Tromsø. Tel: +47-77 64 43 36. nsdmaa@sv.uit.no

Personvernombudet for forskning

Prosjektvurdering - Kommentar

Utvalget rekrutterer seg selv ved å kontakte forsker etter annonsering i lokalavis. Eventuelt vil i tillegg informanter som allerede har meldt sin interesse, videreformidle kontakten/informasjonen om prosjektet på vegne av forsker, til andre potensielt interesserte.

Ifølge prosjektmeldingen skal det innhentes skriftlig samtykke basert på muntlig og skriftlig informasjon om prosjektet og behandling av personopplysninger. Personvernombudet finner informasjonsskrivet tilfredsstillende utformet i henhold til personopplysningslovens vilkår.

Personvernombudet legger til grunn at veileder og student setter seg inn i og etterfølger Høgskolen i Telemark sine interne rutiner for datasikkerhet, spesielt med tanke på bruk av mobiltelefon til oppbevaring av personidentifiserende data. Vi anbefaler at koblingsnøkkelen oppbevares separat fra det øvrige datamaterialet. Vi anbefaler videre at man i stedet for nettsky vurderer andre lagringsformer for backup. Dersom nettsky benyttes, skal det inngås skriftlig databehandleravtale med leverandøren av nettskytjenesten, iht. personopplysningsloven § 15.

Dersom et eksternt transkriberingsfirma benyttes, forutsetter personvernombudet at det foreligger en databehandleravtale mellom transkriberingsfirmaet og Høgskolen i Telemark, jf. personopplysningsloven § 15. For råd om hva databehandleravtalen bør inneholde, se Datatilsynets veileder på denne siden: <http://www.datatilsynet.no/verktoy-skjema/Skjema-maler/Databehandleravtale---mal/>

Prosjektet skal avsluttes 31.12.2016 og innsamlede opplysninger skal da anonymiseres og lydopptak slettes. Anonymisering innebærer at direkte personidentifiserende opplysninger som navn/koblingsnøkkel slettes, og at indirekte personidentifiserende opplysninger (sammenstilling av bakgrunnsopplysninger som f.eks. tidligere yrke, alder, kjønn) fjernes eller grovkategoriseres slik at ingen enkeltpersoner kan gjenkjennes i materialet.

Appendix 2

Decision from Regional Committees for Medical and Health Research Ethics (REK)

Region:	Saksbehandler:	Telefon:		Vår dato:	Vår referanse:
REK sør-øst	Jørgen Hardang	22845516		11.10.2013	2013/1540/REK sør-øst A
				Deres dato:	**Deres referanse:**
				27.08.2013	

Vår referanse må oppgis ved alle henvendelser

Lars Bauger

Høgskolen i Telemark

2013/1540 Psykisk velvære blant nylige pensjonerte

Vi viser til søknad om forhåndsgodkjenning av ovennevnte forskningsprosjekt. Søknaden ble behandlet av Regional komité for medisinsk og helsefaglig forskningsetikk (REK sør-øst) i møtet 19.09.2013. Vurderingen er gjort med hjemmel i helseforskningsloven § 10, jf. forskningsetikklovens § 4.

Prosjektleder: Lars Bauger
Forskningsansvarlig: Høgskolen i Telemark

I dette prosjektet vil man undersøke «hvordan nylig pensjonerte eldre tenker om seg selv og sin egen hverdag, samt deres erfaringer med velvære i pensjonisttilværelsen». 40 deltakere skal inkluderes. Data skal innhentes ved intervju.

Forskning på oppfatninger, tanker og erfaringer i den sammenhengen det er beskrevet i dette prosjektet faller utenfor helseforskningslovens virkeområde. Formålet er ikke relatert til diagnose eller behandling av sykdom. Prosjektet kan gjennomføres uten godkjenning av REK innenfor de ordninger som gjelder for taushetsplikt og personvern. Det er de involverte institusjonene som har ansvaret for at prosjektet blir gjennomført på en forsvarlig måte.

Vedtak
Prosjektet faller utenfor helseforskningslovens virkeområde, jf. § 2, og kan derfor gjennomføres uten godkjenning av REK.

Komiteens vedtak kan påklages til Den nasjonale forskningsetiske komité for medisin og helsefag, jfr. helseforskningsloven § 10, 3 ledd og forvaltningsloven § 28. En eventuell klage sendes til REK Sørøst A. Klagefristen er tre uker fra mottak av dette brevet, jfr. forvaltningsloven § 29.

Med vennlig hilsen

Knut Engedal
Professor
Leder

Jørgen Hardang
Komitésekretær

Besøksadresse:	**Telefon:** 22845511	All post og e-post som inngår i	Kindly address all mail and e-mails to
Gullhaugveien 1-3, 0484 Oslo	**E-post:** post@helseforskning.etikkom.no	saksbehandlingen, bes adressert til REK	the Regional Ethics Committee, REK
	Web: http://helseforskning.etikkom.no/	sør-øst og ikke til enkelte personer	sør-øst, not to individual staff

Appendix 3

Participant information and informed consent form (qualitative study)

Forespørsel om deltakelse i forskningsstudien

«Overgangen fra arbeidslivet til pensjonisttilværelsen: Trivsel og velvære som pensjonist»

Bakgrunn og hensikt

Dette er et spørsmål til deg om å delta i en forskningsstudie. Du blir spurt om å delta i denne studien fordi du er en person som vi ønsker å snakke med om hvordan det er å bli pensjonist. Fokus i studien er hvordan du som nylig pensjonert tenker om deg selv og hva som gir deg glede i hverdagen.

Hensikten med studien er at jeg skal få en bedre forståelse av hvordan det er å bli pensjonist og jeg er derfor ute etter de som har erfaring med dette. Antall pensjonister i Norge er økende, men det er fortsatt en gruppe som det forskes lite på, noe som gjelder spesielt de nylig pensjonerte. Jeg ønsker å fokusere på de positive tingene og jeg vil derfor vite mer om hva pensjonister opplever som meningsfullt. Ved å delta i denne undersøkelsen vil du kunne bidra til en økt forståelse av hvordan det oppleves å pensjoneres. En slik kunnskap kan forhåpentligvis være nyttig i fremtidige pensjonister sin forberedelse til den nye hverdagen.

Hva innebærer studien?

I gjennomføringen av studien ønsker vi å intervjue personer som nylig har pensjonert seg.

Undersøkelsen vår er delt i to. I første del av undersøkelsen vil du gjennomføre et intervju som tar mellom 1-1,5 time, hvor fokus er å forstå hva og hvordan du tenker om deg selv. Dette intervjuet vil foregå som en samtale, hvor jeg kun er interessert i å forstå hvordan du tenker. Her er det er du som er i fokus og det finnes derfor ingen rette eller gale svar. Intervjuet vil forgå der det passer for deg. Dette kan bety hjemme hos deg eller her på Høgskolen i Telemark. Hvis det passer best for deg å gjennomføre intervjuet i ditt hjem så er det fint hvis vi kan prate uforstyrret i 1-1,5 time. Informasjonen fra dette intervjuet vil bidra til en vitenskapelig artikkel som skal omhandle måten som nylig pensjonerte tenker om seg selv og verden rundt seg.

I andre del av undersøkelsen vil vi velge ut personer med forskjellige måter å tenke på, basert på det første intervjuet. Dette kan bety at ikke alle som deltok

på første intervju vil bli spurt om å være med på intervju to. Intervju to vil fokusere på dine erfaringer med trivsel og velvære som pensjonist. Her vil vi du bli spurt om å beskrive disse erfaringene/opplevelsene, mens jeg vil komme med relevante spørsmål for å forstå bedre dine beskrivelser. På samme måte som i første intervjuet er det deg å dine beskrivelser som er i fokus, og det finnes ingen rette eller gale svar. Omfanget på dette intervjuet vil også være på 1-1,5 time, og kan foregå der det passer best for deg. Informasjon fra dette intervjuet vil bli sett i lys av det første intervjuet og bidrar til to vitenskapelige artikler.

Jeg som gjennomfører studien heter Lars Bauger. Jeg har en mastergrad i psykologi fra Universitetet i Tromsø, og jeg jobber med min doktorgrad ved Høgskolen i Telemark og ved Universitetet i Agder. Det å ta en doktorgrad innebærer en utdanning i forskningsprosessen og dens krav, samt å gjennomføre en vitenskapelig studie. Det vil være denne studien om trivsel og velvære som pensjonist, som er grunnlaget for min doktorgrad. Mine veiledere på studien er Rob Bongaardt, Sigrun Hvalvik og Bjørg Dale, som alle er erfarne forskere. Disse vil veilede og følge opp meg i alle faser av studien.

Hva skjer med informasjonen som gis i intervjuene?
Intervjuene vil bli tatt opp på lydbånd, og skrevet ut. Lydbånd og utskrift vil bli oppbevart i låsbart skap, der kun forsker har tilgang. Lydbånd og informasjon som kan knyttes til den enkelte vil bli slettet senest innen utgangen av 2016, da prosjektet avsluttes.

Alle som bidrar i undersøkelsen, både del en og to, vil bli tilbudt en tilbakemelding på sitt eget intervju og hvordan det vil bli brukt videre. Dersom du ikke skulle være en av de som blir med på del to av undersøkelsen vil du bli kontaktet etter at det første intervjuet er ferdig analysert, med informasjon om hva dette betyr og hvordan dette kan tolkes for deg.

Dine intervjuer vil kun være tilgjengelig for forskere tilknyttet dette prosjektet, dvs. meg og mine veiledere. Informasjonen som blir innhentet vil bli avidentifisert. Det vil si at intervjuene vil bli kodet med et tall, og kun de som gjennomfører studien vil ha tilgang til forbindelsen mellom navn og kode. Din informasjon vil bli behandlet strengt konfidensielt. Når resultatene av studien skal presenteres, i hovedsak gjennom vitenskapelige artikler, så vil alle personopplysninger bli anonymisert, og det vil ikke være mulig å knytte deg til prosjektet. Prosjektet i sin helhet forventes å være avsluttet høsten 2016, og da vil alle dine personopplysninger bli slettet.

Frivillig deltagelse
Det er frivillig å delta i studien. Du kan når som helst og uten å oppgi grunn trekke deg fra studien. Dersom du ønsker å delta, undertegner du

samtykkeerklæringen på det første intervjuet. Dersom du senere ønsker å trekke deg, kan du kontakte Lars Bauger.

Har du ellers spørsmål i forhold til denne undersøkelsen, eller ønsker å bli informert om resultatene når undersøkelsen er ferdig, kan du kontakte stipendiat Lars Bauger
Telefon: 35 57 54 49
e-post: lars.bauger@hit.no

<u>Studien er godkjent av</u> **Norsk samfunnsvitenskapelig datatjeneste (NSD)**

Samtykke til deltakelse i studien:

Jeg har lest informasjonsskrivet og jeg er villig til å delta i studien

----
(signert av studiedeltaker, dato)

Jeg bekrefter å ha gitt informasjon om studien

(signert, navn forsker, dato)

Appendix 4

Interview guide (Qualitative study)

Intervju: velvære etter pensjonering

Kan du (så detaljert som mulig) beskrive en situasjon etter du pensjonerte deg hvor du erfarte en følelse av velvære/velbehag? (Kanskje det var en situasjon hvor du kjente på en følelse og ha det bra/godt?

Fenomenet må følges, be om ytterligere beskrivelser av erfaringen? Kan du beskrive nærmere

- Den fysiske verden rundt deg
- Hvordan du erfarte din egen kropp i situasjonen
- Relasjonen til andre (var det noen andre i situasjonen)
- Hvordan plasseres dette i en tidsperiode? Eller når skjedde det

Snakker deltakeren om hvordan Hun/Han var tilstede i situasjonen? La de snakke videre. Hvis ikke, styr oppmerksomheten tilbake på erfaringer med fenomenet.

Still spørsmål som kan konkretisere eller gi mer detaljer til beskrivelsen

Appendix 5

The Study of Adult Life and Transitions (SALT study) - The measures used in Paper 3

Informed Consent Statement

Informed Consent to Participate in a Research Project

Project Title:	The University of Dayton Alumni Study (UDAS)
Investigator(s):	Jack Bauer, PhD; R. Matt Montoya, PhD; Erin O'Mara, PhD; Lucas Keefer, PhD; Catherine Lutz-Zois, PhD, Lee Dixon, PhD (faculty sponsors)
Description of Study:	The purpose of this survey is to research personality and adult development. You will be asked demographic questions about yourself (e.g., age, gender, ethnicity), then provided with a series of questionnaires asking about your personality traits, your current mental health, your personal goals and aspirations, your current perceptions of your time at UD, your thoughts about the university, and your current personal relationships (including information about your partner, if any, and your sexual orientation).
Adverse Effects and Risks:	You will be asked for information about yourself or your relationships that you may find uncomfortable or upsetting. If at any point you wish to leave questions blank or terminate your participation in the study, you may exercise your right to do so. Your name will not be associated in any way with the research findings. If you are distressed by the study, you can contact a national crisis and suicide prevention hotline at 1-800-273-8255 or chat with a volunteer counselor at www.crisischat.org.
Duration of Study:	The survey will take approximately 40 minutes to complete.
Confidentiality of Data:	Your name will not be revealed in any document resulting from this study and any responses you provide today will remain strictly confidential. It is possible, however, with internet communications, that through intent or accident someone other than the intended recipient may see your responses. However, participants may become uniquely identified based on a combination of their responses to the demographic questions. If you are uncomfortable answering any of the demographic questions, or any other questions, for this reason, or any other reason, please skip those questions.
Contact Person:	Participants may contact Lucas Keefer (lkeefer1@udayton.edu). If you have questions about your rights as a research participant you may also contact the chair of the University of Dayton Institutional Review Board, Mary Connolly, PhD, (937) 229-3493, MConnolly1@udayton.edu.

Consent to
Participate:

I have voluntarily decided to participate in this study. The investigator named above has adequately answered any and all questions I have about this study, the procedures involved, and my participation. I also understand that I may voluntarily terminate my participation in this study at any time and still be eligible for the drawing. I also understand that the investigator named above may terminate my participation in this study if s/he feels this to be in my best interest. In addition, I certify that I am 18 (eighteen) years of age or older.

Check the box if you have read this statement and agree to your rights as a

participant: ☐

The University of Dayton supports researchers' academic freedom to study topics of their choice. The topic and/or content of each study are those of the principal investigator(s) and do not necessarily represent the mission or positions of the University of Dayton.

Unique Identifier Items

Personal Information Survey:

Please enter your name:

What is the e-mail address you use most frequently?

What is your mailing address?

What is a phone number that we could use to contact you for future studies?

To uniquely identify your data on this and future studies, we would like to assign you a number that is specific to you. In order for us to generate this number, please provide the following information:

Month of birth: [drop-down menu]

The day of the month of birth: [drop-down menu]

The last four digits of your Social Security Number: _____

Main Survey

On this page, we are asking for your identity only to help us identify your responses for future studies. All data to be analyzed will remove the information from this page completely to ensure that your responses are anonymous and never associated with you specifically.

Please enter your name:

To uniquely identify your data on this and future studies, we would like to assign you a number that is specific to you. In order for us to generate this number, please provide the following information:

Month of birth: [drop-down menu]

The day of the month of birth: [drop-down menu]

The last four digits of your Social Security Number: _____

Demographic Items

Instructions: The initial questions of this survey are designed to give us a better idea of who you are. If you feel uncomfortable answering any of these questions, please skip them.

What is your age? _____

In which city/state/country do you currently reside? City:_____
State:_____ Country:_____

Would you describe that region as primarily: Urban / Suburban / Rural

How would you describe your gender? Male / Female / Other

How would you describe your relationship status?
Single / Married / One committed partner / Divorced / Widowed / Dating multiple partners / Engaged

Do you have any children?   Yes / No

If so, how many children do you have and what are their ages: _____

What degrees have you earned, either from UD or another institution? For each degree, please list the year you earned it. _____

What was your major at UD? _____

Using a scale from 0 to 10 where 0 means "the worst possible financial situation" and 10 means "the best possible financial situation," how would you rate your financial situation these days?

0	1	2	3	4	5	6	7	8	9	10
Worst										Best

Which best describes your current household income annually?

1	2	3	4	5	6	7	8
Less than $15,000	$15,001 - $25,000	$25,001 - $35,000	$35,000 - $50,000	$50,001 - $75,001	$75,001 - $100,000	$100,001 - $150,000	Greater than $150,000

In which industry are you primarily employed?

Accounting	Athletics	Chemicals and allied products
Advertising	At home	
Art/Entertainment	Banking	Civil service
Agriculture	Business	Communications/Media

Telecommunications
Information technology
Construction trades
Consultant
Counseling services
Dental
Education – teacher
Education – graduate
student
Education – professor
Engineering
Renewable energy
Full-time parent
Gas and oil industries

Government
Health professions
Hotel/Restaurant
Insurance
Investments/Brokerages
Labor Union
Legal/Judicial
Manufacturing/Industrial
Marketing
Medical/Medical Science
Military
Non-Profit Organization
Publishing
Real Estate

Religious
Retail
Sales
Science
Security
Self-Employment
Services – Professional
Social Services
Transportation
Utilities
Veterinary Medicine
Volunteer

1. With which religious group do you identify most?

Christian:
    Catholic
    Baptist
    Methodist
    Lutheran
    Presbyterian
    Non-denominational
    Episcopal
    Christian - Other

Jewish
Muslim
Hindu
Buddhist
Atheist
Agnostic
Other

2. Do you consider yourself an evangelical or born-again Christian? Yes / No

Scale of Positive and Negative Experience

Please think about what you have been doing and experiencing during the past four weeks. Then report how much you experienced each of the following feelings, using the scale below. For each item, select a number from 1 to 5, and indicate that number on the spaces below.

1	2	3	4	5
Very Rarely or Never	Rarely	Sometimes	Often	Very often or Always

_____ 1. Positive

_____ 2. Negative

_____ 3. Good

_____ 4. Bad

_____ 5. Pleasant

_____ 6. Unpleasant

_____ 7. Happy

_____ 8. Sad

_____ 9. Afraid

_____ 10. Joyful

_____ 11. Angry

_____ 12. Contented

Satisfaction with Work Life, Romantic Relationships, Life in General

Below are 15 statements that you may agree or disagree with. Using the 5-point scale below, indicate your agreement with each item.

1	2	3	4	5
Definitely Disagree		Neutral		Definitely Agree

Work Life:

_____ 1. In most ways my work life is close to my ideal.

_____ 2. The conditions of my work life are excellent.

_____ 3. I am satisfied with my work life.

_____ 4. So far I have gotten the important things I want in my work life.

_____ 5. If I could live my work life over, I would change almost nothing.

Romantic:

_____ 6. In most ways my romantic relationships are close to my ideal.

_____ 7. The conditions of my romantic relationships are excellent.

_____ 8. I am satisfied with my romantic relationships.

_____ 9. So far I have gotten the important things I want in my romantic relationships.

_____ 10. If I could do my romantic relationships over, I would change almost nothing.

Life in General:

_____ 11. In most ways my life is close to my ideal.

_____ 12. The conditions of my life are excellent.

_____ 13. I am satisfied with my life.

_____ 14. So far I have gotten the important things I want in life.

_____ 15. If I could live my life over, I would change almost nothing.

Meaning in Life Questionnaire

Please take a moment to think about what makes your life feel important to you. Please respond to the following statements as truthfully and accurately as you can, and also please remember that these are very subjective questions and that there are no right or wrong answers. Please answer according to the scale below:

Absolutely Untrue	Mostly Untrue	Somewhat Untrue	Can't Say True or False	Somewhat True	Mostly True	Absolutely True
1	2	3	4	5	6	7

_____ 1. I understand my life's meaning.

_____ 2. I am looking for something that makes my life feel meaningful.

_____ 3. I am always looking to find my life's purpose.

_____ 4. My life has a clear sense of purpose.

_____ 5. I have a good sense of what makes my life meaningful.

_____ 6. I have discovered a satisfying life purpose.

_____ 7. I am always searching for something that makes my life feel significant.

_____ 8. I am seeking a purpose or mission for my life.

_____ 9. My life has no clear purpose.

_____ 10. I am searching for meaning in my life.

Ten-Item Personality Inventory-(TIPI)

Here are a number of personality traits that may or may not apply to you. Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly
1	2	3	4	5	6	7

I see myself as:
1. _____ Extraverted, enthusiastic.
2. _____ Critical, quarrelsome.
3. _____ Dependable, self-disciplined.
4. _____ Anxious, easily upset.
5. _____ Open to new experiences, complex.
6. _____ Reserved, quiet.
7. _____ Sympathetic, warm.
8. _____ Disorganized, careless.
9. _____ Calm, emotionally stable.
10. ___ _Conventional, uncreative.

Narrative of UD Memory

Favorite UD Memory

Please take a moment to think about a favorite or especially important memory from your days at the University of Dayton. It is important for this question that you think about a specific event—not a broad period or phase in life—that stands out as an especially good or meaningful experience.

Please describe this event in detail, and be sure to consider things like:
• What happened, when and where, and who was involved? (Please use a non-identifying name to protect the anonymity of anyone involved.)
• What were you thinking and feeling at the time? Why was this particular moment so good?
• How did the event come about? What might have led up to it?
• What effect has that event on your life since then?
• What do you think about this event now? Does this event say anything about you as a person (either then or now) or about who you have become?

[text box]

Authenticity Scale

Please rate the degree to which you agree with the following statements

1	2	3	4	5	6	7
Does not describe me at all						Describes me very well

_____ 1. "I think it is better to be yourself, than to be popular."

_____ 2. "I don't know how I really feel inside."

_____ 3. "I am strongly influenced by the opinions of others."

_____ 4. "I usually do what other people tell me to do."

_____ 5. "I always feel I need to do what others expect me to do."

_____ 6. "Other people influence me greatly."

_____ 7. "I feel as if I don't know myself very well."

_____ 8. "I always stand by what I believe in."

_____ 9. "I am true to myself in most situations."

_____ 10. "I feel out of touch with the 'real me.'"

_____ 11. "I live in accordance with my values and beliefs."

_____ 12. "I feel alienated from myself."

Growth Motivation Index

Please rate how often you do the following things on a scale of 1 to 7. Please consider each item individually.

1	2	3	4	5	6	7
Never			Periodically			Always

_____ 1. I try to do things that I find personally enjoyable, interesting, or engaging.

_____ 2. I love the projects or work that I do.

_____ 3. The important activities in my life are often activities that involve the people I love.

_____ 4. I make sure to spend time with people who are dear to me.

_____ 5. I actively seek new conceptual or philosophical perspectives from which to think

about life, even if they mean I've been wrong all along.

_____ 6. I ask people what they think about various social issues (on topics like politics,

religion, culture, economics, lifestyles) in order to understand divergent points of view and to

develop my ability to think about life.

_____ 7. I choose new projects or activities based on whether I can develop intellectually from

them.

_____ 8. I consciously think about my relation to society and culture and history, so that I

might better contribute to them.

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Debriefing Page
Information about the University of Dayton Alumni Study

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Objective:
Research in psychology shows that some aspects of personality are relatively stable, such as how shy or outgoing someone is. However, other aspects change over time as people mature or experience certain positive (e.g., accomplishing personal goals) or negative (e.g., divorce) events. Psychologists have only recently begun exploring when personality changes and what consequences these changes have for individuals and their relationships. The goal of this survey is to begin following UD alumni over time in order to gain new insights into a number of aspects of personality and development.

This project is a collaboration of several faculty at the University of Dayton and different parts of the survey explored different research questions. To give you a sense of these themes, one researcher, Dr. Bauer, is interested in the ways that personal motivations influence the long-term course of personality development. Dr. O'Mara is interested how people's perceptions of themselves can influence their short- and long-term well-being. Dr. Keefer is interested in the ways people might cope with insecurities about their close relationships. As you can see, there were many different topics and research questions contained in today's study.

If you have questions about the survey, or you are interested in its results, please contact one of the researchers (contact information is provided below).

Benefits: By participating in today's study, you contribute to a richer understanding of how individuals change over time and the consequences of these changes. This kind of information is important for social scientists and for practitioners working to ensure that individuals live healthy, fulfilling lives.

Assurance of Privacy:
Your responses will be kept completely confidential and your responses will only be identified in future studies by your unique participant number. Your name will not be revealed in any document resulting from this study and all data reported will be averaged across all other participants. You still have the right to withdraw from the study if you would like. We would destroy any data associated with you or your responses immediately. If you would like to do that, please contact Dr. Lucas Keefer (lkeefer1@udayton.edu).

Please note:
- If you have any questions please do not hesitate to contact any of the individuals listed in the next section.
- For further information about this area of research, you may consult the references cited on this page.
- If you are distressed by the study, you can contact a national crisis and suicide prevention hotline at 1-800-273-8255 or chat with a volunteer counselor at www.crisischat.org.

Contact Information:

Participants may contact *Dr. Jack Bauer (jbauer1@udayton.edu), Dr. Matt Montoya (rmontoya1@udayton.edu), Dr. Erin O'Mara (eomara1@udayton.edu), Dr. Lucas Keefer (lkeefer1@udayton.edu or (937)-229-2634), Dr. Catherine Lutz-Zois (czois1@udayton.edu), or Dr. Lee Dixon (lee.dixon@udayton.edu) i*f you have questions about the study or its findings. If you have questions about your rights as a research participant you may also contact the chair of the University of Dayton Institutional Review Board, Mary Connolly, PhD, (937) 229-3493, MConnolly1@udayton.edu.

Disclaimer:

The University of Dayton supports researchers' academic freedom to study topics of their choice. The topic and/or content of each study are those of the principal investigator(s) and do not necessarily represent the mission or positions of the University of Dayton.