

## A Lifespan Perspective on Subjective Well-Being

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### Abstract:

This chapter provides a lifespan perspective on subjective well-being. First, evidence for stability and change in subjective well-being across the lifespan is considered with attention to both set-point theory and evidence regarding whether life events and choices can alter individuals' well-being in the long-term. Next, the chapter describes mean levels of cognitive and affective components of well-being and considers predictors and consequences of well-being at different points in the lifespan, including gender, culture and country, and socioeconomic factors that are important for the understanding of well-being. The chapter then summarizes aspects of cognitive and social development that affect subjective well-being from infancy to childhood, adolescence, early adulthood, middle adulthood, and late adulthood. Finally, the chapter suggests directions for future research.

**Keywords: Infancy, Childhood, Adolescence, Adulthood, Lifespan, Subjective Well-Being**

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Subjective well-being is often conceptualized as encompassing meaning and purpose in life; life satisfaction; and feelings of happiness, sadness, and other positive and negative emotions (Kahneman, Diener, & Schwarz, 1999). Together, these components capture both cognitive and affective aspects of well-being (Diener, Lucas, & Scollon, 2006). This chapter begins with an overview of evidence for stability and change in subjective well-being across the lifespan and then describes mean levels of different aspects of well-being during specific life stages. The chapter then summarizes predictors and consequences of well-being that are applicable across the lifespan as well as specific to particular developmental stages and attends to gender, country or culture, and socioeconomic status, which are important considerations in the study of well-being. Next, the chapter traces the development of well-being from infancy through early childhood, middle childhood, adolescence, early adulthood, and middle adulthood to late adulthood, with a particular focus on factors related to cognitive and social development in each life stage that have implications for subjective well-being. The chapter concludes by suggesting directions for future research.

## Stability and Change in Subjective Well-Being across the Lifespan

Theory and empirical research suggest evidence for both stability and change in subjective well-being across the lifespan (Sheldon & Lucas, 2014). Stability is promoted by heritability and personality correlates such as neuroticism and extraversion, which have been found to be stable over long developmental periods, especially after age 30 (McCrae & Costa, 1994, but see Roberts, Walton, & Viechtbauer, 2006, for an alternative perspective). Furthermore, individuals' environments are also largely stable over time, promoting stability in well-being as well. Change can be brought about by environmental stressors or welcome events (Clark, Diener, Georgellis, & Lucas, 2008) in addition to choices about one's life goals and priorities, time spent working and in leisure, healthy lifestyle, social participation, religion, and intimate partners (Headey, Muffels, & Wagner, 2010).

On the one hand, set-point theories of well-being suggest that because of genetic (Lykken & Tellegen, 1996) and personality predispositional (Headey & Wearing, 1992) factors, subjective well-being is stable over the long term. There is some evidence for homeostatic adaptation, meaning that because of

genetically programmed dispositions for a set level of happiness, individuals tend to bounce back to this preset level, even after major positive or negative life events (Cummins, 2010). Although transitory factors as minor as the weather might influence individuals' reports of subjective well-being (Schwarz & Strack, 1999, but see Lucas & Lawless, 2013, for evidence to the contrary with respect to reports of life satisfaction), well-being is influenced by temperament and personality in addition to life circumstances. In studies that have compared the stability of well-being in individuals going through major life changes such as divorce or widowhood (e.g., Costa, McCrae, & Zonderman, 1987) or increases or decreases in income (Diener, Sandvik, Seidlitz, & Diener, 1993), changes in well-being have been brought about temporarily by major life events but then return to a baseline level after a brief adjustment period. Stability characterizes reports of positive and negative affect in addition to life satisfaction and is found even when different people report on a target individual's affect at different time points (Costa & McCrae, 1988).

On the other hand, subjective well-being is less stable than personality over time (Fujita & Diener, 2005). In a 17-year longitudinal study, 24% of respondents experienced a significant change in life satisfaction from the first five years to the last five years of the study (Fujita & Diener, 2005). Even after several years, individuals do not always bounce back following major life events such as widowhood (Lucas, Clark, Georgellis, & Diener, 2003) and unemployment (Lucas, Clark, Georgellis, & Diener, 2004). Individuals may also differ in the extent to which they return to set points of well-being after positive or negative life events. For example, marriage increased the life satisfaction of a subgroup of individuals over the long-term but decreased the life satisfaction of a different subgroup of individuals over the long-term; attending just to population averages may falsely inflate the apparent stability of life satisfaction because individual differences would be masked (Lucas et al., 2003). In a longitudinal study of a nationally representative sample of German adults assessed annually from 1984 to 2008, personal and economic choices were related to long-term changes in life satisfaction, contradicting set-point theory (Headey et al., 2010).

Life satisfaction may be less stable than positive and negative affect over time to the extent that the former relies on cognitive evaluations of one's present circumstances, whereas affect may be more strongly related to personality traits such as neuroticism and extraversion. Support for the differential stability of these different aspects of well-being was found in a meta-analysis of longitudinal studies that examined both cognitive and affective well-being in relation to eight family and work related life events (marriage, divorce, bereavement, child birth, unemployment, reemployment, retirement, and relocation/migration; Luhmann, Hofmann, Eid, & Lucas, 2012). Affective well-being generally returned more quickly to baseline than did cognitive well-being, although the magnitude of the change and rate of adaptation depended on the specific event. Furthermore, there was more variability in the effects of life events on affective well-being than cognitive well-being (Luhmann et al., 2012), perhaps because affective well-being is more strongly related to personality, social support, coping strategies, and emotional regulation that may affect how individuals adapt to life events (Diener et al., 2006).

## **Mean Levels of Well-Being at Different Ages**

In comparisons of well-being at different ages, a frequently described pattern is characterized by a U-shaped curve in which well-being is higher earlier and later in the lifespan than during mid-life, a pattern that holds for life satisfaction as well as positive emotions and lack of negative emotions (Stone, Schwartz, Broderick, & Deaton, 2010). The Gallup World Poll conducted in over 160 countries, however, suggests that this pattern is most common in high-income countries, with the nadir of well-being in the range of 45 to 54 years. By contrast, in sub-Saharan Africa, few mean differences in well-being are found at different ages, and in Latin America and Eastern Europe, well-being decreases progressively with age (Stephens, Deaton, & Stone, 2015). Different components of well-being also show somewhat different patterns with age. For example, anger and stress decrease after early adulthood, and worry decreases after middle adulthood, so by later adulthood negative affect is low (Stone et al., 2010).

Mean level changes with age are not inconsistent with demonstrations of stability in well-being over the lifespan. Stability and change can come in different forms. For example, rank-order consistency refers to how individuals in a group compare to one another over time, whereas mean-level change refers to whether individuals, on average, increase or decrease on a particular dimension over time (Roberts et al., 2006). Thus, even if there are developmental patterns whereby adults during mid-life, on average, have lower well-being than they do at earlier or later points in the lifespan, the happiest children may remain the happiest teenagers and the happiest adults, reflecting rank-order consistency as well as normative developmental change. Test-retest stabilities in global self-reported well-being are approximately  $r = .70$ ,  $.60$ ,  $.50$ , and  $.35$  over 1-, 2-, 5-, and 10-year intervals with a lower-bound of approximately  $.20$  to  $.35$  over longer intervals (Anusic & Schimmack, 2016; Schimmack & Oishi, 2005). Average changes in mean levels

of well-being with age, of course, do not necessarily reflect the experience of everyone in the group. For example, although negative affect decreased from adolescence to early adulthood for most individuals, a subgroup increased in negative affect (Roberts, Caspi, & Moffitt, 2001).

## Predictors of Well-Being

Many predictors of well-being are consistent across the lifespan. For example, material deprivation, living in a dangerous neighborhood, and interpersonal violence are related to lower subjective well-being, whereas supportive family relationships and friendships are related to better subjective well-being for children and adults alike (e.g., Currie et al., 2012; Siedlecki, Salthouse, Oishi, & Jeswani, 2014). In representative samples from 155 countries, having social relationships, having a sense of purpose, feeling pride, and being treated with respect predict well-being consistently from early to late adulthood (Morrison, Jebb, Tay, & Diener, 2017). For children, living in a higher-income (and safer) neighborhood is related to more opportunities to play outside (Carver, Timperio, & Crawford, 2008), access to positive adult role models (Galster, 2014), and freedom from the chronic stressors associated with crime and violence (Finkelhor, Turner, Shattuck, Hamby, & Kracke, 2015), all of which contribute to indicators of better well-being in both the short- and long-term. In a randomized housing mobility study, low-income adults who were randomly assigned to move from a low-income to a higher-income neighborhood showed improvements in subjective well-being 10-15 years following the move, even though the move did not affect personal economic self-sufficiency (Ludwig et al., 2012).

Other predictors of well-being are more salient at specific points in the lifespan. For example, being bullied is a more common experience during childhood and adolescence than during adulthood and, therefore, a more salient contributor to lower well-being earlier in life (Olweus & Breivik, 2014), although bullying in the workplace does occur during adulthood, predicting worse well-being for adults as well (Verkuil, Atasayi, & Molendijk, 2015). By contrast, romantic partnerships do not become developmentally normative until adolescence, at which point experiences in romantic partnerships begin predicting well-being (Collins, 2003). Having a job is a more important predictor of well-being in middle adulthood than in early or later adulthood (Morrison et al., 2017). Generativity (An, Cooney, & An, 2006) and wisdom (Ardelt, 2016) are important contributors to subjective well-being during later life. The link between behaving prosocially and subjective well-being strengthens from early to late adulthood (Morrison et al., 2017). Thus, predictors of well-being are sometimes tied to temporally proximal, developmentally salient experiences.

However, some experiences continue to predict well-being even years later. For example, physical, emotional, and sexual abuse during childhood have long-lasting detrimental effects on subsequent development (e.g., Draper et al., 2008). Adults who were abused as children are at greater risk for depression, anxiety, and other psychiatric disorders; have higher suicide rates; and report being less satisfied with their lives than do adults who did not experience childhood abuse (e.g., Fergusson, McLeod, & Horwood, 2013). Other adverse childhood experiences such as exposure to substance abuse in the home or having a mentally ill or incarcerated family member also can have long-term detrimental effects on well-being that persist into adulthood (Nurius, Green, Logan-Greene, & Borja, 2015). By contrast, warm, sensitive, responsive caregivers promote secure attachment relationships with their children, which can have protective effects throughout childhood, adolescence, and into adulthood (Schoenmaker et al., 2015). Social connections during adolescence are better predictors of well-being in adulthood than are academic achievements (Olsson, McGee, Nada-Raja, & Williams, 2013). The extent to which specific life events are related to long-term changes in subjective well-being depends on the event in question. For example, individuals adapt more quickly to marriage (Lucas et al., 2003) than to divorce (Lucas, 2005) or unemployment (Lucas et al., 2004).

In addition to life experiences, one's own choices can have long-term effects on well-being. Headey et al. (2010) identified several types of choices and preferences that are related to long-term changes in life satisfaction. Marriage to a partner low in neuroticism improves well-being over time, above and beyond an individual's own low neuroticism (Headey et al., 2010). Placing relatively greater emphasis on altruistic goals (helping other people and being involved in social and political activities) and family goals (having good relationships with one's spouse and children) over goals related to material success and one's own career predicts increases in life satisfaction over time, whereas prioritizing goals related to career and material success predicts decreases (Headey et al., 2010). For women, having a partner who prioritizes family goals also contributes to an increase in life satisfaction over time (Headey et al., 2010). Long-term increases in life satisfaction also are predicted by regular church attendance, working the desired number of hours per week rather than being over- or under-worked (with being under-worked having worse consequences than being over-worked), social participation with friends, and regular exercise (Headey et

al., 2010).

## **Consequences of Well-Being**

Well-being is an important outcome in its own right. In surveys of what adults desire for their children's futures, happiness is highly ranked across diverse countries (Diener & Lucas, 2004). The importance of subjective well-being has been recognized by governments around the world and has been added as an indicator of how nations are faring, along with more traditional measures of gross domestic product, infant mortality, and the like (Helliwell, Layard, & Sachs, 2017). Happiness is now regarded as an indicator of social progress at a national level, in addition to a desired outcome at an individual level.

Subjective well-being is also related to several other desired outcomes. Individuals higher in subjective well-being maintain better physical health and even live longer than individuals lower in subjective well-being (Diener & Chan, 2011; Diener, Pressman, Hunter, & Chase, 2017). In addition, better subjective well-being is related longitudinally to better outcomes in several domains such as higher educational achievement, better performance at work, and less work-family conflict (De Neve, Diener, Tay, & Xuereb, 2013; Matthews, Wayne, & Ford, 2014; Suldo, Gormley, DuPaul, & Anderson-Butcher, 2014). Associations between subjective well-being and other aspects of adjustment are bidirectional and transactional over time. For example, well-being in one year predicts more community participation in the next year, and more community participation in one year predicts better well-being in the next year, controlling for continuity in both well-being and community engagement as well as potential confounds (Ding, Berry, & O'Brien, 2015). Taken together, previous research supports the conclusion that better well-being predicts future adjustment in other areas, even after controlling for prior adjustment in those areas.

Several studies have investigated mechanisms through which well-being could affect other outcomes. For example, in the education domain, brain imaging studies have demonstrated that positive emotions are related to more effective cognitive processing (Hinton, Miyamoto, & Della-Chiesa, 2008), which promotes success in school. Positive emotions also are related to more critical and flexible thinking, which helps students handle academic challenges (Fredrickson, 2001). Negative emotions such as anxiety and depression, by contrast, interfere with memory and efficiency of learning (see Valiente, Swanson, & Eisenberg, 2012). The "Broaden and Build" theory (Fredrickson, 2001) suggests that positive emotions promote academic success by encouraging exploratory, broadening thoughts, whereas negative emotions narrow students' focus, making them less engaged in school (Reschly, Huebner, Appleton, & Antaramian, 2008).

Taken together, extant findings suggest that consequences of well-being are tied to developmentally salient outcomes at particular points in the lifespan. For example, links between well-being and academic achievement are more salient during childhood and adolescence, whereas links between well-being and less work-family conflict are more salient during adulthood. Because early development sets the stage for later development, consequences of well-being during early childhood may be especially important for setting in motion developmental cascades predicting future well-being and positive outcomes in other domains (Masten & Cicchetti, 2010). Indeed, prevention science has demonstrated greater returns on investments made in early childhood than in later childhood or subsequent developmental periods (Heckman, 2006).

## **Sociodemographic Considerations in Relation to Subjective Well-Being across the Lifespan**

### **Gender**

In the adult literature, common findings are that women report higher life satisfaction than men but also more negative affect, including anxiety and depression (Senik, 2015; for a detailed discussion of gender differences in subjective well-being, see Batz & Tay chapter in this volume). Gender differences appear more pronounced at some points in the lifespan than others. Prior to adolescence, boys and girls have similar levels of well-being, but with the onset of puberty, gender differences begin to emerge, especially marked by increases in anxiety and depression for girls (Hankin & Abramson, 2001). Gender differences in well-being also have been reported in late adulthood. A meta-analysis of 300 studies found that in later life, women reported lower life satisfaction and happiness than men; the magnitude of the effects was small, accounting for less than 1% of the variance, but remained significant after controlling for widowhood, socioeconomic status, and physical health (Pinquart & Sörensen, 2001). Biological factors may account for some of the documented gender differences, but environmental factors such as gender equality at a societal level also play a role (e.g., Meisenberg & Woodley, 2015).

## **Culture or Country**

International research has demonstrated that countries differ in their average level of subjective well-being and that subjective well-being is related to country-level factors such as individualism, equality, human rights, and income (Diener, Diener, & Diener, 1995). According to surveys conducted in 135 countries in 2013, countries in Latin America fare the best, and countries in sub-Saharan Africa fare the worst on a number of indicators of subjective well-being (Standish & Witters, 2014). Some of these differences have been attributed to cultural factors such as focusing on the positives in life in Latin America, and others may result from dire living situations involving civil war and extreme poverty (Standish & Witters, 2014).

Using data from representative samples of over 1.2 million adults in 155 countries, life satisfaction and negative affect were found to be slightly higher whereas positive affect was slightly lower in older than younger age groups (Morrison et al., 2017). However, there were regional differences. Compared to older adults in regions with negative attitudes toward aging, older adults in East and Southeast Asia, where older adults are more respected, showed levels of well-being more comparable to those of younger adults.

Indicators of subjective well-being have become an important part of assessing how countries are faring with respect to a wide range of factors that historically included primarily economic and physical health considerations (Helliwell et al., 2017). Historically, assessments of well-being at a national level were based on external observations (e.g., poverty, material deprivation), but individuals who are poor can still be happy. Asking individuals to report on their own well-being provides a different perspective that may or may not align with external indicators. Assessing the subjective well-being of children and adolescents has become a way to give young people a voice and promote their participation rights (Martorano, Natali, De Neubourg, & Bradshaw, 2013).

## **Socioeconomic Status**

Poverty and severe economic deprivation are related to low subjective well-being (Howell & Howell, 2008). There has been debate regarding whether there is a certain level of financial security beyond which additional economic resources do not predict further increases in well-being (see Stevenson & Wolfers, 2013). At a national level, after gross domestic product per capita exceeds \$10,000, some research has reported that no additional increases in life satisfaction are found (Layard, 2005). For a family with an annual income of \$10,000, an additional \$10,000 would constitute a doubling of the family's financial resources for the year and have more substantial benefits in terms of being able to provide food security and pay for basic necessities, whereas a family with an annual income of \$100,000 may also enjoy an additional \$10,000, but this amount represents a smaller percent increase and would likely be used for more discretionary purposes rather than basic necessities. However, other research has not found a satiation point beyond which subjective well-being ceases to improve with further increases in income (Stevenson & Wolfers, 2013). As individuals' income rises, so do their expectations and reference points (Wolbring, Keuschnigg, & Negele, 2013). On a day-to-day basis, higher income is associated with more anger, hostility, anxiety, and tension, but not with happiness (Schnall, Schwartz, Landsbergis, Warren, & Pickering, 1998), perhaps in part because higher income is related to spending more time at work and in compulsory non-work activities that are related to tension and stress, but not with time in leisure activities that are related to happiness (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2006). The relation between income and well-being is stronger for cognitive (life satisfaction) than for emotional (happiness) measures of well-being (Howell & Howell, 2008).

# **Subjective Well-Being during Different Life Stages**

## **Infancy**

Underlying positivity or negativity may be expressed in similar or different ways at different ages. During infancy, negativity is generally reflected in descriptions of fussy or difficult temperaments, whereas positivity is reflected in descriptions of easy temperaments (Bates, Schermerhorn, & Petersen, 2014). Temperamental differences during infancy can persist into adulthood (Schwartz, Wright, Shin, Kagan, & Rauch, 2003). In the first year of life, infants do not yet have internal representations of mental states that are the foundation of cognitive aspects of subjective well-being (e.g., judgments regarding life satisfaction; Siegler, 2017). However, infants experience positive affect, as expressed through smiles, laughter, and positive vocalizations such as cooing, as well as negative affect as expressed through crying and fussing. Social smiles that begin in response to someone else's smile emerge between the age of four to eight weeks, and laughs begin by three to four months, increasing in frequency when interacting with familiar people by about six months (Gerber, Wilks, & Erdie-Lalena, 2010).

At this young age, caregivers play a more central role in emotion regulation than will be the case

later in development. Sensitive caregivers will anticipate infants' needs to promote positive affect and will respond quickly to reduce negative affect. Through these interactions with caregivers, infants develop internal working models of relationships that set the stage for future interpersonal interactions (Bretherton & Munholland, 2008). Infants who have sensitive, responsive caregivers come to expect that their needs will be met by others and regard the world as a caring and reliable place; being securely attached to caregivers during infancy then predicts the development of more trusting social relationships in later developmental periods, including through late adulthood (Consedine & Magai, 2006). In contrast, infants whose emotional needs are not met by caregivers develop internal working models of relationships characterized by distrust, foreshadowing problems in future social relationships and decreasing well-being (Bretherton & Munholland, 2008).

### **Childhood**

Cognitive developments during early childhood lead to the emergence of more sophisticated forms of subjective well-being as children become increasingly able to understand their own and other people's mental states. Theory of mind, which refers to the understanding that other people have thoughts and beliefs that can differ from one's own, typically emerges between the ages of three and four years. Although the development of theory of mind has advantages in terms of promoting children's perspective taking and ability to show empathy and provide support to others, the development of theory of mind is also associated with a decrease in self-esteem (Chaplin & Norton, 2015). Between early and middle childhood, children become increasingly self-critical as they develop a more nuanced perspective on their own strengths and weaknesses relative to other people (Markus & Nurius, 1984).

During middle childhood, self-concept, self-esteem, self-efficacy, and self-worth emerge as increasingly important constructs (Harter, 2012), all of which are related to subjective well-being. These developing conceptions of the self all relate to cognitive aspects of well-being as children become more reflective and able to evaluate how they regard themselves and their lives. Play also has an important role in subjective well-being during childhood. Pretend play characterized by more emotion has been found to predict more subsequent life satisfaction and positive affect in real life, perhaps because through pretend play children are able to practice expressing and regulating emotions and coping flexibly (Fiorelli & Russ, 2012).

Beyond these cognitive and emotional developments, children who have positive relationships with family members and peers are also more satisfied with their lives and happier. As in infancy, parent-child relationships are among the most important predictors of well-being during childhood (Khaleque & Rohner, 2002). Dyadic friendships as well as acceptance (as opposed to rejection) by larger peer groups are important sources of fun and positive affect (e.g., Holder & Coleman, 2015). Thus, social relationships during childhood are directly associated with well-being because they provide opportunities for moment-to-moment enjoyment and positive affect as well as indirectly associated with well-being through mediators such as a sense of belonging and self-worth that enhance children's satisfaction with life. Social relationships continue to be importantly related to subjective well-being in adolescence and adulthood.

### **Adolescence**

The onset of puberty marks the beginning of adolescence and a turning point in some aspects of subjective well-being. During adolescence, girls begin experiencing more negative affect than boys, which manifests in higher rates of internalizing disorders such as depression and anxiety that begin to emerge at this time and persist into adulthood (Nolen-Hoeksema & Girgus, 1994). As in childhood, relationships with parents and peers are related to well-being during adolescence, with friends becoming increasingly important confidantes (Markiewicz & Doyle, 2012). In addition, individuals often form their first romantic partnerships during this developmental period, with attendant risks and benefits for well-being (Collins, 2003).

Early theories and empirical studies focused on adolescence emphasized "storm and stress" characterized by conflict and negative emotions (for a review, see Arnett, 1999). However, the more recent positive youth development movement attends to more positive aspects of adjustment. For example, the Five Cs model focuses on caring/compassion, competence, character, connection, and confidence (Lerner, Almerigi, Theokas, & Lerner, 2005). During adolescence, character strengths that build connections to other people (e.g., teamwork, kindness) and that contribute to a sense of purpose beyond the self (e.g., love, meaning) are related to an increase in subjective well-being over time, including an increase in life satisfaction and a decrease in depressive symptoms (Gillham et al., 2011).

### **Early Adulthood**

Early adulthood is characterized by major changes in family relationships as individuals transition from their families of origin to families of their own creation, yet relationships with parents continue to be

related to well-being during early adulthood (Trzcinski & Holst, 2008). Intimate partnerships become increasingly important in early adulthood. A widely replicated finding is that men and women who are married are happier and more satisfied with life than non-married men and women (e.g., Waite & Lehrer, 2003). Even with marked demographic changes in the average age of marriage and the proportion of adults choosing to remain unmarried (e.g., Settersten & Ray, 2010), married individuals show better well-being than unmarried individuals in both low- and high-income countries, although the marriage benefit appears to be shrinking for men, particularly in high-income countries, as the life satisfaction of unmarried men has increased over time from 1981 to 2009 (Mikucka, 2016). Furthermore, despite these demographic changes, marriage continues to confer benefits for well-being that exceed those of cohabitation, although the difference is smaller in countries that are more accepting of non-traditional family forms (Vanassche, Swicegood, & Matthijs, 2013).

In addition to intimate partnerships, family formation during early adulthood often involves the transition to parenthood. Conclusions about how parenthood is related to well-being have been inconsistent and appear to depend largely on how the analyses are conducted (e.g., with or without control variables that differentiate who becomes a parent in the first place) and on who the reference group is (comparing parents to non-parents or comparing an individual to him or herself before and after becoming a parent). A meta-analysis of prospective longitudinal studies found that the transition to parenthood is associated with a decline in life satisfaction (particularly tied to a decline in satisfaction with the intimate partnership) but an increase in positive affect (Luhmann et al., 2012). After this initial transition, controlling for marital status, religion, income, education, and health, some research has found that adults who live with a child are less satisfied with life and have higher levels of both positive and negative affect (Deaton & Stone, 2014). Other findings suggest that compared to non-parents, parents have higher levels of life satisfaction, moment-to-moment happiness, and feel more positive when taking care of their children than their daily average of positive emotion (Nelson, Kushlev, English, Dunn, & Lyubomirsky, 2013). However, these findings are moderated by gender, with men who are parents generally reporting more happiness than men who are not parents but no differences in happiness for women (Nelson et al., 2013), which the authors suggest may reflect the greater burden of housework and childcare experienced by mothers than fathers (Nomaguchi & Milkie, 2003). In addition, the findings depend on the circumstances of parenthood with individuals who were younger and unpartnered at the time they became parents reporting less satisfaction and happiness (but more meaning in life) than their counterparts who are not parents (Nelson et al., 2013).

Early adulthood also is characterized by education and work transitions related to completing schooling and joining the workforce, tasks that have become more prolonged in recent years than in the past (Settersten & Ray, 2010). Having employment problems that necessitate moving back in with parents is related to more depressed affect in early adulthood (Copp, Giordano, Longmore, & Manning, in press). In support of a value-as-moderator model, there is evidence that activities that are valued by an individual exert greater influence on well-being than activities that the individual does not value as strongly (Oishi, Diener, Suh, & Lucas, 1999). For example, receiving good grades at school is related to life satisfaction more strongly for individuals who place high value on achievement than for those who do not (Oishi et al., 1999). These findings suggest that in early adulthood, psychological well-being will be associated with engaging in roles and activities that have personal value and meaning.

### **Middle Adulthood**

Middle adulthood is the time of life that is at the nadir of subjective well-being for individuals from high-income countries (Stone et al., 2010). At this time of life, individuals juggle many family, work, and community roles, contributing to stress and fatigue that can take their toll on well-being (Scheibe & Zacher, 2013). This developmental period is sometimes known as the “sandwich generation” to refer to the period roughly between the ages of 45 and 65 years in which adults are sandwiched between demands of caring for children and aging parents while still working in the paid labor force (Burke, 2017). Women continue to provide the majority of care to both children and aging parents, and providing extensive care is related to more depression and lower subjective well-being (Hammer & Neal, 2008). Demographic changes with an increase in the proportion of adult children who return home to live with their parents might also contribute to stress during middle adulthood. Relationships between parents in middle adulthood and their young adult children are generally positive, but parents feel more ambivalent about these relationships when their adult children are not attaining autonomy milestones (Fingerman, Cheng, Tighe, Birditt, & Zarit, 2012).

### **Late Adulthood**

Subjective well-being is related to health and longevity (Diener & Chan, 2011), considerations that become especially salient later in life. In longitudinal analyses with an average follow-up of 8.5 years, controlling for demographic factors as well as baseline measures of physical and mental health, 29% of individuals in the lowest quartile of well-being died during the follow-up period compared to only 9% of

individuals in the highest quartile (Steptoe et al., 2015). Well-being has been found to remain relatively stable during late adulthood until shortly before death, when it drops precipitously (Gerstorf, Ram, Goebel, Schupp, Lindenberger, & Wagner, 2010). The drop in well-being is more pronounced for individuals who die after the age of 85 (about three times as steep a decline in the four years before death than prior to that point) than for those who die between the ages of 70 and 84 (about two times as steep a decline), perhaps because of the accumulation of health problems and the loss of loved ones over a longer period of time (Gerstorf, Ram, Röcke, Lindenberger, & Smith, 2008).

Socioemotional selectivity theory posits that as individuals age, they selectively prune their social networks to focus on a smaller group of family members and friends to whom they are emotionally close rather than larger groups of acquaintances or individuals with whom they have distant or contentious relationships (Carstensen, Isaacowitz, & Charles, 1999). The theory has garnered considerable empirical support (for a review see Charles & Carstensen, 2010). Early in life when individuals perceive themselves as having a long future, they prioritize goals related to meeting new people, gathering information, learning new things, and maximizing achievement, whereas in late adulthood when individuals perceive their futures to be shorter, they prioritize short-term goals related to positive emotions and activities that are meaningful to them (Carstensen, 2006). Taken together, this body of research suggests that higher well-being during late adulthood is related to this narrowing of the social network and focusing on goals that promote positive affect.

## Future Directions

As the study of subjective well-being advances, three directions for future research might be especially useful. First, future research in neuroscience offers the potential to understand brain mechanisms involved in subjective well-being across the lifespan (see biology chapters in this volume). Early research in this area provides some intriguing insights into structural and functional aspects of the brain that could help delineate the neural underpinnings of well-being. For example, compared to adults not in a romantic relationship, adults with a romantic partner not only report more happiness but also show less gray matter density in the right dorsal striatum, a region of the brain important in processing social rewards (Kawamichi et al., 2016), suggesting one mechanism through which social relationships could affect well-being. Better understanding the biological substrates of well-being also offers the potential to intervene in targeted ways to enhance the well-being of individuals who are at risk for a variety of reasons. For example, treating mothers at risk of postpartum depression with oxytocin, a neuroendocrine hormone that promotes adjustment to motherhood, shows promise both in reducing postpartum depression and in promoting mother-infant bonding (Kim et al., 2014).

Second, future research on genetic factors and gene x environment interactions that shape subjective well-being across the lifespan will be important for understanding stability, change, and individual differences in subjective well-being. Estimates vary depending on features such as study design and measures used, but a recent meta-analysis found that approximately 32% of the variability in life satisfaction can be accounted for by genetic factors (Bartels, 2015). However, environmental factors have been found to both weaken and strengthen genetic effects on well-being. For example, being married has been found to weaken heritability estimates (Nes, Røysamb, Harris, Czajkowski, & Tambs, 2010), whereas increasing income has been found to strengthen heritability estimates (Johnson & Krueger, 2006). Conceptual models have come to recognize that it is not just that particular genetic markers can serve as risk factors in the face of certain environments but that particular genetic markers can make individuals more susceptible to both positive and negative environments, either enhancing or limiting prospects for well-being (Ellis & Boyce, 2008).

Third, the most consistent predictor of better subjective well-being across the lifespan is positive social relationships (Siedlecki et al., 2014). New technology has brought about many changes in social relationships that might affect well-being for the better or worse. On the one hand, texting, Skype, and social networking make it possible to stay in touch with family and friends who are not in close geographical proximity, which might contribute to enhanced well-being (Grieve, Indian, Witteveen, Tolan, & Marrington, 2013). On the other hand, online communication may not confer the same benefits for well-being as spending time with friends and family in person, especially if the online communication is not with people to whom individuals have strong ties or if the communication involves general posts rather than personal, dyadic communication (Burke & Kraut, 2016). Early research suggested that within the first one to two years that families began using the Internet, their social networks narrowed, they communicated less with other members of the household, and their depression and loneliness increased (Kraut et al., 1998). More recent research has yielded mixed findings (e.g., Best, Manktelow, & Taylor, 2014, for a review). Future research will benefit from trying to elucidate the ways that subjective well-being is related to social

relationships in new, ever-changing technological contexts.

## Conclusions

Adopting a lifespan perspective on subjective well-being facilitates understanding of the development of well-being over time. A large body of research has demonstrated that well-being is fairly stable over time as well as that, on average, individuals have lower mean levels of well-being during middle adulthood than earlier or later in the lifespan (particularly in high-income countries). In every stage of development, family relationships are central to well-being. During infancy, secure attachment relationships with parents set the stage for trusting, supportive relationships throughout life. During childhood and adolescence, parents remain important, but peer relationships take on increased importance in relation to well-being. In adolescence and early adulthood, romantic partnerships become developmentally salient and important sources of well-being. With the transition to parenthood, relationships with children bring well-being full circle to the next generation. Cognitive development across the lifespan enables the emergence of a sense of self during infancy that supports cognitive aspects of well-being, and during adulthood a future orientation and perceptions of time remaining in life are related to selective narrowing of social networks in ways that promote positive affect and life satisfaction. Life events and life choices can have both short- and long-term effects on well-being. Subjective well-being is important throughout life both in its own right as an important outcome as well as because better subjective well-being predicts other desirable outcomes including longevity.

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