The Lifespan Development of Self-Esteem

Ulrich Orth
University of Bern

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Ulrich Orth
Department of Psychology
University of Bern
Fabrikstrasse 8
3012 Bern
Switzerland

E-mail: ulrich.orth@psy.unibe.ch
Summary

This chapter provides an overview of recent longitudinal research on the development of self-esteem. There is now robust evidence that self-esteem changes in systematic ways across the life course. On average, self-esteem increases during adolescence and young adulthood, peaks in middle adulthood at about age 50 to 60 years, and declines in old age. Despite these normative developmental changes, longterm studies show that individual differences in self-esteem are relatively stable even across decades, indicating that self-esteem is a personality trait. Finally, a growing body of research suggests that self-esteem has consequences for the person’s well-being and success in important life domains such as relationships, work, and health. The latter finding is particularly important from a practical perspective because if self-esteem influences life outcomes then interventions aimed at increasing self-esteem should prove beneficial for the individual.

Keywords: self-esteem, lifespan development, longterm stability, life outcomes, longitudinal
The question of whether self-esteem—which is defined as an “individual’s subjective evaluation of his or her worth as a person” (Donnellan, Trzesniewski, & Robins, 2011, p. 718; see also Harter, 2006)—shows normative change across the lifespan has been debated for decades (see, e.g., Demo, 1992; Huang, 2010; Pullmann, Allik, & Realo, 2009; Robins, Trzesniewski, Tracy, Gosling, & Potter, 2002; Wylie, 1979). Fortunately, in recent years a growing number of longitudinal studies have yielded converging evidence on the general pattern of the lifespan development of self-esteem. Moreover, during the past decade, longitudinal research has tackled additional issues—such as the stability of individual differences in self-esteem—that should be resolved to gain a more complete understanding of the development of self-esteem. The present chapter provides an overview of this field, by addressing the following questions: What is the normative lifespan trajectory of self-esteem? To which degree is self-esteem a stable trait like extraversion and neuroticism? Is the development of self-esteem consequential, that is, does self-esteem influence success and well-being in important life domains? Although previous reviews are available (Orth & Robins, 2014; Robins & Trzesniewski, 2005; Trzesniewski, Donnellan, & Robins, 2013), the field currently develops quickly, supporting the need for an up-to-date review.

The Self-Esteem Trajectory Across the Lifespan

As yet, three longitudinal studies are available that have tracked the self-esteem trajectory across the lifespan (Orth, Maes, & Schmitt, 2015; Orth, Robins, & Widaman, 2012; Orth, Trzesniewski, & Robins, 2010). All three studies used data from large and diverse samples, which had been assessed multiple times for periods of 4 to 16 years. The samples included broad age ranges from adolescence, or young adulthood, to old age. The analyses were based on cohort-sequential growth modeling, which allowed using the information from all participants
simultaneously to model the trajectory across the complete observed age range (Duncan, Duncan, & Strycker, 2006; Preacher, Wichman, MacCallum, & Briggs, 2008). In all studies, competing growth models were tested, such as models without any change (i.e., intercept-only), and linear, quadratic, and cubic models. In all studies, an inverted U-shaped trajectory fit the data best, suggesting that self-esteem increases continuously from adolescence to middle adulthood, peaks at about age 50 to 60 years, and then decreases into old age. Figure 1 illustrates this pattern using findings from Orth et al. (2015). Across studies, the increase from adolescence to middle adulthood corresponded to an effect size ranging from about 0.30 to 0.50 (expressed as $d$; Cohen, 1992), whereas the decrease from middle adulthood to old age ranged from about $-0.20$ to $-0.70$ (thus, varying more strongly across studies). In sum, there is now robust evidence on the average, normative pattern of changes in self-esteem across the lifespan.

In addition, an increasing number of longitudinal studies has focused on specific developmental stages, such as adolescence (Birkeland, Melkevik, Holsen, & Wold, 2012; Erol & Orth, 2011; Hutteman, Nestler, Wagner, Egloff, & Back, 2015; Kuzucu, Bontempo, Hofer, Stallings, & Piccinin, 2014; Morin, Maiano, Marsh, Nagengast, & Janosz, 2013), young adulthood (Chung et al., 2014; Kiviruusu, Huurre, Aro, Marttunen, & Haukkala, 2015; Wagner, Lang, Neyer, & Wagner, 2014; Wagner, Lüdtke, Jonkmann, & Trautwein, 2013; Zeiders, Umaña-Taylor, & Derlan, 2013), and old age (Wagner, Gerstorf, Hoppmann, & Luszcz, 2013; Wagner, Hoppmann, Ram, & Gerstorf, 2015; Wagner et al., 2014). Generally, the findings of these studies converge with the lifespan trajectory described above, suggesting that self-esteem increases in adolescence and young adulthood and decreases in old age. Moreover, von Soest, Wichstrom, and Kvalem (2015) examined trajectories of domain-specific self-esteem (such as self-evaluations with regard to physical appearance, academic competence, and social
acceptance) in adolescence and young adulthood. For most dimensions of domain-specific self-esteem, the trajectory was consistent with the developmental pattern of global self-esteem depicted above (see also Cole et al., 2001).

Importantly, the longitudinal studies showed that individuals differ in the particular lifespan trajectory they follow, as indicated by significant variances of growth factors. Likewise, studies using growth mixture modeling (see, e.g., Ram & Grimm, 2009) indicate that distinct classes of self-esteem development can be identified (Birkeland et al., 2012; Morin et al., 2013). The heterogeneity of self-esteem trajectories raises the question of which factors explain why individuals deviate from the average trajectory.

A first set of factors includes demographic variables such as gender, socioeconomic status (as indicated by education and income), and ethnicity. Across studies, men and women differed only slightly, or not all, in the self-esteem trajectory (Erol & Orth, 2011; Orth et al., 2015; Orth et al., 2012; Orth et al., 2010; Wagner, Lüdtke, et al., 2013), which is consistent with meta-analytic findings based on cross-sectional data suggesting that the gender difference in self-esteem is small (Kling, Hyde, Showers, & Buswell, 1999; Major, Barr, Zubek, & Babey, 1999). Individuals with high socioeconomic status showed higher self-esteem than individuals with low socioeconomic status at each point of the lifespan, corresponding to a small to medium-sized effect (Orth et al., 2015; Orth et al., 2012; Orth et al., 2010; Wagner, Gerstorf, et al., 2013; Wagner et al., 2014). Finally, longitudinal studies have tested for the moderating effect of ethnicity on the self-esteem trajectory using data from U.S. samples (Erol & Orth, 2011; Orth et al., 2010; Shaw, Liang, & Krause, 2010). For example, the findings suggested that African Americans experienced a stronger increase of self-esteem in young adulthood but also showed a stronger decline in old age. It is important to note that these ethnic differences in self-esteem
could not be explained by differences in socioeconomic status and health (Orth et al., 2010) and that the factors that account for the diverging lifespan trajectories of European Americans and African Americans are not yet understood.

A second set of factors that might influence the lifespan trajectory of self-esteem includes personality characteristics and life experiences. For example, research suggests that extraversion, emotional stability, and conscientiousness explain why some individuals experience more positive trajectories (Erol & Orth, 2011; Wagner, Lüdtke, et al., 2013). Moreover, stressful life experiences such as serious accidents and illnesses, criminal victimization, and unemployment account for negative change in self-esteem (Orth & Luciano, 2015; Pettit & Joiner, 2001). The available evidence also suggests that transitions in romantic relationships such as beginning a relationship and separating (Luciano & Orth, 2015; Wagner, Becker, Lüdtke, & Trautwein, 2015), as well as the quality of romantic relationships (Mund, Finn, Hagemeyer, Zimmermann, & Neyer, 2015; Schaffhuser, Wagner, Lüdtke, & Allemand, 2014), influence the development of self-esteem. However, it should be noted that several longitudinal studies failed to find evidence that factors such as work success, social network size, and closeness to one’s parents predict change in self-esteem (Harris et al., 2015; Kuster, Orth, & Meier, 2013; Marshall, Parker, Ciarrochi, & Heaven, 2014; Orth et al., 2012). Thus, an important goal of future research will be to gain a better understanding of the factors that influence the individual trajectory of self-esteem.

More evidence is needed also with regard to the extent of the self-esteem decline in old age. As noted above, whereas in some studies the decline was strong (Orth et al., 2012; Orth et al., 2010), other studies suggest relatively small decreases (Orth et al., 2015; Wagner, Gerstorf, et al., 2013; Wagner, Hoppmann, et al., 2015; Wagner et al., 2014). It is possible that
sociocultural and economic differences between countries—such as attitudes towards the elderly, pension schemes, and availability of health care—contribute to cross-cultural differences in the old-age decline in self-esteem. In fact, empirical evidence suggests that differences in socioeconomic status and health moderate the trajectory in old age; that is, the decline in self-esteem was much smaller when older adults had stable income and good health (Orth et al., 2010). Moreover, longitudinal research shows that declines in cognitive abilities and perceived control, as well as increasing loneliness, may contribute to lower self-esteem in old age (Wagner, Gerstorf, et al., 2013; Wagner, Hoppmann, et al., 2015).

Research has tested whether there are developmental trends in other aspects of self-esteem, besides its level (i.e., high vs. low), such as instability (e.g., Kernis, 2005) and contingency (e.g., Crocker & Wolfe, 2001). Self-esteem instability is defined as the degree to which people experience short-term fluctuations in self-esteem in daily life (i.e., intraindividual variability), and self-esteem contingency, a related but distinct concept, can be defined as the degree to which a person’s self-esteem depends on external feedback. The findings from a study with a large sample including participants from age 13 to 72 years suggested that self-esteem becomes better adjusted across adolescence and adulthood—that is, not only higher, but also less fluctuating and less contingent (Meier, Orth, Denissen, & Kühnel, 2011). It should be noted, however, that this study included only few participants at age 60 years and older. Thus, future research should test whether self-esteem continues to become more stable and less contingent in old age, or whether this trend reverses at the end of middle adulthood, similar to the developmental trend for the level of self-esteem.

An interesting question is whether there have been secular changes in the self-esteem trajectory across the lifespan during the past decades (Trzesniewski & Donnellan, 2009; Twenge
More precisely, did sociocultural changes in Western countries result in higher levels of self-esteem, or steeper increases in self-esteem, among more recent generations compared to older generations? In fact, an increasing cultural focus on self-esteem in parenting, education, in the media, and at the workplace might have contributed to more positive self-esteem trajectories among cohorts born since about the 1970s (Gentile, Twenge, & Campbell, 2010). As a side note, it is also possible that the same sociocultural changes have been ineffective and have rather led to the development of maladaptive personality characteristics such as narcissism (for the debate see, e.g., Trzesniewski, Donnellan, & Robins, 2008; Twenge, Konrath, Foster, Campbell, & Bushman, 2008). With regard to self-esteem, however, the findings from cohort-sequential longitudinal studies—which allow disentangling age and cohort effects (Baltes, Cornelius, & Nesselroade, 1979)—suggest that the normative trajectory has not changed across the cohorts born during the 20th century, with regard to both level and shape of the trajectory (Erol & Orth, 2011; Orth et al., 2015; Orth et al., 2012; Orth et al., 2010). These null findings are meaningful given that the samples in these cohort-sequential studies were large (ranging from 1,800 to 7,100 participants), increasing the power to test for cohort effects. Moreover, two of the samples were nationally representative, which strengthens the validity of the findings.

Research suggests that cultures shape the prototypical self-concept among their members (Heine, Lehman, Markus, & Kitayama, 1999; Markus & Kitayama, 1991), potentially affecting the normative self-esteem trajectory. Thus, it is important to test whether the lifespan trajectory found in Western samples, as reviewed above, replicates in samples from other cultural contexts (Henrich, Heine, & Norenzayan, 2010). Recently, Bleidorn et al. (2015) tested for cross-cultural differences in the age trends in self-esteem from age 16 to 45 years, using data from nearly one
million participants from about 50 countries. The general pattern of increasing self-esteem in adolescence and young adulthood replicated in almost all countries. Importantly, however, cross-cultural differences with regard to socioeconomic, demographic, and cultural-value indicators moderated the increase in self-esteem. For example, the results suggested that women from countries with greater gender equality experience steeper increases during adolescence and young adulthood than women from countries with more traditional gender roles and stronger discrimination of women.

As yet, no theory is available that focuses specifically on self-esteem development across the life course (for a review of theories from the broader context of personality development, see Specht et al., 2014). Sociometer theory (Leary, 2004, 2012; Leary & Baumeister, 2000) might be a promising starting point for developing a theory of the lifespan development of self-esteem. Sociometer theory states that self-esteem reflects a person’s relational value as subjectively perceived by the person him- or herself. Relational value is defined as “the degree to which other people regard their relationships with the individual as valuable or important” (Leary, 2004, p. 375). Consequently, whether an individual perceives that he or she has high or low relational value depends on the degree to which the individual thinks that he or she is, and will be in the long term, sought after for inclusion in desired relationships and groups. Thus, sociometer theory predicts that self-esteem changes whenever the individual perceives that his or her relational value rises or falls (note that most of these processes are automatic, effortless, and preconscious; Leary & Baumeister, 2000).

On the one hand, a person’s perceived relational value—and, consequently, his or her self-esteem—will be influenced by changes in the objective standing on social attributes that contribute to the true relational value of individuals, such as competence, friendliness,
trustworthiness, social status, and physical attractiveness (Leary & Baumeister, 2000). If most people improve in many of these attributes during adolescence and young adulthood (as suggested by the maturity principle of personality development; Roberts, Wood, & Caspi, 2008), this might explain why individuals tend to increase in self-esteem during these developmental periods.

On the other hand, a person’s perceived relational value can also be altered if the individual changes the way how he or she habitually processes existing and new information on the social attributes mentioned above. For example, if an individual reevaluates his or her beliefs about the centrality of specific attributes (e.g., if the individual starts to believe that trustworthiness is more important for being a valued romantic partner than attractiveness), this might lead to changes in his or her perceived relational value. Other factors that influence how information on relational value is processed include selective attention to positive versus negative information about the self and choice of reference group. During adolescence and young adulthood people tend to select social contexts that match their personality (i.e., niche picking; see Roberts et al., 2008), which likely leads to adaptive changes in the standards by which they evaluate themselves and, consequently, to higher self-esteem.

Thus, building on sociometer theory, I propose that age-related changes in both the objective standing on valued social attributes and in the processing of self-related information might explain why self-esteem shows normative change across the lifespan as observed in the empirical studies reviewed above. Moreover, these processes might not only explain the normative trajectory of self-esteem, but might also explain individual deviations from the average trajectory in the population. In future research, it would be interesting to explore these hypotheses in more detail.
The Stability of Individual Differences in Self-Esteem

Although the average level of self-esteem changes in systematic ways across the life course, research suggests—as will be reviewed in this section—that individual differences in self-esteem are relatively stable across long periods. As early as at the end of the 19th century, William James pointed to the stability of self-esteem by observing that “there is a certain average tone of self-feeling which each one of us carries about with him” (James, 1890, p. 306). Later, empirical studies have tested for the rank-order stability of self-esteem. Typically, estimates of stability were based on test-retest correlations between two assessments of the same sample, where the second assessment is conducted some time—e.g., one or two years—after the first assessment (note that a test-retest correlation of 1 indicates perfect stability and a correlation of 0 indicates complete absence of stability). Generally, these studies suggested that the stability of self-esteem is high (Alsaker & Olweus, 1992; Block & Robins, 1993; Marsh, Craven, & Debus, 1998; O'Malley & Bachman, 1983). Trzesniewski, Donnellan, and Robins (2003) meta-analyzed the findings of 50 published studies and, in addition, examined data from four large nationally representative samples. Their findings suggested that stability is low during childhood, increases in adolescence, is highest in young and middle adulthood, and decreases during old age. For intervals of three years (i.e., the average observed time interval across studies), the rank-order stability of self-esteem was estimated as .64 when corrected for the effect of measurement error. Moreover, Trzesniewski et al. (2003) found that the pattern of findings replicated across gender, ethnicity, measure of self-esteem, and year of publication.

However, although estimates of rank-order stability provide some information about the stability of constructs such as self-esteem, a complete understanding requires information about the pattern of stability estimates across intervals of different length (Fraley & Roberts, 2005).
Clearly, rank-order stability decreases, as the interval between assessments increases. But as Fraley and Roberts (2005) have demonstrated, the crucial question is whether the stability of a construct asymptotically approaches zero or a nonzero, positive value when intervals become very long. A nonzero asymptote has important theoretical implications, because it indicates that constant factors—such as genetic influences, formative experiences in early childhood, or stable environmental conditions—contribute to the maintenance of individual differences in the construct. In contrast, a zero asymptote suggests that only transient factors shape the individuals’ standing on the construct.

Therefore, in a study with a large sample that was assessed multiple times across 29 years, Kuster and Orth (2013) examined the time-dependent decline of stability in self-esteem and tested alternative functions that might explain the pattern of stability across time. The results showed that the decline in stability followed an exponential decay function with a nonzero asymptote at about .40. Thus, as the time interval increased, stability first quickly declined but in the long run leveled off at a medium-sized value. Moreover, the pattern of results held across gender and across age groups from adolescence to old age. The findings suggest that individual differences in self-esteem are relatively stable across very long periods and that constant factors that account for the long-term stability of self-esteem must be present. The time-dependent pattern of stability in self-esteem was similar to findings on the Big Five personality traits (Fraley & Roberts, 2005), although the asymptotic value might be somewhat smaller for self-esteem than for the Big Five (Anusic & Schimmack, 2015; Kandler, Zimmermann, & McAdams, 2014). Nevertheless, the results overall suggest that self-esteem exhibits trait-like stability. Thus, individuals who have relatively high (or low) self-esteem at one developmental stage are likely to have high (or low) self-esteem 10, 20, or even 30 years later.
Another approach to gain information about the stability of a construct is to test latent trait-state models, using structural equation modeling (Cole, 2012; Kenny & Zautra, 1995, 2001). These models allow disentangling stable and unstable variance components (i.e., trait and state factors) of a construct over time. Three recent longitudinal studies have used this approach to examine the stability of individual differences in self-esteem across long periods (Donnellan, Kenny, Trzesniewski, Lucas, & Conger, 2012; Kuster & Orth, 2013; Wagner, Lüdtke, & Trautwein, 2015). The findings of these studies showed that a stable trait factor is needed to explain the patterns of change and stability in the data. Across the three studies, about 70 to 85% of the variance in self-esteem was accounted for by trait factors, whereas only 15 to 30% was state variance or measurement error. A short-term longitudinal study that used data from four assessments across 18 months yielded similar estimates of trait and state components of self-esteem, which strengthens the generalizability of the conclusions from the longterm studies (Orth & Luciano, 2015).

Taken together, the studies reviewed in this section suggest that self-esteem shows trait-like stability, even across very long periods. Put differently, the findings suggest that self-esteem is a relatively enduring personality characteristic rather than a state-like construct such as mood.

**The Effects of Self-Esteem on Important Life Outcomes**

Does it matter whether people develop high or low self-esteem as they grow up and go through life? Does self-esteem influence what people experience in their relationships, at work, and in the health domain, or are high versus low self-esteem mere epiphenomena of a person’s successes versus failures in important life domains? The question of whether self-esteem influences life outcomes has been hotly debated (Baumeister, Campbell, Krueger, & Vohs, 2003;
Since the past decade, a growing number of longitudinal studies have suggested that self-esteem does have consequences for people’s lives. Specifically, the studies indicated that self-esteem predicts relationship satisfaction and relationship quality (Johnson & Galambos, 2014; Mund et al., 2015; Orth et al., 2012; for a review, see Erol & Orth, in press), social support (Marshall et al., 2014), better education (Trzesniewski et al., 2006; von Soest et al., 2015), job satisfaction and job success (Kuster et al., 2013; Orth et al., 2012; Trzesniewski et al., 2006; von Soest et al., 2015), physical health (Orth et al., 2012; Trzesniewski et al., 2006), less stressful life events (Orth & Luciano, 2015), and less criminal behavior (Trzesniewski et al., 2006).

Moreover, a large number of longitudinal studies suggest that low self-esteem contributes to the development of depression (Orth, Robins, Meier, & Conger, 2016; Orth, Robins, & Roberts, 2008; Rieger, Göllner, Trautwein, & Roberts, 2016; Sowislo & Orth, 2013; Steiger, Allemand, Robins, & Fend, 2014; von Soest et al., 2015; Wouters et al., 2013; for a review, see Orth & Robins, 2013).

Importantly, the studies cited above used study designs that allow for relatively strong conclusions about the effects of self-esteem. For example, many studies used data from large community samples (with about 1,000 participants or more), aggregated the estimates across several waves of data, and controlled for previous levels of self-esteem and life outcomes. Moreover, many studies controlled the effects of self-esteem for relevant third variables, which helps ruling out alternative hypotheses about the potentially confounding effects of other influential factors. Specifically, longitudinal studies controlled for third variables such as gender (Johnson & Galambos, 2014; Marshall et al., 2014; Orth, Robins, Trzesniewski, Maes, &
Schmitt, 2009; Orth, Robins, Widaman, & Conger, 2014; Trzesniewski et al., 2006; von Soest et al., 2015; Wouters et al., 2013), socioeconomic status (Marshall et al., 2014; Trzesniewski et al., 2006; von Soest et al., 2015), level of education (Johnson & Galambos, 2014; Orth, Robins, Trzesniewski, et al., 2009), intelligence (Marshall et al., 2014; Trzesniewski et al., 2006), grades (Steiger et al., 2014; von Soest et al., 2015), popularity among peers (Steiger et al., 2014), body mass index (Steiger et al., 2014; Trzesniewski et al., 2006), stressful life events (Orth, Robins, & Meier, 2009; Orth et al., 2014), the Big Five personality traits (Sowislo, Orth, & Meier, 2014), and narcissism (Orth & Luciano, 2015).

In sum, recent longitudinal research suggests that people’s level of self-esteem influences their success and well-being in important life domains such as relationships, work, and health. It is important to note that, in most studies, the prospective effects were not large but of small to medium size (see, e.g., Orth et al., 2012; Sowislo & Orth, 2013; Trzesniewski et al., 2006; von Soest et al., 2015) and that, clearly, many factors influence the outcomes in a person’s life. Nevertheless, the evidence suggests that self-esteem is one of these factors.

**Concluding Remarks**

Although research on the development of self-esteem across the lifespan has made considerable progress in the past decade, many aspects remain insufficiently understood. For example, future research should continue to examine the factors that lead to change in self-esteem. Although research provides some evidence on influential factors, such as life events and experiences in romantic relationships, a better understanding is needed with regard to the causes of self-esteem change across the life course. Also, longitudinal research is needed to identify the mechanisms that account for the effects of self-esteem on life outcomes. Likely, these mechanisms differ across domains, although some general processes might account for effects on
several outcomes. For example, a possible intrapersonal process is that low self-esteem increases rumination and depression (Kuster, Orth, & Meier, 2012; Orth & Robins, 2013), which, in turn, may impair functioning in the relationship and work domain. A possible interpersonal process is that low self-esteem may motivate social avoidance, which reduces the availability of social support and may negatively influence relationships, job performance, and health. Finally, the field would benefit from developing a comprehensive theory of self-esteem development, explaining how self-esteem first emerges in childhood and why self-esteem changes across the lifespan the way it does. Although the growing body of longitudinal research provides important information that strongly contributes to our understanding of self-esteem development, a good theoretical model allows for a more parsimonious interpretation of empirical findings and for generating testable hypotheses about insufficiently understood aspects.

The research reviewed in this chapter has important implications. First, there is now robust evidence that self-esteem changes in systematic ways across the life course. For the average person, self-esteem increases during adolescence and young adulthood, peaks in middle adulthood at about age 50 to 60 years, and declines in old age. Second, despite these normative developmental changes, longterm studies show that individual differences in self-esteem are relatively stable across long periods, indicating that self-esteem is a personality trait. Thus, if individuals have relatively high (or low) self-esteem compared to their age group, research predicts that they will continue having relatively high (or low) self-esteem even decades later. Third, research suggests that self-esteem has consequences for the person’s well-being and success in important life domains such as relationships, work, and health. The latter finding is particularly important from a practical perspective because if self-esteem influences life outcomes then interventions aimed at increasing self-esteem should prove beneficial for the
individual. In fact, the evidence suggests that it is possible to improve self-esteem through interventions and that effective interventions do not only lead to improvements in self-esteem but also in other areas of functioning (Haney & Durlak, 1998; O'Mara, Marsh, Craven, & Debus, 2006).
References


Twenge, J. M., Konrath, S., Foster, J. D., Campbell, W. K., & Bushman, B. J. (2008). Egos inflating over time: A cross-temporal meta-analysis of the Narcissistic Personality Inventory. *Journal of Personality, 76,* 875-901.


Self-esteem increased from adolescence to age 60 years and then decreased into old age. Effect sizes are reported as $d$ values, indicating that the increase from age 14 to 60 years corresponded to a medium effect size, and the decrease from age 60 to 89 years to a small effect size. The figure has been adapted from Orth et al. (2015). Copyright © 2015 by the American Psychological Association (APA). Adapted with permission. The official citation that should be used in referencing this material is Orth, U., Maes, J., & Schmitt, M. (2015). Self-esteem development across the life span: A longitudinal study with a large sample from Germany. Developmental Psychology, 51, 248-259. The use of APA information does not imply endorsement by APA.