Psychology of Child Well-Being

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20.1 Introduction: *Arne Holte*

This chapter addresses child well-being from a psychological point of view. In doing so, we need to remember that psychology is not one single discipline but

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A. Ben-Arieh et al. (eds.), *Handbook of Child Well-Being*,
DOI 10.1007/978-90-481-9063-8_13,

covers a wide range of psychological disciplines from evolutionary psychology and behavior genetics via psychometrics to developmental, cognitive, personality, and social psychology – all of them relevant to the psychology of child well-being. The psychological study of well-being has a history of approximately 2,500 years. The modern psychological study of well-being and its close relatives, resilience, and prosocial behavior belong together under a common umbrella called "positive psychology." In this chapter, we draw upon both of the ancient and the modern tradition. We have addressed the concept of well-being from both a theoretical and an empirical position. Yet, we have to admit that there is no unified way of sorting all the terms associated with the psychological study of well-being. Consequently, terms like happiness, subjective, emotional, affective, cognitive, mental and psychological well-being, life satisfaction, satisfaction with life, quality of life, enjoyment, engagement, meaning, flow, and hedonic balance have not been used consistently trough out the chapter.

A large number of experts on the psychology of child well-being have contributed to the chapter. The chapter starts by framing well-being into the tradition of positive psychology (Wold) and tracing the greater historical lines (Vittersø), before we introduce current psychological conceptualizations of well-being (Vittersø), resilience (Friborg), and prosocial behavior (Bekkhus and Bowes). We then discuss psychological measurements of well-being in general (Røysamb) and indicators (Casas) and methods of measurement (Casas) used with children and adolescents in special. We ask who we should trust in – childrens' own assessments or their parents' (Jozefiak), before we address health and health-related quality of life as indicators of well-being (Holte). We present examples of how well-being is

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distributed among children in different countries (Wold) and ask whether such measurements are valid and what influence them across cultures and countries (Trommsdorff). We continue by – on a broad base – to single out what affects the experience of well-being generally and among children and adolescents particularly. The issues covered are evolution (Grinde), genes (Nes), cognition (Thimm and Wang), personality (Torgersen and Waaktaar), family (Bowes and Bekkhus), transfer of values between parents and child (Headey, Muffels and Wagner), play (Borge), peer relations (Borge), kindergarten (Zachrisson and Lekhal), and school (Barry). We end the chapter by presenting five ways to practically enhance happiness in everyday life (Nes and Marks) and by guiding you through the world's largest database on happiness – the World Database of Happiness (Veenhoven).

20.2 Conceptualization

20.2.1 Positive Psychology: A Framework for Studying Subjective Well-Being: *Bente Wold*

Subjective well-being (SWB) is one of the most prominent topics in the study of positive mental health and attracts increasingly more attention in psychology, in particular in the branch of positive psychology. Positive psychology was introduced as a new area of psychology in 1998, when Martin Seligman chose it as the theme for his term as president of the American Psychological Association. According to Seligman (2002b, p. 3), "The aim of positive psychology is to catalyse a change in psychology from a preoccupation only with repairing the worst things in life to also building the best qualities in life." The first Handbook of Positive Psychology (Snyder and Lopez 2002) emerged in 2002, identifying several broad topics to be studied in positive psychology, such as identifying human strengths, fostering well-being, resilience, prosocial behavior, and quality of life (QOL). In this perspective, strategies and techniques for enhancing the well-being are educational, relational, social, and political interventions, not clinical treatments.

An important task in positive psychology is to get insights into well-being and QOL in terms of three overlapping paths or pursuits: (1) the pleasant life, or the "life of enjoyment," how people optimally experience, forecast, and savor the positive feelings and emotions that are part of normal and healthy living (e.g., relationships, hobbies, interests, and entertainment); (2) the good life, or the "life of engagement," the beneficial effects of immersion, absorption, and flow that individuals feel when optimally engaged with their primary activities; and (3) the meaningful life, or "life of affiliation," how individuals derive a positive sense of well-being, belonging, meaning, and purpose from being part of and contributing back to something larger and more permanent than themselves (e.g., nature, social groups, organizations, movements, traditions, belief systems).

Among children, the three paths are present in many areas of life, and play is among the most evident. Playing is for children and positive psychology seeks to

preserve this zest for movement as children grow older (for details, see Sect. 20.4.8). Physical education can illustrate how students could learn to become excited about physical activity through a positive psychology approach. When individuals are aware of, pursue, and blend all three lives (the pleasant life, the engaged life, and the meaningful life), authentic happiness or the full life is more likely to be achieved. Moreover, inherent to positive psychology is the assumption that schools are integral in the promotion of positive human development. Given the need to create and sustain meaningful experiences for all students, the pursuits of positive psychology appear to be a natural match with quality physical education. Interesting, challenging, and pleasurable physical activity would internalize an authentic feeling of happiness in students (Cherubini 2009).

In their chapter on "Positive Psychology for Children," Roberts and colleagues (2002) suggest that the focus in child psychology increasingly has become one of perceiving the competence of the child and his or her family and enhancing growth in psychological domains. The previous perspective of coping as a response to a stressor has been confronted with an increasing recognition that growth and SWB occur through adaptations to an ever-changing environment in a child's life. Child well-being in a positive psychology perspective entails the understanding of positive development resulting from constructive and productive socialization and individuation processes. Through socialization, the child becomes integrated into society as a respected participant, by being able to establish and maintain relations with others, to become an accepted member of society at large, to regulate one's behavior according to society's norms, and generally to get along well with other people. Individuation requires distinguishing oneself from others, by forming a personal identity, developing a sense of self, and finding a special place for oneself within the social network. There is a dialectical interplay between the needs of the child to maintain relations with others and the needs of the child to construct a separate self. Child well-being may be considered as a product of fruitful experiences during socialization and individuation. The task at hand for positive psychologists is to examine how individual and social resources can be strengthened to ensure a positive outcome of these processes.

The process of successful adaptation despite challenging or threatening circumstances, denoted as resilience, has attracted particular interest. The best-documented asset of resilient children is a strong bond to a competent and caring adult, who need not be a parent (Masten et al. 2011). According to Masten and colleagues (2011), resilience arises from ordinary protective processes and strengths such as self-regulation skills, good parenting, community resources, and effective schools. Resilient youth have much in common with competent youth who have not faced adversity, in that they share the same assets. For example, youth growing up in an adverse environment characterized by poverty may excel in academic achievement if they experience good parental support.

Resilience may be fostered by risk-focused strategies aimed at reducing the exposure of children to hazardous experiences or asset-focused strategies to increase the amount of, access to, or quality of resources children need for the development of competence. Such strategies may include providing a tutor and

building a recreation center with structured activities for children or programs intended to improve parental and teacher skills (for details, see Sect. 20.2.4).

According to the self-determination theory (SDT) (Deci and Ryan 2012), child well-being depends on the extent to which the social environment provides opportunities for satisfaction of three innate psychological needs – competence, autonomy, and relatedness. When children feel competent, autonomous, and socially accepted, they are more likely to develop self-regulation skills and to be intrinsically motivated for positive behavior, which in turn may instigate feelings of satisfaction and well-being. Prosocial behavior, defined as helping behavior or acts undertaken to protect or enhance the welfare of others, may serve as an example. SDT posits that the degree to which a prosocial act is volitional or autonomous predicts its effect on well-being and that psychological need satisfaction mediates this relation (Weinstein and Ryan 2010). The authors suggest that engaging in prosocial behavior can foster competence, need satisfaction, and well-being because helpers are acting on the world in ways that directly result in positive changes. Moreover, helping is inherently interpersonal and thus impacts relatedness by directly promoting closeness to others and cohesiveness or intimacy. Finally, prosocial actions that are volitional also provide opportunities to experience autonomy, need satisfaction, and the positive states that derive from these prosocial actions (for details, see Sect. 20.2.5).

20.2.2 A Brief History of Well-Being: *Joar Vittersø*

Although research on child well-being is a relative newcomer, it is clearly grounded in ideas that are as old as history itself. Systematic thinking on well-being began with the antique concept of eudaimonia, a term frequently rendered in psychological literature as only referring to Aristotle's ideas on happiness. This is misleading since the word was in use over 100 years before Aristotle was born and because Aristotle only formed one of several schools of ancient eudaimonia (McMahon 2006). Competing eudaimonic theories included hedonism, which may sound like a contradiction to modern psychologists. But for the ancients, hedonism was a conceptual option within eudaimonia (Keyes and Annas 2009). One should also bear in mind that the well-being of children was not a matter of interest for the ancient Greeks. Aristotle, for instance, claimed that children could never achieve eudaimonia.

Psychologists often point out that eudaimonia is a combination of "eu" (good) and "daimon" (spirit) and that the daimon part refers to an "inner self" (e.g., Ryan and Deci 2001; A. S. Waterman 1993). Such a translation is unfortunate since the Greek "daimon" referred to the spiritual and immortal part of the person, and it contrasted in this respect the term "eidolon," which was the individual and earthly part of a person. To be eudaimon meant to be fortunate enough to lead a life that was blessed in a spiritual and not an individualistic way (McMahon 2006).

Disagreements existed in the ancient worldview as to what eudaimonia comprised. Radical versions of hedonism, like the one proposed by Aristippus, claimed

that the goal of life is nothing else than maximizing feelings of pleasure, regardless of its source. This theory from the fourth century BCE banished thought in all its forms as a foreign element in a good life (Watson 1895). A more moderate version of antique hedonism was articulated by Epicurus, who surely prized the pleasures of life but who also believed that the kind of pleasures that we today refer to as satisfaction is needed in order to live a good life. And satisfaction (or "ataraxia" in classic Greek) was not achieved without living virtuously and having friends (Tiberius and Mason 2009).

Aristotle's position was different and more complex. He considered eudaimonia to follow from the "activity of the soul in accordance with virtues" (McGill 1967, p. 17) and that hedonism, in the sense of searching pleasure only for its pleasantness, was a vulgar ideal, one that led people to become as slavish as grazing animals (Aristotle 1996). Different understandings of Aristotle's thinking exist, partly because his writing was, to put it mildly, not always consistent. But philosophers seem to agree that Aristotle considered eudaimonia to depend upon virtuous activities. To be happy, a person must develop wisdom and exercise excellence in virtuous activities so that he (it was always a he in Aristotle's writing) could realize his true and best nature and thus live a complete life (Waterman 2013). The conditions Aristotle considered necessary for the realization of one's potential is more controversial. He did, for example, believe that abundance of possessions and slaves, combined with a noble birth, numerous friends, good friends, wealth, good children, numerous children, a good old age, bodily excellences (such as health, beauty, strength, stature, and fitness for athletic contests), a good reputation, honor, good luck, and virtue were needed in a happy life.

Socrates was supposedly the first individual who believed that humans could exercise some control over their own happiness. Good lives are attainable for those who make good choices. But in order to choose well, one needs insight – and it takes an appropriate education to develop such wisdom. With the rise of Utilitarianism, which of course happened much later, wisdom was no longer considered necessary for a good life. The only requirement for happiness was freedom, and this ideology still dominates contemporary thinking, in science as well as in political rhetoric.

Another major development in the history of well-being preceded Utilitarianism by a 100 years or so and came with the early phase of the Enlightenment. Here, not only freedom but also equality and good social networks were considered important for a happy life (cf. the "Liberty, equality and brotherhood" motto for the French revolution). When Thomas Jefferson penned the well-known phrase about happiness in the US Declaration of Independence, he was clearly inspired by this school of thoughts. Indeed, Jefferson launched the idea that the right to the pursuit of happiness is a self-evident truth with both private pleasure and public welfare in mind. He considered the reconciliation of public and private happiness as essential and believed that religion would ensure that "the pursuit of private happiness would not veer off the thoroughfare of the public good" (McMahon 2006, pp. 330–331).

The influence from the Enlightenment and the Utilitarianism can easily be observed in social sciences today. The development of economics, for example, is

essentially lodged within the ideological legacy of Bentham. Empirical well-being research in psychology was similarly inspired (Bradburn 1969), although the notion of life satisfaction, the essence of which was initially proposed by Epicurus and later by John Stuart Mill, was a major source of inspiration as well (Campbell 1976; Cantril 1965). And even if happiness played a small role in the early years of psychology, it has always been a part of the discipline (Jones 1953). A substantial growth in happiness research began with Jahoda's reflections on positive mental health (Jahoda 1958) and continued with the availability of well-being data from representative samples of the populations in the USA and other countries (Bradburn 1969; Cantril 1965; Nowlis and Nowlis 1956). Part of this development includes the birth of the subdiscipline of child well-being, which arose as a "social indicator" movement (Ben-Arieh 2008), and was pioneered by reports on the "State of the child" from the USA in the 1940s. The interest was also fuelled by the general progress of the concept of children, as evolved in developmental psychology, in the emerging notion of children's rights, and in the expansion of available data. Comprehensive reviews of these trends are provided by Ben-Arieh (Ben-Arieh 2000, 2001, 2005; Ben-Arieh and Frones 2007) and others (Bradshaw and Hatland 2006; Casas 2000; Frones 2007).

20.2.3 Current Conceptualizations: *Joar Vittersø*

There is a confusing mixture of well-being concepts in the happiness literature. The most critical issue in the definitional debates concerns the number of dimensions needed to account for a life well lived. According to radical hedonism, we only need one: the balance of momentary pleasures over momentary pains (the so-called hedonic calculus). Kahneman (1999) positioned himself very close to this hedonic ideal in his early thinking, as he used to argue that happiness is properly understood with reference to the "experiencing self." In this view, a person is happy if engaged (enough of the time) in activities that he or she would rather have continued than stopped. Kahneman later turned around and is now prepared to include life satisfaction – the "remembering self" – as a second dimension of well-being. Hence, we can be happy *in* our lives or happy *with* our lives. Kahneman admits, however, that the two notions of happiness are not entirely compatible and that nobody seems to have solved the puzzle of balancing the essence of the experiencing with the essence of the remembering self into a unitary definition of well-being (Kahneman 2012).

The conflict between the experiencing self and the remembering/evaluating self has always been tricky. It can be recognized in the ancient tension between Aristippus and Epicurus and between Bentham and Mill during the advent of Utilitarianism. In modern philosophy, the controversy is sometimes referred to as the distinction between sensory hedonism and attitudinal hedonism (Feldman 2010), and in studies of well-being in the 1960s, Bradburn's was a theory of the experiencing self, while Cantril's was a theory of the evaluative self (Bradburn 1969; Cantril 1965). The two giant volumes on well-being in the 1970s – Andrews and Withey (1976) and Campbell, Converse, and Rodgers (1976) – clearly struggled with the same problem, and in

the early 1980s, Veenhoven (1984) attempted to solve the puzzle by including both hedonic level and contentment as elements in his overall concept of a happy life. Diener (1984) did something similar when he claimed that both affective/emotional well-being and evaluative/cognitive well-being were major categories of SWB. A few years ago, Diener mobilized over 50 well-being researchers to sign up in agreement on the following definition of SWB: "Subjective well-being refers to all the various types of evaluations, both positive and negative, that people make of their lives. It includes reflective cognitive evaluations, such as life satisfaction and work satisfaction, interest and engagement, and affective reactions to life events, such as joy and sadness. Thus, SWB is an umbrella term for the different valuations people make regarding their lives, the events happening to them, their bodies and minds, and the circumstances in which they live" (Diener 2006, pp. 399–400).

Life satisfaction is the core concept in theories of SWB. Traditionally, the term referred to a rational comparison of what people have, to what they think they deserve and expect, or to which they may reasonably aspire(Campbell et al. 1976). Following this view, life satisfaction can be precisely defined as the perceived gap between aspiration and achievement, ranging from the perception of fulfillment to that of deprivation (see also Michalos 1985). Versions of the gap approach to life satisfaction are still thriving in some circles, such as the sustainable development movement, whose adherents suggest that satisfaction follows from fulfillment of basic physiological needs (O'Neill 2011), and the group of self-determination theorists, who consider satisfaction to come from fulfillment of basic psychological needs (Ryan and Deci 2001). But within the "Diener camp," life satisfaction is considered to be a report of how a respondent reflectively evaluates his or her life taken as a whole (Eid and Larsen 2008).

The notion that every good element in life can be captured as either a pleasant affect or as an evaluation of life in terms of goodness or badness has been referred to as the hedonic well-being approach (Ryan and Deci 2001). By contrast, competing theories offer taxonomies that go beyond pleasant feelings and judgments of satisfaction. These approaches may be considered eudaimonic in the psychological sense of the term (Tiberius 2013). An early conceptualization within this framework was developed by Sen, who pointed out that even if life satisfaction is important, it cannot possibly be the only element in a good life (Sen et al. 1987). Deprived persons that are overworked or ill can be made satisfied by cultural norms and social conditioning, he argued, and came up with the idea of capabilities in order to remedy this shortcoming. Sen's thinking is difficult to summarize, but very briefly it suggests that a concept of well-being must account for not only feelings and evaluations but also human functioning. To Sen, functioning is about life-styles: what a person manages to do or to be. A capability, on the other hand, reflects a person's ability to achieve a given functioning. Capabilities reflect a person's freedom of choice between possible life-styles (Sen 2000).

Ryff (1989) has voiced another critique of SWB. She borrowed Bradburn's term "psychological well-being" and replaced his "affect balance" with what she believes are the six dimensions of well-being: self-acceptance, positive interpersonal relations, autonomy, environmental mastery, meaning in life, and personal

growth. Although it is not quite clear why well-being consists in exactly these six dimensions, Ryff's theory has for two decades spearheaded eudaimonic research. But other scholars have proposed alternative dimensions of well-being. For instance, Keyes (Michalec et al. 2009) developed a taxonomy of flourishing (his term for well-being) with three main categories: (1) emotional well-being (positive affect, happiness, and life satisfaction), (2) functional psychological well-being (the six Ryff dimensions), and (3) functional social well-being (his own five dimensions). The 14 subdimensions can be reduced into a single well-being scale that runs from languishing to flourishing. Huppert has identified ten features of well-being, combining both feeling and functioning (Huppert and So 2013). As previously described, Seligman (2002a) used to think that happiness was a three-dimensional phenomenon, whereas he more recently (Seligman 2011) has proposed a theory of well-being (called flourishing) with five elements: positive emotions (pleasure), engagement (flow), relationships, meaning, and accomplishment (or PERMA for short). Seligman's theory is different from most other theories of well-being in several respects. He has, for instance, introduced a concern for accomplishment rather than for competence, the latter being the established concept of the domain. Seligman further holds emotions and satisfaction as practically overlapping, and he claims that neither is particularly important for well-being.

Other conceptualizations of well-being do indeed exist, such as those proposed by the "Stiglitz commission" (Stiglitz et al. 2009), the self-determination theory (Huta and Ryan 2010), the personal expressiveness approach to eudaimonia (Waterman et al. 2008), the Homeostatically Protected Mood theory of well-being (Cummins 2010), and very many others. Let us now move to the close relatives of the concept of well-being, namely, the concepts of resilience and prosocial behavior.

20.2.4 Resilience and Adaptation: *Oddgeir Friborg*

The concept of resilience was perhaps first introduced by Jack Block (1951). He launched the psychodynamically flavored term ego-resilience representing the ego's ability to self-regulate impulses or behavior in a flexible manner. Although this ability is undoubtedly still highly relevant, resilience is nowadays construed as a phenomenon rather than a set of personality characteristics. It has therefore largely become an atheoretical concept.

One of the first to display a sincere interest in positive outcomes was Emmy Werner (Werner 1993). Her seminal longitudinal study, beginning in the 1950s, aimed to study risks of maladaptation among newborn children on the Island of Kauai. Many of these children grew up under multiple psychosocial risks, for example, poverty, chronic discord, or parental psychopathology. The focus of the study gradually changed as it was discovered that most children evaded the predicted doom of their inheritance and poor psychosocial surroundings. A positive developmental course was the normal (about 70 %) rather than the abnormal response to adversity (Werner and Smith 1992). Furthermore, it was observed that about half of the adolescents with considerable adjustment problems as teenagers still managed to

become quite well-functioning adults. Werner's study provides a rich source of insight into protective factors and case examples of positive human development.

What is resilience? It mainly refers to people adapting well despite expectations of the opposite, but it also embraces the developmental processes that facilitate favorable outcomes. As an outcome, resilience refers to a normal development or a successful adaptation despite experiences of significant adversity or trauma (Luthar 2006) or, simply put, normal adjustment despite abnormal circumstances. As a process, resilience refers to a range of psychological traits, skills, abilities, or coping mechanisms underlying favorable developmental trajectories. But resilience is not just about the positive forces within an individual but also about the developmental interplay between individual and environmental factors that together form an even stronger alliance against negative forces in life.

The number of factors identified to act protectively or buffer against stressors or life risks is staggering (Cederblad 2003; Luthar 2006), but they are clustered within three overarching domains: first, a broad set of personal, biological, genetic, temperamental, or dispositional traits, skills, abilities, or attitudes; second, as resources within the family in terms of stability and cohesion providing an environment of emotional closeness, empathy, and support; and third, a plethora of social and environmental resources that reinforce and support a healthy response. Examples may be friends, other family members, colleagues, or people in the neighborhood. It may also be institutions or community facilities offering proper housing, employment, social security, and health-care services (Luthar 2006; Werner 1993).

Resilience processes are inextricably related to the presence of stressors, hazards, or risks and are perhaps even pointless to infer in their absence. It is important to note that individuals characterized as resilient may still suffer from particular vulnerabilities that may create other or later problems, such as bouts of depression (Luthar et al. 1993) or problems with intimacy as adults (Werner and Smith 1992). But very often they do not allow their vulnerabilities to overshadow their behavioral strengths. They optimize the use of the resilience factors that are available to them in order to increase protection and readjustment. To reveal this pattern in research, one would in statistical terms look for an interaction between risk, vulnerability, and resilience factors. An example may be taken from the Dunedin longitudinal study. As expected, it was found that maltreatment or stressful life events early in life increased the risk of depression and suicidal attempts in adulthood. However, those individuals that had two long alleles in the HTTLPR serotonergic genotype were much less likely to suffer from these problems than those having two short alleles (Caspi et al. 2003). These genes were obviously important and protective but far less important for individuals growing up under favorable circumstances.

A later line of research has been concerned with understanding underlying mechanisms. An example is social competence which is found to protect against adult delinquency. This protection appears mediated by a reduced involvement with delinquent peers (Stepp et al. 2011). Hence, social competent adolescents are better able to resist becoming involved in deviant social networks. Studies of mechanisms

(by examining mediators) are for that reason much more informative with regard to how to build intervention programs rather than just knowing that social competence counts.

A striking feature of the majority of resilience studies is that almost all find a subgroup ranging from about 50–75 % that come out favorably despite significant threats. An opportune question is therefore whether this is a universal phenomenon or perhaps an evolutionary property of humans. Do human variants always exist that are able to survive, no matter what dismal circumstances they may be subjected to? This is an intriguing idea that has been popular to many novelists and film directors. However, it rather seems that most of us may not escape psychological damages if the environmental hazards are abysmal enough or lasts long enough.

The studies which may illuminate this question are few, as well as ethically highly controversial. But a study by Egeland, Sroufe, and Erickson (1983) on mothers abusing their children physically and verbally, or who were psychologically unavailable or severely neglectful, showed that almost none of the children as six-year-olds escaped undamaged. Another line of studies deals with the Romanian orphanages which gave up children for adoption to the UK following severe to horrendous institutional deprivation (Rutter et al. 2007). Many of these were adopted to the UK, and all of these were grossly underdeveloped with respect to height and head circumference at entry. Although their developmental catch-up was almost complete in terms of weight and height, head circumference at the age of 11 was still below one standard deviation. As the children were adopted at different ages (<6, 6–24, and >24 months), the researchers could examine the impact of the duration of deprivation. On the positive side, all of the children had a considerable catch-up in the cognitive test scores (IQ) at age 6 and 11. However, the majority of the children older than 24 months at the time of adoption did not improve beyond an IQ score considered as very impaired (<70) (Beckett et al. 2006). These studies indicate that abysmal social and environmental surroundings are detrimental to human development the longer they are allowed to act.

A final, rare longitudinal study that deserves attention is the study by John Laub on the life course of delinquent teenagers growing up in low-income areas of Boston (Laub and Sampson 2003), following them from childhood to the age of 70. The most striking finding is the diversity in developmental trajectories. The authors reject the notion that early childhood experiences (e.g., antisocial behavior or poor school performance) are sturdy markers of long-term problems and criminal offense. Instead, they point to positive changes as a constant interaction of individual choices and environmental support. Despite early instability and family chaos, those who desisted from crime had some environmental factors in common: employment, military service, marriage, and living arrangements. Entering military service and becoming married represented turning points with respect to a change in antisocial or delinquent behavior. Although work was less influential in changing attitudes and behavior, it represented a strong protective factor in terms of routines, structure, and meaningful activities sustaining desistance from crime. Marriage was particularly protective as it provided limitations to socializing with

delinquent peers. Enrolment in the military services acted protectively in a similar manner. Studies such as these illustrate the importance of social and structural support systems if a long-term positive adaptation is to be expected.

How do we measure resilience? One option could be to measure the positive outcome per se. However, instruments assessing protective factors are most probably a better approach as they are better suited to study how resilience mechanisms unfold over time. As our knowledge of protective factors has become extensive, it is quite surprising that valid instruments for assessing resilience factors are heavily underdeveloped. In a review of instruments measuring resilience, Ahern, Kiehl, Sole, and Byers (2006) identified six tenable scales. The Resilience Scale for Adults was one of these, which also is developed by the current author (Friborg et al. 2003). It received a good rating and is the only well-validated scale that measures resilience protective factors covering the three overarching clusters mentioned above: intrapersonal resources (positive perception of self, positive perception of future, social competence, and structured style), family cohesion, and social resources. In a range of studies, the RSA appears to be a valid measure predictive of efficient coping following stressful life events (Hjemdal et al. 2007), a higher tolerance of pain and stressful stimuli (Friborg et al. 2006), a more well-adjusted personality profile (Friborg et al. 2005), and less feelings of hopelessness (Hjemdal et al. 2012). It may be recommended for research on resilience and well-being.

20.2.5 Prosocial Behavior: *Mona Bekkhus and Lucy Bowes*

Prosocial behavior is thought to promote healthy development and well-being throughout development. Prosocial behavior is usually defined as voluntary behavior intended to benefit others (Eisenberg et al. 2006) and could reflect either internalized motivated behavior or behavior motivated by a general concern for others' well-being. A number of empirical studies suggest that children begin to act in a prosocial manner very early in life (e.g., Svetlova et al. 2010; van der Mark et al. 2002) and that prosocial behaviors usually increase with age (Benenson et al. 2003). For example, infants have been found to show distress in response to another infant's crying (Zahn-Waxler and Smith 1992), suggesting a predisposition for empathy. In a study examining prosocial behavior in toddlers, Svetlana and colleagues (2010) showed that toddlers as young as 18 months were able to instrumentally help adults and that the tendency to act in a prosocial manner increased significantly from 18 to 30 months of age. Moreover, in their meta-analysis, Eisenberg and Fabes (Eisenberg and Fabes 1998) found that prosocial behavior, such as sharing/donating, helping, and comforting others, was higher in adolescence than in childhood. However, longitudinal studies focusing on interindividual change and stability suggest that there are inconsistencies in the age-related increase in prosocial tendencies (e.g., Carlo et al. 2007; Hay et al. 1999). Nantel-Vivier, Kokko, Caprara, Pastorelli, Gerbino, Paciello, and coworkers (2009) examined prosocial behavior longitudinally across childhood and adolescence using

a multi-informant, cross-cultural design. Their results indicate stable or declining levels of prosocial behavior over a 5-year period, from 10 to 14 and 15 years of age. Similarly, a study by Côté and colleagues (2002b) found a relatively high degree of stability in helping behavior over a 6-year period (6–12 years), using different raters over the study period. Thus, it appears that, although there are age-related changes in prosocial behavior, there is also a relatively high degree of continuity from childhood to adolescence.

Studies investigating the development of prosocial behaviors have largely focused on environmental influences of parenting, and twin studies have shown that positive and warm parenting promotes children's prosocial behavior (e.g., Eisenberg et al. 2006). However, it is increasingly recognized that environmental influences do not operate isolated from genetic influences (Rutter 2006). Thus, there is a need to focus on susceptibility to environmental influences. Research on parent-by-child temperament interactions, plasticity (Ellis et al. 2011), and differential susceptibility (Belsky et al. 2007) suggests that the characteristics of individuals (and their genotypes) may make them more susceptible to the rearing environment in a "for better or for worse" manner. That is, some children may, due to temperamental or genetic reasons, be more susceptible to *both* the adverse effects of, for example, parenting and the beneficial effects of supportive rearing (Pluess and Belsky 2009). Emerging evidence suggests that this may also be the case with prosocial behavior. For example, Knafo, Israel, and Ebstein (2011) examined the heritability of children's prosocial behavior in 168 twin pairs. Their findings revealed an interaction pattern suggesting that some children might be more susceptible to their rearing context. That is, for children with the 7-repeat allele *(DRD4-III polymorphism)*, prosocial behavior increased with an increase in maternal positivity. This linear relationship was, however, not found for the 7-repeat absent children. Children with the 7-repeat allele, whose mothers were the most positive, showed the highest levels of prosocial behavior. But children with the 7-repeat allele, whose mothers were the least positive, showed the lowest levels of prosocial behavior. Thus, it is clear that both genetic and environmental factors contribute to explaining individual differences in children's prosocial behavior (for details, see Sect. 20.4.3).

In general, all children can act prosocially, but they differ in the frequency in which they engage in prosocial behavior and in their motives for behaving in a prosocial way. From a public health and well-being perspective, it is often thought that promoting prosocial behavior should encourage healthy development. For example, in a study by Côté and colleagues (2002a), girls who followed an abnormally low prosocial trajectory were at risk for developing conduct disorder in adolescence. The assumption is that promoting prosocial behavior in such groups may reduce the risk of conduct problems. At the opposite end of the continuum, very high prosocial behavior has been found to be a risk for depressive symptoms in 18-year-olds (Gjerde and Block 1991). Thus, both high and very low prosocial behavior may function as an additional risk for mental health, rather than promoting SWB and positive health.

20.3 Measurement

20.3.1 Measuring Well-Being: *Espen Røysamb*

In parallel with the conceptual and theoretical development of the well-being field, recent decades have witnessed an increased focus on measurement issues and methodological challenges. Is happiness measurable? And, if so, to what extent are measures reliable and valid? From a general skepticism toward measuring happiness, psychology has moved into developing and evaluating a number of well-being instruments. Based on recent developments, we now believe that measuring well-being is just as feasible as measuring, for example, mental disorders.

However, in contrast to mental disorders, well-being is typically measured as continuous rather than categorical phenomena. Clinical disorders such as anxiety and depression and neurodevelopmental disorders such as ADHD and autism are regularly defined by a set of criteria or symptoms, with a certain number of fulfilled criteria required to qualify for a diagnosis. Sum scores of symptom items are also used to represent continuous dimensions but then often with cutoff values to indicate severe symptom load or diagnostic level. Well-being instruments are primarily designed to capture degrees of well-being, ranging from low to high – without predefined cutoff values.

Whereas the general construct of QOL is sometimes measured by means of external criteria, such as access to education and health care, the psychological perspective on well-being focuses on the subjective or perceived aspects of the good life. Thus, well-being instruments aim to capture positive and negative emotions and cognitive evaluations of life. Accordingly, external factors, such as education and health care, are seen not as components of well-being but rather as possible sources and predictors of well-being.

As outlined, a number of well-being constructs have been developed: SWB, life satisfaction, positive affect, psychological well-being (PWB), mental well-being (MWB), personal well-being (PWB), flow, and hedonic balance. Correspondingly, several self-report instruments have been constructed. Central examples include the Satisfaction with Life Scale (Diener et al. 1985b) tapping the cognitive evaluative component of SWB; the Positive and Negative Affect Schedule (Watson et al. 1988), measuring affective components of SWB; and the Psychological Well-being Scales (Ryff and Keyes 1995), containing six subscales covering the PWB domain. Other examples include the General Happiness Questionnaire, the Authentic Happiness Inventory Questionnaire, the Basic Emotions State Test, the Oxford Happiness Questionnaire, the Personal Well-being Index, and Cantril's Ladder (Diener et al. 2012; Eid and Larsen 2008; Ong and van Dulmen 2007) (for details, see Sect. 20.3.4).

In addition to questionnaire-based self-report instruments, the field has developed several alternative methods. One approach comprises various structured and semi-structured interviews. Another approach includes different versions of the Experience Sampling Method (ESM). The ESM approach aims to capture emotions

and experiences in situ. Noteworthy are recent developments using modern technology, where research participants are prompted to fill out mini-questionnaires on their smartphones at random times during the day (Killingsworth and Gilbert 2010). A similar approach is seen in the Day Reconstruction Method (Kahneman et al. 2004), in which daily accounts of well-being and experiences are collected.

Valid measurements are essential for representing theoretical constructs and investigating causes and consequences of well-being. Yet measurement is not only an end result of conceptual theorizing but rather a critical feature in theoretical developments. Measurement efforts have contributed substantially to defining and refining constructs, to establishing boundaries between constructs, and also to delineating the underlying structure of well-being. For example, the theoretical distinction between the hedonic dimension of SWB and the eudaimonic dimension of psychological well-being has been supported in studies of the underlying structure of well-being scales (Ryan and Deci 2001) (see also Sect. 20.2.3).

Reliability and validity have been in focus during the development of well-being measures. Researchers have applied state-of-the-art methods, including item response models and structural equation modeling (SEM) to evaluate measurement equivalence, structural validity, and underlying latent structures (Ong and van Dulmen 2007). Thus, the most widespread instruments currently in use have well-established psychometric properties.

As well-being theories mainly have addressed adult well-being, measurement has also primarily been based on adult samples. However, recently there has been an important increase in research on measurement of child well-being (Casas et al. 2012c; Gilman and Huebner 2003). Several questions are being addressed: For which younger age groups may adult instruments be appropriate? For which age groups may adapted versions be feasible? Is the underlying structure of well-being similar among children and adults? As the field is moving forward, we anticipate high attention to measurement issues among children in the years to come, leading to validated instruments for all relevant aspects of well-being in different age groups. We move next to a brief review and outline of some promising developments in the measurement of well-being in children.

20.3.2 Do We Need Specific Indicators for Children and Adolescents?: *Ferran Casas*

May subjective information given by individual adults have any relevance at the macro-social level? Are subjective data from adults valid and reliable? Should we systematically collect some kinds of self-reported information from adults to better understand some social dynamics and some social changes involving them? Could that data from adults be useful for political decision-making? All of these questions were raised during the 1960s, when the so-called social indicators movement was born. One of the outstanding ideas of this movement was that we cannot properly measure social changes with only "objective"

indicators. Subjective indicators are needed because people's perceptions, beliefs, opinions, attitudes, and evaluations on their social life are also a part of the social reality and have much to do with social changes. Therefore, subjective indicators were proposed, which were considered to be relevant for political decision-making. Due to the lack of tradition of systematically collecting subjective data, a challenge was identified about how to produce them rigorously. Following Bauer's proposals, subjective indicators should not only be "measures" but also other forms of evidence that enable us to assess where we stand and are going with respect to our values and goals and to evaluate specific programs and their impact (Bauer 1966).

More than 30 years later, exactly the same questions raised in the beginning of the last paragraph have been reformulated. The only difference is that the word "adults" has been substituted by "children and adolescents" (Casas 2011). Ben-Arieh (2008) pointed out the emergence of a "child indicators movement." However, once again, our lack of scientific tradition is our main challenge. Do we need specific indicators for children and adolescents? We do not know for sure whether some indicators could be the same. Yet, from a psychological point of view, the more wise answer should be that the kind of relevant data to be collected may change with age. The fact is that national and international systems of statistics now include a large number of survey results from adults, but almost no data is collected systematically from children or adolescents in most countries.

In the international arena, UNICEF's study coordinated by Adamson (2007) marked an important step toward the articulation of objective and subjective indicators for understanding children's living situations in different countries. The study dealt with five major domains for children's well-being, namely, material well-being, health and safety, educational well-being, young people's relationships, behaviors and risks, and SWB. However, that pioneer study faced several limitations: (a) Only very few international databases exist with data provided by children themselves – for example, Health Behavior in School-aged Children (HBSC) (www.hbsc.org) and Program for International Student Assessment (PISA) (www.oecd.org/pisa). (b) Data in these databases include a limited number of countries, mostly developed countries. And, (c) the only psychometric scale included in international databases is the single-item scale named the "Cantril's Ladder" (Cantril 1965). Using only a single-item scale for international comparison is too weak a solution when dealing with a young and controversial field of measuring as SWB still is at present. Additionally, it is doubtful that "SWB" should be considered a separate domain in life, rather than including a subjective view in any domain. The number of available multi-item scales to evaluate children's and adolescents' SWB in general (nonclinical) populations is still limited. Much more testing must still be developed between countries, cultures, and languages (Casas et al. 2012c). Scientific research on the psychosocial components of QOL during the 1960s and 1970s soon led from macrosocial studies to micro-social studies of subjective or personal well-being. We were no longer interested only in the general well-being of populations. We also

wanted to understand in more detail and with more precision the individual functioning that leads to people giving a positive evaluation of their own personal well-being. This made it even clearer that QOL research – and therefore well-being research – required not only an interdisciplinary approach but also a more micro-focused, even experimental research. Currently, we are still trying to understand the connections between SWB at a macro- and a micro-level. In psychology there is a long tradition of studying children's and adolescents' well-being at the micro-level. However – like in most human and social sciences – our major research has been focused on the negative aspects of well-being. Only very recently have we also been interested in the positive aspects and started to collect self-reported "positive" data from children and adolescents. We have long traditions collecting data from children for individual understanding. However, a feeling of "social and political relevance" of such data has often been missing. When we have asked children and adolescents for their own perceptions and evaluations very often, the data have not been as expected. Sometimes, we have doubted the reliability of the data. Sometimes we have doubted the reliability of the informants. The only evidence being that as researchers we did not have previous experience in asking the children (Casas 2011).

In the adult realm, it was assumed that social indicators could be "subjective" data or data obtained through subjective methods such as questionnaires, interviews, and discussion groups. This led to a debate over the epistemological "objectivity" versus "subjectivity" of the social phenomena being measured. Does "citizen dissatisfaction" with a service exist in the objective sense? If subjective measurement techniques indicate consistent dissatisfaction over time, may we then conclude that majority dissatisfaction "truly exists" and that it may have "real" and "objective" consequences? This debate recalled the famous quote that when people "define situations as real, they are real in their consequences," including social and political consequences (Thomas and Thomas 1928, p. 572).

Although such considerations are also valid when referring to the youngest generations, the obvious political interest in collecting subjective data from children has been slow to develop. Child well-being was initially conceived at both the national and international level as "what follows from objective realities" such as rates of mortality, malnutrition, immunization, and disease. Nobody has denied the high usefulness of these data. What is surprising is that while "subjective adult satisfaction" with services and life conditions has become a very important policy issue, the satisfaction of children and adolescents continues to be treated as irrelevant. Too often, in the social and human sciences, the low reliability and validity of data obtained from children and adolescents are used as excuses to avoid collecting such data. Curiously, only advertisers and marketing experts appear to be interested in this population and to have "overcome" difficulties concerning validity and reliability (Casas et al. 2012b).

In addressing child well-being and QOL, we must not forget that by definition, QOL includes the perceptions, evaluations, and aspirations of everyone involved. We know that different social agents may perceive the same reality differently. This does not mean that some of them are right and all the others are

wrong. Social realities are often comprised by different perceptions and evaluations of sets of various social agents, where all social agents are relevant for understanding the social dynamics involved. We cannot go on trying to explain social realities involving children based solely on our adult perspectives. Perspectives of children and adolescents are essential to understand their social worlds. In other words, we must not confuse child well-being with adult opinions of child well-being (for details, see Sect. 20.3.5). Both are important, but they are not the same, and both are a part of the complex social reality we call child well-being. Therefore, we face the challenge of filling the large gap of information concerning the younger population's point of view of the social reality that affects humanity. Only in the last few decades have scientists become interested in studying child and adolescent well-being from the subjects' own perspective. Until very recently, it was assumed that adult evaluations on children's well-being would be valid enough.

A very recent international interdisciplinary initiative is trying to develop child-centered specific subjective indicators. Here they have proposed a new data collection in as many countries as possible using a questionnaire which explores children's activities, perceptions, and satisfactions with regard to their everyday life. A range of life domains and children's opinions on different topics affecting them is considered by means of three psychometric scales (International Survey of Children's Well-Being (ISWeB) (http://childrensworlds.org/). Questions to children have been grouped in 10 sections, including yourself, your home and the people you live with, money and things you have, your friends and other people, the area where you live, the school, how you spend your time, more about you, how you feel about yourself, and your life and your future. In each section, there may be questions on definition of each child's situation, on agreement/disagreement, on frequency, and on satisfaction. Satisfaction items can be grouped into eight life domains, in such a way that an index of each domain can be calculated, including household, material belongings, interpersonal relations, area of living, health, organization of time, school, and personal evaluations (feelings and beliefs). Three adapted versions of existing psychometric scales have been used in this project. These are the Students' Life Satisfaction Scale (SLSS) (Huebner 1991b), the Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS) (Seligson et al. 2003), and the Personal Well-Being Index (PWI) (Cummins et al. 2003). A first publication of results using a slightly modified version of this questionnaire and proposing an overall index on children's SWB has been conducted by UNICEF-Spain: http://www.unicef.es/actualidad-documentacion/publicaciones/calidad-de-vida-y-bienestar-infantil-subjetivo-en-espana

Researchers need to develop much more research instruments and projects with "children's advice" in order to be able to really capture what is relevant in children's life and for children's well-being from their own perspective (Casas et al. 2012b). Multi-method research, including qualitative data collection from children, is necessary to better understand children's answer to our "adult" questionnaires, based on our worries and aspirations.

20.3.3 Measurement of Well-Being in Children and Adolescents: *Ferran Casas and Bente Wold*

In the recent years, at least three major child and adolescent personal well-being literature reviews have been published. One focused mostly on QOL, another on well-being, and a third on satisfaction (Andelman et al. 1999; Huebner 2004; Pollard and Lee 2003). These three concepts, although considered different by some authors, are very often used as interchangeable without defining them. In the tradition of social sciences, QOL is usually considered the broadest concept, while satisfaction is related to the cognitive aspects of SWB (see also Sect. 20.2.3). In health sciences, it has often been considered differently, although at present the most used concept is health-related quality of life (HRQOL) (for details, see Sect. 20.3.6).

These reviews show that most studies on child and adolescent well-being and QOL in the English-language literature have been focused on very specific, small populations, such as children with particular health problems. The reviews also show that in health sciences there are a great variety of quite specific instruments to assess "well-being" as an output of very concrete interventions among particular clinical populations, for example, children with cancer or with transplanted organs. In contrast, the social sciences are more devoted to investigating nonclinical populations, with larger samples, although the number of such studies is not large.

A number of psychometric scales have been used among regular populations of children and adolescents from the hedonic perspectives. However, up till now, there has not been a single eudaimonic scale available to study age groups under 16. Yet, a limited number of studies exploring different eudaimonic aspects of life have been undertaken. For example, one study addresses the relationship between future aspirations and SWB (Casas et al. 2007). Another study investigates associations between religion/spirituality and SWB (Casas et al. 2009). In different European countries, children were asked "Imagine that you are 21 years old. At that time, how much would you like people to appreciate the following aspects of you?" Unexpectedly, the most frequent answers chosen among lists of 16–26 qualities were niceness or kindness. In addition, it has been shown that in some countries, using religion and spirituality as the same life domain – as in the PWI – may be very confusing to adolescents, who consider these issues as very different.

Asking children directly about their perceptions, opinions, and evaluations of aspects and conditions of their life has produced surprising results. This has forced us to think critically about adult-held stereotypes and beliefs that for no good reason may generate bias among researchers and affect scientific understanding. A highly unsettling example is the history of child witness testimony studies. For more than two decades, researchers were interested only in cases in which children's testimony was flawed. It was not until the 1980s that studies began to think from the point of view of the child. Then researchers were able to show that if children received an appropriate amount of support allowing them to feel comfortable, they could in fact be valid witnesses (Garbarino and Stott 1989).

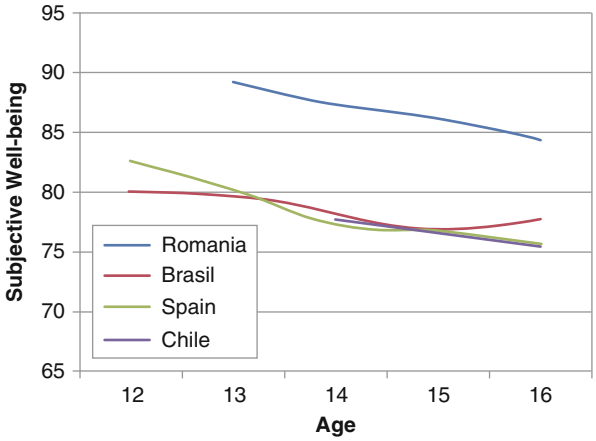

Fig. 20.1 Change in SWB across age. Standardized mean across measures in each country, not weighted for different n; Brazil (age 12–16 years, $N = 1\ 588$; scales BMSLSS5it, Fordyce, HOL, OLS, PW17gr, and SWLS), Chile (age 14–16 years, $N = 853$; scales BMSLSS5it, Fordyce, HOL, OLS, PW17gr, and SWLS), Spain (age 12–16 years, $N = 2\ 900$; scales BMSLSS5it, Fordyce, HOL, OLS, PW17gr, PWIndex, and SWLS), and Romania (age 13–16 years, $N = 930$; scales OLS and PWIndex). Argentina not included because of low n. For full name and references to measure, see text

Another example is the "discovery" of the decreasing life satisfaction from the age of 12 to the age of 16. In the scientific literature throughout the 1980s and 1990s, it was assumed that life satisfaction remains fairly stable throughout life, except for individuals with significant traumatic experiences. However, Petito and Cummins (2000) demonstrated that well-being decreased with age in an Australian sample of 12–17 years old. Later on, it was reported that in different samples of 12–16 years old from Catalonia, Spain (2003, $N = 2{,}715$; 2005, $N = 5{,}140$; 2007, $N = 1{,}392$; 2008, $N = 2{,}841$), using the PWI (Cummins et al. 2003), a decrease of overall life satisfaction with age was also observed (Casas 2011). More recently, SWB was assessed among adolescents using a range of six different instruments in Argentina, Brazil, Chile, and Spain. The aforementioned decreasing tendency was observed with all the instruments in all four different countries (Casas et al. 2012c). In the meantime, similar results have been reported also from Romania (Bălţătescu 2006), another Australian sample (Tomyn and Cummins 2011) (Fig. 20.1).

Recent findings from a large European study have identified similar trends (Currie et al. 2012). In the 2009/2010 survey of the Health Behavior in School-aged Children study (the HBSC study), satisfaction with life was measured in representative samples of 11-, 13-, and 15-year-olds from 39 countries. Life satisfaction was measured by the 11 steps of the "Cantril's Ladder." The top of the ladder indicates the best possible life and the bottom the worst. Respondents were asked to indicate the step of the ladder at which they would place their lives at present (from "0" to "10"). High life satisfaction was defined as reporting a score of "6" or more. More than 80 % of 11-year-olds reported high life satisfaction in all countries except

Romania and Turkey. In 13 countries – including the Nordic countries and UK except Wales – more than 90 % of the children responded 6 or higher on the ladder. The proportion of children who reported high life satisfaction was highest in the Netherlands and lowest in Eastern European countries – 97 % among 13-year-old Dutch boys compared to 68 % of Turkish boys. As in Argentina, Brazil, Chile, Spain, and Romania, prevalence of high life satisfaction significantly declined between ages 11 and 15 in almost all countries and regions for girls and in some for boys. Boys reported a significantly higher prevalence in most countries and regions at age 15 but in fewer than half at 13. There was less evidence of a significant gender difference at age 11. Gender differences were not large at any age and only exceeded 10 % in a few countries and regions at age 15. Affluence was significantly positively associated with high life satisfaction in nearly all countries and regions for boys and girls (for more on cross-cultural comparisons, see Sect. 20.4.1).

How come that these strong tendencies have not been detected earlier? One explanation may be that during the past century, most authors were using four- or five-point scales to assess SWB, life satisfaction, or happiness. Because of the non-normal distribution of the answers and the tendency in most populations to answer toward the positive end, the so-called optimistic bias (for details, see Sect. 20.4.4), such scales are not sensitive enough to catch differences in subgroups of the population. When researchers started to use eleven-point scales as recommended by Cummins and Gullone (2000), the age differences became visible, and the decreasing-with-age tendency became more and more obvious.

Taken together, these results pose a new question. Why is early adolescence a period of decreasing SWB – including overall life satisfaction – in so many countries? In addition, recent studies have cast doubt on the delicate assumption that parents transfer personal well-being to their children. In a sample of 12–16-year-old Catalan children and their parents, no significant correlations between parents and their children were found on global life satisfaction and in most life domains. The only exceptions were satisfaction with health and satisfaction with future security (Casas et al. 2008). Later on, with a much larger sample and more sophisticated data analyses, similar results were found by Casas, Coenders, and colleagues (Casas et al. 2011a), although interesting differences between parents of a boy and parents of a girls appeared (for further discussion, see Sect. 20.4.7).

20.3.4 Instruments: *Ferran Casas*

Researchers have developed a number of scales for assessing well-being, which are specific for children or adolescents. Some examples are Perceived Life Satisfaction Scale (PLSS) (Adelman et al. 1989), Students' Life Satisfaction Scale (SLSS) (Huebner 1991b), Multidimensional Students' Life Satisfaction Scales (MSLSS) (Huebner 1994), Quality of Life Profile – Adolescent Version (QOLP-Q) (Raphael et al. 1996), Comprehensive Quality of Life Scale – Students Version (Com-QOL Students) (Cummins 1997; Gullone and Cummins 1999), and Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS)

(Seligson et al. 2003). Some studies have also taken general scales developed for the whole (adult) population and successfully used them on adolescent samples, including Satisfaction with Life Scale (SWLS) (Diener et al. 1985a), Personal Well-Being Index (PWI) (Cummins et al. 2003), and Fordyce's Happiness Scale (FHS) (Fordyce 1988). The most frequently used scale with adolescents in the psychological scientific literature up till now is probably the single item on overall life satisfaction (OLS), which can be found with different wordings. The most frequently used multi-item scales with adolescents seem to be the SLSS, BMSLSS, PWI, and SWLS. By content, they seem like quite different scales. However, when used together, they tend to correlate rather strongly, usually between 0.50 and 0.65.

The OLS, SWLS (5 items), and SLSS (7 items) are context-free scales, while the MSLSS, BMSLSS, and PWI are based on the assumption that SWB or life satisfaction is composed by different life domains. The BMSLSS and the PWI seem to have fewer psychometric limitations when used with adolescents in international comparisons.

The SWLS was originally created to be used with adults and SLSS specifically for children and adolescents at 8 years old and on. The psychometric properties of the SWLS have been published in various articles. See, for example, Pavot and Diener (1993). The originally reported Cronbach α was 0.87 (Diener et al. 1985b). In the original testing, a single component accounted for 66 % of the variance.

The SLSS was designed by Huebner (1991b) as a seven-item context-free one-dimensional scale. Up until 1994, it was tested on small samples of children 10–13 years old ($N = 79$) (Huebner 1991a) and 7–14 years old ($N = 254$) (Huebner 1991b) in the USA using a four-point frequency scale (from never to almost always). Reported Cronbach's alphas ranged from 0.73 (Terry and Huebner 1995) to 0.82 (Huebner 1991b; Huebner et al. 2003). In Fogle, Huebner, and Laughlin (2002), the scale is reported as a six-point scale from strongly agree to strongly disagree, and Cronbach's alpha is reported at 0.86 ($N = 160$, 10–15 years old). Gilman and Huebner (2000) suggested caution with respect to assuming the comparability of scores across the two formats.

PWI includes items on satisfaction with seven overall abstract life domains. These are health, standard of living, achievements in life, personal safety, community, security for the future, and relationships with other people. It has an eighth optional item which does not function in all countries, namely, satisfaction with spirituality or religion. These life domains need rewording or even reformulation in some countries. For example, in Spanish samples, satisfaction with community was not understood by most adolescents and had to be substituted by satisfaction with groups of people you belong to. The psychometric properties of the PWI have been reported in Lau, Cummins, and McPherson (2005) and in International Wellbeing Group (2006). Cronbach's α was originally reported to lie between 0.7 and 0.8. The seven original domains form a single component which predicts over 50 % of the variance for "satisfaction with life as a whole" with adult samples (Cummins et al. 2003). A School Children (PWI-SC), Preschool Children (PWI-PC), and Intellectual and Cognitive Disability (PWI-ID) versions are available in the Australian

Centre on Quality of Life Web page (http://www.deakin.edu.au/research/acqol/auwbi/index-translations/wbi-school-english.pdf), which have been tested in Australian and Chinese samples.

In contrast, BMSLSS is composed of five very concrete life satisfaction domains. These are family, friends, school, oneself, and the place you live in. Why such concrete items usually correlate strongly with the more abstract items in the PWI and how the two kinds of items may be included in a common model are still unresolved questions. The psychometric properties of this scale have been published in different articles. A 0.68 Cronbach's α was originally reported (Seligson et al. 2003).

The fact that most scales used with adolescents show a lower explained variance than the equivalent one with adults has raised a debate on what may be missing in the scales administered to adolescents. Currently, psychological literature is rich in publications that propose to include new life domains to the existing domain-based scales. For example, school satisfaction (Tomyn and Cummins 2011) and time use (Casas et al. 2011b) have been proposed to be included in the PWI. These scales have until now only been used with adolescents in a very limited number of countries. Yet, an increasing international testing has been observed during the recent years. The results obtained with these psychometric scales are promising and may lead to the development of well-grounded subjective indicators at the population level in countries that have versions adapted to their language and culture. Since most scales show a lower explained variance when used with adolescents than with adults, continue by discussing whether we should trust parents' reports about their children's well-being more than the children's own reports.

20.3.5 Can We Trust in Parents' Report About Their Children's Well-Being?: *Thomas Jozefiak*

Because of the substantial discrepancy between child and parent reports on children's well-being and QOL (Upton et al. 2008), a debate goes on in the literature about who is the most appropriate informant (Chang and Yeh 2005; Eiser and Morse 2001; Ellert et al. 2011). According to the World Health Organization, the concept of QOL is by definition based on the individual's own subjective perspectives. However, younger children's QOL report can be biased by several factors, among others their limited cognitive capacities and life experience (Spieth 2001). Therefore, for children up to ages 8–10 years, their parents are often asked to evaluate their children's well-being and QOL. Many studies of QOL in adolescents have also used only parent reports. Thus, it is very important to know how well we can trust in such "proxy" reports.

In the general population, research comparing child and parent proxy reports showed that parents evaluated their child's well-being and QOL as better than did the children themselves on most life domains (Ellert et al. 2011; Jozefiak et al. 2008; Upton et al. 2008). Further, parents in the general population reported only few changes related to one domain (school) of their children's well-being and QOL

over a 6-month period, while the children reported changes in many life domains such as family, emotional well-being, self-esteem, and school (Jozefiak et al. 2009). Parents' own well-being has also been shown to be very weakly related to their children's well-being (Casas et al. 2012a), and relationships between parents' and children's values are highly culture specific (Coenders et al. 2005).

In contrast to general population research, discrepancies between child and parent reports are not so obvious in clinical population studies. Generally, it has been shown that the strongest correlate of referral to child mental health care is the impact of child symptoms on parents (Angold et al. 1998). Furthermore, parents of children with attention-deficit/hyperactivity disorder (ADHD) reported lower adult QOL than parents of healthy children (Schilling et al. 2006). That is, child problems appear to have an impact on parents and could bias the parent proxy report of child well-being and QOL. For example, mothers of children referred to child psychiatry evaluated their children's QOL as poorer than the children themselves reported (Jozefiak 2004). Also, parents' own problems can influence parents' proxy reports. Maternal depression was a significant predictor of total "proxy" QOL report, accounting for 12 % of the variance (Davis et al. 2008). These examples show that parents in clinical populations may underestimate their child's "real" QOL. In somatic clinical populations, for example, obese children, these discrepancies may have different directions depending on the life domain being investigated (Hughes et al. 2007). There might be several interpretations of these findings, that is, the quality and psychometric properties of available parent–child measures and known and yet unknown factors affecting parent–child agreement levels and their direction (Upton et al. 2008). However, there is enough evidence indicating that parent proxy reports of child well-being and QOL are as biased as younger children's self-reports but of course by different factors than in the child. Therefore, there is good reason to distrust parent's report about their children's well-being.

However, despite these disadvantages of parents' reports, they obviously also have advantages, at least in the assessment of well-being and QOL in younger children. Parents have more developed evaluation capacities (consequence thinking, better sense of time – past and future, etc.), while children perceive and evaluate the quality of their lives more in the present moment. This becomes obvious especially in children with neuropsychiatric problems such as ADHD but also applies to the younger child without mental health problems.

What should we do in regard to the discrepancy between child and parent reports, if there is no "objective" gold standard? Instead of discussing who is the most appropriate informant about children's well-being, it would be wiser to accept both advantages and disadvantages of both child and parent reports and consider them as valuable different perspectives, at least with regard to younger or severely ill children. By the definition of QOL, the child report should be considered as the prime authentic report whenever it can be obtained, and parent proxy report could represent important supplemental information about children's well-being and QOL. However, if the child's report cannot be obtained, maybe we could use the child's health as a proxy for child well-being?

20.3.6 Health-Related Quality of Life: Can Health Complaints be Used to Indicate Well-Being?: *Arne Holte*

In epidemiological and clinical health research, symptom scales are among the most frequently used instruments to assess and monitor children's and adolescents' well-being. Several psychometrically sound scales and checklists are available, including the Strength and Difficulties Questionnaire (SDQ) (Goodman and Goodman 2009) and the Child Behavior Checklist (CBCL) (Achenbach 1991). Such symptom scales may tell us a lot about children's symptom profiles. Unfortunately, however, they tell us little about children's SWB or life satisfaction (LS). This is illustrated by a study of a representative sample of Norwegian 11–16-year-olds in 2009/2010 (part of the HBSC study; see Currie et al. 2012) – the correlation between an eight-item checklist of subjective health complaints (the HBSC symptom checklist; see Haugland and Wold 2001) and life satisfaction (measured by the 11-step Cantril's Ladder; see Sects. 20.3.1–20.3.2) ranged from 0.39 among 11-year-old boys to 0.53 among 15-year-old girls. In the same study, subjective health as measured by a generic question was even more weakly related to life satisfaction (correlations ranging from 0.22 among 11-year-old girls to 0.36 among 13-year-old boys).

Strong self-reported health may occur together with low well-being. Weak self-reported health may occur together with high well-being (Fig. 20.2). Although to some extent correlated, health and well-being, therefore, have to be differentiated conceptually and measured separately and independently. Obviously, if we would wish to assess the degree to which the two influence each other, anything else would also be tautological.

Yet, within the field of health, the most frequent way of defining well-being is in terms of health-related quality of life (HRQOL). Modeled on the WHO definition of health from 1947, the construction of HRQOL instruments was guided by a consensus statement from an International Board of Advisors (Goodman and Goodman 2009). According to this, four fundamental dimensions are essential to any measure of HRQOL, namely, physical, mental/psychological, and social health, as well as global perceptions of function and well-being. In addition, pain, energy/vitality, sleep, appetite, and symptoms relevant to the intervention and natural history of the disease or condition were listed as important domains but left to the individual investigator to include or exclude.

The PRO Harmonization Group (Achenbach 1991) defined HRQOL as "the patients' evaluation of the impact of a health condition and its treatment on daily life." Patients' evaluation implies that the patient is the preferred respondent to HRQOL questionnaires. Impact on daily life indicates that the domains assessed are relevant to the patient and that the assessment goes beyond a mere counting of events. The notion of multidimensionality is a key component of definition for HRQOL and means that a single domain cannot be considered as a HRQOL measure, even though it is a patient-reported outcome.

HRQOL scales may be generic or specific. The most frequently used generic scale is the SF-36 (Berzon et al. 1993). SF-36 is constructed to be used in a variety of patient groups and has also been used with adolescents. SF-36 consists of eight

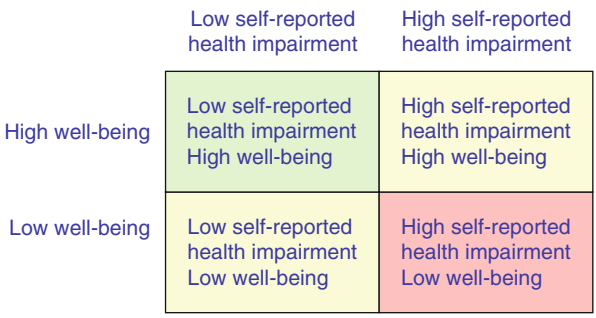

Fig. 20.2 Although to some extent correlated, self-reported health and self-reported well-being must be conceptually differentiated and measured separately and independently

subscales: physical functioning, physical role limitations, body pain, vitality, social functioning, emotional role limitations, mental health, and general health perception. The TNO-AZL Child Quality of Life Questionnaire (TACQOL) is an example of a generic HRQOL instrument designed specifically for children aged 8–15 years. It assesses the occurrence of functional problems, including negative emotional reactions. Here HRQOL is operationalized by seven dimensions – pain and physical symptoms, motor functioning, autonomy, cognitive functioning, social functioning, global positive emotional functioning, and global negative emotional functioning – each assessed by an eight-item scale (Vogels et al. 2000).

The broad cover of generic scales may weaken their sensitivity to specific changes. For example, an intervention which reduces symptoms specific to a certain illness (e.g., asthmatic breathing difficulties) may not be picked up adequately by the SF-36 or the TACQOL.

Condition-specific HRQOL scales have therefore been developed. These scales usually include items addressing specific symptom clusters, body parts, or biological systems (e.g., congenital heart disease). The relevance of items included in such instruments may often be clinically defined and not reflect a causal relationship with the underlying biological system in question. For instance, may symptom scales for congenital heart disease in children contain questions about anxiousness, even though there is no evidence that anxiousness is biologically associated with congenital heart disease.

HRQOL is most often limited to patient-reported health complaints, operationalized as scores on a symptom scale combined with self-assessment of associated functional impairments. Interpreted this way, an excellent level of HRQOL is indicated simply by absence of self-reported health complaints which are expected to occur more frequently in association with a specific clinical condition. Excellent HRQOL should therefore be considered conceptually different from excellent, positive physical and mental health and does not imply high well-being.

Within the fields of psychology and social sciences, well-being is normally defined independently from self-reported health complaints. As mentioned in Sect. 20.2.3, affective well-being (AWB) and cognitive well-being (CWB) (e.g., satisfaction with life) may be regarded as distinct constructs (Acquadro et al. 2003).

These distinct constructs may differ both in their stability and variability across time (Ware and Sherbourne 1992) and in their relations with other variables (Eid and Diener 2004; Lucas et al. 1996; Schimmack et al. 2008). Among adults, specific life events such as marriage, divorce, bereavement, childbirth, unemployment, reemployment, retirement, and relocation/migration have differential effects on the affective and the cognitive components of well-being. In addition, adaptation of AWB and CWB to such life events does not occur at the same rate (Wiest et al. 2011).

Although both HRQOL and well-being rely on self-report, HRQOL cannot substitute either SWB or LS. Normally, perceived health defeats well-being only if onset of the health condition is sudden and/or intense. Otherwise, among adults, as compared to major life events such as marriage, divorce, bereavement, childbirth, unemployment, reemployment, retirement, and relocation/migration, health has only a modest impact on well-being. Data from 11 Canadian surveys illustrates this point. The surveys included between them 16 items of satisfaction representing a dozen specific life domains, for example, job satisfaction, family relations, and health. These items were used to predict happiness. Various combinations of the items were included in different surveys, but all the surveys included satisfaction with health.

For the 11 samples, multiple regression analyses explained on average 38 % of the variance in reported happiness from some subset of the predictor variables. The top four predictors of happiness were self-esteem, satisfaction with partner, satisfaction with friendship, and financial security. Satisfaction with health was never the strongest predictor. Its maximum beta value was 0.18. In 5 of the 11 surveys, the contribution of satisfaction with health was too low to enter into the regression equation (Luhmann et al. 2011).

The same review also considered studies revealing the importance of people's self-reported health to their overall happiness. In these studies, self-reported health was measured primarily by the eight dimensions of SF-36. When a variety of additional potential predictors were entered into the regression equation, 44 % of the variance in happiness scores was explained. However, only one of the eight dimensions of SF-36 remained, namely, mental health. The latter accounted for a mere 4 % points out of the total 44. That is, self-reported health had relatively little to contribute to respondents' reported happiness, and its measured contribution was significantly affected by the number and kinds of potential predictors employed (Luhmann et al. 2011). Unfortunately, we do not have corresponding studies on children and adolescents. But if we were to hypothesize, health would be even less important in determining well-being in childhood than in adulthood – as long as it is above a certain level and the social inequality in health is not too big.

As pointed out by one reviewer, no matter whether the pathology is subjective (e.g., perceived stress) or objective (e.g., degree of physical disability), pathology does not have a simple linear relationship to well-being (Luhmann et al. 2012). What we need now are population-based studies where measures of well-being are linked to measures of children's and adolescents' health to see whether the findings from adults can be generalized into children and adolescents.

20.4 Mechanisms and Explanations

20.4.1 Subjective Well-Being in Children and Adolescents from a Cross-Cultural Perspective: *Gisela Trommsdorff*

Research on SWB has mostly focused on university students and adults in Westernized countries. Beyond the question whether SWB findings generalize across cultures (Diener 2012), the question is whether findings generalize across developmental ages. The majority of children and adolescents worldwide live in difficult developmental contexts, experiencing survival needs, health problems, and insufficient schooling – potential risk factors for SWB. However, children's SWB has mostly been studied in "wealthy" Westernized countries (UNICEF 2007), thus restricting generalizations. Therefore, we take a culture-informed and developmental psychological perspective on children's and adolescents' SWB.

Methodological and theoretical shortcomings limit the cross-cultural comparability of SWB. Different conceptualizations relate to the structure (Ryff and Keyes 1995), to the contents, and to the various types of SWB. Usually, self-reports are used (Diener et al. in press) even though their validity for different cultural and age groups is unclear (Heine et al. 2002). Moreover, cultural conceptions of SWB are ignored (Lu and Gilmour 2004; Suh et al. 1998; Uchida et al. 2004). Longitudinal, experimental, and multilevel studies including representative samples are rare, and a theoretical framework is often missing.

Our integrative theoretical approach conceives of culture (including a nation's values and socioeconomic, political, and ecological characteristics) as structuring the socialization contexts (family, peers, school) of children's development (Trommsdorff 2007, 2012). This approach borrows from the ecological model of development (Bronfenbrenner 1979), the concept of the developmental niche (Super and Harkness 1993), and the cultural model of independence and interdependence (Markus and Kitayama 1991). We advocate a culture – and developmental psychological perspective to study preconditions and consequences of SWB, assuming that SWB is related to needs, motivation, and resources.

Children's SWB depends partly on how the respective nation socializes its children. At the nation level (WVS), most of the pertinent dimensions of socialization goals for children were correlated with SWB (Bond and Lun 2012). This is in line with large-scale representative studies on the associations among cultural values, children's socialization, and SWB (Kasser 2011; Schwartz 2012).

Warm and responsive caretaking in early childhood, warm caretaker–child relationships, and a harmonious family environment build resilience, buffering against stress and risk factors (Masten and Shaffer 2006; Richter 2010) and shaping life outcomes, including SWB (see also Sects. 20.4.6–20.4.7). Family cohesion was associated with better SWB in Italy and the UK (Manzi et al. 2006). In a longitudinal study, Chinese adolescents' SWB was poorer in non-intact compared to intact families (Shek 2008).

Adolescents favoring the family model of emotional interdependence (vs. independence) had the highest SWB across 10 countries (Value of Children (VOC) Study)

(Mayer and Trommsdorff 2012, July). Satisfaction with peers was highest in cultures with a modal-independent model.

Parent–child value similarities indicating positive parent–child relationships were related to higher SWB of Russian minority adolescents in Germany and Israel (Hadjar et al. 2012). However, the similarities were stronger for children from majority versus minority families.

According to universalistic claims of attachment theory, sensitive, warm, and supportive caretaking fosters the development of a secure attachment, thus shaping positive beliefs about the self and the world and fostering positive developmental outcomes including dynamic resilience (which depends on interactions between genes and developmental experience; Cicchetti and Rogosch 2012) (for details, see Sects. 20.2.5 and 20.4.3). However, cross-cultural studies on relations between attachment style and SWB in children and adolescents are lacking.

Rothbaum, Weisz, Pott, Miyake, and Morelli's (2000) discussion on the culture-specific function of sensitivity and attachment has partially been tested in cross-cultural comparisons of caretakers' implicit theories showing cultural differences in how caregivers foster appropriate development and well-being in children taking into account bilateral relations (Trommsdorff et al. 2012; Trommsdorff and Kornadt 2003; Ziehm et al. 2012).

Supportive interactions with peers can increase social competence and respective SWB, while exclusion and aggression may be a risk factor. No difference was found between Chinese and US American adolescents for the relation between peer acceptance and SWB (Greenberger et al. 2000). However, the strength of the overall positive association between peer acceptance and SWB on the individual level indicated cultural differences in the relative importance of peer acceptance for SWB (Schwarz et al. 2012). Cultural differences in the role of parents and peers for SWB were related to the importance of respective family values of interdependence versus independence. Peers were less influential for SWB when family importance was fostered by interdependent values. The higher the family values, the weaker were the positive associations of peer acceptance and SWB in the respective cultures. In line with Diener, Suh, Lucas, and Smith (1999), the quality of social relationships with parents and peers is important for SWB cross-culturally. However, Schwarz and colleagues (2012) also showed that strong traditional family values at the cultural level were related to higher SWB of adolescents, contradicting previous findings of higher SWB in individualistic versus collectivistic cultures (Suh and Koo 2008). More specific indicators of culture and SWB are needed to further delineate the role that peer relationships play in adolescents' SWB and vice versa (see also Sect. 20.4.9).

Cultural beliefs and religiosity are related to adolescents' SWB (Proctor et al. 2009). However, the direction and process of these relations are not clear (Trommsdorff 2012). In their VOC data-based cross-cultural study on religiosity and adolescents' SWB, Sabatier, Mayer, Friedlmeier, Lubiewska, and Trommsdorff (2011) showed that family values, especially interdependence, mediated the positive effects of religiosity on SWB and optimism both within and across cultures. Positive parent–child relationships were also associated with optimism

and SWB. Religiosity influencing adolescents' family orientation was positively related to higher SWB.

A cross-nation study (WVS) showed that religious values and practices predicted adolescents' SWB (Bond et al. 2012). Adolescents' traditionalism (vs. secularism) was positively associated to their SWB, indicating adolescents' need for a structured worldview. A positive effect of social–religious engagement on SWB was moderated by societal religious restrictions, presumably fostered by socially supported worldviews. This is in line with assumptions of cultural fit and person–culture match (Fulmer et al. 2010; Higgins 2012; Oishi 2000).

Experiencing warm caretaking and social support and aligning personal goals with cultural values foster SWB in childhood and adolescence cross-culturally. Future cross-cultural research should clarify the different types of children's and adolescents' SWB, respective socialization conditions, and effects of SWB on further developmental outcomes.

20.4.2 An Evolutionary Perspective: *Bjørn Grinde*

The prospect of happiness is an attribute bestowed upon us by evolution. If we can understand why we have the capacity to feel good or bad, we stand a better chance at making the most of the situation. A more detailed account of the biology of happiness can be found in Grinde (2012a, b).

The quest for improving personal well-being is a challenge throughout life; but the early years are arguably the most important. By offering children desirable conditions, they stand a better chance later in life as well. The evolutionary perspective is significant as it suggests what sort of environment is relevant for promoting positive feelings.

The original purpose of the nervous systems was to orchestrate muscle movements in order to direct the organism either *toward* something desirable or *away* from something obnoxious. Gradually, the simple systems developed into complex brains, with a substantial increase in the processing capacity allowing for more advanced decision-making. The basic dichotomy was retained. At one point, most likely at the amniotic stage (the ancestors of present reptiles, birds, and mammals), evolution introduced feelings as a strategy to evaluate options.

Feelings work on a "common currency" principle: Whatever is detrimental for the organism (i.e., have detrimental effects on the genes) is given a negative value, it feels bad, while whatever helps survival and procreation feels good. The resulting "moods" are referred to as punishing and rewarding, respectively. The brain is set up to weigh the expected outcome of various actions based on the principle of maximizing positive feelings. We seek sweet food, and we try to avoid breaking a leg. According to this model, well-being is a question of maximizing the sum of positive feelings in the long run.

Evolution presumably designed mammals to be in a good mood in the absence of negative events. A positive and confident attitude is to the advantage of the genes, that is, it promotes survival and procreation. The notion is substantiated by

observations such as a tendency to optimism and that most people consider themselves happier than the midpoint on SWB scales (Lykken 2000). Eudaimonic happiness, as opposed to hedonic, may reflect this default state of contentment in combination with positive stimuli regarded as wholesome (e.g., friendship, empathy, and a meaning of life).

The brain is designed to adapt to environmental input. Neural circuits that are regularly activated tend to expand and gain impact. In other words, we can "exercise" the brain, which is useful if the purpose is to improve navigational skills but less useful if the result enhances the activity of negative emotions.

The first years of life are by far the most important when it comes to molding the brain. Early environment is consequently of primary importance for laying the foundations for later emotional life – and well-being. The general flexibility of the human brain allows adults to compensate for a less than optimal childhood, but for the average person, childhood experiences will have considerable impact (Shonkoff 2011). We know a fair amount as to the neurological circuits that generate positive and negative feelings, that is, the brain's mood modules (Leknes and Tracey 2008). As the default is positive, well-being depends primarily on avoiding excessive activity in the negative mood modules.

Unfortunately, it is not that easy. Dire feelings, such as pain, fear, and low mood, are there to make sure you do not harm yourself. When excessively or inappropriately activated, the three may be referred to as chronic pain, anxiety, and depression, respectively. The problem is that their function implies that they are easily triggered: For the sake of the genes, it is more important to avoid a threatening situation than to exploit a potential benefit. You react faster and more strongly to the sight of a snake than the sight of an apple. Consequently, negative feelings are easily exercised. The high prevalence of anxiety and depression may reflect that the present child environment is not optimal for the development of these modules.

Fear is a suitable example. You may lock the door and tell the child that the house is safe, but evolution did not provide infants with that sort of perception. For them, safety depends on the proximity of caregivers, which preferably should be skin to skin – as can be observed in present tribal people, infants tend to sleep together with parents and be carried during the day. Consequently, the fear function is easily activated if the baby is put in a separate room. This discord between the present environment and what humans are adapted to may help explain the prevalence of anxiety (Grinde 2005).

Presumably, there are particular neural circuits whose function is to either switch on or switch off fear. In nature, a frightening situation will generally resolve itself within a short time. In order to avoid that the accompanying fear obstructs other activities, the reaction needs to stop. Inappropriate development of the fear function (i.e., anxiety) presumably results when the *on* button is exercised, but not the *off* button. Being put to bed in a separate room as a small child may, for example, instigate fear without proper resolution.

According to the evolutionary perspective, the environment we would want for children is one that does not activate the negative mood modules unnecessarily, and if activated, there should be an appropriate endpoint. The pain module presumably

functions today as it did in our ancestral environment, at least for the young. Fear and low mood, on the other hand, cause problems because of *discords* – that is, troublesome differences between the way humans are designed by evolution to live and the present way of life. If we can describe these discords, they may be possible to resolve.

20.4.3 Genetic Influences: *Ragnhild Bang Nes*

Well-being runs in families. Using both quantitative (e.g., twin studies) and molecular genetic (e.g., linkage, genome-wide association studies) designs, behavior geneticists have shown family resemblance in well-being to be largely due to genes. Overall, studies on variation in well-being characteristics such as positive emotionality (PE), optimism, resilience, and SWB show the genetic influences to be considerable, in particular for stable, trait-like levels (Lykken and Tellegen 1996; Nes et al. 2006), and indicate that the genetic influences are partly shared (i.e., pleiotropy) with genetic influences on personality (e.g., extraversion, optimism) (Weiss et al. 2008). The genetic effect that is calculated in standard quantitative genetic studies – the heritability estimate – represents the part of the total variation attributable to genetic differences in a specific population at a specific point in time. The heritability of overall measures of well-being (e.g., SWB, PE) commonly accounts for 35–50 % of the total variation – at least in adult and adolescent samples (Bartels and Boomsma 2009; Nes et al. 2010; 2006; Tellegen et al. 1988). One of the few studies using a child sample (12–18 years) and a multi-informant design has estimated the heritability of trait resilience to range between 50 % and 75 % in boys and between 41 % and 66 % in girls, with heritability varying somewhat across raters (highest from maternal ratings) (Waaktaar and Torgersen 2010). Genetic factors thus explain nearly half of the variation in well-being scores, consequently leaving the genetic effect sizes among the largest effects found in psychology overall. Remaining variation is commonly due to the non-shared environment, indicating that environmental influences usually contribute to make family members different rather than similar (i.e., environmental influences operate on an individual basis rather than more general). Most studies are conducted on adult and adolescent samples, however, and environmental influences causing family resemblance have sometimes been found for well-being-related characteristics in children (Burt 2009). Of note, these shared environmental effects are commonly moderate and usually vanish with age.

Little is still known about the actual genes and the specific environmental factors involved and even less about the complex interplay between them. This is perhaps mainly due to the fact that well-being is multifactorial (i.e., multiple genetic and environmental processes involved) and polygenetic (i.e., many genes with differing effects are involved) with risk and protective factors acting in a complex, probabilistic fashion rather than more deterministic. However, some studies have recently explored specific genes for well-being-related

characteristics. One report suggests that the low-activity genotype (MAOA-L) of the catabolic enzyme monoamine oxidase A (MAOA) is associated with greater happiness in females (Chen et al. 2012). The serotonin transporter-linked polymorphic region (*5-HTTLPR*) of the human serotonin transporter gene (SLC6A4) has also been shown to be important to variation in life satisfaction (De Neve 2011) and trait resilience (Stein et al. 2009). Additionally, individuals with the homozygous long variant of the *5-HTTLPR* have been found to display a significant bias toward processing of positive information and selectively avoiding negative information (Fox et al. 2009). Other genetic variants are also likely to be important. According to Burgsdorf and Panksepp (2006), there are at least two distinct types of positive emotional states in the brain. One system is primarily involved in reward-seeking behavior (appetitive behavior, wanting) and associated, at least partly, with psychostimulants (e.g., cocaine and amphetamine). Another system involves the opiate and GABA system and appears to be involved in the processing of sensory pleasures (e.g., hedonic tastes, consummating, liking) (Burgdorf and Panksepp 2006). Genetic variants impacting on these two systems are likely to constitute important molecular foundations of positive emotional experiences.

The genetic and environmental influences are likely to transact and interplay through development, further complicating the picture. Children may vary in their responses to the same experiences, partly due to specific genes (gene–environment interaction), and different family circumstances may allow for different expression of one's genetic potential (heritability–environment interaction). Quantitative genetic studies have, for example, shown that adolescents' experience of parental positive regard and conflict moderate the genetic and environmental influences on both positive and negative emotionality (Krueger et al. 2008). In high-conflict families, for example, adolescents' positive emotionality was less influenced by genes and more influenced by the shared family environment.

The genotype may also influence exposure to environmental risk and protective factors (gene–environment correlation, rGE). Passive rGE characterizes situations in which a child simply inherits both genes and environmental circumstance that reinforce each other, for example, when children of emotionally stable parents inherit genes related to emotional stability and are responded to in an emotionally supportive manner by their parents (i.e., double advantage). Children are also active agents in selecting and shaping their environments (active rGE) and in turn trigger responses to their behavior (evocative rGE) that amplify or strengthen genetically based dispositions. Children with temperaments high in positive emotionality actively seek situations matching their (partly genetic) disposition (active rGE) and elicit more positive responses in parents and others (evocative rGE).

Gene–environment interaction (GxE) refers to interaction between specific DNA sequences and specific measured environments. A number of GxE studies have been published in recent years, for example, showing that risk of adversity varies as a function of genotype (Caspi et al. 2003). Relevant to GxE, Pluess and Belsky (2012) has recently introduced the concept of *vantage sensitivity* which reflects the

fact that some children, partly for genetic reasons, may benefit more than others from positive experiences. As opposed to resilience, which reflects what "protective" factors engender, vantage sensitivity does not refer to the potentially protective function of the same factors in the face of adversity. By contrast, *differential susceptibility* (Belsky 1997; Belsky and Pluess 2009) pertains to situations in which given factors (e.g., specific genetic variants) that increase risk of adversity in a negative environment will be the same as factors increasing vantage sensitivity in positive environments (i.e., factors that make some children resilient to adversity simultaneously make them less responsive to positive experiences). In accordance with the differential sensitivity hypothesis, a recent meta-analysis has shown that the DRD4 gene and other dopamine-related genes are related to greater vulnerability to negative environments and higher vantage sensitivity in positive environments in children 10 years and younger (Bakermans-Kranenburg and van Ijzendoorn 2011). Another recent study reported that the association between positive parenting and youths' positive affect varies as a function of *5-HTTLPR* genotype, and suggesting that children with short *5-HTTLPR* alleles is particularly sensitive to the benefits of positive parenting (Hankin et al. 2011). Vantage sensitivity associated with the *5-HTTLPR* is also indicated in other studies and is not restricted to the parenting domain or to experiences in the childhood (Pluess and Belsky 2012).

Research on specific genes underpinning well-being-related characteristics is still in its infancy, and we will surely see many more studies on specific genes and gene–environment interplay of importance to well-being and resilience in the near future. However, when dealing with the interaction of genetics with human agency and subjective meaning, with the relevant causal factors being innumerable, essentially nonadditive, and potentially relational and bidirectional, the outcomes are largely unpredictable.

20.4.4 The Cognition of Well-Being: *Jens Thimm and Catharina Elisabeth Arfwedson Wang*

For many psychological theories, it has been a hallmark of mental health and SWB that the individual is in touch with reality and construes events accurately and objectively (Taylor and Brown 1988). Accordingly, an important goal of many psychological treatments (e.g., cognitive therapy for depression, Beck et al. 1979) is to correct cognitive distortions and help the client to think in a more balanced way or more realistically.

However, the view that realistic thinking is common and crucial for adaptive functioning has been challenged in recent years. A wealth of research findings has shown that most people display a positivity bias or have "positive illusions" (Taylor and Brown 1988). For example, it has been observed that people use positive descriptors on average approximately 62 % of the time when they rate themselves and others. The 62/38 ratio is also known as the golden section and is a robust empirical finding (Cromwell 2010). Most people tend to remember events

from their life history as pleasant (Walker et al. 2003). When we see happy faces, we are prone to think that they are directed at us (Lobmaier and Perrett 2011). Importantly, positive illusions have been shown to be linked with psychological well adjustment, including different aspects of mental health (Taylor and Brown 1988) and SWB (Brookings and Serratelli 2006) but also with physical health (Taylor et al. 2000).

In their seminal paper, Taylor and Brown (1988) distinguish between three main areas of positive illusions: overly positive views of the self, perception of personal control, and unrealistic optimism. Unrealistic optimism involves an overly positive view of the future. For example, many people think that they are less likely than others to experience hazards (e.g., health problems; Weinstein 1987). Also, people often perceive that they have control in situations that are actually determined by chance (e.g., when trowing dice; Langer 1975). Another example of positivity bias is the so-called self-serving attributional bias, that is, people's tendency to attribute positive events to oneself and negative events to other causes (Mezulis et al. 2004). This inclination seems to be an important component of SWB, as it has been found that the self-serving attributional bias is present but significantly attenuated in individuals suffering from depression (Mezulis et al. 2004; Moore and Fresco 2012). This phenomenon is also known as "depressive realism" (Haaga and Beck 1995). In terms of the golden ratio model, depression involves a regression from 62 % positive view of self toward 50 % (Cromwell 2010). In a recent review of information processing in depression, Foland-Ross and Gotlib (2012) conclude that depression is specifically associated with difficulties in the processing of negatively valenced information including bias in attention, interpretation, cognitive control, and memory for negative material. This negativity bias has also been found in young children who are not themselves depressed but are at high risk for developing depression by virtue of having a depressed parent (Foland-Ross and Gotlib 2012).

Mezulis and colleagues (2004) also examined developmental trajectories in their meta-analysis on studies of the self-serving attributional bias. They found in their analyses that the bias is particularly large in the youngest age group (8–11 years), significantly weaker in adolescence (more markedly in females) and adulthood before it increases again in late adulthood. However, at all developmental stages, the effect size of the self-serving attributional bias is large, suggesting that this kind of positivity bias is a stable characteristic of normal cognitive functioning across the life-span.

More recent studies have extended the investigation of the positivity bias to preschool children. Findings suggest that a large majority of young children appraise their achievements as highly positive, and they also tend to favor positive trait attributions of others (Boseovski 2010). Studies suggest a high degree of similarity of general attributional style in children across cultures but also domain-specific cultural differences (e.g., self-rated competence; Boseovski 2010). Children's positivity bias is mirrored by a positive parental bias: Most parents are optimistic about their children and perceive positive characteristics as stable and inborn and undesired behaviors as transitory and extrinsically caused

(Gretarsson and Gelfand 1988). A drawback of the parents' positivity bias is that they can overlook emotional problems their children might have. Results from a recent study by Lagattuta, Sayfan, and Bamford (2012) suggest that parents tend to underestimate worries and overestimate optimism in their children compared to self-report.

Obviously, the positivity bias has a shadow side. For example, unrealistic optimistic expectations may lead to individuals underestimating their vulnerability to risk and not taking appropriate precautions (Weinstein 1987). Further, economic crises and decisions on war have been related to positivity biases (Johnson and Fowler 2011).

So what contributes to the development of the positivity bias and why is it so pronounced in childhood? Evolutionary explanations emphasize its adaptive value (for details, see Sect. 20.4.2). For example, Johnson and Fowler (2011) demonstrated mathematically that overconfidence in one's own capabilities is advantageous in the competition for valuable resources. Bjorklund and Green (1992) propose that for children, the benefit of unrealistic thinking is primarily motivational. There are a number of tasks that they need to learn, and unrealistic optimism encourages them to attempt behaviors and practice skills which they wouldn't have tried if they had an accurate perception of their abilities.

In conclusion, the positivity bias or "positive illusions" seem to be crucial for SWB and have probably an adaptive value because the individual is motivated to take part in the challenges of life. On the other hand, the absence of the positivity bias seems to be associated with depression and withdrawal from life.

20.4.5 The Happy Personality: *Svenn Torgersen and Trine Waaktaar*

Most of us feel happy when we wake up to a nice, bright, sunny morning, not least if we live in northerly climes. A gray, cold, or stormy day may have the opposite effect. But not all of us react in this way. Some are generally more in a gloomy mood, while others are more enthusiastic and happy. Some people smile whatever happens, while others find a snake in every paradise.

In other words, "it is in the eyes of the beholder." Personality seems to influence how happy you are. This is not solely what people see unless their sight is too blurred by ideology, moral, wishful thinking, and "political correctness." Systematic studies have, namely, also demonstrated the correlations between a number of personality traits and happiness (DeNeve and Cooper 1998). The authors of the review found that repressive defensiveness, emotional stability, locus of control by chance (opposite), desire for control, hardiness, private collective self-esteem, and tension (opposite) were most strongly correlated to SWB, the broader concept, including happiness. They note that "repressive defensiveness" is generally described as "an unconscious avoidance of threatening information that leads to a denial of the experience of negative emotions associated with that experience" (DeNeve and Cooper 1998, page 216). The authors also reviewed the studies in relation to the so-called Big Five

(personality traits) and found that extraversion and neuroticism (opposite), followed by agreeableness and conscientiousness, correlated with happiness. Already in 1980, Costa and McCrae reviewed studies suggesting that extraversion correlated with positive affect or satisfaction, while neuroticism correlated with negative affect or dissatisfaction. In fact, they postulated that positive affect was part of the concept "extraversion" and negative affect part of the concept "neuroticism." They could both be incorporated in the two broader personality dimensions. The same authors reviewed studies investigating the relationship between happiness and the whole realm of the Big Five or NEO Personality Inventory, their widely used questionnaire (McCrae and Costa 1991). They confirmed that extraversion was most strongly related to positive affect and neuroticism to negative affect. Conscientiousness and agreeableness were somewhat more weakly positively related to positive affect and negatively related to negative affect. Astonishingly, openness seemed related positively to both positive and negative affect. However, when spouses rated the Big Five, agreeableness appeared important, while extraversion appeared less important. Therefore, it seems as if the person himself combined extraversion and positive affect more strongly, while partners saw more relationship between good mood and agreeableness and bad mood and lack of agreeableness.

As happiness is related to a number of the Big Five personality dimensions, it is natural to look at the relationship between types based on the Big Five and happiness or more precisely the Giant Three, namely, neuroticism, extraversion, and conscientiousness. Torgersen (1995, 2008) created in a simple way eight types based on these three personality dimensions. Those higher than average on all three dimensions were called Complicated. The opposite type was called Spectator. Those similar to the complicated, except not being neurotic, were called Entrepreneur, the opposite type Insecure. Those similar to the Complicated except not being conscientious were called Impulsive. The opposite type was called Sceptic. Finally, those opposite to the Impulsive except not being neurotic were called Hedonist, the opposite was called Brooder. Studies have shown that the Entrepreneur is most happy, followed by the Sceptic, the Hedonist, the Spectator, the Complicated, the Impulsive, and last the Brooder and the Insecure (Torgersen and Vollrath 2006; Vollrath and Torgersen 2000).

Another aspect of personality is personality disorders. A study of the common population showed that, controlling for all usual sociodemographic variables, somatic health and axis I disorders, avoidant, borderline, paranoic, and dependent traits were negatively associated with SWB (Cramer et al. 2007).

What about children and youth? As the personality is surprisingly stable from childhood into adult age (Roberts and DelVecchio 2000) and personality traits among 3-year-old children predict adjustment up into adult age (Caspi 2000), we would expect that the same personality dimensions and traits were related to happiness among children and youth. Very few studies have been performed. Holder and Klassen (2010) found a relationship between social and active personality (extraversion) and happiness, and a somewhat weaker negative relationship was found to emotionality (neuroticism) among 9–12-year-old children.

The same thing was observed among 7–14-year-old children in Northern India, only a weaker relationship to neuroticism (Holder et al. 2012). Unpublished data from a study of 3,000 children and youth between the ages of 12 and 18 years in Norway showed a strong positive relationship between SWB and stability (negative to neuroticism). The correlation was also high to agreeableness, extraversion, conscientiousness, and imagination (openness). The questionnaire HiPIC was applied (Mervilde and De Fruyt 2002). A hierarchical regression analysis showed that neuroticism (emotional stability) followed by agreeableness, extraversion, and conscientiousness was closely behind, while imagination (openness) disappeared in the regression analysis. When Torgersen's types were applied, a similar pattern was found as for adults. The Entrepreneur was most happy, followed by the Sceptic and the Hedonist. Then came the Complicated, the Spectator, the Brooder, the Impulsive, and finally the Insecure. However, being the agreeable and partly the imaginable (open) variant of the type increased the happiness, especially for the Impulsive and the Complicated. It did not particularly influence the Spectator and the Insecure much. There was a tendency that agreeableness and imagination (openness) were more strongly related to happiness when parents rated the children/youth compared to self-rating. This is similar to what was found for adults.

It is not easy to find any difference in observations between the studies of adults and of children/youth. Perhaps there exists a small tendency in direction of agreeableness and openness being more important and extraversion being less important among children/youth, as compared to adults. However, this is very tentative. Therefore, the conclusion must be that the personality pattern behind happiness is the same throughout life and most likely: The happy child will be the happy adult. As Caspi (2000) states in the title of his seminal paper: "The child is the father of the man."

20.4.6 The Happy Family: *Lucy Bowes and Mona Bekkhus*

Research suggests that the family plays a central role for child well-being. Family relationships in general and parent–child relationships in particular influence multiple domains of child well-being, including psychological, social, and economic well-being (Sanders 1999). Overall, research suggests that secure attachment between children and their primary caregivers promotes well-being throughout the life-span (Bowlby 1969; Cohn et al. 1992; K. M. Love and Murdock 2004). Family relationships aside from that of the parent–child dyad have also been shown to promote well-being, particularly in the context of risks to well-being. For example, sibling relationships characterized by high levels of warmth have also been found to promote more positive emotional and behavioral functioning among children exposed to peer victimization (Bowes et al. 2010; Cluver et al. 2010).

The structure of the family unit has been the focus of a body of research on child well-being. Compared to individuals from intact, biological families, numerous studies have found that children in step- and single-parent households score lower

in terms of emotional, social, physical, and psychological well-being (Amato and Keith 1991; Magnuson and Berger 2009). The association between stepfamilies and poor well-being has been linked to children having less secure attachment with their parents compared to children from intact, biological families (Love and Murdock 2004).

Single parenthood has further been negatively associated with child well-being in some studies; however, this effect may be explained by the higher prevalence of poverty among single-parent families (Smith et al. 1997) and by reduced access to social support. Living with a grandparent has been found to reduce the impact of living in a single-parent family on children's well-being (Dunifon and Kowaleski-Jones 2002; Ruiz and Silverstein 2007). Children who experience multiple transitions in family structure may fare particularly poorly in terms of well-being, compared to children raised in stable, two-parent families and even children living in single-parent families. Further investigation of the possible mechanisms of this association revealed that much of the effect of multiple transitions could be explained by parent's preexisting behaviors and characteristics that increased their likelihood of separating from multiple partners (Fomby and Cherlin 2007).

Child well-being might also be influenced by the economic resources of the family. For example, low family income has been associated with low academic achievement, increases in socio-emotional problems, conduct problems, and teenage pregnancy (Dodge et al. 1994; Sampson and Laub 1987). It is thought that this effect can be explained by the increased strain financial pressures place on parenting (Conger et al. 1997) rather than a lack of material resources per se. In keeping with this suggestion, the effects of childhood poverty on health outcomes have been shown to be buffered by high maternal nurturance (Miller et al. 2011).

Identifying the mediating mechanisms through which family factors exert their influence on child well-being is clearly of fundamental importance. One important factor to consider is the direction of effects between family factors and children's well-being (Bell and Bell 1968). Children who are more happy and positive are likely to elicit more positive reactions from caregivers than children who are less so (Scarr and McCartney 1983). Longitudinal studies with repeated measures are needed to estimate the direction of effects between family factors and child well-being. Another important consideration is the risk of genetic confounding rather than true, environmentally mediated effects. Sensitive, warm parents may pass genes to their offspring associated with positive well-being. Indeed, this is somewhat likely given that the heritability estimates for measures of well-being are between 40 % and 50 % (Bartels and Boomsma 2009). That is, as much as one half of the variance in well-being measures may be accounted for by genetic factors. When investigating the mechanisms by which family factors may influence well-being, it is important to test for environmental mediation. This is because interventions designed to promote well-being among children are based on the assumption that the family factors targeted are causally related to well-being, not simply a result of confounding.

In summary, families play a central role in child well-being. Of fundamental importance are positive, warm family relationships that help promote positive socio-emotional development and foster well-being. Economic or social factors that negatively impact on these relationships serve to reduce the likelihood of positive child development promoting child well-being.

20.4.7 Happy Parenting: *Bruce Headey, Ruud Muffels, and Gert G. Wagner*

National sample surveys of life satisfaction have been undertaken in all Western countries and many developing countries. In just a few of these surveys, parents and children from the same family have been interviewed. The largest such survey is the German Socio-Economic Panel, in which family members have been interviewed annually since 1984 (Wagner et al. 2007). The German data are unique in that they allow researchers to analyze not just the life satisfaction of parents and children living in the same home but also the long-term influence of parents on children who have grown up, left the parental home, and, in many cases, partnered themselves.

The German panel began with a sample of 12,541 individuals living in about 5,000 households. Everyone aged 16 and over is interviewed. The sample size has been boosted several times since 1984, and there are now over 60,000 respondents on file. "Children" continue to be interviewed even after they have left the parental home. As of 2008, there were 3,208 children for whom life satisfaction data were available both for them and their parents. Of these "children," 1,251 had left the parental home, the average age of the group being 30, with a range from 18 to 50.

As well as life satisfaction, the questionnaire also includes variables which may account for interindividual differences in satisfaction: personality traits, normative values, a wide range of attitudes and behaviors, and recall data on parent–child conflict.

Analyzing the German data, Winkelmann (2004) reported fairly strong correlations (around 0.35–0.45) between the life satisfaction of parents and adolescent children living in the same household. These links were partly due to the personality traits of extroversion (sociable, outgoing) and neuroticism (emotional instability), both of which are about 50 % genetic (Costa and McCrae 1991) (see also Sect. 20.4.5). Children whose parents were perceived as supportive had high levels of life satisfaction, whereas those who reported conflict with parents had lower levels (Aguche and Trommsdorff 2010). Interestingly, the satisfaction of parents and children covaried over time. When parents became more (or less) satisfied, so did their children.

Headey, Muffels, and Wagner (2012) focused on adult "children" who had left the parental home. They found that there were still substantial correlations (around 0.25) between parent and "child" satisfaction and that these linkages could not be accounted for solely by genetic personality traits. In searching for further explanations, they concentrated on normative values and behaviors known to be associated with life satisfaction (Diener and Seligman 2004; Headey et al. 2010;

Nickerson et al. 2003). Adult children who shared their parents' commitment to altruistic values, and also to family values, were happier than those who, like their parents, gave priority to materialistic and career-oriented values. Behaviors modeled by parents, including active social and community participation and regular exercise, also helped to explain continuing positive associations between parent and "child" life satisfaction.

In line with much psychological theory about parenting, it was found that mothers had greater influence than fathers on the life satisfaction of both sons and daughters. Both parents appear to inculcate values and behaviors associated with happiness, but beyond that, the life satisfaction of mothers continues to directly affect their offspring (Headey et al. 2012).

Interestingly, the life satisfaction of adult "children" appears to have some influence on the satisfaction of their parents, as well as vice versa (Aguche and Trommsdorff 2010; Headey et al. 2012). In the German sample, fathers continued to be affected by the life satisfaction of their daughters, while mothers were being more affected by their sons' satisfaction levels.

The persistent influence of parents on the life satisfaction of their children well into adulthood suggests that "happy" parenting probably yields a lifelong happiness dividend, whereas unhappy parenting imposes long-term costs. In future work, it will be important to pinpoint other normative values, skills, and behaviors which parents may pass on to their children with lasting consequences for their well-being.

20.4.8 Play: *Anne Inger Helmen Borge*

Children play intensely and concentrated with their toys. Play and well-being are closely linked. Play and toys are essential ingredients for the developing child. In the British Museum, we can enjoy a collection of toys from Egypt dated 2,000 years BC. They created dolls of papyrus and made miniature elephant figures, horses, and soldiers with movable parts and mobile charts.

Caregivers have high knowledge about which toys go with which age (Tamis-LeMonda and Bornstein 1994). Adults create an optimal age-appropriate environment for play. Observation of the play environment indicates that it is very important for the child's well-being. Infants' synchronous imitation (mimicry) increases over the ages of 16–28 months. Infants who invite adults to mimic increase their prosocial behavior and social competence (Fawett and Liszkowski 2012). A positive social connection is established between the child and the caregiver. The link between mimicry and well-being is mediated through positive family relationships. Thus, one should bear in mind that there is no direct causal link between play and well-being. Many other factors are involved. These factors are characteristics of the child (gender, temperament), family (harmony), and context (socioeconomic status). They will always influence play and contribute to whether or not the play will be associated with positive well-being. Children from abusing families engage in less child initiated play than

neglecting and non-maltreating families (Valentino et al. 2011). These children have weak well-being and especially problems with peer relationships and social competence. Intervention efforts may improve and restore their well-being to acceptable levels.

In a study of preschool girls, measures of well-being and coping were significantly related to pretend play (Fiorelli and Russ 2012). Applying an "Affect in play scale" and a puppet play task, the girls were asked to suggest coping responses to potentially stressful situations. Imagination was frequently suggested as a coping mechanism related to their affect and emotional mood. Boys, on the other hand, who express greater affect in their play, had fewer complaints about pain and were less anxious than peers who did not invest affects in their play. For both girls and boys, a relationship exists between life satisfaction and positive affect and expressing more imagination and creativity in play.

Parents give boys and girls different toys. They expect children to show gender-specific play. The classic "baby X' experiment" (Smith and Lloyd 1978) illustrates why children get different life experiences. During 1 year, the children were dressed in flight suits and clothes that did not reveal their gender. They got typical boys and girls names, but, in half of the group, the name matched the gender in reality and, in the other half, it did not. Thus, the adults, who did not know this, were playing half of the time with children they thought were girls or boys. The results showed how adults treated even these very young children according to what they believed was their gender. In most cultures, parenting, play, and toys will be gender specific and reinforce cultural expectations to masculine and feminine behavior. Today, a risk to healthy development is not so much the gender issue but the decrease in free play and increase in passive entertainment by "intelligent baby television" or computer games for older children. Active, safe play should always be parallel to enriched academic stimulation.

Interestingly, today, cultures do not agree on the importance of pretend play for child well-being (Lancy 2007) and value pretending behavior differently. A recent survey (Singer et al. 2009) found that in only 5 of 16 countries, the majority of mothers reported that their child often participated in imaginative play. We need more knowledge about the association between variations in imagination and well-being. Methodological shortcomings are found in many studies, with different ways of defining well-being and imagination.

Play is like life and love, it cannot be easily defined. Krasnor and Pepler (1980) suggested four criteria in defining play, namely, flexibility, positive affect, nonliterality, and intrinsic motivation. Nonliterality refers to play behavior lacking its usual meaning while paradoxically retaining it (Lillard et al. 2013).

The criteria denote that play behavior can be exaggerated, fun, lack the usual meaning, and be an activity by choice for its own sake. Play can be solitary, peer related, free, or organized. During the first and second year, children's play can be categorized into three levels. The first level is dominated by exploratory activities, such as putting things into the mouth and manipulating toys. The second is nonsymbolic play. It comprises concrete and functional activities, such as playing with bricks. The third is symbolic play characterized by pretense

and make-believe play. Thus, to understand variations among children in their well-being, there is a host of play types and psychological functions to choose among.

Among all the various levels, categories, and developmental stages of play behavior, pretend play has attracted much research attention (for review see Lillard et al. 2013). Pretend play is layered over reality. For example, a blanket over a table is a castle. Language development and play are associated, with pretend play preceding language (Lyytinen et al. 1997). Pretend play and constructs like coping ability, creativity, adjustment, and the regulation of emotions are related and demonstrated in several studies (Hoffmann and Russ 2012).

Few studies have directly examined the relationship between pretend play and SWB. The American Academy of Pediatrics has summarized the importance of play for promoting health. They suggest that play should be protected. They also underline the need to maintain strong bonds between parent and child. Time for free play has been reduced in many societies. Families and school systems have to assure that play is an important element in children's lives and to create an optimal developmental milieu (Ginsburg et al. 2007).

Play in general and pretend play in particular are central for the development of cognitive, social, and behavioral functions. Play has fascinated scientists for many decades. Vygotsky (1967) illustrated the importance of pretend play for cognitive development. For example, Vygotsky wrote that a banana could be a telephone showing that children could understand that actions and object can be separated from reality. The meaning of a given situation does not need to be based on the physical properties of objects. Jean Piaget's theory of cognitive development illustrates how the child through play assimilates reality to accommodate to new situations. Freud's theory is the basis of psychoanalytic play therapy. Children with social and mental problems reducing the quality of their well-being can be approached using dolls. Trivial and nonutilitarian, play and well-being are worthy of serious studies. It is an essential link in the developing child. Play or leisure activities and hobbies are strongly associated with SWB in all ages.

20.4.9 Peer Relations: *Anne Inger Helmen Borge*

Children's interactions with peers are free and based on their own choice of companion, compared to the interaction with their parents. The concept of "peer relations" covers a variety of relationships such as friendships, best friends, schoolmates, cliques, and neighborhood gangs that are examples of different contexts of peer relations (Bukowski et al. 1996; Schneider 2000).

Peer relations are an important part of children´s positive adjustment and well-being. Even from the first years of life, infants form relations with other infants and toddlers. It is fascinating to look at the first encounters of infants, enthusiastically crawling toward one particular child in their peer group. Why infants show this early preference for one child in particular among many peers is not known. But older children in preschool seem to select peers with similar personality characteristics as themselves (Howes 1978). In the family context, the first interactive social

and psychological relationship with another child at about the same age occurs with a sibling (Dunn 2005). In kindergarten and elementary school, girls and boys themselves choose friends among their peers, which is different from the given family context with siblings or neighboring children.

Friendship is one of the most important types of peer relationships. Friendship plays a special role in developing social competence and well-being during the preschool years. In adolescence, peer relations play an important role in children's development and socialization and can be both good and bad for child well-being (Vitaro et al. 2009). Closeness, intimacy, and trust become crucial. For example, romantic relationships can be a mixed blessing for girls' and boys' well-being. Cultural factors, ethnicity, gender, and activities are central in acceptance or rejection of peers. The good relationships are characterized by inclusion, acceptance, and prosocial behavior. Bad peer relationships are typically illustrated by rejection, isolation, exclusion, and aggression (Vitaro et al. 2000). Peers bully other peers and victimization occurs. Not just any friend can foster resilience among victimized peers. A best friend with physical strength and aggressiveness can protect a victimized child against being bullied and cyber-bullied (Olweus 2012). Together with a best friend, the vulnerable friend will maintain self-esteem and protection from the social context.

Girls have, however, an even more nuanced perspective of peer problems than boys. The cost of such caring among girls may entail a risk of empathic distress and internalizing problems (Smith and Rose 2011). Consequently, peer relations are important for children's well-being but, in addition, can carry negative sides.

Today, researchers examine how and why children's experiences with their peers affect their well-being. What friends do to each other is predictively related to their emotional well-being. By studying twins – not only one single child in a family – researchers have documented a strong environmental risk for aggressive behavior. The risk lies in the role of the friends' aggression maintaining a child's own aggressive behavior, rather than in the child's genotype (Vitaro et al. 2011). Success in peer relations is a function of the child's companionships, his and her social competence, level of well-being, interpersonal skills, and culture.

In different cultures, urban and rural peers may differ in cooperation, prosocial behavior, and opposite-sex friendships. In Japan and Latino cultures, parental values may play a more central role for peer groups than in USA, Canadian, and European cultures (Hetherington et al. 2006). Affiliating boys showing antisocial behavior with prosocial children may balance the potential negative socializing impact of having only antisocial friends (Eivers et al. 2012). Behavior problems in early school years appear to lead to peer rejection, lack of friends, and reduced well-being. This, in turn, may lead to early adolescent depression and loneliness (Pedersen et al. 2007). It is not a new idea that one should target elementary school children's peer relations to prevent later well-being problems. In 1953, Harry Stack Sullivan proposed that "chumships" help children overcome negative parenting. Peers – especially best friends – might explain and discuss together in intimacy how a negative context influences their self-concept. In this way, a positive relational context with peers or best friends represents a strong link to SWB (Swartz et al. 2000).

More importantly, in the context of SWB, it is too hard for some children to understand that another child may have a different view on things and a different SWB than he/she has him/herself. Together peers develop psychological competences such as trust, endurance, confidence, conflict management, emotional regulation, and theory of mind.

20.4.10 Early Childhood Education and Care: *Henrik Daae Zachrisson and Ratib Lekhal*

Early Childhood Education and Care (ECEC) is a standard term used by OECD. ECEC include all provision of childcare with an educational content prior to school entry. As we use the term here, it includes day care, center care, preschool, pre-k, and kindergarten. ECEC have been growing rapidly over the last few decades. Today, more than 80 % of all children in the Western world experience some form of ECEC prior to school entry (UNICEF 2008). ECEC is therefore an important developmental context that affects children's short- and long-term development, especially for children at social risk (Shonkoff and Phillips 2000). Despite a vast body of research on ECEC and child outcomes, there is a scarcity of studies which explicitly assess its impact on children's well-being. Rather, researchers have addressed the impact of ECEC on cognitive and academic achievements, socio-emotional development, and behavior. Until further, we therefore have to limit ourselves to consider these outcomes as proxies for children's well-being.

Early cognitive skills – including language development – may facilitate the child's well-being in multiple areas both in short term by providing the basis for more successful social interactions (Liiva and Cleave 2005) and in longer term by increasing the chances of academic success (Dickinson 2011). Evidence on the influence of ECEC on cognitive and language development stems both from experimental and observational – nonexperimental – studies. In general, small-scale randomized trials demonstrate that ECEC improves cognitive and language skills in young children and that – although some of the effects are fading over time – benefits persist (Barnett 2011). Larger-scale observational studies support this finding. For instance, findings from the USA – the NICHD Study of Early Child Care and Youth Development (SECCYD) which is the most comprehensive observational study in this area – demonstrate that compared to children not attending ECEC, those who attend perform better on tests in various cognitive domains throughout early childhood (NICHD 2006) and through early adolescence (Vandell et al. 2010). Comparable results are reported in several other countries, for instance, the UK (Melhuish et al. 2008) and Norway (Lekhal et al. 2010).

An important caveat is that the positive gains of ECEC on cognitive development are conditioned on quality of ECEC. Indeed, high quality is a prerequisite for good cognitive and language development in ECEC (NICHD and Duncan 2003). In general, quality refers both to structural features (e.g., sufficient number of staff and staff training, stimulating learning materials, and child group sizes) and process

features (e.g., the sensitivity and stimulation in the interaction between the children and the staff) (Layzer and Goodson 2006).

As important as the potential of ECEC for improving cognitive – and language development in all children, is its potential for closing gaps between children growing up in social disadvantage and their peers (Burger 2010). For instance, a Canadian observational study found social differences in school readiness but not for children at social risk who had attended early ECEC (Geoffroy et al. 2010). Again, quality matters; in the NICHD SECCYD, children from low-income families who had experiences of high-quality care performed almost as good as their more affluent peers through early school age, whereas those who had no experiences of high-quality care performed worse (Dearing et al. 2009). In sum, there is strong evidence that high-quality ECEC benefits children's cognitive and language development, especially among children at social risk, and therefore makes a positive contribution to children's short- and long-term well-being.

As is the case for cognitive and language development, also socio-emotional and behavioral development serve as a proxies for children's subjective well-being. Although children exhibiting high levels of externalizing problems (e.g., aggression and disobedience) may score high on well-being, such behaviors are associated with increased risk for peer rejection (for details, see Sect. 20.4.9). Internalizing problems (e.g., anxiety and depression), as well as children's social competence and peer relationships, are more directly related to their well-being, yet not conceptually equivalent. Compared to the impact of ECEC on children's cognitive development, its impact on socio-emotional and behavioral development has been somewhat more questioned.

Participation in ECEC, as compared to parental care or – in some studies – nonformal care (e.g., nanny), has in some studies been associated with higher levels of behavior problems (e.g., NICHD Early Child Care Network, 2006; Magnuson et al. 2007). These findings are, however, likely to be conditional upon the socio-political context (Love et al. 2003). For instance in Norway with its – like the other Nordic countries – comprehensive universal access ECEC policy, no differences in behavior problems are found between children attending ECEC compared to parental care (Lekhal 2012). The potential negative impact of infant care and of large quantities of care has been debated (Belsky 2001). Whereas infant care has – in observational studies – consistently been associated with higher levels of behavioral problems (NICHD 2003), a quasi-experimental study has demonstrated that entry into ECEC during the first 3 years of life is unrelated to child outcomes (Jaffee et al. 2011). Other recent studies taking stricter approaches to causal inference also fail to support the association between high quantities of ECEC and behavior problems (McCartney et al. 2010; Zachrisson et al. 2013).

As is the case for cognitive outcomes, children from disadvantaged families tend to benefit from participation in ECEC when compared to parental care also in the socio-emotional and behavioral domain. For instance, Canadian observational studies have found that children from low-income families, or children with low-educated mothers, who attended ECEC have lower risk of developing externalizing problems than do children cared for at home (Borge et al. 2004; Cote et al. 2007).

Similar results have also been found with quasi-experimental study designs in the USA (Crosby et al. 2010). Again, quality tends to matter. High-quality ECEC predicts healthy socio-emotional development in US children from low-income families, ages 2–4, and that more hours spent in childcare are associated with fewer behavior problems (Votruba-Drzal et al. 2010).

In sum, evidence for the influence of ECEC on children's socio-emotional and behavioral development is somewhat less conclusive than with regard to cognitive development. There is, however, fairly consistent evidence that children from disadvantaged backgrounds benefit from ECEC also in this domain.

There is an urgent need for studies on the influence of ECEC on child well-being. Considering other child outcomes as proxies for well-being, the literature is quite consistent in finding high-quality ECEC to improve development of language, learning, and cognitive skills, especially for children from disadvantaged families. The literature leaves us with less strong evidence to argue that ECEC improves socio-emotional and behavioral development for most children. However, there is also little evidence of deterioration. Children from disadvantaged backgrounds may benefit from ECEC also in the socio-emotional and behavioral domains. Given the current increasing political attention paid to the positive opportunities for children provided by high-quality ECEC in many countries, the question for future debates should be how children's well-being can be sustained while maintaining the educational benefits of ECEC.

20.4.11 The School: *Margaret M. Barry*

Schools are one of the most important settings for promoting the well-being of young people (WHO 2001). The influence of the health-promoting schools initiative (WHO 1998) has brought a focus on the school environment as well as the curriculum as an important determinant of positive youth development. Schools have an important function in nurturing children's social and emotional development as well as their academic and cognitive development. The importance of both the hedonic and eudaimonic dimensions of well-being, including subjective emotional well-being and positive psychological and social functioning, is clearly embraced in current conceptualizations of positive mental health (Keyes 2007; Kovess-Masfety et al. 2005). Enhancing children's positive mental health and well-being improves their ability to learn and to achieve academically as well as their capacity to become responsible adults and citizens (Greenberg et al. 2003; Payton et al. 2008; Weissberg et al. 1991; Zins 2004). This section addresses how schools can promote and strengthen children's emotional, social, and mental well-being.

There is a growing body of international evidence that interventions which seek to promote young people's emotional and social well-being in schools, when implemented effectively, can produce long-term benefits for young people. These benefits include emotional and social functioning, improved academic performance, reduced school drop-out rates, and a range of health and social outcomes

(Durlak et al. 2011; Durlak and Wells 1997; Greenberg et al. 2001; Harden et al. 2001; Lister-Sharp et al. 1999; Payton et al. 2008; Weare and Nind 2011; Wells et al. 2003; Wilson et al. 2001). The evidence indicates that long-term interventions promoting the positive mental health and well-being of all pupils and involving changes to the school environment are likely to be more successful than brief classroom-based prevention programs (Barry and Jenkins 2007; Jané-Llopis et al. 2005; Weare and Nind 2011; Wells et al. 2003).

A number of successful universal school-based programs have employed cognitive and social skills training in promoting children' social and emotional competencies (Aber et al. 1998; Bruene-Butler et al. 1997; Clarke and Barry 2010; Greenberg et al. 2001; Greenberg et al. 1995; Kellam et al. 1994; Mishara and Ystgaard 2006). Many of these programs have been evaluated using randomized controlled trials and have been replicated with a wide range of children in different school settings across countries.

Payton and coworkers (2008) report strong and consistent support for the value of social and emotional learning programs (SEL) when implemented by school staff, with research showing their sustained positive impact on multiple outcomes for diverse groups of students. Based on a meta-analysis of 213 universal school-based interventions involving 270,034 school children age 5–13 years, Durlak and colleagues (2011) reported the following significant positive effects for children participating in SEL programs: enhanced social and emotional skills (mean ES = 0.57); improved attitudes toward self, school, and others (mean ES = 0.23); enhanced positive social behavior (mean ES = 0.24); reduced conduct problems, misbehavior, and aggression (mean ES = 0.22); and reduced emotional distress, stress, and depression (mean ES = 0.24). The review also found that in addition to improving students' social and emotional skills, SEL programs significantly improved children's academic performance (mean ES = 0.27), with an average gain on standardized achievement test scores of 11 percentile points. It is interesting to note that only when delivered by school staff do students' academic performance improve significantly (Payton et al. 2008).

An example of a SEL program that has been implemented globally is Zippy's Friends, which is a universal emotional well-being school-based program for children age between 5 and 8 years of age (Bale and Mishara 2004). To date, the program has been evaluated in Canada, Denmark, Ireland, Lithuania, Norway, and the UK with key findings indicating significant positive effects on children's coping strategies, emotional literacy, social skills, reduced hyperactivity, and externalizing behaviors (Clarke 2011; Clarke and Barry 2010; Holen et al. 2012a; b; Holmes and Faupel 2005; Mishara and Ystgaard 2006). Evaluating the implementation of the Zippy's Friends program for school children in disadvantaged schools in Ireland revealed the importance of contextual factors operating in the whole-school environment, which can impact and influence program implementation and ultimately program outcomes (Clarke 2011; Clarke et al. 2010).

Characteristics of effective interventions include a focus on enhancing generic life skills and competencies and positive mental health, use of interactive teaching methodologies, balancing universal and targeted approaches, starting early with the

youngest children, programs implemented continuously and long term in nature, embedding the work within a health-promoting whole-school approach focusing on the social and physical environment of the school, as well as family and community links with the schools and the school curriculum and pupils' knowledge (Barry and Jenkins 2007; Green et al. 2005; Weare and Nind 2011).

The evaluation of SEL programs highlights the need for supportive organizational and system-level practices and policies to ensure the sustainable implementation and integration of effective interventions. The importance of organizational-level change, including the school culture, environment, and school practices, is recognized as being critical for effective implementation and sustainability (Bumbarger and Perkins 2008; Durlak and DuPre 2008; Rowling 2008).

School-based interventions adopting a whole-school approach seek to enhance the social and emotional well-being and positive life skills of pupils and work to create supportive environments that foster positive youth development and a sense of connectedness with the family, community, and broader social context of young people's lives (Rowling et al. 2002). Interventions employing a comprehensive whole-school approach are designed to impact at the level of the individual pupil, the classroom, and the school as a whole. Review evidence supports the effectiveness of school-based interventions that take a whole-school approach (Lister-Sharp et al. 1999; Weare and Nind 2011; Wells et al. 2003). Examples of whole-school approaches that have been implemented successfully include the Australian MindMatters program (Wynn et al. 2000) and the Olweus Bullying Prevention Program (Olweus et al. 1998). While evidence relating to interventions that adopt a *truly* whole-school approach (i.e., include all elements) is quite limited, those that have been identified provide indication of a positive impact, with small to medium effect sizes being reported on outcome measures (Adi et al. 2007).

A review of the cost-effectiveness of whole-school approaches by McCabe (2007) suggests that interventions of this type can lead to health, academic, and social gains, which lead to savings for health and social services and for the criminal justice system. Lack of investment in promoting children's emotional and social well-being in schools is likely to lead to significant costs for society as young people who experience emotional and social problems are more likely, at some point, to misuse drugs and alcohol, to have lower educational attainment, and to be untrained, unemployed, and involved in crime.

The evidence attests to the value of interventions which promote the emotional and social well-being of young people in the school context. There is a need to integrate efforts to promote social and emotional well-being of young people with the school's educational mission of academic learning. This requires leadership at the policy and school level, together with the engagement of pupils, teachers, families, and local communities. Supportive policies and effective partnerships across the education and health sectors are needed to ensure the establishment of system-level practices that will support the sustainable integration and promotion of children's well-being in the school setting and ensure its long-term impact.

20.5 Application

20.5.1 Five Ways to Well-Being: *Ragnhild Bang Nes and Nic Marks*

How do we practically promote well-being, build competence, enhance optimal functioning, and stimulate flourishing in children? A number of child-centered interventions have been developed in recent years. Many of these efforts reflect a movement within the health services toward more affirming and strength-building approaches, commonly emphasizing primary prevention and competence promotion.

Promotion of well-being and positive mental health constitutes an integral part of improving overall population health. There is a growing realization that well-being interventions which can be implemented and sustained at a reasonable cost will contribute substantially to better health and social gains for the population at large, thus representing a strong case for policy investment (Barry and Friedli 2008; WHO 2004). Childhood is commonly regarded as the optimal time to promote healthy attitudes and behavior as positive adaptation at one developmental stage is likely to provide a foundation for successful encounters also at subsequent stages, building enduring personal resources (1998, 2001). Practical applications of "positive psychology" are thus likely to be most efficacious when initiated early and when they are maintained over time. Not surprisingly, the public policy context has recently seen a surge of interest in psychological well-being. In the UK, National Children's Charities such as "The Children's Society" and "Action for Children" have also advocated policy changes in this realm. The Children's Society have researched and widely campaigned about the need for better measures of childhood well-being (http://www.childrenssociety.org.uk/what-we-do/research/well-being/publications). Action for Children has made a detailed economic case for a more preventative approach to children's services (http://www.actionforchildren.org.uk/policy-research/policy-priorities/backing-the-future).

A considerable number of interventions have been developed to promote positive mental health during childhood, for example, by means of promoting socio-emotional competence in both parents and children (Barry 2013). There is no generalized empirical evidence of the efficacy of many of these interventions, but systematic reviews, effectiveness studies, and meta-analyses generally support the value of programs and interventions that promote positive mental health (Seligman et al. 2005; Sin and Lyubomirsky 2009). Additionally, experimental and clinical research has shown that various intervention tools (e.g., mindfulness-based approaches) simultaneously increase well-being and reduce symptoms of depression (Fredrickson et al. 2008).

In the following, we will focus on the program *Five Ways to Well-Being* (http://www.neweconomics.org/sites/neweconomics.org/files/Five_Ways_to_Well-being_Evidence_1.pdf). This program illustrates the potential to intervene around the same goal – well-being – across different sectors (e.g., health, education) at different levels, including individual children and parents, youth groups, kindergartens,

schools, communities, and organizations, and at a strategic policy level across the lifespan. The *Five Ways to Well-Being* were originally designed by the new economics foundation (**nef**), a London-based think tank, who have conducted considerable research into well-being policy over the last decade. In 2008, the UK Government Office of Science commissioned a comprehensive and wide-ranging review of the academic literature on well-being as part of its 2008 Foresight program. *Five Ways to Well-Being* drew on the extensive evidence unearthed during the Foresight review as well as the wider literature on positive psychology. The main task was to create a short list of positively framed actions that target individuals of all ages and are universally applicable and evidence based and which individuals may build into their daily lives. The five action dimensions were intended to constitute a simple and accessible means of communicating the extensive recent evidence about specific activities that can improve and maintain mental health and well-being. The actions thus mainly influence well-being and mental capital by interacting at the level of "functioning." The five ways are the following:

Connect! Build social relationships and spend time with friends and family. There is extensive evidence that our social relationships are critical to our well-being (e.g., Seligman et al. 2005; Sin and Lyubomirsky 2009).

Be active! Engage in regular physical activity which is, for example, associated with lower rates of depression across all age groups and with better cognition in children (e.g., Fox 1999; Penedo and Dahn 2005).

Take notice! Be mentally "present" and focus on awareness and appreciation. Research, particularly on mindfulness and mediation, has been shown to have positive effects on children's well-being (Burke 2010).

Keep learning! Maintain curiosity about the world and try new things. Being willingly engaged with learning processes is good for people's cognitive and social skills as well as self-confidence and competency (e.g., Ryan and Deci 2000).

Give! Make a positive contribution to the lives of others. Neuroscience has shown that reward areas of our brain are stimulated when we engage in mutually cooperative actions and actions such as volunteering and helping others (e.g., Harbaugh et al. 2007).

The *Five Ways to Well-Being* are intended to be positive and engaging, flexible, non-prescriptive, empowering, participative, and collaborative, yet firmly grounded in extensive scientific evidence. Since launching in 2008, groups as diverse as general practitioners and other health-care professionals, mental health commissioners, arts practitioners, faith groups, community and voluntary organizations, and local authority departments have incorporated the *Five Ways to Well-Being* in their work. Strikingly, the range of uses has been broad, going well beyond just thinking of the *Five Ways to Well-Being* as a set of health promotion messages.

The *Five Ways to Well-Being* were not designed specifically with children in mind, and there has been no systematic measurement of their impact on children's well-being, but they are evidence-based actions resting on a substantial empirical foundation which indicate that incorporation of more *Five-Ways-type* activities into daily lives will improve well-being. In 2011, **nef** was commissioned by the UK's National Health Service Confederation and the National Mental Health

Development Unit to systematically explore how different groups had used the *Five Ways to Well-Being*. Two primary dimensions were identified, the first being the point of intervention (i.e., individuals, groups, and/or strategic level) and the second principal purpose (i.e., increase well-being directly or indirectly). Several *Five Ways* projects, both small and large scale, have now been introduced in different countries. For example, a *Five Ways to Well-Being* project has recently been launched in 1 600 Norwegian kindergartens, inviting 70 000 children and their parents (http://www.psykiskhelse.no/index.asp?id=31627). Another project invited children (aged 5–11) from four primary schools in North of England. The latter project involved children throughout every stage of the production of a book called "Wit Wolf's Journey to Happiness." The story is retelling the well-known children's fairy tale about Little Red Riding Hood and the Wolf, and each subplot was based around one of the five ways (http://www.stockport-academy.org/upload/files/newsletter__march_2010.pdf).

These recent projects involve the children in the design of specific projects and interventions, working with them as "facilitators" of coproduced solutions. However, the focus of interventions need not be the individual. There is considerable scope for using the *Five Ways to Well-Being* to improve children's well-being in more strategic and indirect ways, both in terms of affecting the wider contexts in which children live to promote well-being and by informing processes and ways of living more generally.

20.5.2 A Guide to Findings on Children's Happiness in the World Database of Happiness: *Ruut Veenhoven*

The World Database of Happiness (Veenhoven 2012f) is a findings archive. That is, a collection of observations that result from scientific empirical research. The database focuses on research findings on happiness in the sense of subjective enjoyment of life. Its goal is to facilitate accumulation of knowledge on this subject.

The database consists of several collections. It builds on a collection of all scientific publications about happiness, called the "Bibliography of Happiness" (Veenhoven 2012a). To date this collection includes some 7,000 books and articles, of which half report an empirical investigation that used an acceptable measure of happiness, listed in the collection "Measures of Happiness" (Veenhoven 2012e). The findings yielded by some 3,500 studies that past this test for adequate measurement of happiness are described on separate "finding pages," using a standard format and a standard terminology. Two kinds of findings are discerned: *distributional findings* on how happy people are at a particular time and place and *correlational findings* about the things that go together with more or less happiness in these populations.

To date the database contains about 8,000 distributional findings, of which 5,000 on happiness in the general population of nations (Veenhoven 2012c) and 3,000 on happiness in particular social categories, such as students or psychiatric patients (Veenhoven 2012d).

The collection "correlational findings" (Veenhoven 2012b) contains some 15,000 research results. These findings are sorted by subject, such as "Happiness and Age" and "Happiness and Income." The collection can also be searched on characteristics of the population investigated, that is, population, place, and time, and on methodological features such as sampling and measurement. Though far from complete, this is the best available source on conditions for happiness at present.

The database is free available on Internet at http://worlddatabaseofhappiness.eur.nl A detailed description is found with Veenhoven (2011).

The Bibliography of Happiness involves a detailed subject classification, among which a classification of populations studied. Part of that categorization is a distinction of age groups in which happiness is assessed, which is presented in Table 20.1. The numbers at the right in Table 20.1 refer to the number of publications. To date (November 2012) the Bibliography lists 290 publications in which the happiness of children is addressed. Most of these (178) are among adolescents, but there are also quite some publications on happiness in basic school children (58) and a few on preschool children (6).

The numbers at the right in Table 20.1 link to a list on which these publications are described. An example of such a list is presented on Table 20.2, the 6 publications on happiness in preschool children. For each publication, the usual bibliographic signature is given: author, title, source of publication, and year of publication. When possible links to the full text are added, use either the DOI links or a link to a Web site where the publication is available. If the publication involves research findings that are included in the findings collections of the World Database of Happiness, a link to the extracted findings pages is also added (WDH).

Investigations that used at least one acceptable measure of happiness are described on a "study page," and one of the descriptors is the "population" concerned. Populations can be "general" or "special"; the *general population* is all people living in a particular area at a certain time and *special populations* are particular kinds of people, such as intellectuals, homemakers, or people in certain ages. Studies among children are considered to concern a "special public" and classified under "age groups." For particular kinds of children, such as gifted children, additional classifications are made.

An overview is presented on Table 20.3. The number of studies mentioned in Table 20.3 is much lower than the number of publications in Table 20.1. One reason is that not all publications report an empirical investigation that used an acceptable measure of happiness. Another reason is that about half of the accepted studies is still waiting to be entered in the findings collections.

Each of these studies is described on a "study page" using a standard format and a standard terminology. The page starts with a short description of the investigation, which involves detail about the people investigated, the way of data gathering, and the measure of happiness used. On the page are links to further pages on which the findings are reported. An example is presented on Table 20.4.

Happiness is defined as "the enjoyment of one's life as a whole." Since this is something people have in mind, it can be measured using questions such as

Table 20.1 Publications on happiness in age groups listed in the bibliography of happiness

Happiness in age groups	5
In children	40
Infants	9
Preschool children	6
Basic school children	53
High school pupils, adolescents	178
Mentally retarded children	4
In young adults	15
In middle-aged people	10
In elderly people	802

Table 20.2 Some publications on happiness in preschool children listed in the bibliography of happiness

Overview of publications on happiness and preschool children	
Additional keywords:	Kindergarten, toddler
Author(s)	Fekkes, M.; Brugman, E.; Theunissen, N.C.; Veen, S.
Title	Development and psychometric evaluation of the TAPQUOL: a health-related quality of life instrument for 1–5-year-old children
Source	Quality of life research, 2000, Vol. 9, 961–972
Year	2000
DOI link	DOI:10.1023/A:1008981603178
ISSN	0962 9343
Author(s)	Henggeler, S.W.; Borduin, C.M.
Title	Satisfied working mothers and their preschool sons: interaction and psychosocial adjustment.
Source	Journal of Family Issues, 1981, Vol. 2, 322–335
Year	1981
ISSN	0192 513X
WDH excerpt	HENGG 1981/1 HENGG 1981/2
Etc.	
Number of publications:	**6**

"Taking all together, how satisfied or dissatisfied are you with your life as a whole these days? Please rate with a number between 0 and 10, where 0 stand for extremely dissatisfied and 10 for extremely satisfied." Such questions are commonly used in surveys of the general population, some of which consider people from age 12 on. Questions of this kind are also being used in studies among adolescents. Such questions are classified as pertaining to "overall" happiness in the collection "Measures of Happiness" and coded "O."

The answering of these questions requires that the respondent has formed an idea about "overall satisfaction" and "life as a whole" and this is typically not the case with young children. Still school-age children do mostly have an idea of how happy

Table 20.3 Links to findings on happiness of children in the collection of "Happiness in Publics"

⊕ AGE groups	
⊖ AGE groups	
Infants	6
Toddlers	
Basic school children	21
Teens, adolescents	81
Etc..	
⊕ CHILDREN	
⊖ CHILDREN	
Children living with single parent	1
Gifted children	
Handicapped children	2
Twins	4
Children of divorce	2

Table 20.4 Example of a "study page" in collection of "Happiness in Publics" classified as regarding "children"

Investigation	
Author(s)	Holder, M.D.; Coleman, B.; Wallace, J.M.
Title	Spirituality, Religiousness, and Happiness in Children aged 8–12 Years
Public	8–12 aged children, 2 schools, Canada
Happiness measure used	A-AOL-g-sq-f-7-a, responses
Happiness measure used	A-AOL-g-rdf-f-7-a, responses
Correlational findings	
How author named it	***Our subject classification***
Activity	Active
Communal spirituality	Perceived quality of intimate ties
Emotionality	Emotional
Environmental spirituality	Ecological values
Gender	Sex (male vs. female)
Parent rating of child happiness	Rating of happiness by parents
Etc..	

they "feel" most of the time, and at least from age 8 on, they appear to be able to respond to questions on that matter in a consistent way (VanVaalen 2011). Such questions tap what is called the "affective component" of happiness and are coded "A" in the collection Measures of Happiness.

Younger children are less able to estimate how well they feel most of the time but are still able to report how they feel at the moment. Therefore their happiness can be measured using multi-moment assessment, such as by repeatedly asking

Table 20.5 Example of a distributional finding on happiness in children

Happiness measure used in study HOLDE 2010	
Full text	Self-report on single question: "Overall how do you usually feel?" Rated on seven-step faces scale ranging from sad to happy, without verbal or numerical labels
Classification	A-AOL-g-sq-f-7-a
Focus	Affect: average overall level
Time frame	Generally
Mode	1 question
Scale type	Faces scale, range = 7
Author's label	Faces scale
Public	8–12 aged children, 2 schools, Canada
Page in source	135,138
Distribution of happiness	
% score 1 =	0
% score 2 =	0
% score 3 =	3
% score 4 =	7
% score 5 =	19
% score 6 =	47
% score 7 =	24
% Don't know, No answer	0
Mean on original scale	5.82
Mean on scale 0–10	8.03
Standard deviation on original scale	0.97
Standard deviation on scale 0–10	1.62

"How happy do you feel right now?" Such repeated single questions are coded A-ARE for "*A*ffect-*A*verage *R*epeated *E*stimates" in the collection "Measures of Happiness."

Very young children, such as toddlers, cannot even report how they feel at the moment, and their affect level must therefore be inferred from behavioral indications, such as frequency of crying and facial expression. Measures of this kind are coded A-CA, for *A*ffect-*C*heerful *A*ppearance. Such rating can be made by trained observers or by teachers and parents.

Studies on happiness in children that used acceptable measures are listed in the collection of "Happiness in Publics," in the section "Happiness in Age Groups," subsection "children." See Table 20.3. Scrolling these studies, one can see which particular measures have been applied as yet.

Each of the findings obtained in studies that used an acceptable measure of happiness is described on a separate "finding page." Findings on how happy children are are noted together with full detail about the measure used. An example of such a page is presented on Table 20.5.

Table 20.6 Example of a correlational finding on happiness in children

Study		HOLDE 2010
Author(s)		Holder, M.D.; Coleman, B.; Wallace, J.M.
Title		Spirituality, religiousness, and happiness in children aged 8–12 Years
Source		Journal of Happiness Studies, 2010, Vol.11, 131–150
DOI		DOI:10.1007/s10902-008-9126-1
Public		8–12 aged children, 2 schools, Canada
Sample		Non-probability purposive sample
Nonresponse		11
Respondents N =		320
Correlate		
Author's label		Parent rating of child happiness
Page in source		138
Our classification		Rating of happiness by parents, code H8.2.1
Operationalization		Overall how does your child usually feel? Rating by parents in response to single question: 1 sad face 2 3 4 5 6 7 happy face Seven faces presented ranging from sad to happy, without verbal or numerical labels
Observed distribution		M = 5,74, SD = 0.77
Remarks		Assessed 10 days before children rated their happiness
Observed relation with happiness		
Happiness measure	*Statistics*	*Elaboration/remarks*
A-AOL-g-sq-f-7-a	r = + .35 $p < .05$	Child's self-rating of happiness on the same scale

These pages can be assessed in several ways. One way is through the "study pages" listed in the collection of findings on "Happiness in Publics." The finding pages can also be accessed through the collection of findings on "Happiness in Nations." Select a nation and an overview of findings in that nation will appear. Select "distributional findings" and next under "special publics" the category "age group" and within that category the subcategory "children."

To date (November 2012) *n* option for comparison of average happiness in children across nations is in preparation. As yet, most of these data concern adolescents.

Correlational findings are also presented on a "finding page," an example of which is presented on Table 20.6. On top of this page is a description of the "study," with reference to the publication in which the finding was reported and a short description of the investigation. Next on the page is a description of the "correlate." That is, the factor of which the relationship with happiness was investigated, in this case the parents' estimate of how happy their child is. At the bottom of the real finding, in this case, a surprisingly low correlation with the child's own rating of how happy it feels most of the time.

On the Web site of the World Database of Happiness are instructions for adding findings to the archive.

Acknowledgements We are grateful to Mette Lemser who assisted in the technical editing of this chapter and to Jeanette Ziehm, Hannah Meurer, Evelyn Raichle, and Holly Bunje for their valuable assistance with the section on "Subjective Well-Being in Children and Adolescents from a Cross-Cultural Perspective" (20.4.1).

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