

1. Understanding the Construct of Positive Well-Being and Happiness

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Abstract

Subjective well-being has been conceptualized as an overarching construct comprised of three dimensions: (1) a cognitive appraisal of one's life, (2) low but appropriate levels of negative affect, and (3) an affective appraisal of one's positive emotions. The first component involves a cognitive evaluation of a person's past, present, and future

prospects which can all contribute to overall life satisfaction. The second component emphasizes that well-being is comprised of low, but appropriate levels of negative affect. In other words, positive psychologists recognize the value of negative emotions such as sadness, regret, guilt, and depression. This value includes providing a source of feedback for our choices which we can learn from and the motivation to change ourselves, modify our environment, or relocate to a different environment. The third component involves an affective appraisal and includes happiness

Keywords Positive well-being and happiness – Subjective well-being among children – Negative and positive emotions – Motivation to change ourselves

Positive psychology has focused research attention on positive subjective well-being. Subjective well-being has been conceptualized as an overarching construct comprised of several dimensions (Diener [2006](#)). Many researchers acknowledge that subjective well-being is multifaceted and

encompasses individuals' evaluations of at least three components of their lives: (1) a cognitive appraisal of one's life, (2) low but appropriate levels of negative affect, (3) and an affective appraisal of one's positive emotions. The first component involves a cognitive evaluation of a person's past, present, and future prospects which can all contribute to a person's rating of his or her overall satisfaction with his or her life. The second component emphasizes that well-being is comprised of low, but appropriate levels of negative affect. In other words, positive psychologists are generally not preoccupied with the elimination of all negative affect, and they do not view this elimination as necessarily beneficial. Recognizing the value of negative emotions such as sadness, regret, guilt, and depression is important for positive psychologists. This value includes providing a source of feedback for our choices from which we can learn from. Negative affect also provides us with motivation to change ourselves, modify our environment, or relocate to a different environment. The third component involves the affective appraisal and is generally more present oriented. It includes how one feels about the emotional

components surrounding his or her life including his or her current or momentary state of happiness and his or her overall general condition of happiness.

Not only is the umbrella term “subjective well-being” multidimensional, but the components of subjective well-being are considered multidimensional as well. For example, the third component, the affective appraisal of one's positive emotions, may include a number of positive emotions and states such as contentment, joy, pleasure, euphoria, elevation, and happiness. In turn, each of these positive emotions and states can be conceptualized as multidimensional. Happiness, which has received some of the most extensive recent empirical investigation, can be used as an example of this multidimensionality. Researchers currently recognize qualitatively different types of happiness. For example, hedonia refers to the type of happiness associated with immediate gratification usually related to sensory pleasures, whereas eudaimonia refers to the type of happiness derived from delaying gratification in order to experience long-term benefits associated with living a virtuous life. When Aristotle pro-

claimed that "*Happiness* is the meaning and the purpose of life, the whole aim and end of human existence" (Cook [1993](#)), he was referring to eudaimonia. Aristotle's perspective, demonstrated in this quote, underscores the prominent position that happiness has occupied in the minds of great thinkers.

Though there is some agreement that positive subjective well-being includes affective and cognitive appraisal factors, as well as appropriately low levels of negative affect, there is no widely accepted agreement on how these dimensions interact to form a general model of subjective well-being (Bussner et al. [2007](#)). The literature on positive psychology does, however, include descriptions of different theoretical models of positive well-being. For example, one model conceptualizes positive subjective well-being as a higher order latent variable, and the components of well-being (i.e., life satisfaction, high levels of positive affect and low levels of negative affect) as indicator variables. Though research has provided evidence in support of this model (Vitterso and Nilsen [2002](#)), it is probably misguided to characterize subjective well-being as only the

shared variance of its dimensions (Busseri et al. [2007](#)). Alternative models also recognize the three dimensions of positive subjective well-being but differ in two ways: (1) in whether they conceptualize the three dimensions as being independent dimensions and (2) whether well-being can be operationalized as a collective score of these three dimensions (Busseri et al. [2007](#)). Future research goals in positive psychology should include objectives leading to increased understanding and consensus on how the dimensions of well-being combine and influence each other in order to contribute to well-being.

Importantly, theory and research recognize that positive and negative emotions are not the extreme endpoints of single dimensions. For instance, the construct of happiness is not simply one anchor of a dimension with the opposing end anchored by sadness or depression. Happiness and depression represent separable, albeit related, constructs that are somewhat orthogonal dimensions. Research supports the perspective that depression and happiness represent independent dimensions and includes work suggesting that the correlates and predictors of happiness

and depression may be different. In a study of the relationships between happiness and the traits and facets of personality, Cheng and Furnham (2002) examined the relations between happiness and loneliness (a sub-component of depression). They reported the expected negative correlation between happiness and loneliness, but a second important finding was that these two constructs are conceptually distinct, and have unique predictors. Aspects of friendships, extraversion, and low levels of neuroticism were all significant predictors of happiness and loneliness. Psychoticism and a lack of self-confidence were significant predictors of loneliness but not happiness. Therefore, these findings are consistent with the perspective that both the experience of loneliness and the conceptualization of this construct are not totally encompassed by the absence of happiness.

However, the absence of happiness does not fully encompass the construct, nor the experience, of loneliness either. Studies that rely on biological assays point to a similar conclusion. In a study of elderly women, seven biomarkers indicated that positive and negative well-being are independent aspects of mental health (Ryff et al.

2006). These independent biomarkers included neuroendocrine assays (i.e., cortisol, DHEA-S, and norepinephrine) and cardiovascular measures (i.e., HDL cholesterol, total/HDL cholesterol, systolic blood pressure, and waist:hip ratio). These measures were either correlated with positive or negative well-being but not with both. Only two biomarkers (i.e., weight and haemoglobin) were correlated with both positive and negative well-being (though, of course, in opposite directions for each type of well-being) suggesting that positive and negative well-being are not best conceived as opposite endpoints on a bipolar continuum. In summary, happiness and depression may not be opposite ends on a single continuum, but rather orthogonal, albeit negatively correlated, dimensions.

Research on the measures of positive and negative well-being is consistent with this characterization. Positive and negative well-being measures, though consistently negatively correlated, do not indicate singularity. For example, in a typical study, the Oxford Happiness Inventory and the Beck Depression Inventory were negatively correlated at -0.52 . Though significant, this is far from

a perfect correlation of -1.00 suggesting that the measures assess distinct independent constructs (Cheng and Furnham 2003; Valiant 1993). For children, even different measures of happiness show significant, but only modest positive correlations ranging from 0.30 to 0.60 (Holder and Klassen 2010). Furthermore, the time frame with which the relations between positive and negative affect are studied is important too. At a specific single moment in time, happiness and depression are strongly negatively correlated. When these constructs are assessed over a longer time period, they show greater independence, with happiness appearing to be more stable over time than depression (Valiant 1993). Together these findings suggest that the literature on depression in children, though relevant to the understanding of subjective well-being in children, will not lead researchers to a complete understanding of children's happiness and life satisfaction. Additional studies are required that focus expressly on positive subjective wellness in order to garner a comprehensive and complete understanding of children's well-being.

Though substantial research suggests that

positive and negative well-being are correlated but independent constructs, other researchers have adopted the perspective that happiness and depression are two anchors of the same dimension, and can be adequately assessed using just one bipolar measure (Joseph et al. [2004](#); Joseph and McCollam [1992](#)). As an example, the short depression-happiness scale (SDHS) (Joseph et al. [2004](#)) is comprised of six items, and conceptualizes happiness and depression as anchoring opposite ends of one continuum. The SDHS has displayed good convergent validity with other established measures of depression and happiness (Joseph et al. [2004](#)).

Given the lack of agreement and the conflicting research findings, future studies are required to improve and clarify the constructs and assessment of happiness and depression. Such research would allow for greater consensus among researchers as to whether it is most appropriate to consider these constructs as orthogonal dimensions or as opposite poles of a singular bipolar dimension. Additionally, this research needs to be conducted independently for children. Research may eventually lead to the conclusion that happi-

ness and depression are independent dimensions for adults, but this conceptualization may not necessarily be accurate for children.

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2. Why Study Children's and Adult's Well-Being, Including Their Happiness?

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Abstract

Across continents and cultures, adults desire high levels of happiness for their children. However, until recently research has not focused on well-being, including happiness, especially in children. Nonetheless, the research literature has clearly demonstrated, at least in adults, that positive subjective well-being is associated with a wide

array of highly desirable outcomes in adults. These include improved health, greater creativity, increased facial recognition and attention, more productivity and success in one's career, better social relationships, higher levels of hope, and more resilience and post-traumatic growth. The capacity to be happy and satisfied with one's life is viewed by some as a critical life skill required for achieving good mental health.

Keywords Study of children's well-being – Study of children's happiness – High levels of children's happiness – Capacity of being happy – Achieving good mental health

Positive psychology includes the measurement and enhancement of positive well-being including happiness. Throughout human history, achieving happiness has been recognized by philosophers and intellectuals as a highly prized goal. A quote from Spinoza demonstrates this: "Everyone wants continuous and genuine happiness" (Spinoza 1677/[1985](#)). A high value assigned to happiness is currently reflected in many pop-

ulations. For example, 9,000 college students were sampled from 47 nations and given a list of twenty values including wealth, love, and health (Kim-Prieto et al. [2005](#)). The students identified happiness as the most important value with only 3% reporting that they did not value it at all.

The consensus that happiness is of high value and represents a worthwhile goal is reflected in the perspective held by most adults that we want our children to be happy. In a study of over 10,000 people from 48 countries on six continents, adults were asked about their desires for their children's emotions (Diener and Lucas [2004](#)). This study reported that overall, most people desire high levels of happiness for their children and this desire is similar across genders (i.e., for sons and daughters). Additionally, the findings did not vary appreciably as a function of the wealth of the adult respondent. The desire for happiness in children was particularly high for adult women who themselves experience high levels of happiness and/or live in nations with high levels of happiness, and also for adults from individualistic compared to collectivistic nations. Furthermore, adults' desire for children's happi-

ness proved higher than their desire for fearlessness or anger suppression.

While the construct of happiness occupies a privileged position among intellectuals, and is highly desired by people from across the globe, happiness has received limited attention from empirical researchers, including psychologists. While research in the realm of positive psychology has increased dramatically in the past decade, it is widely acknowledged that positive psychology has been largely understudied. This neglect is demonstrated by an examination of PsycINFO, which is a commonly used database for locating research articles in psychology. A current search of PsycINFO returns 136,668 journal articles if the key word "depression" is used, but only returns 7,494 articles if the key word "happiness" is used. More articles (30,536) are found if the more global term "well-being" is used, but it is still just a fraction of the number of articles related to depression. In short, aspects of positive psychology have received relatively little attention compared to the study of negative affect. However, this longstanding neglect is showing signs of being addressed. From 1990 to 2000, the ratio of arti-

cles on depression compared to happiness was almost 27:1, but over the last 5 years this ratio has improved to 17:1.

The limited attention researchers have given to positive psychology is particularly evident when it comes to research on the positive well-being of children. Despite the seemingly universal consensus that happiness in children is highly valued, research on the predictors of happiness in children and interventions to promote happiness in children is still relatively meager. Most empirical work on happiness has examined adults, and to a lesser extent examined adolescents and the elderly (Mahon and Yarcheski [2002](#)). Furthermore, investigations of positive well-being that do incorporate children often study the children in terms of their impact on the parents' happiness and life satisfaction, or the impact of childhood experiences and memories on the happiness of the individual once the individual has reached adulthood (e.g., Amato [1994](#)). For example, Adams ([1995](#)) found that adult women with a history of childhood sexual abuse experience positive affect less often, and self-report lower levels of well-being than women who do not share this

history.

This relative neglect of research on the well-being and happiness of children is somewhat surprising. Given that children's happiness is so highly desired by adults from nations that are wealthier, happier, and more individualistic (e.g., the United State of America; Diener and Lucas 2004), one would hope that research on children's happiness would be plentiful. After all, these are the nations that conduct a substantial amount of the world's research. The relative scarcity of research on positive well-being, and the emphasis on negative well-being, is not limited to research on children. If we return to the database PsycInfo again, we can make an additional point if this time we do not specify a particular temporal window. There is a ratio of almost 18:1 using the keywords "depression" and "happiness", respectively. When the keyword "children" is also used, the ratio is a slightly more encouraging 15:1, although the total number of articles is of course substantially less. However, the trend for research on children's happiness is not so encouraging. Limiting the search to just the past 5 years (i.e., 2006–2011), the ratio is 15:1 using

the key terms “depression” and “happiness” for all articles, but when the search is restricted with the filter “children”, the ratio increases to almost 18:1. Furthermore, there are only 411 hits in this 5-year window for articles using the keywords “happiness” and “children”. Nonetheless, there are several recent studies that have included children with the purpose of ascertaining the predictors of children’s happiness, and investigations which seek to enhance children’s well-being (e.g., Ben-Arieh [2006](#); Dwivedi and Harper [2004](#); Holder and Coleman [2008](#)).

A stronger focus on research investigating happiness and life satisfaction in children is warranted because these variables have been empirically linked to a wide variety of advantages and benefits, at least in adults and adolescents. For example, adolescents aged 16–18 years who self-reported the highest levels of life satisfaction, also reported higher levels of success in academics (e.g., academic achievement and attitudes toward education), social (e.g., relationships with parents and peers), and intrapersonal (e.g., experiencing meaning in life and a healthier lifestyle) domains (Proctor et al. [2010](#)). Research has demonstrated

that positive subjective well-being, including happiness, is associated with a wide array of highly desirable outcomes in adults. These include improved health, enhanced creativity, increased facial recognition and attention, more productivity and success in one's career, better social relationships, higher levels of hope, and more resilience and post-traumatic growth. The benefits of these outcomes are further elaborated below.

Health: Positive states including happiness are associated with better actual and perceived health. In a review of the literature, Veenhoven (2008) suggests that happiness plays a role in the prevention of illness in healthy populations, and is also a strong predictor of physical health in normal populations. However, the results do not clearly show that subjective well-being plays an important curative role in those who are already ill (Pressman and Cohen 2005).

The relationships between well-being and health have been demonstrated in younger populations. For example, happiness was strongly positively correlated with the perceived health status, wellness, and clinical health of 12–14-year olds (Mahon et al. 2005). Though some

theories suggest that this relationship is bidirectional (i.e., happiness is both a cause and result of good health; Argyle [1997](#)), additional research is required to determine the causal direction of this relationship in younger populations (Van De Wetering et al. [2010](#)). More studies that employ longitudinal designs would help shed light on this issue. Nonetheless, in a review of the research related to children's well-being and health, Dwyer et al. ([2009](#)) have pointed out the importance of encouraging children to participate in physical activity daily.

Optimism can be considered a facet of well-being and it is highly correlated with happiness. Like happiness, optimism is associated with improved health. The link between health and optimism has been assessed with physiological assays, showing that optimists possess a greater number of helper T cells, and increased natural killer cell cytotoxicity which is related to better immunity (Barak [2006](#)).

People with higher levels of subjective well-being are less likely to become ill and when they do become ill, they report less severe symptoms than people with lower levels of well-being. This

relationship between susceptibility to illness and positive emotional style has been demonstrated in the excellent work of Cohen and his colleagues. For instance, in one experiment individuals were exposed to two different rhinoviruses (RV23 and RV39) to assess whether their emotional style was a factor in determining their susceptibility to developing the common cold (Cohen et al. [2003](#)). Prior to exposure to the virus, the individuals' emotional style was assessed. Those who were identified as having a high positive emotional style (described in terms of positive adjectives such as happy, calm, or energetic) had a reduced chance of contracting a cold than those who were assessed as having a negative emotional style (described in terms of negative adjectives such as sad, tense, or hostile). In a companion study, individuals' susceptibility to a cold or the flu was assessed relative to their emotional style (Cohen et al. [2006](#)). In this research, individuals were exposed to either Rhinovirus 39 (RV39) or Influenza A. Similar to the previous study, those who had a positive emotional style fared better. Following exposure to the rhinovirus or the influenza, those who initially were assessed with a more positive

emotional style were less likely to contract an illness and reported less severe symptoms, if they did get sick. Interestingly, the health advantages associated with the positive emotional style were not strongly associated with engaging in more health-related strategies, or with an increase in the ability to cope with stress. The better health outcomes for those with a positive emotional style were largely a result of these individuals demonstrating a higher level of competence in their immune systems.

Understanding the influence of positive subjective well-being separately from negative well-being is critical because each factor may contribute independently to our health. Reviews of the literature have concluded that positive well-being may contribute to health and longevity above and beyond the contribution of negative well-being (Diener and Chan [2011](#)). Cohen et al. ([2003](#)) reported that positive emotional style contributed to a reduction in one's susceptibility to illness and the severity of symptoms related to the common cold. However, they also discovered that negative emotional style contributed very little to participants' susceptibility to viral infection or

symptom severity (although negative emotional style was associated with people identifying a greater number of unfounded symptoms, or symptoms that were not validated with objective markers of illness) (Cohen et al. [2003](#)). In other words, positive well-being's capacity to improve health may be greater than negative well-being's capacity to undermine health. This understanding emphasizes and supports a fundamental perspective of positive psychology: it is crucial to understand and promote positive well-being and not restrict health practitioners' work to only addressing illness and dysfunction.

Given the improvements in immune functioning related to positive well-being, perhaps it is not surprising that individuals with higher positive well-being live longer as well. In an important recent review of the literature, Diener and Chan ([2011](#)) examined a wide range of research evidence including longitudinal studies, animal studies, experimental studies, and naturalistic studies. They concluded that high positive subjective well-being contributes 4–10 years of additional life compared to low subjective well-being. This is particularly striking given that

these additional years tend to be experienced by happier people, and thus they are higher quality years characterized by greater happiness and better health. In one particularly interesting example of the relationship between positive well-being and longevity, researchers studied the journals of a sample of 180 Catholic nuns ranging in age between 18 and 32 years ($M = 22$) (Danner Snowden and Friesen [2001](#)). They were able to evaluate the nuns' journals and rate the content in terms of the emotions they expressed (positive, negative, or neutral). These emotional ratings were then analyzed to determine whether the longevity of the nuns could be predicted based on the ratings. The researchers found that lifespan was longer for those nuns who described more positive emotions in their journals, compared to those nuns who described relatively few positive emotions. This difference in longevity was noteworthy; nuns whose journal ratings placed them in the top 25% of the nuns (i.e., they displayed the highest positive emotional content), lived almost 7 years longer than those nuns whose journal ratings placed them in the bottom 25% (i.e., those with the least positive emotional content). Longevity,

particularly when it is accompanied by improved health and happiness, is a coveted goal most humans strive for. Given that positive emotional styles and well-being contribute to improved health and longevity, we may be able to encourage healthier children (and therefore also a healthier population over time) by enhancing their levels of happiness to promote longevity.

Enhanced Creativity: People who are happier tend to show higher levels of creativity, including the components of creativity. These components include the capacity to produce novel ideas, insights, and solutions that have practical applications to problems and challenges (Baas et al. [2008](#)). Researchers understand the construct of creativity as being multifaceted; it is thought to be composed of several dimensions including cognitive flexibility (i.e., the range and number of categories one accesses while generating ideas as to the function of an object), fluency (i.e., the number of unique and new uses people can generate for an object presented to them), and originality (i.e., the degree to which the solutions generated are novel). It is possible that one can be creative in general, but be missing or have low lev-

els of some of the dimensions of creativity (Baas et al. [2008](#)). In such cases, creativity may be assessed by presenting a specific object (e.g., a brick) and challenging the individual to the task of generating as many novel and practical uses for the object as they can imagine. The individual may show high levels of overall creativity despite failing to generate uses beyond having the brick serve as an object contributing to building things (i.e., fail to recognize that a brick could be used as a weapon, or to displace water in the reservoir of a toilet to decrease water usage) thus showing low levels of cognitive flexibility (Baas et al. [2008](#)).

In a meta-analysis of 102 studies reported over 25 years of research on emotions and creativity, Baas et al. ([2008](#)) concluded that positive moods lead to more creativity than neutral moods. The greatest impact of moods on creativity is when the moods are positive, activating, and linked to promoting positive states (e.g., happiness). Negative, deactivating moods, such as sadness, were not linked to creativity, and negative, activating moods associated with avoidance or escape (e.g., fear, anxiety) were related to decreased creativity. These relationships were reported across a variety

of research designs (i.e., experimental and correlational) and samples were drawn from a range of populations (i.e., students and the general adult population). They were also observed when different dimensions of creativity were assessed (e.g., fluency, flexibility, originality, and eureka/insight).

Creativity, particularly as it relates to generating novel and practical solutions, is a desirable trait. Given that creativity is enhanced by positive states, including happiness, we may be able to enhance children's levels of creativity through happiness. Unfortunately, the experimental research exploring the causal relations between creativity and happiness in children is very limited. Future research is needed in order to ascertain whether happiness and creativity are associated in children and determine the causal directions of the relation between happiness and creativity.

Facial Recognition and Attention: The way people attend to certain objects or visual stimuli is highly influenced by the emotions and attitudes they are experiencing at that time. Research has consistently demonstrated that people are generally better at recognizing faces of people

from their own race, than they are at recognizing faces of people from different races (Meissner and Brigham [2001](#); Slone et al. [2000](#)). This bias, referred to as the Own-Race Bias, is robust and resistant to enduring change even with intensive hours of training (Lavrakas et al. [1976](#)). The Own-Race Bias is found across a wide range of racial populations (Ng and Lindsay [1994](#); Teitelbaum and Geiselman [1997](#)) but may be strongest for Caucasians when they perceive faces of racial minority populations (Meissner and Brigham [2001](#)).

Johnson and Fredrickson ([2005](#)) investigated the impact of enhancing emotions prior to viewing faces (encoding), or after viewing the faces but prior to recognition. Participants viewed films selected to enhance joy or fear, or viewed films that were emotionally neutral. The researchers found that increasing joy either before or after viewing the faces significantly reduced the Own-Race Bias. They interpreted their results as supporting the Broaden and Build Theory (Fredrickson and Branigan [2005](#)), claiming that positive affect serves to broaden the scope of attention, and thus facilitates global attentional processes. Additional studies support

this theory by demonstrating that more positive emotional traits (e.g., happiness and optimism) enhance more global holistic processing. Negative emotional traits (e.g., anxiety) are associated with narrower local processing of elements which can be at the expense of more global or holistic processing (Basso et al. [1996](#)). Thus negative emotions can lead to a situation that parallels the old adage that one cannot see the forest because of the trees.

Applying the Broaden and Build Theory to children suggests that children with greater positive subjective well-being should have cognitive advantages in the form of widened attentional scope. Empirical validation of strategies to reliably increase children's positive emotions could be used to help children become more open-minded and cognitively flexible.

Workplace and School Success: Success at work in the form of receiving a raise, an excellent job evaluation, a performance bonus, a promotion, or a job offer following an interview, certainly can improve happiness and life satisfaction, at least temporarily. However, recent research in positive psychology indicates that the relationship be-

tween our well-being and our success in the work place is bidirectional. Not only does success in the work place improve our well-being, but high levels of positive well-being can improve our career success. In other words, career success is often preceded by enhanced well-being.

Studies support the idea that positive well-being is an important contributor to career success (Georgellis et al. [2008](#); Martin [2005](#); Staw et al. [1994](#); Wright and Bonett [2007](#)). One study concluded that workers who experience higher levels of happiness garner higher salaries and achieve better job performance than workers who have lower levels of happiness (Boehm and Lyubomirsky [2008](#)). Given the previously discussed relationship between subjective well-being and health, it is not surprising that governments and corporations are interested in positive well-being in the workplace, as the mental health of their workers influences productivity. It is estimated that absenteeism and loss of productivity as a result of depression cost Canada \$6.2 billion in 1998 and costs the United States between \$44 and \$51.5 billion annually (Lerner et al. [2004](#); Stephens and Joubert [2001](#)). Having employees

with higher well-being pays dividends. Employees who have higher levels of well-being generally experience less illness, miss fewer days of work, and display greater productivity and creativity in the workplace (Avey et al. [2006](#); Cohen et al. [1993](#); Hirt et al. [2008](#)). As discussed above, the relationship between positive well-being and creativity may be particularly important in fields where creativity is essential. One can contrast this finding with data describing employees who are depressed. Though the average Canadian missed only 9.7 days of work in 2006, depressed Canadians missed over three times this number of days (Statistics Canada [2006](#); Statistics Canada [2007](#)). The fact that these data were collected by a widespread governmental survey highlights the recognized importance of the consequences of affective status.

Although children may not be part of the work force, the relationship between positive well-being and the workplace for adults may be similar to the relationship between positive well-being and school for children. Conceivably, children who experience higher levels of positive well-being will miss fewer days of school and show

increased productivity and creativity while at school. In fact, studies do show that hope, which is associated with life satisfaction and positive well-being (Gilman et al. [2006](#)), is linked to increased academic success (Marques et al. [2009a](#)). A 5-week intervention designed to increase hope in children 10–12 years of age increased life satisfaction, self-worth, and hope, but the trend toward an increase in academic achievement was not significant (Marques et al. [2011](#)). It should be noted that academic achievement is particularly stable across time (Marques et al. [2009b](#)), and thus may be somewhat resistant to change. To increase academic achievement, a lengthier intervention may be required.

Studies do show that personal attributes that are of interest to positive psychologists such as optimism and self-efficacy are associated with better academic performance. Research has reported that older students with higher expectations for success demonstrate greater achievement in mathematics (Meece [1996](#); Pintrich [2000](#); Pokay [1996](#)). The link between self-efficacy and arithmetic skills has been demonstrated in younger children as well (Thronsdon [2011](#)). Increased

self-efficacy may be responsible for increased academic success because children with higher self-efficacy try harder for longer periods (Schunk [1998](#)) and select better strategies (i.e., more cognitive and metacognitive strategies) (Wolters and Pintrich [2001](#)). Therefore, children's academic performance may benefit from positive psychology interventions that increase self-efficacy. This may be particularly important for children as they age; research indicates that compared to Grade 2, Grade 3 children demonstrate lower levels of optimism regarding their self-efficacy as it relates to basic skills in mathematics (Thronsdon [2011](#)).

Well-established theories related to positive psychology also suggest that positive well-being may contribute to the success of children in school. For example, Self-Determination Theory (SDT; Deci and Ryan 2000; Ryan and Deci [2000](#)) claims that people in general and children in particular possess a natural motivation to learn and develop. According to this theory, learning is intrinsically motivated (i.e., learning is inherently interesting and enjoyable), and if the educational milieu in the home and classroom support this in-

herent inclination then children remain engaged and motivated in the learning process. SDT and supporting empirical research provide some guidelines for education that are in line with the perspectives of positive psychology. For example, meaningful choices can increase intrinsic motivation (Patall et al. [2008](#)) whereas external rewards can undermine intrinsic motivation (Ryan and Deci [2009](#)). The research suggests that both teachers and parents can promote children's well-being by supporting children's autonomy and intrinsic joy of learning, resulting in the children retaining more information, achieving higher grades, gaining greater perceived competence, and maintaining higher self-motivation (Ryan and Deci [2009](#)).

Social Relationships: Social relationships are strongly associated with positive subjective well-being. In fact, some researchers contend that relationships are critical to our well-being (Diener and Seligman [2002](#); Lyubomirsky et al. [2005](#)). Studies consistently report that individuals who score high in measures of subjective well-being also tend to enjoy more fulfilling social relationships (Lyubomirsky et al. [2005](#)).

Given the pivotal role our social relationships play in contributing to our happiness, research investigating the links between children's happiness and their social interactions holds promise for improving children's well-being and understanding the impact of their relationships. Early work has shown that social relationships are related to children's happiness (Holder and Coleman [2009](#)). For example, children who visit with friends more frequently are happier. Those who feel left out of social situations or agree that they cause trouble for their families are less happy.

Resilience and Post-traumatic Growth: The academic study of people thriving and experiencing low levels of negative affect did not suddenly begin with the introduction of the term "positive psychology". As early as 1955 a longitudinal study assessed the positive development of a large sample of children over several decades (Werner and Smith [1982](#), [1992](#)). These children, during the first two years of their lives, faced naturally occurring adversities including growing up with poverty, family conflict, and parents with mental illness. Despite these serious challenges, one-third of these children who faced adversity developed

into mentally and physically healthy and productive adults.

The phenomenon in which individuals develop successfully, and even thrive despite adversity, is known as resilience. A synthesis of 30 literature reviews on resilience concluded that children might be protected from the negative consequences of adversity depending on their prior experience and characteristics within three domains: individual (e.g., temperament), family (e.g., positive relationships with family members) and community (e.g., quality of the neighborhood they live in; Eriksson et al. [2010](#)). Research also suggests that culture, gender, intelligence, the number of protective factors, and age at which one experiences setbacks all influence resilience.

More recently, research has linked resilience with positive well-being. Studies report that people who experience high positive well-being prior to facing adverse challenges have increased resilience to cope with and overcome difficult situations (Tugade and Frederickson [2007](#); Tugade and Frederickson [2004](#)). For instance, the impact of negative and difficult challenges is mitigated by positive emotions (Tugade and Frederickson

2004). This mitigation may have important health benefits. People who self-report that they effectively cope with demanding negative challenges, more quickly return to their physiological baseline levels following a stressful event (Tugade and Frederickson 2004). Perhaps the negative physiological and psychological consequences of stressors can be buffered by improved subjective positive well-being via an increase in coping abilities (Tugade and Frederickson 2004).