

POSITIVE PSYCHOLOGY

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10 CONTINUING EDUCATION HOURS

“Positive psychology, that’s a good way to spend your time.”
Snyder & Lopez (2002, p. 766)

Course Objective

The purpose of this course is to provide an understanding of the concept of positive psychology. Theory, research, and the practice of positive psychology is examined in relation to various constructs, such as positive emotions, character strengths, life-span development, wisdom, happiness, creativity, hope, self-efficacy, problem-solving, courage, personal relationships, forgiveness, love, personality variables, coping strategies, and meaning in life.

Accreditation

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Mission Statement

Continuing Psychology Education Inc. provides the highest quality continuing education designed to fulfill the professional needs and interests of mental health professionals. Resources are offered to improve professional competency, maintain knowledge of the latest advancements, and meet continuing education requirements mandated by the profession.

Learning Objectives

Upon completion, the participant will be able to:

1. Recognize and utilize character strengths in oneself and others.
2. Comprehend different ways that positive psychology principles may be applied.
3. Convey the value of cognitively and physically remaining engaged in life upon aging well.
4. Appreciate the value or adaptive originality in people and creative endeavors.
5. Understand ways that hope influences psychological adjustment.
6. Acknowledge how self-efficacy impacts human potential and possibilities.
7. Express the connection between self-determination and being a "causal agent" in one's life.
8. Explain the impact of curiosity and interest on living a full life.
9. Consider the relationship between forgiveness and mental/physical health.
10. Describe empirical findings on the subject of love.
11. Expound upon qualitative differences between happy and unhappy people and the effects of happiness-inducing strategies.
12. Emphasize the importance of having meaning in life.

Faculty

Neil Eddington, PhD, obtained his doctorate from the University of California, Berkeley. He was a research associate and assistant professor at Harvard University within the department of psychiatry, adjunct professor at Tulane University, and associate professor and coordinator of graduate studies at the University of New Orleans. He co-authored the book, “Urbanman: The psychology of urban survival.”

Richard Shuman, LMFT, is a private practitioner in San Diego, CA and was selected as a court-appointed therapist. He was a psychology professor at Phillips College in New Orleans, LA and currently is the director of Continuing Psychology Education Inc.

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1 Continuing Psychology Education Inc. P.O. Box 9659 San Diego, CA 92169 FAX: (858) 272-5809 Phone: 1 800 281-5068
www.texcpe.com Email: contpsyched@netzero.com

POSITIVE PSYCHOLOGY

Positive psychology is the study of what makes life worthwhile and is concerned with strength and weakness, building potential and healing illness, helping normal people achieve fulfillment and the distressed to acquire equilibrium (Seligman, 2002; Seligman & Csikszentmihalyi, 2000).

Through the disease model of scientific psychology, individuals are often viewed as frail victims of unhealthy environments or flawed genetics striving for homeostasis and survival at best. Positive psychology proposes a balance between mere subsistence and thriving.

Research on positive psychology covers diverse topics; this section explores the concepts of positive emotions, character strengths, applications of positive psychology, the mental health continuum, positive psychology: children and adolescents, aging healthfully, wisdom and life longings, and subjective well-being, with the goal of improving the quality of life.

SECTION I

POSITIVE EMOTIONS

Numerous studies reveal that positive emotions and experiences predict or contribute to worthy life outcomes (Lyubomirsky, King, & Diener, 2005), including increased work satisfaction and success (Losada & Heaphy, 2004), heightened immune function (Cohen, Doyle, & Turner, 2003), and longer life (Danner, Snowdon, & Friesen, 2001; Levy, Slade, & Kunkel, 2002; Moskowitz, 2003; Ostir, Markides, & Black, 2000).

Many operational definitions of emotions exist, but a common approach is that emotions are multicomponent response tendencies including, for example, subjective feelings, cognition and attention, facial expressions, cardiovascular and hormonal changes, occurring with a relatively short time span (Cosmides & Tooley, 2000; Lazarus, 1991).

The degree of pleasantness, rated on a continuum from highly pleasant to highly unpleasant, is considered an important characteristic of every emotion (discussed in Smith & Ellsworth, 1985). We often make a pleasantness rating when initially exposed to environmental sensory input (Chen & Bargh, 1999). A feeling of pleasantness generally occurs when a stimulus either fulfills a biological need (Cabanac, 1971), leads to goal attainment, or resolves an aversive or goal-inconsistent state.

Past emotions research has examined negative emotions, primarily because negative emotions generally are the causes and effects of pathology and the discipline of psychology has traditionally studied problems (Seligman & Csikszentmihalyi, 2000). General emotions theories often link each emotion with a “specific action tendency,” for example, fear yields motivation and physical preparation to escape, anger leads to aggression and disgust to expel (Frijda, 1986; Lazarus, 1991, Tooby & Cosmides, 1990). Such action tendencies evolved because they increased our ancestors chances of survival. Positive emotions were

deemed less important, as joy was associated with aimless activation, interest with attending, and contentment with inactivity (Frijda, 1986). These tendencies appeared too general and lacked the adaptive value of negative emotion tendencies (Ekman, 1992; Fredrickson, 1998).

Positive mental health research has increased over the last decade, including the study of positive emotions. Fredrickson’s broaden-and-build theory, for instance, professes that positive emotions broaden an individual’s immediate thought-action options and promote behavior that builds long-term resources (Fredrickson, 1998; 2001).

Negative emotions assist in life-threatening situations that require a focused and constricted thought-action pattern that offers direct benefit. Contrarily, positive emotions are rarely evoked in life-threatening circumstances so they do not need to elicit focused response tendencies, instead, positive emotions generate broadened and more flexible response tendencies which create more potential avenues of thought and action (Fredrickson, 1998). For example, joy creates the desire to play across physical, social or intellectual dimensions. Interest broadens into eagerness to explore, experience new information and novel activity, and expand the self. Love encourages interacting with, learning more about and appreciating our significant others. Broadened thought-action tendencies evolved not for short-term survival purposes, rather, for long-term benefits, such as building personal resources.

Play also broadens behavioral tendencies, for example, some children’s play actions evolve to a predator avoidance repertoire in adults (Dohlinow, 1987), play builds intellectual capacity through increasing creativity (Sherrod & Singer, 1989) and enhances brain development (Panksepp, 1998). Social play builds long-lasting resources, such as laughter seems to foster openness to new, broadening interactions that may culminate in enduring attachments (Gervais & Wilson, 2005). Shared enjoyment and smiles promote similar positive outcomes (Keltner & Bonanno, 1997; Lee, 1983; Simons, McCluskey-Fawcett, & Papini, 1986). The positive emotion of interest breeds exploration which leads to knowledge and intellectual development; likewise, the emotion of contentment may yield greater self-insight.

The broaden-and-build theory of positive emotions demonstrates that positive emotions spiral upward and broaden into novel thoughts, actions and relationships that create long-term personal resources (i.e., social fulfillment, skills, knowledge, and resilience) resulting in improved physical and psychological health, and survival capability. These beneficial resources can be evoked whenever needed, even if the person is not feeling momentarily positive.

Emotions, in general, affect the process of cognition, and research on positive affect’s influence upon cognition and behavior supports the broaden hypothesis. Positive emotions stimulate thought patterns that are flexible and inclusive (Isen & Daubman, 1984), creative (Isen, Daubman & Nowicki, 1987), and receptive to new information (Estrada et al., 1997).

Fredrickson & Branigan (2005) generated positive, negative, or no emotions (the control group) in subjects and then requested them to list all the activities in which they would like to be engaged. The positive emotions group listed a greater quantity of and more varied actions compared to the neutral group while the negative emotions group indicated fewer actions.

Broadened social attention is characterized by augmented attention to others and limited distinction between self and others or between different groups. Studies reveal that individuals experiencing positive emotions perceive more overlap between their own self-concept and their concept of their best friend (Waugh & Fredrickson, 2006; Waugh, Hejmade, Otake, & Fredrickson, 2006), and display more caring interest toward their friends (Otake, Waugh, & Fredrickson, 2007). Positive emotions can increase trust in newly-forming relationships (Dunn & Schweitzer, 2005), and may facilitate development of various bonds and interdependence opportunities (Cohn & Fredrickson, 2006; Gable, Reis, Impett, and Asher, 2004).

Positive emotions broaden social group acceptance and minimize the perception of “us versus them” (Dovidio, Gaertner, Isen, Rust, & Guerra, 1995). Applied to racism, studies have induced positive emotions in subjects and found that participants displayed less racial bias in their face perception and lowered ability to discern physical differences between races (Johnson, 2005; Johnson & Fredrickson, 2005).

These studies demonstrate how perception can be broadened to positively affect our social bonds and personal cognitions, thus, our broadened mental set can optimize the building of sustained resources.

The ‘build’ component of the broaden-and-build hypothesis was divulged in a positive emotions intervention study in which experimental group participants were taught a mindfulness meditation designed to produce the positive emotions of compassion and love. Experimental group members, after three weeks, began experiencing daily higher levels of positive emotions relative to the wait-list control group and at eight weeks, they increased in numerous personal resources, including physical wellness, instrumentality at goal achievement, appreciation of positive experiences, mindfulness, and quality of close relationships. Analysis attributed these resource changes to the increase in daily positive emotions and that the improved resources fostered a more satisfying and fulfilling life (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008).

Negative life events as unemployment and grieving often elicit negative emotions but such emotions, which promote immediate, narrowly focused action, may not encourage problem-solving. Grieving individuals experiencing some positive emotions along with customary negative feelings demonstrated improved psychological well-being one year or longer later, partly because optimistic future plans and goals were associated with positive emotions (Moskowitz, Folkman, & Acree, 2003; Stein, Folkman, Trabasso, & Richards, 1997). Supportively, college students’ mental health was measured before and after the September 11

terrorist attacks, and the more resilient individuals felt occasional positive emotions intermixed with the predicted fear and grief; positive emotions lessened the negativity of an extended and narrow perspective (Fredrickson, Tugade, Waugh, & Larkin, 2003).

Adults combating suicidal thoughts (Joiner, Petit, Perez, & Burns, 2001), or revealing childhood sexual abuse (Bonanno et al., 2002) coped better when their disclosure of pain was combined with some sense of positivity. Fredrickson and Joiner (2002) determined that being in the state of positive emotions is associated with creative and open-minded coping strategies which, in turn, predicted heightened positive emotions five weeks later (above the baseline level of positive emotion). Pessimism and depression are known to correlate with a self-perpetuating downward spiral while positive emotions are linked to an upward spiral of greater resources, life success and fulfillment.

Experiencing high levels of positive emotions correlates with less pain and disability relative to chronic health conditions (Gil et al., 1997), ability to resist illness and disease (Cohen & Pressman, 2006; Ong & Allaire, 2005), and living longer (Danner et al., 2001; Levy et al., 2002; Moskowitz, 2003; Ostir et al., 2000).

Findings have shown that positive emotions assist body regulation, specifically, lowering effects of the biochemical stress response after a threat. Researchers administered an anxiety-provoking experience to participants, ended the exposure, then presented either a sad, neutral or positive emotion film clip while simultaneously measuring their biological stress responses. Subjects in the positive emotions group recovered quicker than those seeing the neutral film clip, who recovered more quickly than those viewing the sad film clip (Fredrickson, Mancuso, Branigan, & Tugade, 2000, study 1; Fredrickson & Levenson, 1998). None of the films had a biological effect in the absence of a stressor (Fredrickson et al., study 2), thus, the positive emotional film revealed an ability to regulate the body by undoing and shortening the duration of cardiovascular response elicited by a stressor. Individuals who frequently demonstrate resilience to negative events recover quicker and they do so by commonly creating positive emotions during the recovery process (Tugade & Fredrickson, 2004). These results display the effect of emotions on coping and of coping on health. Whereas some people utilize positive emotions to resiliently recover from stress, others continue to be physiologically activated and inclined to react, even after the threat has dissipated. Over the long-term, the latter group will acquire more physiological hardship possibly culminating in various stress-related illness (Kiecolt-Glaser, McGuire, Robles, & Glaser, 2002; McEwen & Seeman, 1999).

A literature review by Ashley, Isen, and Turken (1999) links physiology and positive emotional effects by proposing that the broaden effect may be related with release of mesolimbic dopamine, which improves cognitive flexibility and proactive curiosity. Beridge and Robinson (2003) observed this same neurological system to be linked with the motivational element of positive affect. Further, older antipsychotic drugs inhibited the mesolimbic dopamine

system causing cognitive narrowing and rigidity (Berger et al., 1989).

The broaden-and-build theory illustrates beneficial short-term effects of positive emotions and potential for enduring personal growth. While negative emotions effectively assist us to respond to danger, avoid risks and manage loss, positive emotions foster appreciation of the nuances of living. Research supports that many people would benefit by increasing their daily levels of positive emotions.

CHARACTER STRENGTHS

The Athenian philosophers, Socrates, Plato, and Aristotle, understood morality as being linked to good character, and to virtues, specifically, character strengths that make a person good (Rachels, 1999). Asian philosophers, including Confucius, also highlighted virtues that make an individual morally praiseworthy, and more relevantly, contributed to the good society (Smart, 1999). One contemporary psychology research program examining character strengths and virtues is the Values in Action (VIA) project (Peterson & Seligman, 2004), which utilizes the following operational definition of a virtue (Yearley, 1990, p. 13): A disposition to act, desire, and feel that involves the exercise of judgment and leads to a recognizable human excellence or instance of human flourishing. Moreover, virtuous activity involves choosing virtue for itself and in light of some justifiable life plan.

Historical texts from the world's religious and philosophical doctrines (i.e., the books of Exodus and Proverbs in Judaism, the analects in Confucianism, etc.) were used to illustrate the following core set of virtues (Dahlsgaard, Peterson, Seligman, 2005): a) wisdom and knowledge, b) courage, c) humanity - interpersonal strengths involving empathy and socialization, d) justice, e) temperance, and f) transcendence - connecting to and finding meaning in the large universe.

Each virtue met many of these twelve criteria: ubiquitous, fulfilling, morally valued, trait-like, measurable and distinctive, does not diminish others, has an obvious antonym, represents a paragon, is precociously apparent in children or youth, is absent in some people, and is praised by societal institutions.

The VIA classification of strengths includes 24 positive traits organized within the six core virtues, as follows: Wisdom and knowledge: creativity, curiosity, open-mindedness, love of learning, and having a keen perspective fostering wise counsel.

Courage: authenticity, bravery, perseverance and zest.

Humanity: kindness, love, and social intelligence.

Justice: fairness, leadership and teamwork.

Temperance: forgiveness, modesty, prudence and self-regulation (managing one's feelings and actions).

Transcendence: appreciation of beauty and excellence, gratitude, hope, humor, and religiousness (believing in the higher purpose and meaning of life).

Demographic correlates of the VIA strengths revealed females scoring higher than males on interpersonal strengths

of gratitude, kindness, and love. Older adults scored higher than younger adults on temperance strengths. People with more education love learning more than those with less education; married people are more forgiving than the unmarried; and African Americans and Asian Americans are more religious than European Americans.

The most common strengths displayed by youth were gratitude, humor, and love and their lesser strengths were prudence, forgiveness, religiousness, and self-regulation (Park & Peterson, 2006c). Hope, teamwork, and zest were relatively more frequent among youth than adults, while appreciation of beauty, authenticity, leadership, and open-mindedness were relatively more common to adults.

Parental descriptions of their young children found the average child to be loving, kind, creative, humorous, and creative, whereas authenticity, gratitude, modesty, forgiveness, and open-mindedness were uncommon strengths (Park & Peterson, 2006a).

For adults, love, gratitude, hope, curiosity, and zest are correlated with life satisfaction, happiness, and psychological well-being (Park, Peterson, & Seligman, 2004). Predictors of life satisfaction for youth are love, gratitude, hope, and zest (Park & Peterson, 2006c). Children displaying love, zest, and hope, as described by their parents, were seen as happy (Park & Peterson, 2006a).

The VIA character strengths also reflect that:

- a) temperance and perseverance strengths predicted academic achievement among school children.
- b) The character strength of love predicted good military performance among West Point cadets.
- c) Zest, humor, and social intelligence predicted teaching effectiveness.
- d) Zest predicted intrinsic versus extrinsic work motivation.

Modest overlap exists between the character strengths of parents and those of their children (Park & Peterson, 2006c). A twin study uncovered that many of the VIA strengths possess moderate levels of heritability, similar to other personality traits (Steger, Hicks, Kashdan, Krueger, & Bouchard, 2007). Some of the character strengths, for example, love of learning and open-mindedness, showed some shared family environment influence, while several others, for instance, humor and teamwork, revealed some influence of nonshared family environment.

The effects of major life events upon character strengths notes that significant physical illness (which has been recovered from) associates with increased bravery, kindness, and humor, and severe psychological disorder (already resolved) correlates with increased appreciation of beauty and love of learning (Peterson, Park, & Seligman, 2006). Higher life satisfaction linked to increases in these character strengths. Interpretation of these findings suggests that various character strengths may serve as a buffer to negative life events and sustain or possibly increase well-being, thus, crisis may forge good character (Peterson & Seligman, 2004).

Peterson and Seligman (2004) propose that virtues and character strengths are attainable through active pursuit,

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similar to Aristotle's (2000) belief that good character is demonstrated by habitual action. Procedurally, these researchers recommend establishing a baseline of the desired behavior followed by maintaining awareness of character strength opportunities and the responsive actions taken while rising to the occasion. Given the character strength of perseverance, for instance, the strength opportunity is any situation allowing one to finish a task that has begun; for bravery, any occurrence requiring fear to be overcome and appropriate action taken. Such opportunity situations answer the question: Did s/he do what was required or not?

Action plans are needed to attain goals and plans work best by including didactic instruction, direct experience and repeated practice. Peterson and Seligman (2004) propose, "Think about it, talk about it, and do it - over and over again." Goals are recommended to be challenging and specific with opportunity for periodic successes which preserves motivation (Locke, Shaw, Saari, & Latham, 1981).

Individuals who manifest balanced character strength scores (less disparity across scores within the same person) report higher life satisfaction, especially older adults; this supports that wisdom is the culmination of personal strengths with maturity (Erikson, 1963).

The Values in Action project reflects that good character associates with worthy living and supports the premise of Aristotle (2000) that "happiness is the purpose of life, and living in accordance with one's virtues is how to achieve happiness" (Peterson and Seligman, 2004).

APPLICATIONS OF POSITIVE PSYCHOLOGY

Positive psychology research has created new therapeutic techniques, for example, Well-being therapy was pioneered by Fava and colleagues (e.g., Fava, Rafanelli, Cazzaro, Conti, & Grandi, 1998; Ruini & Fava, 2004) and applies Ryff's (1989) six domains of psychological well-being: environmental mastery, personal growth, purpose in life, autonomy, self-acceptance, and positive relations with others. This approach highlights self-observation, inclusive of a structured diary and enjoining of therapist with client (Ruini & Fava, 2004, p.374). Well-being therapy has proven very effective with affective disorders (Fava, Rafanelli, Cazzaro, et al., 1998), recurrent depression (Fava, Rafanelli, Grandi, Conti, & Belluardo, 1998), and generalized anxiety disorder (Fava et al., 2005).

Another positive psychology approach, Mindfulness-based cognitive therapy, enhances the mindful state, which is known to heighten self-awareness, facilitate informed choices, and is related to numerous well-being indicators (Brown & Ryan, 2003). Mindfulness-based methods also promote self-determination, which fosters fulfillment of autonomy, competence, and relatedness needs (Brown & Ryan, 2004), that emphasize many components of well-being (Ryan & Deci, 2000). Research continues to support this approach with a range of clinical and non-clinical conditions

(Ma, & Teasdale, 2004; Grossman, Niemann, Schmidt, & Walach, 2004).

Further, Quality of Life Therapy, introduced by Frisch (2006), involves various cognitive therapy techniques designed to lead clients to greater happiness. Interventions are based on the acronym, CASIO, consisting of exploration into four specific areas of life and a fifth, other area of living: Circumstances or Characteristics of an area of life; Attitude, perception and understanding of an area; Standards of fulfillment or achievement; Importance placed on a life area for general happiness; and Other areas of life to be considered. This approach helps clients to modify their circumstances, think and perceive differently, propose new standards, reconsider priorities, and consider other areas of life.

Positive psychotherapy, developed by Seligman, Rashid, and Parks (2006), is founded on the belief that developing positive emotions, strengths, and meaning is facilitative in the treatment of psychopathology. The underlying tenets of this approach are that individuals gravitate toward growth and fulfillment; positive emotions and strengths are genuine and realistic; and focusing on strengths and meaning is one way to improve psychopathology. Outcome studies have shown that positive psychotherapy is at least as effective for major depression as conventional pharmacological treatments (Seligman, Rashid, & Parks, 2006).

In consideration of happiness, which is one goal of positive psychotherapy, Lyubomirsky, Sheldon, & Schlude (2005, chap. 63), and Sheldon & Lyubomirsky (2004) conclude that 50% of happiness is genetically caused, 10% is a result of life circumstances, and 40% is due to our chosen actions. Effective happiness interventions have explored the changeable 40% and results are suggesting that sustainable happiness modifications are possible. Sheldon and Lyubomirsky (2004) clarify that happiness interventions need person-activity fit; people must expend the necessary effort; and individuals must continually utilize different happiness intervention activities to avoid hedonic adaptation (return to one's baseline happiness level after a life circumstance; Brickman & Campbell, 1971).

Fordyce (1977, 1983) observed that successful happiness interventions emphasized intentional activities, such as increasing socialization time, strengthening one's closest relationships, and becoming more active. Seligman, Steen, Park, and Peterson (2005) examined several happiness interventions in terms of increased happiness and decreased depression relative to a control group across a 6-month interval. Participants either 1) became aware of and used their five signature strengths in a novel way for one week, 2) daily, noted three things that went well for one week, or 3) were given one week to write and then deliver a gratitude letter directed at someone who was very kind to them but was never thanked. The gratitude letter condition yielded the longest effect on happiness and depression but the change only lasted one month. Long-term benefits were attained by those in any condition, who continued the exercise beyond

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the one-week experimental period - it became a self-reinforcing activity.

Emmons and McCullough (2003) found that interventions that highlight the good things in life enhance positive affect and life satisfaction. Further, gratitude-increase interventions may resist habituation after an improved life circumstance (i.e., Watkins, 2004). It is speculated that positive psychology-generated happiness interventions may also benefit more serious affective disorders.

APPLIED POSITIVE PSYCHOLOGY

In education, positive psychology motivates and rewards the student's strengths and capabilities by daily establishing opportunities for expression of these talents, instead of penalizing their deficits (Clonan, Chafouleas, McDougal, & Riley-Tillman, 2004; Huebner & Gilman, 2003).

Research spanning the past twenty years supports that reduction in criminal recidivism is possible by rehabilitating offenders in contrast to punishment alone (Andrews & Bonta, 1998). This rehabilitation generally follows the "risk-need" model, which strives to lower recidivism by assessing and treating the relevant risk factors, with the goal of protecting the community from additional harm. Ward (2002; Ward & Mann, 2004) modified this approach with the "good lives model" (GLM) which emphasizes human well-being and defines rehabilitation in a strengths-based and constructive manner. The goal is to enhance the offender's capabilities and resources, resulting in a better quality of life which lowers the chance of their future criminal behavior.

The GLM rehabilitation approach stresses the control concepts of personal identity, instrumental behavior, psychological well-being, and the possibility of living an alternative lifestyle to criminality (Ward & Gannon, 2006). People are viewed as being active, goal-seeking, habitually developing meaning and purpose, and in search of beneficial activities, experiences, and states of mind that create well-being and thriving. Offender risk factors are assessed, but the risk factors are categorized as obstacles to attaining the well-being state, not as the sole focus.

The GLM rehabilitation works to improve the offender's external conditions (i.e., social support) and internal conditions (e.g., skills, and values) in order to acquire personal and socially acceptable possessions, in non-criminal ways, that manufacture personal identity and instrumentality, and reduced recidivism.

The British prison system effectively used the GLM approach on a trial basis (Ward & Mann, 2004), thus suggesting a change to rehabilitation and reintegration of offenders.

Positive psychology applied to the work world is growing in interest. Considering and utilizing people's strengths (Hodges & Clifton, 2004), and establishing an engaged workforce (Harter, Schmidt, & Keyes, 2003) yield organizational benefits.

A workplace leadership style viewed as effective by positive psychology is entitled, transformation leadership. It

uses the behaviors of "idealized influence," "inspirational motivation," "intellectual stimulation," and "individualized consideration" (refer to Bass, 1998) to inspire their employees to achieve stretch goals, think independently, rise above conventional ways of doing things, and increases employer empathy toward employee development and well-being.

Swanathan, Arnold, Turner and Barling (2004) believe that transformational leadership increases employee well-being via four mediating psychological processes: promoting efficacy, which associates with increase motivation and job productivity; bolstering trust in management which lowers anxiety and threat; fostering a feeling that the individual is contributing meaningful work; and increasing a sense of social/organizational identity and belonging within the organization. The latter two components are known to be vital in generating employee engagement (Stairs, 2005).

Employee engagement is the level of commitment one demonstrates to a job and includes rational commitment - motivated by goals as financial incentive or professional development, and emotional commitment - motivated by a strong conviction in the value of the job. Employee commitment is analogous to the functionality of the psychological contract (Rousseau, 1995). Stairs (2005) proposes that utilization of positive psychology can produce enhanced emotional commitment and performance yielding increased organizational productivity. Employee engagement is consistently associated with improved organizational outcomes, such as employee retention, less sick days, better customer satisfaction and profit (Harter, Schmidt, & Hayes, 2002; Harter et al., 2003).

Two other positive psychology applications that highlight employee positive behaviors are positive organizational scholarship (Cameron, Dutton & Quinn, 2003) which develops character strengths such as resilience, restoration, and vitality, and positive organizational behavior (Luthans, 2002) which improves positive and measurable traits as self-efficacy, optimism, hope, and resiliency (Luthans, Avey, Avolio, Norman, and Combs, 2006), which has been shown to increase the psychological capital of managers, that in turn, can improve employee and organization performance.

Appreciative Inquiry is a method of positive organizational change that uses many tenets of positive psychology through a narrative process called the AI 4-D cycle. The 4-D cycle encompasses discovery - becoming aware of the best that is available; dream - identifying a results-oriented vision and higher purpose; design - establishing an organizational design that will evoke superior performance; and destiny - emphasizing the positive ability of the organization to create hope and momentum for sustained positive change. Positive Organization change is designed to occur through the "elevation of inquiry -" asking questions regarding positive possibilities; "fusion of strengths -" uniting individual strengths with a common goal; and the "activation of energy- " that results from this process (Cooperrider & Seherka, 2003). Appreciative Inquiry has been successful in the realm of organization development.

Another application of positive psychology involves life coaching. Green, Oades, and Grant (2006) revealed that cognitive-behavioral solution-focused life coaching can enhance goal striving, well-being, and hope.

Population-based approaches promoting mental health have utilized positive psychology with favorable outcomes. Rose (1992) showed that the prevalence of numerous common diseases in a population or subpopulation is directly linked to the population mean of the underlying risk factors, theoretically, therefore, prevalence should be changeable by altering the mean of the risk factors. This hypothesis has been supported for psychiatric disorders, such as psychological distress (Anderson, Huppert, & Rose, 1993; Goldberg, 1978), and depression and anxiety (Melzer, Tom, Brugha, Fryers, & Melzer, 2002).

Supportively, Population Communications International works with culturally sensitive television and radio soap operas to highlight societal tendencies that limit people's choices for improved health, education, and general development. Soap opera characters model desired behavior that encourages family health and stable communities. Bandura's research on social modeling and self-efficacy offers much of the theoretical framework for the programming (i.e., Bandura, 1997).

Sanders, Montgomery, and Brechman-Toussaint (2000) examined the influence of a 12-episode television series, entitled Families, focusing on improving disruptive child behavior and family relationships. Each episode provided a feature story about family issues and a 5-7 minute segment offering strategies to parents on prevention and resolution of common child behavioral problems and teaching children self-control and problem-resolution skills. A modeled demonstration of the recommended strategies was aired. The results, based on reports of 56 parents of children aged 2-8 years, revealed a reduction in disruptive behavior from 43% to 14%, which continued at 6-month follow-up.

The applications of positive psychology suggest that people demonstrate an inherent, nurturant, and on-going inclination toward growth and actualization (Linley, Joseph, Maltby, Harrington, & Wood, 2006), and the potential for human development is immense.

THE MENTAL HEALTH CONTINUUM

Three traditional and historical conceptions of health include pathos, salus, and hale. The pathogenic model, originating from the Greek word pathos, means suffering or an emotion-eliciting sympathy, and it defines health as the absence of disability, disease, and premature death. The salutogenic model, observed in early Greek and Roman writings and derived from the Latin word salus, classifies health as the presence of positive states of human capabilities and functioning in thinking, feeling, and behavior (Sutmpfer, 1995). The third approach is the complete state model, emanating from the ancient word for health, hale, and it means whole. The World Health Organization (1948) applies this model by defining overall health as a complete

state, encompassing the existence of positive states of human capacity and functioning and the absence of disease or illness.

The Surgeon General in 1999, Dr. David Satcher, defined mental health as "... a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with people, and the ability to adapt to change and to cope with adversity" (U.S. Public Health Service, 1999, p.4). The World Health Organization, in 2004, in a historic report on mental health promotion, described mental health as the absence of mental illness and the presence of "... a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (World Health Organization, 2004, p. 12). These definitions assert the scientific conception that mental health involves not only the absence of mental illness but also the presence of positive states.

Research on subjective well-being has examined human positive states, resulting in a diagnosis of mental health based on clusters of mental health symptoms, which parallel the cluster of symptoms used in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR; American Psychiatric Association, 2000) to diagnose a major depressive disorder. Whereas depression necessitates symptoms of an-hedonia, mental health requires symptoms of hedonia, for instance, emotional vitality and positive feelings about life. Similarly, depression involves symptoms of malfunctioning, while mental health reflects symptoms of positive functioning. The diagnosis of mental health includes the following thirteen symptoms:

1. Generally cheerful, happy, calm and peaceful, satisfied, and full of life and zest (has demonstrated positive affect the past 30 days)
2. Is happy or satisfied with life as a whole or with domains of life, such as relationships, work, leisure, etc. (avows happiness or life satisfaction)
3. Maintains positive attitudes toward self and life and accepts various aspects of self (self-acceptance)
4. Exudes positive attitude toward others and accepts individual differences (social acceptance)
5. Is aware of own potential and development; open to novel experience and challenge (personal growth)
6. Feels that people, social groups, and the culture have potential and can evolve in positive directions (social actualization)
7. Possesses values and goals supportive of a sense of direction and believes that life has purpose and meaning (purpose in life)
8. Perceives one's life is beneficial to society and offers value to others (social contribution)
9. Can manage one's complex environment and modify environments to fulfill one's needs (environmental mastery)
10. Engaged in society or social life and feels society and culture are worthwhile and meaningful (social coherence)

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11. Manifests self-direction guided by socially accepted internal standards and resists unproductive social pressures (autonomy)
12. Experiences healthy personal relationships, demonstrating warmth, satisfaction and trust, and exhibits empathy and intimacy (positive relations with others)
13. Enjoys a sense of belonging to a community and gains comfort and support from community involvement (social integration)

This list of symptoms is divided into two categories such that the first two symptoms are termed hedonic well-being and symptoms 3 through 13 are called positive functioning. A diagnosis of “flourishing” in life is given to those exhibiting high levels on at least one hedonic well-being symptom and on at least six positive functioning symptoms. People displaying low levels on at least one hedonic well-being symptom and on at least six positive functioning symptoms are diagnosed as “languishing” in life. Flourishing parallels the concept of thriving on the Global Assessment of Functioning (GAF) in the DSM, and languishing is being stuck, stagnant, or empty, and without positive functioning in life. The classification of “moderately mentally healthy” means the individual’s criteria do not match either flourishing or languishing in life. An assessment adds all symptoms of mental health which are coded into 10-point ranges similar to the GAF of the DSM-III-R.

The first national survey of midlife development in America, entitled, *Midlife in the United States (MIDUS)*, used the above-indicated symptoms of mental health, and was made by the McArthur Foundation Research Network on Successful Middle Development in 1995. The study was developed by a multidisciplinary team of scholars from the fields of psychology, sociology, epidemiology, demography, anthropology, medicine and health-care policy. The goal was to study the effects of behavioral, psychological, and social factors upon age-related differences in health and well-being in a sample of approximately 7000 English-speaking adults, aged 25-74, living in the United States. The study was innovative because it examined novel psychological factors (i.e., well-being, positive and negative affect, sense of control, goal commitments, various personality traits) relative to relevant demographic variables (e.g., marital status, family structure, socioeconomic position, social participation, social support, employment status, health status, health-care utilization) and the accrued information broadened epidemiology, psychology, demography, and sociology. The scientific community has accepted the MIDUS as publications from the study appear in over 140 scientific journals, and it is the most common downloaded dataset from the National Archive of Data on Aging (NACDA). Given its quality and utilization, the MIDUS study was awarded a third round of funding (2011-2016) which will expand the sample and battery of survey measures, including effects of the economic recession that started in 2008, and the health and well-being of Americans as a function of changing historical context.

Data from the MIDUS survey, which also studied major depressive episode, panic disorder, generalized anxiety, and alcohol dependence, was used to test two competing theories: the single-factor versus the two-factor model of mental health. The single-factor theory purports that mental health and mental illness reflect a single factor thus indicating that the absence of mental illness implies the presence of mental health. Findings supported the two-factor model suggesting that the constructs of mental health and mental illness are different. Specifically, languishing adults had the highest prevalence of any of the four mental disorders during the past year, flourishing adults had the lowest prevalence, and moderately mentally healthy adults showed an intermediate risk. The 12-month risk for major depressive episode, for instance, was over five times more for languishing versus flourishing adults.

The two-factor model supports the contention that the absence of mental illness does not infer the presence of mental health, nor does the absence of mental health necessitate the presence of mental illness. Mental health is thereby not defined solely by the pathogenic approach (emphasis on the negative), or the salutogenic approach (emphasis on the positive), rather, mental health is a complete state measured by the combined assessments of mental health along with mental illness. Complete mental health means the individual is without mental illness and is flourishing. Parenthetically, flourishing can exist with an episode of mental illness, and moderate mental health and languishing can each occur with and without a mental illness.

Research upholds the hypothesis that any mental health level lower than complete mental health increases the likelihood of greater impairment and disability (Keyes, 2002, 2004, 2005a, 2005b). Adults diagnosed as completely mentally healthy functioned better than all others by reporting the: fewest workdays missed, lowest rate of cardiovascular disease, lowest level of health limitations affecting daily living activities, least chronic physical diseases and conditions, lowest health-care utilization, and highest levels of psychosocial functioning. Regarding psychosocial functioning, completely mentally healthy adults reported the: lowest level of perceived helplessness (i.e., low perceived control over life events), highest level of functional goals (i.e., awareness of that which one wants in life), highest level of resilience (e.g., learning from adversities), and highest intimacy level (i.e., maintaining close relationships with family and friends). Completely mentally healthy adults functioned better than moderately mentally healthy adults who functioned better than languishing adults on all of these measures.

The prevalence of any cardiovascular disease was 8% for completely mentally healthy adults, and 12% for either moderately mentally healthy or languishing adults. The prevalence of any cardiovascular disease among languishing adults who also had an episode of major depression was 19%. Adults with less than complete mental health had cardiovascular disease risk levels comparable to relative risk

associated with diabetes, smoking cigarettes, and lack of physical exercise.

Languishing adults with major depression had an average of 4.5 chronic conditions whereas flourishing or moderately mentally healthy adults with depression had an average of 3.1 chronic conditions. Languishing adults without any mental illness had 3.1 chronic conditions, while moderately mentally healthy adults had an average of 2.1 chronic conditions and completely mentally healthy adults revealed an average of 1.5 chronic conditions. Chronic physical conditions increased as mental health levels decreased. In fact, mental health level was a significant predictor of chronic physical conditions after adjustment for relevant sociodemographic variables, body mass index, diabetes status, smoking status, and physical exercise level.

Young languishing adults have an average of one more chronic condition compared to young flourishing adults; midlife languishing adults have an average of 1.7 more chronic conditions than flourishing midlife adults; and languishing older adults report an average of 2.6 more chronic conditions than flourishing older adults. Further, young languishing adults with major depressive episode have an average of 2.6 more chronic conditions than flourishing young adults; midlife languishing adults with major depressive episode have an average of 3.5 more chronic conditions than flourishing midlife adults; and languishing older adults with major depressive episode reported an average of 4.2 more chronic conditions than flourishing older adults. These statistically significant interactions between age, mental health diagnostic state and physical chronic conditions uncovers that languishing, with and without a mental illness, is correlated with increased chronic physical disease with age.

Completely mentally healthy adults manifested the fewest number of chronic physical conditions at all ages. The youngest languishing adults reported the same quantity of chronic physical conditions as older flourishing adults. Younger languishing adults with major depressive episode had 1.5 more chronic physical conditions than older flourishing adults. These findings suggest that languishing, with or without a mental illness, apparently increases the risk of chronic physical disease as we age.

Affirming these results, Keyes and Grzywacz (2005) observed that health-care utilization is lowest among flourishing adults. Overnight hospitalization outpatient medical visits over the past one year, and number of prescription drugs were lowest among flourishing and physically healthy adults, followed by flourishing adults with physical illness conditions or non-flourishing adults who were physically healthy. It appears that increasing complete mental health is one way to lower the need for health care.

The MIDUS study revealed that only 17% of adults without a mental illness in the past year were flourishing; 51% did not have an episode of mental illness but they were only moderately mentally healthy; 10% were mentally unhealthy, meaning they were languishing without any of the four mental disorders covered in the study; languishing

adults had an average of one mental illness symptom; 23% had one or more of the four mental disorders measured in the study, of which 14.5% classified as moderately mentally healthy and 1.5% were flourishing.

Findings from the MIDUS study suggest that mental health should involve reducing mental illness along with increasing rates of complete mental health. Not enough adults are flourishing and too many have an episode of mental illness in a year. Government spending could include the advancement of complete mental health, especially when considering the vast size of the population with moderate mental health and its closeness to being flourishing. Such a decrease in moderate mental health and accompanying increase in flourishing would likely lower health-care usage and missed workdays. The concept of mental health could transition from pathogenic to salutogenic psychotherapy approaches within counseling and clinical psychology programs and organizations, such as the National Institutes of Health, could broaden their scope to research the basic and applied science of complete mental health (Keyes, 2002).

POSITIVE PSYCHOLOGY: CHILDREN AND ADOLESCENTS

This section examines the positive psychology concepts of hope, optimism, benefit finding and quality of life as related to children and adolescents.

Hope is defined as a cognitive set including belief in the ability to generate workable routes to goals (waypower or pathways) and capability to produce and maintain movement toward these goals (Snyder, 1994; Snyder et al., 1991; Snyder, Hoza et al., 1997). These researchers believe that hope fosters understanding of how children and adults manage daily stressors and problem behaviors, and utilize past experience to strategize effectively working toward goals. Their findings indicate that most children possess the intellectual ability to use hopeful, goal-directed thinking. Boys and girls demonstrate similar levels of hope and are skewed toward the positive in their future perceptions. This bias, though, may be common and adaptive (Snyder, Hoza, et al., 1997) as it helps children create and maintain thoughts of positive outcomes, even if unattainable. High hope children routinely exhibit this positive bias while successfully dealing with stressful childhood events. Most children maintain a relatively high level of hope, and even children with comparatively low hope rarely express that they have no hope (Snyder, McDermott, Cook, and Rapoff, 1997). Children's self-reported hope correlates positively with self-reported competency, and children with higher hope levels report more positive feelings of self and less depression than children with lower levels of hope (Snyder, 1994).

Several studies suggest that children's hope moderately predicts school-related achievement. Adolescents deemed at risk for dropping out of high school were more likely to remain in school given high hope as compared to their peers with low hope (Worrell & Hale, 2001). Adolescents in high and average hope groups indicates less school and

psychological distress, higher personal adjustment and global satisfaction, more extracurricular involvement, and higher grade-point-average than their low hope peers (Gilman, Dooley, & Florell, 2006).

Wilson et al. (2005) studies correlations between hope, neighborhood conditions, and substance abuse and found that substance abuse was associated with greater perceived neighborhood disorder and to lower sense of hope.

The relationships between hope, coping strategies, and adjustment in a group of children with sickle-cell disease was studied and results revealed that those children with high hope levels and who mainly used active coping strategies (distraction, seeking social support) reported less anxiety. It was concluded that awareness of a child's level of hope and types of coping strategies are relevant for understanding changes in psychological adjustment to chronic illness (Lewis & Kliewer, 1996).

Testing the hypothesis that high-hope thinking is protective for children and helps them to function effectively in the face of obstacles and challenges, Barnum et al. (1998) analyzed adjustment predictors (social support, family environment, burn characteristics, demographics, hope) in two adolescent groups: burn survivors and matched controls. For each group, less externalizing behavior was predicted by higher hope scores, and global self-worth was predicted by social support as well as hope. The researchers drew the conclusion that high hope adolescents may think and act in ways that facilitate problem resolution, hence, lowering acting-out, problematic behavior. The ability to think of and enact positive solutions may positively transfer into actions that generate disease management. Supportively, high hope levels predicted children complying with their asthma treatment regimen (Berg, Rapoff, Snyder, & Belmont, 2007).

Research into hope intervention has begun, resulting from hope's relationship with, for example, school achievement, personal adjustment and adaptation (Snyder, Feldman, Shorey, & Rand, 2002). School-aged children were read stories about high-hope children and then discussed ways that such hope could be self-incorporated. This intervention produced modest positive increases on hope measures (McDermott et al., 1996; discussed in McDermott & Hastings, 2000). Another intervention involved middle school-aged children who participated in five weekly sessions in groups of 8-12 students. Methodology included identifying hopeful versus unhelpful language, pairing students into "hope buddies" to discuss future goals, and writing personal hope stories. Hope scores were significantly higher for participants compared to nonparticipants and remained higher six months later (Pedrotti, Lopez, & Krieschok, 2008).

Optimism is understood as an explanatory type and as a pattern of positive expectations (dispositional optimism) for the future (Carver & Scheier, 2001; Gillham, Shatte, Reivich, & Seligman, 2001). This section explores optimism as an explanatory style in youth. As an explanatory style, optimism pertains to how a person thinks about the causality

of an event. Specifically, an optimist perceives defeat as temporary, limited to a particular case, and not his or her fault (Seligman, 1991). Contrarily, a pessimist thinks bad events will persist a long time and negatively affect everything he or she does, and these events were his or her fault. The manner in which a person explains positive or negative events to him/herself defines optimism versus pessimism. The pessimist focuses on the most negative causes of the event while the optimist believes that other, less catastrophic causes of the same event exist. In the case of two children failing a test, the pessimist might conclude, "I'm just not smart enough," whereas the optimist may say, "Next time, I'll prepare more." Seligman noted that people explain events within three dimensions: permanent versus temporary, universal versus specific, and internal versus external. This explanatory style is acquired and is labeled "learned optimism."

Research on optimism shows that optimists tend to perform better in school and college than pessimists. Optimists demonstrate better physical and mental health and may live longer than pessimists (Seligman, 1991). Optimists generally cope with adverse situations in more adaptive ways (Scheier & Carver, 1993). Optimistic adolescents are often less angry (Puskar, Sereika, Lamb, Tusaie-Mumford, & McGuinness, 1999) and abuse drug and alcohol less often (Carvajal, Claire, Nash, & Evans, 1998). Contrarily, pessimists frequently stop trying more easily, experience depression more often, have poorer health, are more passive (Seligman, 1991), encounter more work and school failure, and have more social problems (Peterson, 2000).

Seligman, Reivich, Jaycox, and Gillham (1995) identify four causal sources for optimism: a) genetics, b) the child's environment, for example, parental modeling of explanatory styles appears to strongly influence children's optimism levels, c) the environmental influence of adult, teacher, parent criticism, for instance, an adult who criticizes a relatively permanent ability of a child (i.e., "You are not good at math") increases the likelihood of that child developing a pessimistic explanatory style, d) life experiences that instill either mastery or helplessness; significant life events as divorce, death in the family, or abuse can affect how a child attributes causes of the events to her/himself. Such events tend to be permanent, and often the child cannot stop or reverse the event.

Despite the noted benefits of optimism and negatives of pessimism, Seligman et al. (1995) recognizes limits to optimism in that children must view themselves realistically to effectively challenge their automatic negative thoughts. A realistic self-view helps the child to understand the onset of negative self-attribution (e.g., "I fail at math because I do not have the ability") and the potential within them to overcome a challenge (i.e., "I failed the math test because I did not study hard enough. Next time I will be more prepared").

The Penn Resiliency Program is a 12-session intervention which assists young adolescents to identify and change their explanatory style (Reivich, Gillham, Chaplin, & Seligman, 2005). Cognitive-behavioral therapy is implemented to

increase resilience by developing skills such as identifying possible causes of a problem and blending optimistic thoughts with the reality of the situation. Adolescents are taught how to recognize negative beliefs, to assess these beliefs by reviewing pro and con evidence, and to create more realistic problem-solving options. The program's goal is to help overly pessimistic or optimistic adolescents build flexible problem-solving capabilities. Children in the intervention condition revealed improved explanatory styles and reported less depressive symptoms in subsequent years. Preadolescents who completed the program dealt more effectively with adolescent challenges and experienced less depression than control group children. This study concludes that it is important to teach the skills of learned optimism to children before the age of puberty but only after the age at which they can comprehend the concepts.

Research suggests that optimism can be taught and learned optimism can prevent and resolve childhood and adolescent problems that predictably will arise.

The Quality of Life (QOL) is a comprehensive concept including physical, mental, spiritual, and social dimensions that affect one's sense of well-being (Institute for the Future, 2000). An Individual's subjective reports of well-being is centrally considered along with her or his developmental needs, hence, measurement of social, emotional, and cognitive development is made when considering QOL of children and adolescents.

Socioeconomic, physical, and mental health conditions in youth relative to QOL have been studied. Reported QOL has been lower in obese children (Schwimmer, Burwinkle, & Varni, 2003), those with attention-deficit/hyperactive disorder (Klassen, Miller, & Fine, 2004), and who are from urban elementary schools (Mansour et al., 2003). Analyzing QOL at a global level may assist in identifying variables leading to improved well-being and resistance to stress. For instance, higher-level QOL adolescents participated in fewer risk behaviors, such as drug abuse (Topolski et al., 2001).

Health-related quality of life (HRQOL) has received much attention recently (Drotar, 1998; Koot & Wallander, 2001) and it addresses children's and adolescent's overall well-being in relation to disease processes and treatment. The concept of HRQOL began with the World Health Organization's (1948) definition that "Health is a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity" (p.1). A child with migraine headaches may be physically assessed as currently functioning well but may experience impairment in HRQOL given absence from school resulting in feelings of social and intellectual inadequacy. Conversely, a child with a medical issue may report high HRQOL; such higher QOL can be an adaptive mechanism fostering coping with daily medical conditions, chronicity of the illness, and generating higher overall well-being.

This concept is applicable to pediatric patients and their families who score low on HRQOL such that they can be candidates for therapeutic intervention. Further, HRQOL measures can help therapists show the efficacy of various

interventions to third-party payers.

Benefit finding, sense making, posttraumatic growth (PTG), and stress-related growth are terms used to describe positive cognitions associated with traumatic events and the beneficial outcomes related to those cognitions. An individual who has undergone a traumatic event often perceives and experiences growth, for instance, setting new life goals and priorities, appreciating significant others at a deeper level, and sustaining personality changes such as increased empathy, understanding and patience. It is theorized that personal growth results because one's personal beliefs about the world have been shattered by the traumatic event. To rebuild a positive view of the world, one creates cognitive adaptations that highlight the value and importance of the event in order to make sense of that which transpired (Janoff-Bulman, 1999; Taylor, 1983).

Ickowics et al. (2006) found that adolescents with higher PTG at baseline began with lower distress levels and such distress declined over time while adolescents with lower PTG began with higher distress and the distress took longer to decline. Distress lowered in both groups over time but lower PTG subjects remained more distressed at long-term follow-up than those with higher PTG scores.

Possible interventions for benefit finding include utilization by schools to address child and adolescent issues (Ickowics et al., 2006) and mass media promotion of positive cognitions after major disasters (Kessler, Galea, Jones, and Parker, 2006).

Two additional concepts related to the positive psychology of children include family-centered positive psychology (FCPP) and positive youth development. FCPP strives to improve functioning of the entire family, rather than only the child or adolescent, by promoting these principles: interventions should further develop preexisting family strengths, the family should participate in identifying needs, both process and outcome data must be considered, and improving the family's social networks is promoted (Sheridan, Warnes, Cowan, Schemm, & Clarke, 2004, chap. 52). Children and adolescents benefit from evaluating and bolstering family strengths, for example, positive family interactions promote psychological well-being in overweight or at-risk for being overweight adolescents (Fulkerson et al., 2007).

Positive youth development focuses on children's strengths and involves their community. The Commission on Positive Youth Development (2005) indicates that "The positive youth development approach aims at understanding, education, and engaging children in productive activities rather than at correcting, curing, or treating them for maladaptive tendencies or so-called disabilities" (p. 501). Youth development programs highlight broad-based skill development rather than emphasizing a problem-behavior, therefore, interventions recognize and improve upon those strengths. A review by Roth et al. (1998) revealed that effective programs included caring adults, fostered hope, culminated in end-products such as performances and plays, and supported community development.

Developmentally, childhood may be the best time to cultivate healthy attitudes, behavior adjustment, and problem-prevention (Roberts & Peterson, 1984). Supportively, Seligman, Steen, Park, and Peterson (2005) believe that clinicians should be “as concerned about how to keep certain strengths from eroding on the journey to adulthood as we are with how to build others from scratch” (p. 412). Childhood prevention and promotion attempts strive to improve the child’s quality of life “during childhood” and for “later adulthood.” Such programs center on competency enhancement that “is likely to be most effective when applied during the time of greatest competency acquisition, which is during childhood for many skills such as language, social abilities, or self-efficacy beliefs” (Peterson & Roberts, 1986, p. 623). Utilization of positive psychology principles, such as promoting hope, during these early human development stages is thought to be the most effective time to instill such positive thinking.

AGING HEALTHFULLY

Fortunately, most people over age 65 are remarkably healthy. Disability rates, even among the very old, and the number of nursing home residents have been declining since 1982. Medical technology development predicts improved old age for Baby Boomers and future generations. Moreover, older adults are proficient at making lifestyle changes which accommodate to physical ability declines.

Cognitive abilities diminish with increasing age, however, older adults who remain engaged in cognitively challenging environments demonstrate minimal, if any, declines in thinking and learning abilities. As is true for any age group, cognitive performance declines when elders are less mentally challenged thus supporting the "use it or lose it" principle. The belief that one can learn and remember is also an important variable in slowing or eliminating cognitive declines. From an internal control perspective, aging individuals are responsible for personal involvement in cognitively challenging activities.

Involvement with current and emerging technologies can strengthen cognitive functioning in older adults. The developing field of Neurobics studies ways in which mental exercises preserve and enhance brain and memory functions. The premise is that unusual sensory stimulation and exercises such as non-routine actions and thoughts produce more neurobiology system chemicals that stimulate growth of new brain dendrites and neurons. An example of neurobic exercise is to dial a phone or brush your teeth with the non-dominant hand or to complete an exercise with the eyes closed. Some neurobiologists profess that neurobics can slow the aging process of the brain (Phalen-Tomaselli, 2008). Performing routine activities without much cognitive effort can worsen cognitive decline whereas engaging in new and different activities can prevent such mental decline.

Social networks remain quite stable through the life span, and the number of close relationships among noninstitutionalized elders parallels those of younger people.

Granted, loss of close relationships occurs through death, relocation and retirement but new relationships are established to replace previous ties.

Retired older adults financially contribute to society in various ways, including volunteerism, and providing assistance to disabled family members, which in 1999, was estimated at \$45 to \$200 billion annually.

Older adults do not experience more clinical depression than younger adults, instead, the prevalence may be less. Research shows that elders cope better than younger adults with stressful life events. Life experience and a history of effective coping with numerous stressors often culminates in adaptive capabilities that generalize to coping with new stressors. Adaptive older adults generally realize that they cannot solve all the problems accompanying getting older (e.g., death of a spouse), hence, instead of attempting to change the situation, they strive to manage stress-related emotional response, for instance, accepting life's changes and functioning as well as possible.

Rowe and Kahn (1998) believe that three keys to successful aging include a) avoiding disease, b) engagement in life, and c) maintaining high cognitive and physical function. Williamson and Christie (2009) note that mental health declines occur in direct proportion to how stress impedes a person's normal activities. Elders who maintain internal control over their important life domains and participate in personally relevant and normal activities will more likely age well.

WISDOM AND LIFE LONGINGS

Two concepts involved in the study of life-span development include wisdom – expert knowledge about human nature and the life course (Baltes & Kunzmann, 2003; Baltes & Smith, 1990; Baltes & Staudinger, 2000; Kunzmann & Baltes, 2005), and life longings – the on-going and strong desire for ideal (utopian) alternative states and expressions of life (Baltes, 2008; Scheibe, Freund & Baltes, 2007). Awareness that life is incomplete (an example of wisdom) and the experience of such incompleteness (life longings) do not produce happiness, but these concepts do contribute to personal growth, meaning, and well-being of self and others. The motivational forces of wisdom and life longing reflect the duality of life involving the interplay between positive and negative life experience. Life-span development is understood to include fulfillment and joy along with limitations, challenges, loss, and even trauma. Positive psychology accepts the existence of negative realities and examines ways individuals accept and integrate such outcomes in order to understand human nature and life-span development (i.e., Aspinwall & Staudinger, 2003).

Individuals high on wisdom-related knowledge generally are interested in understanding the complex and potentially paradoxical nature of life, perceiving events and experiences from different perspectives, and assessing the gains and losses involved in any developmental change (Kunzmann & Baltes, 2003b). Life-longings involve ideal impressions of

self and development (personal life utopias) and simultaneously, a sense of incompleteness and imperfection resulting in ambivalent and bittersweet emotions. People demonstrating moderate to high-level manifestations of life longings have a tendency to be highly critical of themselves and their lives, maintain high ideals and actively pursue them, and may comprehend that perfection is an ideal opposed to an attainable goal. Wisdom and life longings can facilitate a good life and healthy development by promoting personal growth and acceptance/integration of conflicting and negative personal experience, goals and values.

Wisdom has been theoretically and operationally defined in several ways (Baltes & Smith, 2008; Baltes & Staudinger, 2000; Kramer, 2000; Kunzmann & Baltes, 2005; Staudinger, 2008; Sternberg, 1990, 1998). First, it utilizes an integrative and holistic approach to managing life's challenges and problems. This approach considers past, present, and future dimensions of phenomena; integrates different points of view; explores contextual variations; and is aware of the uncertainties inherent in making sense of the past, present, and future. Second, wisdom maintains that individual and collective well-being are interwoven such that one cannot survive without the other. Within this paradigm, wisdom pertains to time-tested knowledge that leads us in ways that maximize productivity on individual, group, and societal levels (Kramer, 2000; Sternberg, 1998). Third, wisdom is related to the concept of a good life along with the pursuit of personal growth and self-actualization (Kekes, 1995).

Acquiring wisdom generally does not involve a hedonic life orientation and pursuit of pleasure, instead, wiser people are interested in self-realization, a common good, and in contributing rather than consuming resources (Kunzmann & Baltes, 2003a, 2003b; Sternberg, 1998). Further, wise people strive to understand the deeper meaning of phenomena, including the interplay of developmental gains and losses, which correlates more with emotional complexity than with pursuit of pleasantness (Labouvie-Vief, 1990).

Two common ways of examining wisdom within psychology include, a) the social and personality psychology method of studying intellectual, motivational, and emotional characteristics of wise people (Ardelt, 2004; Erikson, 1980; Wink & Helson, 1997), and b) focusing on wisdom as a body of knowledge in terms of important psychological, cultural, and historical wisdom work (Baltes & Smith, 1990; Baltes & Staudinger, 2000); this method transcends the individual because wisdom is an ideal, not a state of being.

The Berlin Wisdom Model uses the second approach to wisdom, as defined above, and defines wisdom as highly valued and exceptional expert knowledge related to fundamental and existential problems relevant to the meaning and conduct of life (Baltes, 2004; Baltes & Kunzmann, 2003; Baltes & Smith, 1990; Baltes & Staudinger, 2000; Dittmann-Kohli & Baltes, 1990; Dixon & Baltes, 1986). These problems are usually complex and poorly defined but possess potentially many, still unknown, solutions. Life examples requiring wisdom-related knowledge include, choosing a career, accepting loss of a significant other, understanding

personal mortality, and resolving family-member conflict. Less evolved and more limited cognitive capacity is all that is required for mundane, daily problems.

Expert knowledge regarding the meaning and conduct of life becomes wisdom if it fulfills all the following five criteria: a) abundant "factual knowledge" about human nature and the life-development path; b) effective "procedural knowledge" relevant to resolving and managing life problems; c) "life-span contextualism," defined as understanding the myriad contexts of life, their interrelatedness, and changeability across the life span; d) "value relativism and tolerance," which is acknowledgement and acceptance of individual, social, and cultural differences in life values and priorities; and e) "knowledge about handling uncertainty," which includes the limitations of one's own knowledge.

The methodology of the Berlin Wisdom Model involves asking participants to verbalize aloud everything that comes to mind when they think about a specific hypothetical life problem. Two examples are, "Imagine that someone gets a call from a good friend who says that he or she cannot go on anymore and wants to commit suicide," and "A 15-year-old girl wants to get married right away. What could one consider and do?" Trained raters then evaluate the responses to these life problems based on the five criteria that define wisdom-related knowledge. This method offers acceptable reliability and validity. Middle-aged and older public figures from Berlin who were chosen as life-experienced and wise by a group of journalists (unrelated to the Berlin definition of wisdom) scored among the top performers in laboratory wisdom tasks and higher than similar-aged adults who were not chosen (Baltes, Staudinger, Maercker, & Smith, 1995).

Though wisdom is presumed to be linked to old age (Baltes & Smith, 1990; Heckhausen, Dixon & Baltes, 1989), it is not a standard developmental achievement in adulthood or old age; high levels of wisdom-related knowledge are deemed to be rare. Numerous adults approach wisdom but very few approximate high wisdom scores on the Berlin wisdom tasks. Whereas many wise individuals may be older, most elders are not wise.

Empirical and developmental evidence (Pasupathi, Staudinger, & Baltes, 2001) shows that wisdom-related knowledge significantly increases during adolescence and young adulthood (e.g., from age 14 to 20). These increases do not generally continue, in fact, four studies with a total sample size of 533 people, from ages 20 to 89 years, revealed the relationship between wisdom-related knowledge and chronological age was almost zero and not significant (Baltes & Smith, 1990; Staudinger, 1999b). This research illustrates that, on a group level, wisdom-related knowledge remains stable through adulthood and into the seventies (Kunzmann & Baltes, 2005, Staudinger, 1999b).

Variables other than age are predictive of wisdom-related knowledge and enhanced judgment during adulthood. A combination of expertise-developing factors from different life domains suggests an approach to wisdom, including

personality and social-cognitive style (i.e., social intelligence, openness to experience), existing social context (e.g., effective role models), and societal/cultural conditions (i.e., experiencing societal transitions). Specifically, individuals who are open to new experiences, have higher levels of "psychological mindedness" (concerned with the inner needs, motives, and experiences of others; Gough, 1964), who consider the how and why of an event and not only whether it is good or bad, or who are motivated toward personal growth along with the well-being of others exhibit higher levels of wisdom knowledge (Kunzmann & Baltes, 2003b, Staudinger, Lopez, & Baltes, 1997; Staudinger, Maciel, Smith, & Baltes, 1998). Higher levels of creativity and lower manifestation of conservative cognitive styles (e.g., law and order thinking, avoiding change and ambiguous situations), and oligarchic cognitive styles (i.e., feeling tension when pursuing multiple goals; Sternberg, 1997) also predict wisdom on the Berlin wisdom paradigm. Additionally, adults who work in professions that offer training and practice in managing fundamental life problems (e.g., clinical psychology) display higher wisdom-related performance than those not in such careers (Staudinger, Smith, & Baltes, 1992).

Analysis of the wisdom-inducing factors explains the insignificant relationship between age and wisdom-related knowledge. Several of the wisdom-facilitating factors decline with age (i.e., openness to experience; McCrae et al., 2000), some increase with age (e.g., generativity and empathy for the well-being of others; Kunzmann et al., 2005), and others reflect no relationship to age (i.e., cognitive styles; Sternberg, 1997).

Research on wisdom proposes three strategies for elevating levels of wisdom-related knowledge (Baltes & Kunzmann, 2004; Gluck & Baltes, 2006; Stange & Kunzmann, 2008). One method is to activate into one's life the factors that predict individual differences in wisdom, for instance, finding role models and mentors, engaging in certain professions, or acquiring relevant motivational orientations and values. Secondly, participating in structured courses that teach skills and thinking styles known to be preconditions or aspects of wisdom. Thirdly, exposing oneself to short-term interventions designed to access and activate current wisdom-related knowledge (Baltes & Kunzmann, 2004; Gluck & Baltes, 2006; Stange & Kunzmann, 2008). Three such interventions show favorable outcomes within the Berlin wisdom model. Staudinger and Baltes (1996) found that wisdom-related knowledge can be enhanced by experiencing actual or imagined consultations with others before addressing a complex and significant life problem; this supports the premise that wisdom is a social phenomenon. A second intervention used knowledge about differences among cultures, specifically, participants imagined travelling around the world to gain insight into problem-resolution and this process improved the quality of wisdom-related knowledge (Bohmig-Krumhaar, Staudinger, & Baltes, (2002). A third short-term intervention showed that some people can improve their wisdom-related

performance by consciously attempting to be wise. Participants were simply instructed to "try and give a wise response to a wisdom task" (a life problem) which enhanced wisdom-related performance for individuals with an above-average wisdom profile - high intelligence, openness to experience, and good social relations (Gluck & Baltes, 2006). The efficacy of these strategies and interventions suggests that wisdom-related knowledge is dynamic rather than static and can be improved by simple social and cognitive methods.

Whereas wisdom pertains to knowledge about human nature and the life course, life longings involves personalized, experiential knowledge and awareness of life's fundamental conditions, including the incompleteness and imperfection of life, linked with a desire for ideal (utopian), alternative life states and experiences. For instance, an individual may be dissatisfied with some aspects of his or her marriage and dream about a past love relationship; this two-sided perspective evokes ambivalent and bittersweet emotions.

Scheibe, Kunzmann, and Baltes (2007) identified six central characteristics to life longings. First, a key element within the experience of life longings is a "feeling of incompleteness and a sense of imperfection" in one's life. The person feels that something is missing that seems mandatory for a meaningful life and, if acquired, life will become more complete (Boesch, 1998; Holm, 1999). Second, life longings focus on an idealized alternative to the present, imperfect state of affairs, thus, "personal utopias" of different life circumstances develop. Utopian ideals can manifest as the person's memories or expectations of very positive developmental states, and images of the ideal life or self; such can be approached but not achieved (Boesch, 1998). Third, life longings go beyond the present into the past and future, hence, there is a "tritime focus." Thoughts and feelings can reflect memories of past peak experiences to be desirously re-lived in the present or of peak experiences projected for the future. The fourth aspect is "emotional ambivalence" (Belk et al., 2003; Boesch, 1998; Palaian, 1993) which supports how development is complex and involves both gains and losses (Baltes, 1987; Brandstader, 1984; Labouvie-Vief, 1981). Life longings produce ambivalent or bittersweet emotions that combine pleasant feelings evoked by utopian fantasies with unpleasant feelings of non-fulfillment and frustration due to unresolved fantasies. Fifth, life longings yield "reflective and evaluative processes" regarding one's present developmental state, self-critical reflection on the past, present, and anticipated future, and a probing search for an optimal lifestyle. Sixth, life longings have "symbolic meaning" (Boesch, 1991, 1998) in that they are connected to a broader representation of thoughts and feelings associated with multiple domains or times of life.

Scheibe, Freund, and Baltes (2007) developed an adult life longings assessment measure that combines idiographic and nomothetic techniques. The idiographic component asks participants to reflect on various life phases (childhood, youth, adulthood, old age) or life domains (i.e., social relationships, work, leisure, health, self-view) then to list

their life longings (dreams, wishes, desires for people, objects, experiences, events, or life or world conditions that are intense, enduring or recurring, and unlikely or not readily achievable at present). The nomothetic aspect asks participants to rate several of their most relevant life longings on scales addressing the six characteristics of life longings and other important factors such as frequency and intensity, functional significance, and controllability of life longings. The scales have shown consistency and retest stability over five weeks (Kotter-Gruehn, Scheibe, Blanchard-Fields, & Baltes, 2009) and are usable with other personality characteristics as emotional well-being.

Life longings have demonstrated two important developmental functions (Scheibe, Blanchard-Fields et al., 2009; Freund et al., 2007). Individuals with high-level expressions of life longings indicated that their life longings 1) offer a sense of direction and orientation to development, and, 2) assisted in regulating losses and incompleteness. It appears that contemplating conditions of life that are incomplete along with events and experiences that would create a more complete life may provide direction for worthy goals to be pursued that would foster well-being and meaning. Life longings, therefore, can represent a fundamental goal that can spawn more concrete goals.

Unachievable goals may be transformed into life longings in that people can cease to actively pursue these goals without completely relinquishing them. Through fantasy and imagination, one can nurture something that must be lived without. In this manner, life longings can facilitate the management of loss, failure, and unattainability. Older adults sometimes use this mechanism to manage the overbearing threats to goal-attainment since aging is linked with accumulating losses (Baltes & Smith, 2003), and a lessening of remaining lifetime (Lang & Carstensen, 2002).

Younger people may also manage unattainable goals through life longings as shown by Kotter-Gruehn et al., (2009). Middle-aged childless women did not report gaining a sense of direction from their life longing to have children, but they strongly believed that their life longing assisted in managing their lack by nurturing fantasies of having a child.

Life longings also have limitations in that individuals with high-level expressions of life longings reported lower happiness and subjective well-being, greater desire for change, and higher negative affectivity (Kotter-Gruehn et al. 2009; Scheibe, Blanchard-Fields et al. 2009; Scheibe, Freund et al. 2007). These negative responses were moderated by a sense of control over the onset, course, and end of life longing-related thoughts and emotions. For instance, childless women who would have liked to have had children and who converted the thwarted goal to have a child into a life longing showed better well-being when they displayed high control over the experience of this life longing and when other self-regulation techniques (goal disengagement and reengagement) were unsuccessful. These findings highlight the benefit of internal control in evaluating and living life (Baltes & Baltes, 1986; Lachman, 2006).

Personal development over the life span encompasses the

pursuit of growth and completeness within the presence of constraints, losses, and incompleteness (Baltes, 1997; Baltes et al. 2006; Scheibe, Kunzmann et al., 2007). Within this realm, gains and losses, positivity and negativity are interwoven. Negative life events and adversity may ultimately fuel personal growth while perceived positive life events can potentially end with negative consequences (Aspinwall & Staudinger, 2003). Both constructs of wisdom and life longings focus on the positive of psychological utopia along with the awareness that life is innately incomplete and imperfect. Thus, wisdom and life longings do not directly create happiness because the understanding that life is incomplete (wisdom-related knowledge) and experiencing this incompleteness (life longings) do not promote bliss and joy; but they can contribute to a worthwhile and satisfying life.

SUBJECTIVE WELL-BEING

Subjective Well-Being, the scientific study of happiness and life satisfaction, involves experiencing high levels of pleasant emotions and moods, low levels of negative emotions and moods, and high life satisfaction. Historically, philosophers and religious leaders viewed love, wisdom and nonattachment as vital for a fulfilled existence (McMahon, 2006). Contrastingly, Utilitarians, such as Jeremy Bentham, understood the good life to be predicated on the presence of pleasure and the absence of pain (1789/1948). The utilitarians, therefore, were the predecessors of subjective well-being researchers because they focused on the emotional, mental, and physical pleasures and pain that people experience.

Theoretical approaches to subjective well-being are organized into three models: a) need and goal satisfaction theories; b) process or activity theories; and c) genetic and personality predisposition theories. Need and goal satisfaction theories profess that reducing tension (i.e., eliminating pain and satisfying biological and psychological needs) generates happiness. Freud's (1933) pleasure principle and Maslow's (1970) hierarchical needs model illustrates this paradigm. Supportively, Sheldon, Elliot, Kim, and Kasser (2001) determined that the degree of need-fulfillment is positively associated with the degree of life satisfaction.

Process or activity theories propose that involvement in an activity itself offers happiness. For example, Csikszentmihalyi (1975) asserts that individuals are happiest when they are engaged in activities that they enjoy that match their skill-level. This noted researcher entitled the state of mind that occurs from the matching of challenges and skill "flow," and he believes that people who often experience flow are generally very happy. Goal researchers (e.g. Brunstein, 1993; Emmons, 1986) agree that possessing relevant goals and progressing toward goal-attainment are reliable indicators of well-being, and that goal theories can combine the aspects of need satisfaction and pleasurable activity to explain subjective well-being.

Needs theorists and activity theorists agree that subjective well-being changes as people approach their goals or engage in interesting activities. Contrarily, genetic and personality disposition theories maintain that well-being levels are essentially stable and cannot be explained by the stability of life conditions, and that subjective well-being is strongly influenced by stable personality dispositions. Supportive research includes Diener, Sandvik, Seidlitz, and Diener (1993) who discovered that stability in subjective well-being was similar among individuals whose income either increased, decreased, or remained the same over ten years. Costa, McCrae, and Zonderman (1987) found that the life satisfaction level of those who experienced major life changes was as stable as the level of life satisfaction of people living in stable circumstances. These trait theorists believe that life events and circumstances influence subjective well-being, but more importantly, that people ultimately adapt to their changing life circumstances and then return to their biologically determined "set point" or "adaptation level" of happiness (i.e., Headey & Waring, 1992). This view has been challenged by recent research (Lucas, 2007a; Veenhoven, 1991 for reviews); large-scale longitudinal studies have shown that not all people adapt to major changes in life circumstances such as becoming disabled (Lucas, 2007b), divorced (Lucas et al., 2003), or unemployed (Lucas, Clark, Georgellis, & Diener, 2004). Many such individuals do not return to their pre-incidence happiness level which suggests that the construct of "set-point" should not be considered fixed (Diener, Lucas, & Scallan, 2006). Although a strong correlation exists between temperament and subjective well-being, this new research acknowledges that life events and circumstances do influence one's level of subjective well-being.

The construct of subjective well-being displays stability over time because it manifests a substantial genetic component, in other words, people are born with a tendency of being happy or unhappy. In support, Tellegen et al. (1988) studied monozygotic twins who were reared apart and compared them to two groups: a) dizygotic twins who were reared apart and to, b) monozygotic and dizygotic twins who were raised together. Analysis of the similarities of the various types of twins revealed an estimation that 40% of the variability in positive emotionality and 55% of the variability in negative emotionality was predictable by genetic variation (Stubbe, Posthuma, Boomsma, & DeGeus, 2005). These estimates acknowledge the influence of environmental factors (Scollon & Diener, 2006), but they illustrate that genes apparently influence characteristic emotional responses to life circumstances.

The personality traits most consistently associated with subjective well-being are extroversion and neuroticism (Diener & Lucas, 1999). One feature of extroversion, cheerfulness, and one feature of neuroticism, depression, explain individual differences in life satisfaction more than the global traits of extroversion and neuroticism as a whole (Schimmack, Oishi, Furr, & Funder, 2004).

Subjective well-being is also affected by how we think

about the world. The degree to which we access pleasant versus unpleasant information, and the accuracy and efficiency of processing pleasant versus unpleasant information affects subjective well-being (Robinson & Kirkeby, 2005; Robinson, Vargas, Tamir, & Solberg, 2004). Attending to and recalling the pleasant aspects of life is more characteristic of happy people than others (Tamir & Robinson, 2007). Happy people generally resort to broad, abstract criteria in judging their own lives while unhappy people often use concrete criteria (Updegraff & Suh, 2007). The cognitive dispositions of hope (Snyder et al., 1991) and optimism (Scheier & Carver, 1993) also seem to influence subjective well-being. In sum, happiness is not just a function of who we are but also of how we think about our lives.

Efforts to alter hedonic adaptation have begun, for instance, Wilson, Centerbar, Kermer, & Gilbert (2005) demonstrated that offering an explanation for a positive event sped up hedonic adaptation to that event. After the occurrence of a positive event, individuals felt happy for a longer timeframe if they did not learn why the event happened.

Fordyce (1977, 1983) developed an intervention program centered on the premise that one's subjective well-being can be increased by imitating the traits of happy people, such as being organized, keeping busy, increasing socialization-time, acquiring a positive outlook, and evolving a healthy personality. Results showed increases in happiness compared to a placebo control group and to a group receiving only partial information. Follow-up evaluations 9 to 28 months after the program revealed lasting effects of the interventions.

Lyubomirsky, King, and Diener (2005) reviewed over 200 articles that examined the outcomes of happiness, and concluded that, generally, happiness appraised at one point was linked with positive outcomes later. For example, cheerful people were earning more money decades later compared to less cheerful people, and happy people had a greater likelihood of being in a stable romantic relationship than less happy people one decade later. Pressman and Cohen (2005) illuminated many benefits of positive affect on health such as fewer symptoms, less pain, and better pulmonary function. Contrarily, the correlation between level of happiness and significant life outcomes is not always linear. Specifically, the highest levels of educational achievement and income were not attained by the happiest people, instead, by moderately happy people (Oishi, Diener, & Lucas, 2007). The happiest people showed an ability at having romantic relationships.

Fundamental cultural differences exist in what makes people happy (Diener et al., 2003; Suh, & Koo, 2008). Self-esteem and consistency in self-perception are more strongly linked with life satisfaction in individualistic than collectivistic cultures (Diener & Diener, 1995; Suh, 2002). Relationship harmony and social support are more strongly related to life satisfaction in collectivistic than individualistic cultures (Kwan, Bond, & Singelis, 1997). Interpersonal contexts (i.e., being alone versus being with

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friends) more strongly influence affective experiences of Japanese and Indians than Americans (Oishi, Diener, Scollon, & Biswas-Diener, 2004).

Findings show that the happy person is generally from a wealthy versus poor nation and possesses ample resources to pursue particular goals, however, characteristics such as a positive outlook, meaningful goals, close social relationships, and a good temperament depicted by low worry are also very significant to high subjective well-being. Research continues to scientifically intervene to increase happiness.

SECTION 2

The history of positive psychology dates back to at least the Athenian philosophers in the West and to Confucius and Lao-Tsu in the East (Dahlsgaard, Peterson, & Seligman, 2005). Contemporary positive psychologists are asking the same questions as the ancient philosophers: What is the good life? What is happiness? Can one actively seek happiness or is it a by-product of other endeavors?

The growing field of positive psychology believes that what makes life worth living warrants a field of specialization within mainstream psychology, until general psychology accepts the study of human goodness and potential along with the study of illness and that which is bad (Peterson & Park, 2003).

Research on positive psychology covers diverse topics; this section explores the concepts of flow, positive affectivity, emotional intelligence, creativity, personal control, optimism, hope theory, and self-efficacy, with the goal of improving the quality of life.

FLOW

The process of flow is the experience of complete absorption in the present moment. One feels impassioned about the activity being engaged in and that talents and abilities are fully actualized; life has meaning and authenticity. Creativity research observed that when work on a painting was proceeding well, the artist maintained a single-minded focus, and ignored fatigue, discomfort, and hunger, then lost interest in the artwork upon completion (Getzels & Csikszentmihalyi, 1976). Flow research and theory originated with the goal of understanding this process of intrinsic motivation, or "autotelic" activity - defined as activity which is rewarding in and of itself unrelated to extrinsic rewards that may ensue from the activity (auto is self, and telos is goal).

Csikszentmihalyi (1975/2000) examined the essence of enjoyment by interviewing chess players, rock climbers, dancers, and others who claimed that enjoyment was the essential reason for involvement in their activity. The prerequisites for entering flow include: a) perceived challenges or opportunities for action that expand but do not overbear existing skills, and b) clear, immediate goals with instant feedback on progress. These two conditions lead to a state of here and now interwoven experience resulting in a

subjective state with the following features:

- Acute and focused concentration on the present moment
- Action and awareness converge
- Reflective self-consciousness ceases (e.g. one loses self-awareness of being a social actor)
- A feeling of internal control over the situation due to confidence in managing whatever happens next
- Distortion of time perception (generally, a sense that time has passed faster than usual)
- The activity is intrinsically rewarding such that commonly the process is more satisfying than the end goal

These characteristics are very similar across different leisure and work environments. People function at full capacity when in flow (de Charms, 1968; Deci, 1975).

A prerequisite for entering flow is creating a balance between perceived action capacities and action opportunities (Berlyne, 1960; Hunt, 1965). The balance is sensitive because when challenges surpass skills, the individual becomes vigilant and then anxious; if skills exceed challenges, the person relaxes and ultimately becomes bored. Anxiety or boredom sensitizes the individual to modify his or her level of skill and/or challenge to extinguish the aversive state and re-experience flow.

Goal and feedback mechanisms facilitate "flow activities" such as sports, games, along with daily work and leisure routines such as doing the laundry, driving a car, or inputting data on a computer. Subjective rather than objective challenges and skills instill flow and subsequently enhance life experience.

An ordered state of consciousness arises when one's attention is fully absorbed in the challenges of the moment (Nakamura & Csikszentmihalyi, 2002). Thoughts, feelings, desires, and action operate in harmony, and subjective experience is differentiated and integrated.

Over time, people master the challenges of an activity through greater skill-level attainment and the activity becomes less engaging. The person must encounter progressively more complex challenges to maintain the state of flow. The ideal challenge level extends existing skills (Vygotsky, 1978) thus creating more complex opportunities for action. This aspect differentiates the flow model from paradigms that describe optimal challenge by either an equilibrium point of homeostasis to be returned to or a peak level of challenge to be achieved (Moneta & Csikszentmihalyi, 1996). A flow activity dynamically adjusts to changing challenges, skills, and enjoyment. This model accepts that the tendency of the self is to strive for complexity through pursuing new goals and interests, and new opportunities for action in relation to existing interests (Csikszentmihalyi & Nakamura, 1999).

Csikszentmihalyi (1975/2000) suggested the existence of an "autotelic personality," which is an individual who enjoys life or "generally does things for their own sake, rather than in order to achieve some later external goal" (Csikszentmihalyi, 1997, p. 117). This personality type displays "meta-skills," which allow for the entrance into and maintenance of flow. Meta-skills include a general curiosity and interest in life, persistence, low self-centeredness, and

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commonly performing activities for intrinsic reasons only.

Csikszentmihalyi and Nakamura (2011) propose that optimal life-span development involves the creation of "psychological capital" (PK) which includes a wider range of meta-skills or learned habits that allow for enjoyment of present activity as well as increasing the probability of enjoying future experiences. PK is characterized by: 1) having confidence (self-efficacy) to put forth the necessary effort to succeed at challenging tasks, 2) being optimistic about succeeding now and in the future, 3) perseverance toward goals and, when needed, changing paths to goals (hope) to succeed, and 4) sustaining, and demonstrating resilience when confronted by problems and adversity to achieve success.

Flow principles have been implemented in various work and educational contexts. The Swedish state-owned transportation company, Green Cargo, had been unprofitable since its inception in 1889, until they utilized new systems based on flow principles, in 2004. Line managers were trained to recognize workers' personal strengths; then they routinely set clear goals for the workers, identified appropriate challenge-levels, and supplied timely feedback. The flow-based program was touted as a significant factor in the turnaround (Marsh, 2005). Several museums, including the Los Angeles Getty Museum, used flow principles for the design of exhibits and buildings. Flow principles assisted in product design at car-maker, Nissan USA, for the purpose of making product-use more enjoyable. Within educational settings, the Key School in Indianapolis (Whalen, 1999), a K-12 public school, strives to provide a learning environment that facilitates flow experiences, and assists students to develop interests and acquire the capability to experience flow. Students are given opportunity to choose and participate in activities related to their inherent interests. Educators in Denmark are incorporating flow principles into the curriculum and teaching method in schools from kindergarten upward (Knoop & Lyhne, 2006; Kristensen & Andersen, 2004), and various schools are running assessments on student flow experience and other elements of positive functioning.

Several international countries, including Italy and Somalia, use flow-based therapeutic methodologies with clients, rather than the traditional approach of resolving conflict and then well-being will automatically occur. The flow principles approach centers on building client interests and strengths and then utilizes the ensuing growth of skill and confidence (Wells, 1988) that accompanies flow experience which enables client to lower dysphoric experience as a by-product of this growth.

The goal of therapeutic and educational applications of flow principles is not to produce the state of flow directly, instead, to help individuals become aware of activities that they enjoy and learn how to empower their attention in the work of these chosen activities.

POSITIVE AFFECTIVITY

Having a temperament or tendency to commonly

experience positive emotional states, entitled positive affectivity, is a moderately stable trait over time. People exhibit consistent mood levels across different situations, for instance, in social settings, being alone, and at work (Costa & McCrae, 1992; Watson, 2000). Individuals high in positive affectivity frequently experience intense episodes of pleasant, pleasurable mood, and are cheerful, enthusiastic, energetic, confident and alert. Persons low in positive affectivity report reduced levels of happiness, excitement, vigor, and self-confidence.

Recent research has identified two essentially independent factors that constitute the basic dimensions of emotional experience - positive and negative affect. These two affect types characterize the subjective elements of two broader biobehavioral systems that evolved to respond to different evolutionary tasks (Tomarken & Keener, 1998; Watson, Wiese, Vaidya, & Tellegen, 1999). Notably, negative affect is a component of the withdrawal-focused Behavioral Inhibition System which helps the organism to avoid trouble by inhibiting behavior that could lead to pain, punishment, or an undesirable outcome. Positive affect, contrarily, is a component of the approach-centered Behavioral Facilitation System which leads organisms toward encounters and experiences that can produce pleasure and reward. These systems have adaptive significance because they contribute toward the attainment of vital resources (i.e., food and water, shelter and warmth, social cooperation, sexual partners) necessary for survival of the individual and the species.

Causal factors for positive affectivity include genetics, a neurobiological basis, and environmental/demographic correlates. Much of the genetic research on positive affectivity is based on extroversion, and heritability estimates for extroversion, attained from twin studies, are generally in the .40-.60 range, with a median of roughly .50 (Clark & Watson, 1999).

Neurobiologically, Davidson, Tomarken, and their colleagues found that happy people generally display relatively greater resting activity in the left prefrontal cortex than in the right prefrontal area; dysphoric individuals exhibit relatively greater right anterior activity. It seems that positive emotionality mainly reflects the level of resting activity in the left prefrontal area, and negative emotionality is strongly related to right frontal activation (Davidson, Jackson, & Kalin, 2000; Tomarken & Keener, 1998).

The left prefrontal activity can be associated with the mesolimbic dopaminergic system, which is strongly implicated in the functioning of the Behavioral Facilitation System and in the subjective experience of positive mood (Depue & Collins, 1999; Wacker, Chavanon, & Stemmler, 2006). The evidence suggests that the dopaminergic system is a vital contributor in both left frontal activation and phenotypic differences in positive affectivity. Depue et al. (1994) experimented with this idea by administering biological agents that stimulate dopaminergic activity, and then measured the strength of the system's response. Supportive of their hypothesis, Depue et al. determined that various measures of dopaminergic activity were strongly

correlated with individual differences in positivity, but were not related to negative affectivity.

Many studies have shown that objective demographic factors are relatively weak predictors of happiness and positive affectivity (Argyle, 1987; Myers & Diener, 1995; Watson, 2000). Positive affectivity scores are not shown to be systematically related to age (Clark & Watson, 1999; Watson & Walker, 1996). Factors such as annual income, level of educational attainment, and socioeconomic status are, at most, only weakly associated with happiness and well-being (Myers & Diener, 1995; Watson, 2000). Gender differences are not significant as men and women report essentially identical levels of happiness and positive affectivity (Watson, 2000; Watson & Clark, 1999). Positive affectivity, therefore, is not significantly limited by objective conditions such as gender, age, wealth, and status.

Two significant predictors of positive affectivity have arisen. First, positive affectivity, but not negative affectivity, is moderately correlated with several forms of social behavior, including number of close friends, frequency of interaction with friends and relatives, establishing new acquaintances, engaging in social organizations, and general level of social activity (Myers & Diener, 1995; Watson, 2000; Watson & Clark, 1997a). High positive affectivity individuals tend to be extroverts who are socially active. The relationship between these variables appears to be bidirectional, in that social activity and positive affectivity mutually influence one another (Watson, 2000; Watson & Clark, 1997a). In support, social interaction is known to create a temporary elevation in positive mood (Watson, 2000); and feelings of cheerfulness, liveliness, and enthusiasm are related to a greater desire for affiliation and interpersonal contact (Lucas et al., 2000).

Second, individuals who describe themselves as being "religious" or "spiritual" report higher levels of happiness than those who do not, and this has been observed in the United States and Europe (Myers & Diener, 1995; Watson, 2000). Religion and spirituality are positively correlated to positive affectivity but are not related to negative affectivity (Clark & Watson, 1999; Watson & Clark, 1993). There are two primary explanations for religious and spiritual people being happier (Myers & Diener, 1995; Watson, 2000). Religion may offer people a deep sense of meaning and purpose in their lives along with possible answers to deep existential questions of life. Additionally, religious activity may provide a form of social behavior through congregating together, sharing personal views, and developing supportive relationships. In fact, people who are religious rate themselves as less lonely than non-religious people (Argyle, 1987).

Low levels of positive affectivity are associated with numerous clinical syndromes, including social phobia, agoraphobia, posttraumatic stress disorder, schizophrenia, eating disorder, and substance disorders (Mineka, Watson, & Clark, 1998; Watson, 2000); it has a central role in mood disorders (Clark, Watson, & Mineka, 1994; Mineka et al., 1998; Watson, 2000; Watson, Gamez & Simms, 2005), and it is strongly linked to the melancholic subtype of major

depression, which is identified by a "loss of pleasure in all, or almost all activities" or a "lack of reactivity to usually pleasurable stimuli" (American Psychiatric Association, 2000, p. 420). Low positive affectivity scores have even predicted subsequent onset of depression in prospective data. This data suggests the possibility that lack of positive affectivity may be a significant vulnerability factor for mood disorder (Clark et al., 1994).

High positive affectivity individuals feel good about themselves and the world in which they live. They report more satisfaction and success with relevant life domains such as work and relationships (Lyubomirsky, King, & Diener, 2005). Positive affectivity is a significant predictor of job satisfaction (Connolly & Viswesvaran, 2000; Watson & Slack, 1993). Watson and Slack (1993) administered a measure of positive affectivity to participants and then, 27 months later, asked them to rate their job satisfaction. Positive affectivity continued to be a significant, moderate predictor of various job satisfaction measures (correlations were between .27 and .44), even after the passage of considerable time between the measures. Staw, Bell, and Clausen (1986) determined that a 17-item Affective Disposition scale (measuring high positive affectivity and low negative affectivity) given to participants as adolescents, significantly predicted job satisfaction almost 50 years later, even after controlling for objective differences in work conditions. Additionally, positive affectivity associated with personal accomplishment (a feeling of adequacy and effectiveness on the job) and organizational commitment (Thoresen, Kaplan, Barsky, Warren, & de Chermont, 2003). These data suggest that trait affectivity represents a relevant etiological role in overall job satisfaction.

Positive affectivity is correlated with marital and relationship satisfaction. Watson, Hubbard, and Wiese (2000) examined this relationship by studying 74 married couples and 136 dating couples and found that positive emotionality correlated with satisfaction in the range of .24 to .48. Marital satisfaction and job satisfaction are also linked and some research shows that mood (especially positive affect) may mediate this connection (Heller & Watson, 2005).

With respect to physical health, many studies have illustrated that positive affectivity prospectively predicts increased life longevity in the community dwelling elder population (Danner, Snowdon, & Friesen, 2001; Ostir, Markides, Black, & Goodwin, 2000; Parker, Thorslund, & Nordstrom, 1992). This relationship has not been consistently apparent in other populations. Research also shows a connection between positive affectivity and resistance to developing infectious illnesses. Cohen, Doyle, Turner, Alper, & Skoner (2003) collected daily mood scores to measure trait positive and negative affectivity and then exposed the participants to viruses which cause the common cold. The high positive affectivity group was less likely to acquire a cold after exposure, even after controlling for variables such as negative affectivity and baseline immunity.

Within diseased and healthy populations, higher positive affectivity individuals report fewer symptoms and less pain

(DeGucht, Fischler, & Heiser, 2004; Kvaal & Patodia, 2000). Several possibilities explain the connection between positive affectivity and improved health. Positive affectivity changes how people view their health and bodies as opposed to changing their actual physical condition. Supportive evidence shows that given similar objective markers, high positive affectivity individuals report fewer and less severe symptoms (Cohen et al. 2003). Second, positive affectivity may affect health by its relationship with healthy behaviors, for instance, better sleep habits (Fosse, Stickgold, & Hobson, 2002), increased exercise (Watson, 2000), and enhanced coping skills (Salovey, Rothman, Detweiler, & Steward, 2000). Third, some evidence shows that positive affectivity may directly impact nervous system activation and hormones that affect disease processes (Cohen et al., 2003); Polk, Cohen, Doyle, Skoner, & Kirschbaum, 2005)

Culturally, there are more similarities than differences in the positive affective experiences of people from different cultures. One cultural factor that may affect positive affectivity and extroversion is the amount of individualism (independent self-conceptualization) versus collectivism (interdependent self-conceptualization) in the culture. Oishi et al. (2004) assessed mood while participants were in different situations, such as being alone versus with another person. The situation more greatly affected the positive affectivity of individuals from collectivist than individualist cultures such that affective experience remained more stable, regardless of the situation, in individualist cultures. Individual differences in positive affectivity may be more consistent and prominent in individualist cultures.

Levels of positive affectivity are not highly limited or determined by objective life conditions. Diener and Diener (1996) showed that most people, including the poor and physically handicapped, report experiencing at least moderate positive affectivity levels. Yet, many people are not as happy, energetic, and cheerful as they would prefer to be. The question then arises: Is lasting change in positive affectivity possible? Some research illustrates that major life events generally only influence well-being in the short-term and then people gradually adapt to the life changes and ultimately revert back to their preexisting baseline or "set-point" (Diener, Lucas, & Scollon, 2006; Myers & Diener, 1995; Watson, 2000). Given that positive affectivity levels are significantly influenced by hereditary variables that affect central nervous system functioning, people may be hardwired to be relatively high or low in cheerfulness and enthusiasm, unrelated to important life events or conscious attempts to change. Contrarily, genetic and biological factors do not exert total control over the individual, in fact, intentional activity changes create enduring higher happiness levels (i.e., Diener et al., 2006; Sheldon & Lyubomirsky, 2006). Behavior geneticists reject the limiting perspective that heredity disallows any positive change. Weinberg (1989) supports this view by stating, "There is a myth that if a behavior or characteristic is genetic, it cannot be changed. Genes do not tax behavior. Rather, they establish a range of possible reactions to the range of possible experiences that environments can provide" (p. 101). Thus, inherited

genotypes establish the maximum and minimum phenotypic values that a person may experience, and environmental variables then come into play by determining where the individual's performance registers within the genetic range. This suggests the possibility of significantly increasing positive affectivity regardless of phenotypic value (given that the person has not already reached maximum phenotypic value - generally, a status not attained). Genetic and biological factors need not necessarily suggest resignation because we can willfully choose to increase our positive affectivity and to reach our potential maximum.

EMOTIONAL INTELLIGENCE

Emotional intelligence (EI) is the ability to: a) accurately and adaptively perceive, assess, and express emotion; b) understand emotion and emotional knowledge; c) access and/or create feelings which activate cognitive and adaptive activities; and d) regulate emotions in oneself and others (Mayer & Salovey, 1997). Essentially, EI is the ability to effectively process emotional information, allow the information to direct cognitive activities such as problem-solving and to concentrate energy on required behaviors.

Historically, the Stoic philosophers of Greece emphasized virtue and considered emotion to be overly individualistic, self-absorbed, and an unreliable guide for insight and wisdom. The European Romantic movement of the early-nineteenth century displayed a more flexible view of emotion by professing that emotion-rooted intuition and empathy can offer insights that logic alone cannot. One contemporary model of emotional intelligence divides this construct into four components (i.e., Mayer, Caruso, & Salovey, 1999). The first component, "perceiving emotions," includes the ability to: a) identify emotion in one's psychological and physical states, b) identify emotion in others, c) convey emotions accurately and articulate associated needs to the emotions, d) distinguish between accurate/honest and inaccurate/dishonest feelings. The second component, "using emotions," (to foster cognition) involves the ability to: a) redirect and prioritize thinking based on associated feelings, b) utilize emotions to enhance judgment and memory, c) use mood changes to facilitate appreciation of multiple points of view, and d) use emotional states to promote problem-solving and creativity. The third element, "understanding emotions," highlights the ability to: a) comprehend relationships among different emotions, b) recognize the causes and consequences of emotions, c) acknowledge complex feelings, emotional blends, and contradictory states, and d) discern changes among emotions. The fourth factor, "managing emotions," corresponds to the ability to: a) be receptive to pleasant and unpleasant feelings, b) monitor and reflect on emotions, c) move toward, away, or detach from an emotional state, d) manage emotions in oneself, and e) manage emotions in others.

Many people associate EI with the fourth component, managing emotions, and they hope to discover ways of resolving troublesome emotions, emotional overflow into

relationships, and establishing self-control over emotions (Salovey, Bedell, Detweiler, & Mayer, 1999).

Physical exercise is the single most effective way to change a bad mood, among the choices that are within one's control. Other mood regulation strategies include listening to music, social interaction, and cognitive self-management (i.e., a personal "pep talk"). Enjoyable distractions such as running errands, engaging in hobbies, fun activities, shopping, and reading are effective. Less productive, and sometimes counterproductive strategies include passive mood management (e.g., watching television, food, caffeine, and sleeping), direct tension reduction (i.e., drugs, alcohol, and sex), being alone, and avoiding the person or situation that initiated the bad mood. Generally, the most effective mood-regulation strategies utilize energy expenditure, in fact, active mood management methods that combine relaxation, stress management, cognitive effort, and exercise may be the best strategy for changing bad moods (i.e., Thayer, Newman, & McClain, 1994). Emotional self-regulation centers on reflecting upon and managing one's emotions, and emotional disclosure is a proven way to regulate emotions. The positive effects of verbal self-disclosure are known, additionally, disclosing emotional experiences in writing also improves mental and physical health (Pennebaker, 1989, 1993, 1997).

Those higher in EI revealed better relationships with parents, friends, and romantic partners, and they disclosed having greater satisfaction in their social relationships and in the social support received from parents (Ciarrochi et al., 2000; Lopes et al. 2003). They reported having more friends, experiencing less conflict and antagonism with their close friends, and enjoying higher-quality social relationships (Brackett, Mayer, & Warner, 2004; Ciarrochi et al., 2000; Lopes et al., 2003, 2004; Mestre, Guil, Lopes, Salovey, & Gil-Olarte, 2006). Romantic couples composed of two low EI individuals reported more conflict, negative interactions, and lower relationship satisfaction compared to couples with at least one partner with high EI (Brackett, Warner, & Bosco, 2005).

Along with self-report measures, current studies also include diaries, and ratings by friends and observers to evaluate social relationship qualities. These measures similarly show that EI is an important variable in social relationships. For instance, individuals scoring high on the emotion management component of EI were rated by their friends as offering more support to friends, and having a more positive relationship with friends replete with intimacy, affection, and admiration (Lopes et al., 2004; Lopes, Salovey, Cote, & Beers, 2005). A laboratory social interaction study found that higher EI men were rated by observers as being more socially competent and engaged (Brackett et al., 2006). A cross-cultural study of German students found that individuals higher in understanding emotion felt safer in interactions with others and felt that the interaction partner found the social interaction to be interesting and enjoyable. Individuals higher on managing emotions sensed being more wanted and important during the social interaction and felt being positively perceived by

opposite-sex members of the interactions (Lopes et al., 2004). Some findings reveal that EI may affect the attachment style of adults (Kafetsios, 2004).

Adolescents higher in EI exhibit lower tobacco use and a better understanding of the negative social effects associated with smoking (Trinidad, Unger, Chou, & Johnson, 2004, 2005). They also engage in less deviant behavior such as drug and alcohol usage, and lower involvement in fights, gambling, and stealing (Brackett & Mayer, 2003; Brackett et al., 2004).

Relative to happiness, EI is associated with higher life satisfaction (Ciarrochi et al., 2000) and psychological well-being (Brackett & Mayer, 2003).

EI is also associated with the workplace. A study of employees from a Fortune 500 insurance company showed EI was related to percent merit increase, and company rank, even when controlling for related variables to these factors such as age and education. EI was also associated with peer-rated sociability and peer- and supervisor-rated contribution to a positive work environment (Lopes, Grewal, Kadis, Gall, & Salovey, 2006).

There has been a growing interest in the past decade in developing school-based EI programs resulting from literature suggesting that teachers can improve EI in school children (Mayer & Cobb, 2000; Salovey & Sluyter, 1997). For instance, Schilling (1996), in a guidebook for creating EI curricula for elementary school students, recommends teaching sections on self-awareness, managing feelings, decision-making, managing stress, taking personal responsibility, self-concept, empathy, communication, group dynamics, and conflict resolution. One can see the diversity of constructs involved in EI, therefore, many of the school-based interventions enhancing EI are classified as Social and Emotional Learning (SEL) programs (Cohen, 1999a; Elias et al., 1997).

There are over 300 curriculum-based programs in the U.S. teaching SEL (Cohen, 1999b). These programs range from highly specific social problem-solving skills training (i.e., Elias & Tobias, 1996) to general conflict resolution techniques (e.g., Lantieri & Patti, 1996) to broad programs focused on constructs such as "character development" (Lickona, 1991). One SEL program that promotes EI development is the Social Development curriculum in the New Haven (Connecticut) public schools (Shriver, Schwab-Stone, & DeFalco, 1999; Weissberg, Shriver, Bose, & DeFalco, 1997). This kindergarten through Grade 12 program teaches social and emotional skills within various prevention programs, such as drug use, AIDS, and teen pregnancy prevention (Durlak, 1995). The curriculum involves 25 to 50 hours of structured classroom instruction at each grade level on topics including self-monitoring, feelings awareness, perspective-taking (empathy), understanding nonverbal communication, anger management, and other constructs related to EI. Positive outcomes have resulted, including reduced school violence and feelings of hopelessness (Shriver et al., 1999).

Another well-known EI curriculum, entitled *Self Science*, was initiated at the Nueva School in Hillsborough,

California, for first through eighth grades (Stone-McCown, Jensen, Freedman, & Rideout, 1998). This program is based on three assumptions: there is no thinking without feeling and no feeling without thinking; more learning is possible if one is conscious of what s/he is experiencing; and self-knowledge is fundamental to learning. The Self Science curriculum goals include disclosing feelings and needs; listening, sharing, and comforting others; learning how to gain from conflict and adversity; prioritizing and establishing goals; including others; decision-making; contributing to the larger community (Stone-McCown et al., 1998).

The Emotional Literacy in the Middle School (ELMS) program has been used in many American and United Kingdom schools for ages 10 through 13. The goal is to help students become emotionally literate by increasing their vocabulary and comprehension of emotion words. Students are taught to identify, label, understand, and express emotions and to write about socio-emotional characteristics of life. They are exposed to projects that clarify the four EI skills, for instance, perceiving and using emotions skills by interpreting and analyzing emotions elicited by various pieces of music, or creating collages or mobiles associated with different facial displays of emotion.

Many EI interventions for school children reside within specific intervention programs, for example, the Resolving Conflict Creatively Program (RCCP) which began in the New York City public schools (Lantieri & Patti, 1996). The program goals include enhancing awareness of different choices for managing conflicts, and skill-development for making these choices; learning to respect one's own and others' cultural background; identifying and opposing prejudice; and living peacefully among others. This program facilitates awareness of one's own feelings in conflict situations and taking the perspective of and emphasizing with the feelings of others. A follow-up program, entitled Peace in the Family, teaches conflict resolution strategies to parents. An evaluation of the RCCP program involving 5000 New York City students revealed that hostile attributions and teacher-reported aggressive behavior was reduced in correlation with the number of conflict resolution lessons, and the highest academic achievement occurred in children who received the most lessons (Aber, Brown, & Henrich, 1999; Aber, Jones, Brown, Chaundry, & Samples, 1998).

A promising method for acquiring workplace EI is conducted in the Weatherhead MBA program at Case Western Reserve University where social and emotional competency training is included in the curriculum for future business leaders (Boyatzis, Cowen, & Kolb, 1995). These MBA students are exposed to experiences designed to cultivate initiative, flexibility, achievement drive, empathy, self-confidence, persuasiveness, networking, self-control, and group management. Communication and emotion-related skills are also being utilized at more physician training programs (Kramer, Ber, & Moores, 1989).

The Emotional Competency Training Program at American Express Financial Advisors incorporates EI by helping managers to become "emotional coaches" to their employees. The training highlights the role of emotion in the workplace

and how one's own and others' emotional reactions influence management practice. Higher business growth was shown by financial advisors whose managers had participated in the training program relative to those who had not (Cherniss, 1999).

CREATIVITY

People are nearly universal in their valuing and appreciation of creativity. Most modern societies encourage and reward the human resource of creativity. Patent and copyright laws are instituted to protect creative endeavors and allow the creators to benefit from their creative labors. At the pinnacle, honors and awards are presented to superior models of creativity. Nobel prizes result for ultimate creators in the sciences and literature and Academy Awards and Golden Globe Awards for creators of worthy films.

Creative behavior may be lauded after the creator has died and his/her name may "go down in history," such as Socrates, Shakespeare, Leonardo De Vinci, and Beethoven in Western civilization and Ibn Sina, Shankara, Zhu Xi, Firdaws, Murasaki, Shikibu, Kalidasa, Du Fu, Wang Wei, Unkei, and Toyo Sesshu in Eastern civilizations. The existence of such noble names may reflect the creative level of an entire civilization at a point in history. A culture bestowed with eminent creators may be labeled a "Golden Age," whereas a dearth of such pioneers can lead to history books describing a "Dark Age." Creativity is thereby perceived as a human capacity that offers individual and sociocultural utility and value.

Creativity is generally defined as the creation of ideas that are original and adaptive (Simonton, 2000). Creative ideas are novel, surprising, unexpected and functional, hence, creativity may be succinctly defined as "adaptive originality."

Creativity appears in three different ways (Simonton, 2003): a) a mental "process" that produces adaptive and original ideas, b) a type of "person" who manifests creativity, and c) the actual "product" that emanates from the creative process or person.

Research on the thought process that generates creative ideas focused on two disparate types of thinking (Guilford, 1967). "Convergent" thought is focusing upon a single correct response, as is required in aptitude and intelligence tests. "Divergent" thought involves generating many alternative responses, including ideas characterized by variety and originality. One common divergent measure is the Alternate Uses Test, which requires the participant to devise many different ways to use a common object such as a paper clip or brick.

The creative person exhibits a personality profile that differs from the average person (Feist, 1988). Creative people tend to be independent, nonconformist, and unconventional; they often have wide interests, greater openness to new experiences, and a more noticeable behavioral and cognitive flexibility and boldness (Simonton, 2008). Interestingly, the personality profiles of artistic creators often differ appreciably from scientific creators (Feist, 1998) such that creative scientists fall within a range

between creative artists and noncreative personalities relative to their typical traits.

The creative product is generally measured on the basis of originality and adaptiveness. One approach is to ask individuals to describe their creativity samples, for instance, poems, art work, or projects (Carson, Peterson, & Higgins, 2005). Another method involves asking research participants to produce creative products under controlled laboratory conditions and then having independent judges rate the finished work (i.e., Amabile, 1996). Creativity may be evaluated on the basis of quantity, quality, and impact/influence.

The main predictor of eminence in any creative domain is the number of contributed works (Simonton, 1991a, 1991b, 1997). Eminence evaluations include expert ratings; receipt of major honors such as patents for inventors, positively critiqued plays for dramatists, and award-winning movies for directors; or being included in biographical dictionaries and encyclopedias (e.g., Simonton, 1998).

Research findings illustrate that child prodigies and intellectually gifted children generally experienced rather happy childhoods (Feldman & Goldsmith, 1986; Terman, 1925). Thus, their parents supplied a financially stable, loving, and intellectually/aesthetically stimulating home, and the children were physically healthy and educationally successful. A contrasting image appears for highly creative individuals (Goertzel, Goertzel, & Goertzel, 1978; Ludwig, 1995; Roe, 1953; Sulloway, 1996). The family may have experienced economic hardships, and parental instability; the child may have endured frequent illness, or physical/cognitive disability. Further, the child may have suffered through one or more traumatic events, for instance, the loss of one or both parents during childrearing (Sulloway, 1996; Eisenstadt, 1978; Roe, 1953). These same developmental events are also related to negative life outcomes, for example, juvenile delinquency or suicidal depression (Eisenstadt, 1978).

This inconsistency implies that, given the right conditions, early-life exposure to trauma or adversity can assist in the development of creative potential. Those who can confront and overcome may possibly benefit in that creativity may be an adaptive response to such difficulty (Eisenstadt, 1978).

PERSONAL CONTROL

Perceived control is defined as the judgment of having the capacity to attain desired outcomes and to avoid undesirable outcomes. Geary's (1998) evolutionary conceptualization of perceived control indicates that the desire for control is the basic motivation that guides all other motives, emotions, cognitions, and social behaviors. Desiring control has been adaptive because it increases the likelihood of acquiring critical resources for survival and reproduction. Theorists who do not support an evolutionary model have also professed that a control drive is the core motivation guiding human behavior and development (Heckhausen & Schulz, 1995; White, 1959).

Perceptions of control are linked to improved coping with stressful life circumstances (Glass, McKnight, & Valdimarsdottir, 1993; Litt, 1988; Thompson et al., 1993), less anxiety and depression relative to chronic depression (Griffin & Rabkin, 1998; Thompson, Nanni, & Levine, 1994), and less trauma due to victimization (Regehr, Cadell, & Jensen, 1999). Individuals with a stronger sense of perceived control have greater likelihood of implementing the needed action to improve or protect their physical health (Peterson & Stunkard, 1989; Rodin, 1986).

Perceived control is beneficial in the workplace (Parkes, 1989) and in educational settings (Dicintio & Gee, 1999; Eccles et al., 1991). Supportively, children exhibiting a mastery orientation pursue challenge in their tasks and persist when confronted by obstacles (Dweck, 1999). In nearly all life domains, a sense of personal control is associated with emotional well-being, the probability that action is taken, physical health, and general adaptive functioning.

There are many advantages to perceived control. The evolutionary model of perceived control believes that people have been shaped through evolution to want a sense of control. Dating back to our ancestors, people who enjoyed positive emotions and a sense of well-being during the time they had control were more likely to work to maintain control and to manipulate the environment in a manner that would increase the survival likelihood for themselves and their offspring. People with a drive for control had a greater chance of survival and of passing on their genes which resulted in an innate desire for control.

Perceptions of control also can stimulate the person to take action and avoid stressful situations by activating problem-solving and attention to solutions. Moreover, personal control facilitates preparation for an imminent stressor thus reducing the aversiveness of the situation (Miller, 1979). Potentially negative events, therefore, are less stressful given a belief in personal control.

Feelings of uncontrollability have been linked to increased physiological reactivity to stress and depressed immune functioning (Brosschot et al., 1998; Dantzer, 1989), thus, a sense of control may reduce the health-compromising effects of stress.

Three primary ways to maintain control, even in difficult circumstances, include: changing to goals that are attainable under current circumstances, establishing new options for control, and simply accepting current circumstances (Thompson & Wierson, 2000). First, progressing toward goals fuels perceived control and general well-being (Snyder, 1996). When confronted with inability to progress toward an important goal, individuals who are flexible in finding attainable alternate goals can maintain a sense of control. Brandstadter and Rothermund (1994) supported this view by observing that older adults experience a strong sense of general control through deemphasizing the importance of non-achievable goals and focusing instead on reachable goals. It is not adaptive to give-up on goals too easily, but flexibility given unattainable goals sustains perceptions of control. Second, identifying and developing available areas

of personal control can maintain general control. Chronically ill individuals, for instance, can exert influence on their illness by researching and gathering medical information pertinent to them, ensuring receipt of quality medical care, strictly adhering to their recommended treatment plan, lowering stress, and investigating alternative and supplemental treatments. Predictability improves a sense of control (Thompson, 1981), thus, simply pursuing information regarding the causes, course, and treatment options of one's ailment can enhance perceived control. A third strategy, acceptance, is based on Rothbaum, Weisz, and Snyder's (1982) differentiation between primary and secondary control. Primary control is synonymous with perceived control: the perception that one can attain desired outcomes. Secondary control is acceptance of one's life circumstances as they presently are, rather than exerting effort to change them. Acceptance is achievable in numerous ways, including discovering benefits, meaning, and purpose in the loss and the situation. Many people can find meaning in negative experience, for example, stroke patients have reported greater appreciation of life, their spouse, and growth from the experience (Thompson, 1991). Secondary control is linked to improved adjustment to difficult circumstances such as Parkinson's disease (McQuillen, Licht, & Licht, 2003). Acceptance enhances a feeling of control because it reduces a sense of helplessness and victimization and lowers the disparity between desired and achieved outcomes.

Research has investigated whether perceived control offers benefits even if the sense of control is illusory rather than realistic. Laboratory studies on illusory control manipulate the actual level of control over a particular task and then ask participants to estimate their control after task completion (Alloy & Abramson, 1979). Individuals who overestimate their control are often better copers and display more persistence on tasks (Alloy & Clements, 1992).

The benefit of illusory control also appears in the context of coping with traumatic events such as chronic illness. Those experiencing very serious loss or trauma seemingly have less real control, however, perceived control is equally adaptive and helpful for people encountering severely restrictive or adverse circumstances compared to individuals in better circumstances (Hedgeson, 1992; Reed, Taylor, & Kemeny, 1993; Thompson et al., 1993). These findings illustrate that control need not be realistic to be functional and beneficial.

It is assumed that people often combine perceived and illusory control by commonly overestimating their actual control, but utilizing more honest and accurate control assessments at critical times (Taylor & Armor, 1996). This explains why people utilize and benefit from illusory control during difficult life circumstances despite these judgments being overestimations of their actual control. Caution must be taken to not overestimate control for the purpose of avoiding effective but difficult behavior as this would result in illusory control being maladaptive.

Interventions at improving the control perceptions of individuals in low-control circumstances include teaching

stress reduction and coping skills. The premise is that effectively lowering stress and managing problems will increase one's sense of control. Supportively, Cunningham, Lockwood, and Cunningham (1991) provided cancer patients with a psychoeducational program with seven weekly 2-hour sessions that resulted in higher perceptions of self-efficacy. Telch and Telch (1986) determined that group coping skills instruction improved self-efficacy for cancer patients. Slivinske and Fitch (1987) applied a comprehensive control-enhancing intervention for the elderly that highlighted responsibility, stress management, physical fitness, and spirituality which yielded a significant increase in perceived control and overall functioning. Parker et al., (1988) administered cognitive behavioral therapy and training in coping, problem-solving, distraction, and self-management to rheumatoid arthritis patients which culminated in less catastrophizing and improved perceptions of control over pain. Likewise, a cognitive behavioral treatment program for pain patients lowered helplessness feelings (Katz, Ritvo, Irvine, & Jackson, 1996), and a similar program for arthritis patients lowered pain, fatigue, and anxiety (Barlow, Turner, & Wright, 1998).

Generally, perceptions of control facilitate well-being and managing life problems. Further, research findings have not found a disadvantage to overestimating a sense of control given low control circumstances such as having a serious and debilitating chronic illness.

OPTIMISM

Optimists expect good things to happen and pessimists expect bad things to happen. This difference in perspective affects problem-solving, coping with adversity, and the manner in which life is lived. Optimism and pessimism focus on expectations for the future and links to expectancy-value models of motivation. Expectancy-value theories suggest that behavior is based on the pursuit of goals (defined as desired states or actions). People attempt to match their behavior with desirable outcomes. "Value" equates to the degree of importance placed on the goal and "expectancy" is the level of confidence that the goal is attainable.

Optimism and pessimism are larger representations of confidence versus doubt, respectively, as related to most life situations rather than just a few. Optimists generally display confidence and persistence when challenged (even when progress is difficult or slow) while pessimists tend to be doubtful and hesitant in such situations. These different styles of responding to adversity affect coping with stress methodology (Scheier & Carver, 1992).

Peterson and Seligman (1984, chap. 29) believe that people's expectancies for the future originate from their interpretations of the past. If the person interprets past failures as due to stable causes then expectancies will be pessimistic because the cause (which is relatively permanent) is likely to remain. If past failures are perceived as a result of unstable causes then optimism is more likely because the

cause may have subsided to be a factor. Clearly, future expectations impact an individual's actions and experiences.

One's emotionality while confronting problems influences optimism and pessimism. Facing adversity elicits a range of emotions extending from excitement and eagerness to anger, anxiety, and depression as a function of level of optimism. Optimists expect good outcomes, even in the face of adversity, which likely will produce a positive blend of feelings. Pessimists expect bad outcomes which often will result in more negative feelings such as anxiety, anger, sadness, or despair (Carver & Scheier, 1998; Scheier & Carver, 1992).

Carver and Gaines (1987) examined the association between optimism and emotional well-being by observing the development of depressed feelings after childbirth. Women completed two depression measures in the last third of pregnancy and again three weeks after delivery. Optimism correlated with lower depression symptoms at initial assessment and predicted lower depression postpartum, controlling for the initial depression levels. Optimism significantly contributed to resistance to postpartum depressive symptoms.

Fitzgerald et al. (1993) studied people undergoing coronary artery bypass surgery by assessing optimism one month before surgery and eight months afterward. Optimists displayed less presurgical distress, and more postsurgical life satisfaction (controlling for presurgical life satisfaction). It was concluded that general life optimism channeled into a specific optimism about the surgery which then transformed to satisfaction with life. Similar research by Scheier et al. (1989) discovered that optimists maintained a higher quality of life up to five years after the surgery.

Optimism was studied in the context of breast cancer (Carver et al., 1993) by interviewing patients at diagnosis, the day before surgery, several days after surgery, and 3, 6, and 12 months afterward. Optimism at initial assessment predicted less distress over time (controlling for medical effects and earlier distress) and resilience against distress during the following year. Likewise, head and neck cancer patients were assessed before treatment and three months afterward and optimists reported higher quality of life before treatment and at posttreatment (controlling for initial ratings; Allison, Guichard, & Gilain, 2000).

Another medical area in which optimism has been studied is in vitro fertilization (a procedure used to overcome fertility issues). Litt et al. (1992) examined individuals who experienced unsuccessful vitro fertilization attempts. The study measured optimism, expectancies for fertilization success, distress, and the impact of infertility on participants' lives, eight weeks beforehand, then distress was measured again, two weeks after notification of a negative pregnancy test. Pessimism was the only variable that predicted follow-up distress (controlling for time-1 distress).

The effect of optimism on caregivers has also been studied. Given et al. (1993) investigated a group of cancer patients and their caregivers. Higher optimism levels of caregivers predicted less depression and less impact of caregiving on

their own physical health. Similar findings appeared with caregiver spouses of Alzheimer's patients in that optimism associated with lower depression and greater well-being (Hooker et al., 1992; Shifren & Hooker, 1995).

Unrelated to medical issues, the start of college is deemed a stressful time and students' adjustment to their first college semester has been studied (Aspinwall & Taylor, 1992; Brissette et al., 2002). Optimism and other variables were measured upon campus arrival and well-being was assessed at semester's end. Higher optimism initially predicted less distress at semester's end and greater friendship development.

One possible explanation for optimists experiencing less distress given difficult times is that they may be more cheerful. Research disputes this theory because the differences still exist when statistical controls are included for prior distress. A more accepted explanation is that the coping strategies of optimists and pessimists qualitatively differ. Specifically, those who are confident about the future continue trying, even in the face of adversity whereas doubtful individuals attempt to escape the adversity by wishful thinking, becoming distracted, ceasing to put forth effort, and so forth.

Optimistic students reported using different situational coping responses and general coping styles than pessimists (Scheier, Carver & Bridges, 2001). Optimism associated with problem-focused coping (particularly in controllable situations), positive reframing, accepting the reality of the situation, and less denial and avoidance. Optimists were viewed as approach copers and pessimists as avoidant copers.

In the previously discussed study of coronary artery bypass surgery patients, Scheier et al. (1989) observed coping differences between optimists and pessimists. Pre-surgery, optimists more than pessimists planned for their future, set recovery goals, and deliberated less on negative factors related to the experience such as distress and symptoms. Post-surgery, optimists more than pessimists actively sought information regarding physician-directed after-surgery requirements for the months ahead, and suppressed thoughts about their symptoms less. Evidence showed that the positive effect of optimism on quality of life six months later resulted from the indirect impact of these coping differences.

The previously mentioned study of failed in vitro fertilization (Litt et al., 1992) also analyzed coping. Pessimism linked to escape as a coping tendency and escape contributed to greater distress after the fertilization failure. Optimists more than pessimists reported gaining benefit from the experience, for instance, by feeling closer to their spouse.

Correlations between optimism and coping in cancer patients have been studied. Stanton and Snider (1993) observed that pessimistic women relied more on cognitive avoidance in coping with an imminent biopsy than optimists. The avoidance apparently mediated the association of pessimism to prebiopsy distress. Cognitive avoidance at prebiopsy predicted postbiopsy distress in women who received positive diagnoses.

The earlier mentioned study of breast cancer in women (Carver et al., 1993) also assessed coping with breast cancer

treatment during the first year. Pre- and post-surgery, optimism associated with coping such that optimists accepted the reality of the situation, interpreted the situation in a positive way, and used humor to relieve the intensity of the situation. In contrast, pessimists used denial and giving-up tendencies at each time point.

A study on the role of coping in women treated for breast cancer (Schou, Ekeberg, & Ruland, 2005) found that the greater fighting spirit of optimists (evaluated before diagnosis) predicted better quality of life at the 1-year follow-up. Hopelessness/helplessness (reported by pessimists) predicted poorer quality of life.

The research suggests that optimists differ from pessimists in stable coping tendencies and in the coping responses utilized when encountering stressful situations (i.e., Solberg Nes & Segerstrom, 2006). Essentially, optimists use more problem-focused coping strategies compared to pessimists. In situations where problem-focused coping is not possible, optimists utilize strategies such as acceptance, humor, and positive reframing. Pessimists often cope through overt denial and mentally and behaviorally disengaging from the goals that the stressor is interfering with.

The difference in response between acceptance and denial is very apparent. Denial, which is refusing to accept the reality of a situation, constitutes an effort to maintain an invalid view. Acceptance suggests restructuring one's experience to encounter and embody the situation, without giving up. Responding to illness with resignation, for example, can quicken death (Greer, Morris, Pettingale, & Haybittle, 1990; Reed, Kemeny, Taylor, Wang, & Vischer, 1994). Acceptance rather than denial of a diagnosis facilitates an understanding that life is compromised but not over and then individuals generally develop adaptive mechanisms within which to live their remaining time. Acceptance thus perpetuates being goal engaged and possible "life engaged" (Scheier & Carver, 2001).

Another coping difference between optimists and pessimists involves proactive coping, defined as behavioral and attitudinal processes that induce good health and well-being instead of only reacting to adversity. This implies that optimists actively take measures to increase the likelihood of positive outcomes in their future. This is similar to problem-focused coping but without an existing stressor.

One way to engage in proactive coping is to seek knowledge. Radcliffe and Klein (2002) assessed heart attack-related knowledge in middle-aged adults and found that people high in dispositional optimism knew more about risk factors than those who were less optimistic.

Cardiac rehabilitation program patients were examined relative to proactive coping in relation to health promotion (Shepperd, Maroto, & Pbert, 1996). Optimism was associated with successfully lowering levels of saturated fat, body fat, increasing exercise, and with an index of overall coronary risk. Scheier and Carver (1992) studied the lifestyles of coronary artery bypass patients five years post-surgery and observed optimists more than pessimists were taking vitamins, eating low-fat foods, and enrolled in a cardiac rehabilitation program.

This research shows that optimists actively attempt to minimize health risks and selectively concentrate on health-threatening risk variables pertinent to them (Aspinwall & Brunhart, 1996). They do not increase vigilance if the potential health issue is minor or does not pertain to them, hence, such individuals limit behavioral response to meaningful threats.

Pessimists more than optimists appear to be more vulnerable to maladaptive behavior such as various types of substance abuse (i.e., excessive alcohol use) due to giving-up tendencies. One study of women with a family history of alcoholism revealed that pessimists reported drinking problems more than optimists (Ohannessian, Hesselbrock, Tennen, & Affleck, 1993). Another study observed people entering an aftercare program after having been treated for alcohol abuse. Pessimists dropped out of the program and returned to drinking more than optimists (Strack, Carver, & Blaney, 1987). Park, Moore, Turner, & Adler (1997) noted that optimistic pregnant women displayed less probability of substance abuse during pregnancy than pessimists.

Breast cancer patients indicated the frequency of illness-related disruption of social activities after treatment (Carver, Lehman, & Antoni, 2003). At every assessment, pessimism predicted more social activity disruption, emotional distress, and fatigue.

Giving up is manifested in many ways, for example, alcohol reduces awareness of life's failures and problems, and a person can ignore problems by distracting oneself with unrelated activities. The ultimate giving up is suicide and pessimism is a stronger predictor of this desperate action than depression (Beck, Steer, Kovacs, & Garrison, 1985).

Pessimism can link to self-defeating patterns as demonstrated by less persistence, more avoidance coping and health-damaging behavior, and potentially suicide. A sense of confidence about the future appears quite important.

Numerous studies link optimism to physical well-being. One study of middle-aged women evaluated carotid intima thickness (an index of atherosclerosis in the carotid artery) at a baseline and a 3-year follow-up (Matthews, Raikonen, Sutton-Tyrrell & Kuller, 2004). Pessimism at initial assessment predicted intima thickness increases at follow-up while optimists revealed almost no increase during the three-year study.

Patterns of rehospitalization after coronary artery bypass surgery (which is common in this population) showed that optimism significantly predicted less likelihood of rehospitalization and longer timeframes before such need arose (Scheier et al. 1999). Associations between optimism, coping, and disease progression were examined in HIV patients. Optimists manifested more proactive coping, less avoidant coping, and less disease progression (Ironson et al. 2005).

Healing and immunity with respect to optimism has been examined. One study followed the healing process of men who received a biopsy (Ebrecht et al. 2004). The population sample was divided into "slow healing" and "fast healing" groups. Slow healers displayed significantly lower optimism

than fast healers. Another study found that optimism among older adults receiving an influenza vaccine predicted a significantly better immune response two weeks later compared to pessimistic participants (Kohut, Cooper, Nickolaus, Russell, & Cunnick, 2002).

One study discovered that optimism predicted longer life among 900 elderly Dutch people. Specifically, individuals who reported a high level of optimism at baseline were less likely to die during the next ten years (Giltay, Geleijnse, Zitman, Hoekstra, & Schouten, 2004).

Optimists appear to be better off than pessimists in that they are less distressed during difficult times, their coping strategies produce better outcomes, and they are better at taking action to sustain a promising future. Some research suggests that the benefits of optimism do not exist across all situations (i.e., Schwarzer, 1994; Tennen & Affleck, 1987). The assumption is that too much optimism might foster the ignoring of a threat until it is too late, or overestimating one's ability to deal with a difficult situation, leading to poorer outcomes. This premise is generally not the case, but some studies do caution against optimism in certain situations. Some evidence shows that optimism predicts poorer immune response when exposed to relative high challenge (Segerstrom, 2006), and given an accumulation of high life stress lasting a year's time, the buffering effect of optimism reverses (Chang & Sanna, 2003). These findings illustrate that the benefits of optimism are not universal.

Research does not indicate that exposure to major trauma will destroy the life of an optimist. Though such an outcome is possible, findings suggest that optimists will accept their changed reality, establish new future goals, and make the most of their current resources. Contrarily, pessimists are likely to believe that the trauma or disaster confirms their negative worldview and they may continue to expect more adversity. Interestingly, the association between optimism and pessimism and quality of life outcomes exists across different cultures (Chang, 2002).

In that optimism offers advantages, the question arises whether it can be acquired. Change is considered to be possible but questions exist regarding the extent, permanency, and effectiveness of such change compared to a naturally occurring optimistic view.

Cognitive-behavioral therapies are considered to be promising in converting a pessimist into an optimist. This therapeutic model assumes that people with problems create negative distortions in their minds. These negative thoughts create negative affect and prompt individuals to stop trying to pursue their goals. It is assumed that these distortions reflect the inner cognitions of the pessimist. Cognitive-behavioral methodology attempts to change the cognitions from negative to positive, resulting in less distress and energized effort toward goal-attainment.

Cognitive therapy can change a person's explanatory style from pessimistic to optimistic which can lower the degree of depressive symptoms (Seligman et al., 1988). Further, cognitive-behavioral interventions that teach problem-solving skills can help people explain life events more optimistically

which can prevent the onset of depression in the future (Gillham, Reivich, Jaycox, & Seligman, 1995).

Therapists may not always want to change a client's existing doubt into optimism, for instance, clients who manifest overly high expectations or perfectionism can feel pessimistic because their unrealistic goals are unmet and, in turn, they may become doubtful about their adequacy. Such clients would benefit from creating realistic goals, and alternative goals to substitute for unattainable aspirations (Carver & Scheier, 2003; Wrosch, Scheier, Carver, & Schulz, 2003).

The literature affirms that people who maintain positive expectations for the future as their general disposition respond to adversity and difficulty more adaptively than those who demonstrate negative expectations. Expectancies significantly influence how people approach life situations and resulting outcomes. Optimism is linked to: positive mood and good morale, perseverance and effective problem-solving, achievement in many life domains, popularity, good health, freedom from trauma, and long life (Peterson, 2000; Peterson & Bossio, 1991; Peterson & Park, 2007; Peterson & Steen, 2002; Seligman, 1990).

HOPE THEORY

Charles Snyder was a Wright Distinguished Professor of clinical psychology at the University of Kansas and editor of the *Journal of Social and Clinical Psychology*. He was a contributor to the field of positive psychology and wrote the first textbook in this field, entitled *Positive Psychology*. Snyder based his theory of hope (Snyder, 1989) on the research he was conducting on how people distance themselves from mistakes and failures and the excuses they make (i.e., Mehlman & Snyder, 1985). While investigating ways that people explain what they do not want, Snyder introduced hope theory to explain how people move closer to that which they do want. Thus, Snyder (1989) understood hope as the reverse of the excuse-making process.

The construct of hope has existed for thousands of years. In Greek mythology, hope was the only remaining thing in Pandora's jar after she unknowingly released all the evils into the world. Some historical quotes express the dual nature of hope: "Everything that is done in the world is done by hope (Martin Luther), and "He that lives on hope will die fasting" (Benjamin Franklin, quoted in Bartlett, 1968, p. 422).

In the 20th century, scholars wrote about a seemingly universal human desire to pursue goals as related to hope (Frank, 1975; Frankl, 1992; Melges & Bowlby, 1969; Menninger, 1959). The underlying theme was that hope encompasses the perception that a person's goals can be achieved. In talking with many people about hope and their goals, Snyder observed two recurring themes: the routes needed to reach one's goals and the required motivation to use those routes. Snyder (1994a, 1994c) termed these themes "pathways" and "agency," which ushered in a new theory of hope. Snyder (2002) defined hopeful thinking as the belief

that a person can find pathways to desired goals and can arouse the motivation to use those pathways.

Hope theory believes that much of human behavior is goal directed. Goals are seen as the mental targets that guide action sequences. Goal thoughts, therefore, is the critical element in hope theory (Snyder, 1994a, 1994c, 1998). Goals manifest as verbal or visual representations, hence, it can be a self-statement such as "I want to be healthy" or a mental image such as picturing oneself as healthy. Goals differ in terms of timeframe (i.e., short or long term), specificity, value, and importance. Snyder (1994a, 2002) proposed that goals must have sufficient value in order to occupy conscious thought, however, later research suggests that much human behavior can be directed by the pursuit of nonconscious goals (i.e., Chartrand & Cheng, 2002). Snyder (2002) perceives two basic types of goals: "approach goals" (e.g., getting accepted into graduate school) and "avoidance goals" (i.e., not catching a cold). Research asserts that people believe hope abounds given an intermediate probability of goal attainment (Averill, Catlin, & Chon, 1990).

Hope theory and other research models contend that humans developed the capability to conceptualize time with respect to past, present, and future at some point along the evolutionary scale (Snyder, 2002). Resultantly, people can organize their actions to elicit desired future conditions, for instance, goals. Pathways thinking involves the perceived ability to create routes that connect the present to this imagined future (e.g., connecting point A to point B). The individual believes that s/he can establish minimally one route leading to the desired goal. Generating multiple pathways is important and recommended when confronting barriers to goal pursuits, and high-hope individuals have empirically displayed effectiveness at manufacturing alternative pathways to goals (Irving, Snyder, & Crowson, 1998; Snyder, Harris, et al., 1991).

Agency represents the required motivation in hope theory and it is the perceived ability to use pathways in order to achieve desired goals. Agency thinking comprises self-referenced thoughts regarding the ability to start and maintain movement along a pathway and the thought is couched within a positive self-statement such as "I have the ability to win" (Snyder, Lapointe, Crowson, & Early, 1998). Agency thinking is important and helpful in any goal pursuit, and it can be especially relevant when effort is blocked because it helps people to utilize the needed motivation to find and proceed along an alternate pathway (Snyder, 1994c).

Some similarity exists between agency and Albert Bandura's (1982, 1997) concept of self-efficacy. Bandura conceives efficacy expectancy as a situation-specific evaluation that an individual "can" implement specific action for a particular goal pursuit. Agency is a trait-like perception that a person "will" implement goal-directed actions for numerous goals (Snyder, 2002). Agency, compared to self-efficacy, is therefore more global and signifies the intent to act instead of merely perceiving the ability to act. Agency predicts unique variance in well-being more than self-efficacy (Magaletta & Oliver, 1999).

Snyder (1994a) strongly believes that hopeful thinking requires both the perceived ability to generate routes to a goal along with the perceived ability and drive to utilize those routes. Hope is "a positive motivational state that is based on an interactively derived sense of successful 1) agency (goal-directed energy) and 2) pathways (planning to meet goals)" (Snyder, Irving, & Anderson, 1991, p. 287). The relationship between pathways and agency thinking is that during goal pursuit, pathways thinking enhances agency thinking which leads to increased pathways thinking (Snyder, Harris et al., 1991).

Hope theory highlights cognitive rather than emotional processes and views emotions as the result of goal-directed thoughts and actions (Snyder, Rand, & Sigmon, 2002). Positive emotions derive from perceived progress (i.e., productive movement or overcoming obstacles) toward or actual achievement of the desired goal and negative emotions occur due to perceived stagnation or defeat in a goal pursuit. Research has shown that experiencing difficulties while in pursuit of important life goals leads to decreased well-being (Diener, 1984; Emmons, 1986).

Three phases exist that affect the goal-directed thoughts of a goal-pursuit: a) the person's learning history; b) the pre-event phase; and c) the event sequence phase. One's learning history is important because the foundation of agency and pathways thinking is formed during childhood (Snyder, 1994a, 1994c, 2002). Pathways thinking begins when infants make associations between co-occurring events (Schulman, 1991). At approximately the age of one-year, agency thinking develops as children begin to understand that they are a separate entity from others (i.e., caregivers) and that they can be a causal agent in chain-of-events sequences (Snyder, Rand, & Segmon, 2002).

Pathways and agency thinking co-occur with emotional sets or moods that are predicated on the person's accumulated experience with previous goal pursuits (Snyder, 2002). A conditioning history revealing goal accomplishments and overcoming obstacles, for example, would engender a positive and hopeful emotional set relative to goal pursuits. Future goal pursuits are envisioned with similar emotions that were elicited from past goal pursuits. Accordingly, high-hope people maintain emotion sets that commonly exude confidence and joy (Snyder, Cheavens, & Michael, 1999; Snyder, Harris et al., 1991; Snyder, Sympton, Michael, & Cheavens, 2000) and low-hope individuals often have emotion sets exemplified by negative and passive feelings.

In the pre-event phase of goal pursuit, the individual performs a pre-event analysis of a potential goal by assessing the "outcome value" of the desired goal. The event sequence phase begins upon the decision that the goal is worthy of continued attention. As a person begins to pursue the goal, agency and pathways thinking repeatedly interact with the appraised outcome value which allows the individual to steadily monitor the outcome value of the goal pursuit in relation to available pathways and the required agency to actualize the available pathways. Goal pursuit would be stopped if the imagined outcome value of a goal pursuit is

appraised as unworthy of additional effort. The ongoing outcome value check is relevant because periodically the value of a goal is unclear until the goal pursuit has begun (Snyder, 2002). After a goal pursuit is completed, the individual's appraisal of the process (i.e., success or failure) and the resulting emotions (e.g., positive or negative) influence future perceptions of pathways and agency abilities for goals in that specific domain and in general. Multiple failures can lead to loss of hope within a specific life domain (Snyder, 2002).

During any point of goal pursuit, a stressor/obstacle may arise which hope theory defines as any impediment that could threaten a goal pursuit (Snyder, 2002). The stressor engenders emotions that influence pathways and agency thoughts in relation to the ongoing goal pursuit. The resulting emotions are determined by how the stressor is appraised. Generally, stressors produce some initial negative emotions in everyone, but it is theorized that high-hope people are more likely to feel concomitant positive emotions since they often perceive stressors as challenges to be overcome (Anderson, 1988; Snyder, Harris, et al., 1991).

A surprise event is another emotional influence in a goal pursuit (Snyder, 2002). The surprise event occurs outside the environment of the goal pursuit and can be positive (i.e., upon first observation, the doctor indicates your finger is probably not broken) or negative (i.e., the doctor's X-ray machine shows your finger is broken). The ensuing emotions created by the event affect agency thinking, often by increasing or decreasing overall motivation. This agency links to a particular goal and pathways that relate to the situation (e.g., closely following the doctor recommended treatment program for healing your broken finger). Hence, emotions can sometimes be triggered that are unrelated to a specific goal pursuit, but frequently these emotions integrate into the ongoing goal-pursuit thought process and influence the goal pursuit outcome (Snyder, 2002).

Studies have assessed the influence of hope on various life domains, including a) academic and athletic performance, b) well-being related to physical health and psychological adjustment, and c) interpersonal relationships. Achieving academic milestones to move toward long-term goals such as graduation and future employment is meaningful for students. High levels of trait hope associate with greater academic achievement. Higher hope scores correlate with higher subsequent achievement test scores in elementary-school children (Snyder, Hoza et al., 1997), higher overall grade point averages among high school students (Snyder, Harris et al., 1991), and higher semester and overall grade point averages for college students (Chang, 1998; Curry, Maniar, Sondag, & Sandstedt, 1999; Curry, Snyder, Cook, Ruby, & Rehm, 1997; Snyder, Harris et al., 1991). A longitudinal study of college students showed that higher hope levels measured at the beginning of the students' first semester in college predicted higher cumulative grade point averages and graduation rates, and lower dropout rates up to six years later, even after controlling for intelligence, previous academic performance, self-esteem, and college-

entrance exam scores (Snyder, Shorey, et al., 2002; Snyder, Wiklund, & Cheavens, 1999).

Hope-based interventions for at-risk students are being tested given the empirical relationship between hopefulness and academic success. The University of Kansas, and Wyoming, for instance, are testing classes designed to improve students' levels of hope and academic performance (Curry et al., 1999; Snyder, Shorey, Rank, & Ritschel, 2005). Success has been reported in augmenting hope in junior high school students (Lopez, Bouwkamp, Edwards, & Teramoto Pedrotti, 2000).

Hope theory hypothesizes that higher hope will create the best routes to achieve athletic goals and provide more motivation to use these routes, culminating in increased success. In support, Division I track athletes exhibiting higher versus lower hope levels performed significantly better at their events, even controlling for coaches' ratings of their athletic ability (Curry et al., 1997). A study of female track athletes (Curry et al., 1997) indicated that combined State and Trait Hope Scale scores accounted for 56% of the variance associated with actual athletic performance.

Snyder, Feldman, et al. (2000) theorized that higher hope levels would facilitate ability to attend to and use information about physical illnesses to enhance prevention efforts. Related research found that high-hope women performed better than low-hope women on a cancer facts test, and they reported stronger desire to employ cancer prevention activities (Irving et al., 1998). Harney (1990) observed that high-hope compared to low-hope participants participated in more physical exercise (exercise is known to offer prevention against illness and disease).

Hope is a relevant factor in coping with and recovering from illness (i.e., Snyder, 2002). Higher levels of hope link to benefits in coping with burn injuries (Barnum et al., 1998), spinal cord injuries (Elliott, Witty, Herrick, & Hoffman, 1991), arthritis (Laird, 1992), fibromyalgia (Affleck & Tennen, 1996; Tennen & Affleck, 1999), and blindness (Jackson, Taylor, Palmatier, Elliott, & Elliott, 1998). One possible explanation is that high-hope people may cope better with pain related to the disease process. A study using the cold-pressor task substantiated that individuals with higher levels of trait hope tolerated pain longer than those with lower levels of hope (Snyder, Berg et al., 2005). Another hypothesis is that higher-hope people may implement increased attention to helpful illness-related information, which fosters more adaptive coping behavior associated with the illness. In fact, a study revealed that higher hope levels were related to more frequent usage of a Web site that disseminated coping information on a health condition along with briefer self-reported duration of symptoms related to this condition (Vernberg, Snyder, & Schuh, 2005).

Similar to physical health, mental health is divided into two classifications: a) maintaining psychological adjustment/preventing psychopathology (primary prevention); and b) coping with and recovering from psychopathology (secondary prevention). In primary

prevention, hope may promote psychological well-being partly due to the influence of successful goal pursuits on affectivity. The premise is that emotions are the result of goal pursuits and hope fosters goal pursuits, therefore, higher levels of hope link to more optimal patterns of affectivity. Consistent with this view, Snyder, Harris et al. (1991) and Snyder, Hoza et al. (1997) determined that hope correlates positively with positive affect and inversely with negative affect. Likewise, a 28-day daily diary study found that higher hope correlated positively with positive thoughts and negatively with negative thoughts (Snyder et al., 1996). Additionally, high-hope college students stated they felt more inspired, energized, confident, and challenged by their goals compared to low-hope peers (Snyder, Harris et al., 1991). This effect of hope on psychological well-being also appears in older populations as a sample of older adults (average age of 76 years) revealed that higher levels of hope were connected to greater life satisfaction and perceived well-being, independent of objective physical health measures and functional ability (Wroblewski & Snyder, 2005). The influence of hope on psychological well-being may be mediated partly through the concept of meaning. Viktor Frankl (1966) believed that finding or developing meaning in life would resolve the angst related to the "existential vacuum." Research has shown strong correlations (.70-.76) between trait hope and several measures of meaning in life (Feldman & Snyder, 1999).

Hope also influences psychological adjustment through its effect upon ways individuals appraise and cope with stressors and obstacles to goals. It is more likely for higher-hope than lower-hope people to find benefits in coping with persisting stressors (Affleck & Tennen, 1996; Tennen & Affleck, 1999). High-hope people perceive their hope offers protection against future stressors (Snyder, 2000), and this belief generates a greater general sense of confidence (Snyder, Feldman et al., 2000), culminating in an enhanced general positive outlook for the future. Higher hope seems to moderate the connection between unforeseen stressors and effective coping (Snyder & Pulvers, 2001). Higher hope associated with lower rates of behavioral problems, for instance, in high risk children whose mothers were in prison, even after controlling for social support and stress (Hagen, Myers, & Mackintosh, 2005). Despite absent maternal care, maintaining positive perceptions of the future and confidence in coping ability yielded protective benefits for these children.

Higher-hope as compared to lower-hope people, upon confrontation with a stressor, are more likely to create more strategies (pathways) for successfully coping with the stressor and report greater probability of implementing these strategies (agency; Snyder, 1994c, 2000; Snyder, Harris et al., 1991). Contrarily, low-hope as compared to high-hope individuals exhibit a greater tendency to use avoidance as a coping strategy. Avoidance associates with distress and decreased psychological adjustment over time (Suls & Fletcher, 1985). Interestingly, hopeful thinking generates benefits even when goal blockages are unchanging.

High-hope people can demonstrate the cognitive flexibility to obtain alternate goals when initial goals are blocked (Snyder, Rand, & Sigmon, 2002) whereas low-hope people frequently ruminate unproductively about being thwarted or stuck (Michael, 2000; Snyder, 1999; Michael & Snyder, 2005) and cope through avoidance. Unfortunately, repeated usage of avoidance coping strategies disallows one to learn from past experiences (Snyder, Feldman et al., 2000) potentially establishing a cycle of goal blockage, escape, and failure.

Jerome Frank (1968, 1973, 1975) felt that hope was a common process among many therapeutic techniques. Snyder and colleagues further investigated how hope helped people to improve within different forms of psychotherapy (Snyder, Ilardi, Cheavens, et al., 2000; Snyder, Ilardi, Michael, & Cheavens, 2000; Snyder, Michael, & Cheavens, 1999; Snyder & Taylor, 2000). Initially, most therapeutic interventions supply a "boost" of mental energy to the client and Irving and colleagues (2004) propose that this reflects an increase in agency thinking, facilitated by the client's new belief that improvement is possible. As therapy continues, each therapeutic modality presents the client with strategies for improving and sustaining psychological well-being (e.g., psychotherapy offers insight, behavior therapy provides behavioral activation, cognitive therapy presents cognitive restructuring, etc.). These strategies are equivalent to pathways to the client's goal of securing psychological adjustment (Cheavens, Feldman, Woodward, & Snyder, 2006). Supportive of this hypothesis, Irving et al. (2004) determined that agency scores associated with improvement during early stages of therapy and pathways scores were linked to improvement during latter therapy stages.

Regarding hope and interpersonal relationships, hopeful thinking is theorized to commence in early childhood as a function of interactions between the child and caregivers, peers, and teachers (Snyder, Cheavens, & Sympson, 1997), and empirical findings reveal that hopeful thinking results from secure and supportive relationships between child and adult caregiver (Shorey, Snyder, Yang, & Lewin, 2003). Connecting with others is an essential human goal because goal pursuits generally reside within the context of sociability. One variable that assesses the degree to which people desire to connect with others is their concern about others' perceptions of them. Thus, presenting oneself to others in a positive manner can be construed as adaptive and prosocial (Taylor, 1989). There is a slight positive association between higher levels of hope and social desirability/positive presentation (Harris et al., 1991; Snyder, Hoza et al., 1997), implying that high-hope people are appropriately concerned about the impressions they leave on others.

Hopeful thinking also facilitates creating human connections. High-hope individuals are likely to experience close connections with others because they show interest in their own goals as well as the goals of others (Snyder, 1994b, 1994c; Snyder, Cheavens, & Sympson, 1997). Moreover, high-hope people demonstrate an enhanced ability to take the perspective of others (Rieger, 1993) and enjoy interacting

with others (Snyder, Hoza et al., 1997). Supporting research asserts that higher levels of hope associate with more perceived social support (Barnum et al., 1998), more social competence (Snyder, Hoza et al., 1997), and less loneliness (Simpson, 1999).

SELF-EFFICACY

The essence of self-efficacy theory is that "people's beliefs in their capabilities to produce desired effects by their own actions" (Bandura, 1997, p. vii) are the most significant determinants of the behaviors that people willfully choose to participate in and the degree to which they persist in their efforts when confronting obstacles and challenges. This construct represents a set of beliefs in relation to the ability to manage skills and capabilities needed to achieve goals in specific life domains and circumstances. It also asserts that our efficacy beliefs strongly affect psychological adjustment, psychological problems, physical health, and professionally and self-guided behavior change strategies.

Though the term, "self-efficacy" is relatively recent, the concept of personal control has been extant in philosophy and psychology for centuries. Spinoza, David Hume, John Locke, William James, and others explored "volition" and "the will" in human behavior (Russell, 1945; Vessey, 1967). Many theories have examined links between perceptions of personal competence and behavior/well-being such as effecance motivation (White, 1959), achievement motivation (McClelland, Atkinson, Clark, & Lowell, 1953), social learning (Rotter, 1966), helplessness (Abramson, Seligman, & Teasdale, 1978), operant conditioning (Skinner, 1995), and self-regulation (Molden & Dweck, 2006). Bandura's (1977) article pioneered the concept of "self-efficacy" as the operational definition for perceived competence.

Self-efficacy is embedded within social cognitive theory, which is an approach to understanding human cognition, action, motivation, and emotion that maintains people are active shapers of and not only passive reactors to their environments (Bandura, 2001, 2006; Barone, Maddux, & Snyder, 1997; Molden & Dweck, 2006). Social cognitive theory relies on these four fundamental assumptions:

- 1) Our strong cognitive abilities foster the development of internal models of experience, innovative courses of action, hypothetical testing of our courses of action by predicting outcomes, and communication to others of our complex ideas and experiences. We can analyze and evaluate our thoughts, behavior and emotions through self-observation. These self-reflective capabilities facilitate self-regulation.
- 2) Environmental events, internal personal factors (cognition, emotion, and biological events), and behavior interact with one another allowing us to respond to environmental events. We utilize cognition to exert control over our behavior, which influences our cognitive, affective, and biological states along with the environment.
- 3) "Self" and "personality" are socially intertwined such that

self and personality transcend what we manifest in our social interactions, rather, they are also created in these interactions, and they change through these interactions.

- 4) We experience self-regulation. We select goals and regulate our behavior while pursuing these goals. The essence of self-regulation is our ability to anticipate or create "expectancies," defined as usage of past knowledge and experience to establish beliefs about future events, states, and our capabilities and behavior.

These premises propose that early development of self-efficacy beliefs is mainly influenced by two interacting factors. First, the capacity for symbolic thought, especially understanding cause-effect relationships, and the capability of self-observation and self-reflection. Personal agency begins in infancy and evolves from the perception of the causal relationship between events, to comprehension that actions generate results, to recognizing that the individual, her/himself, can originate actions that influence the environment. As comprehension of language increases in children, so does their capacity for symbolic thought, and resultantly, their capacity for self-awareness and personal agency (Bandura, 1997).

Second, the development of self-efficacy beliefs is affected by how responsive the environments are to the infant's or child's manipulation or control attempts. Responsive environments to the child's actions produce efficacy beliefs while nonresponsive environments slow this development. Efficacy beliefs promotes exploration, which then improves the infant's sense of agency. The child's social environment (particularly parents) generally constitutes the most fundamental aspect of her or his environment, hence, children usually acquire a sense of efficacy by generating actions that influence the behavior of others, which later generalizes to the nonsocial environment (Bandura, 1997). Parents can help or hinder agency by their responses to the infant's or child's actions, as well as nurturing the child to explore and master her or his environment.

Efficacy beliefs and a sense of agency evolve throughout the life span as we perpetually incorporate information from the following five principal sources:

Performance Experiences - The most potent self-efficacy information is derived from our own attempts to control our environments (Bandura, 1997). Successful control attempts attributed to one's effort will strengthen self-efficacy for that specific behavior or life domain. Contrarily, perceptions of failure attributed to lack of ability frequently erode self-efficacy beliefs.

Vicarious Experiences - Self-efficacy beliefs are influenced by observing the behavior of others and the consequences of those behaviors. This information creates expectancies of our own behavior and its consequences as a function of the degree of similarity we perceive between ourselves and the observed person. Vicarious experiences often promote weaker effects on self-efficacy expectancy than performance experiences (Bandura, 1997).

Imagined Experiences - Self-efficacy beliefs can be influenced by imagining ourselves or others acting

effectively or ineffectively in hypothetical situations. These mental images can originate from actual or vicarious experiences with similar situations to the one anticipated, or from verbal persuasion, for instance, when a therapist leads a client through various interventions, such as systematic desensitization and covert modeling (Williams, 1995). Imagined experiences generally influence self-efficacy less than actual experiences (Williams, 1995).

Verbal Persuasion - Efficacy beliefs are influenced by what others verbalize to us about their perception of that which we can or cannot do. The potential of verbal persuasion on self-efficacy expectancies is affected by expertness, trustworthiness, and attractiveness of the source (i.e., Eagly & Chaiken, 1993). Verbal persuasion has less effect on lasting change in self-efficacy expectancy than performance and vicarious experiences.

Physiological and Emotional States - These states influence self-efficacy when we associate poor performance or perceived failure with aversive physiological arousal and success with pleasant feeling states. As people become aware of unpleasant physiological arousal, they exhibit a greater tendency to doubt their competence compared to a pleasant or neutral physiological state which likely leads to confident ability to perform in that situation. Physiological components of self-efficacy expectancy transcend autonomic arousal, for example, within activities requiring strength and stamina, such as exercise and athletics; perceived efficacy is affected by states such as fatigue and pain (i.e., Bandura, 1997).

Most psychological theorists believe that a sense of control over our behavior, environment, thoughts, and emotions is crucial for happiness and well-being. People seeking a therapist commonly report feeling a loss of control.

Self-efficacy beliefs are significantly involved in numerous common psychological issues. Low self-efficacy expectancies are a relevant feature of depression (Bandura, 1997; Maddux & Meier, 1995) in that depressed individuals generally perceive themselves as less capable than others of functioning effectively in many life domains. Dysfunctional anxiety and avoidant behavior are the straightforward result of low self-efficacy beliefs for managing threatening situations (Bandura, 1997; Williams, 1995). Self-efficacy beliefs also affect substance abuse issues and eating disorders (Bandura, 1997; DiClemente, Fairhurst & Piotrowski, 1995). In relation to these issues, improving self-efficacy for resolving the problem and for utilizing self-control strategies in particular challenging situations can be critical for successful therapy (Bandura, 1997; Maddux, 1995).

Changing behavior is central to most strategies designed to prevent health issues, improve health, and speed recovery from illness and injury. Self-efficacy beliefs influence health in two ways. First, such beliefs influence initiating healthy behaviors, stopping unhealthy behaviors, and maintaining needed behavioral changes during difficult and challenging times. The major theories of health behavior include self-efficacy as a crucial variable (i.e., Maddux, 1993; Weinstein, 1993). Further, research shows that enhancing self-efficacy

beliefs is vital to effective change and maintenance of essentially every behavior critical to health, including exercise, diet, stress management, safe sex, smoking cessation, overcoming alcohol abuse, following treatment and prevention regimens, and disease detection behaviors such as breast self-examinations (Bandura, 1997; Maddux et al., 1995). Second, self-efficacy beliefs influence various biological processes, which subsequently affect health and disease (Bandura, 1997). Self-efficacy beliefs influence the body's physiological responses to stress, including the immune system (Bandura, 1997; O'Leary & Brown, 1995). Low perceived control over environmental demands can increase the likelihood of susceptibility to infections and accelerate disease progression (Bandura, 1997). Self-efficacy beliefs also affect the activation of catecholamines, which is a group of neurotransmitters relevant to management of stress and perceived threat, as well as endorphins, which are endogenous painkillers (Bandura, 1997; O'Leary & Brown, 1995).

Self-efficacy contributes to how we direct our behavior during pursuit of desired goals. Such self-regulation relies on three interacting factors (Barone et al., 1997): goals or standards of performance; self-evaluative reactions to performance; and self-efficacy beliefs.

Goals are related to self-regulation because we strive to regulate our thoughts, emotions and actions in order to attain desired outcomes. Conceiving desired future events allows people to generate incentives that motivate and direct their actions and standards which leads to the monitoring of progress, and evaluation of progress and abilities.

Self-evaluative reactions are relevant in self-regulation because the perception we have of our progress, or lack thereof, toward the goal strongly influences our emotional reactions during goal-directed activity. These emotional reactions can positively or negatively affect self-regulation.

Self-efficacy beliefs affect self-regulation in various ways. First, they impact the goals that we initially set in that higher self-efficacy in a particular achievement domain yields loftier goals in that domain. Second, they influence our chosen goal-directed activities, effort, persistence given challenge and obstacles (Bandura, 1997), and responses to perceived differences between goals and current performance (Bandura, 1997). High efficacy beliefs increase resistance to decreases in self-regulation arising from difficulties and setbacks, which enhances persistence. Perseverance often yields desired results and this success increases a sense of efficacy. Third, self-efficacy beliefs impact the efficiency and quality of problem solving and decision making. When making complex decisions, people confident of their problem-solving skills utilize their cognitive resources more effectively than those that doubt their cognitive skills (e.g., Bandura, 1997). This enhanced efficacy often produces better solutions and achievement. When encountering difficulty, high self-efficacy frequently leads to being "task-diagnostic" facilitating the search for solutions to problems as opposed to low self-efficacy that often results in being "self-diagnostic"

and focusing on personal inadequacies which lowers effort to assess and problem-solve (Bandura 1997).

Strategies for improving self-efficacy, based on the five sources of self-efficacy previously described, follows:
Performance Experience - Setting goals and strategies that are specific in nature, concrete, and short-range are more likely to create greater incentive, motivation, and efficacy than goals that are abstract, vague, and designed for the distant future. Specific goals enable identification of specific behaviors required for successful achievement and awareness of when the task is completed. The recommended intervention for phobias and fears, for instance, involves "guided mastery" - in vivo experience with the feared object or situation during therapy, or between therapy sessions as a "homework" assignment (Williams, 1995). Cognitive interventions for depression may involve clients being given assistance in arranging success experiences which will enhance low-self-expectancy expectancies (Maddux & Lewis, 1995).

Vicarious experience - Vicarious learning and imagination facilitates the teaching of new skills and improves self-efficacy for those skills. Modeling films and videotapes, for example, can stimulate socially withdrawn children to interact with other children. The child watching the film views the model child (someone very similar to herself or himself) have success and then believes that she or he can imitate the actions of the model (Conger & Keane, 1981). In vivo modeling has been effective in treating phobic individuals; studies show that changes in self-efficacy beliefs for approach behaviors mediate adaptive behavioral changes (Bandura, 1986; Williams, 1995). Media advertisements for smoking cessation and weight loss programs that feature testimonials from successful participants also uses vicarious experiences to improve self-efficacy. These testimonials convey to viewers that they can perform this challenging task as well. Formal and informal support groups composed of people divulging their experiences in confronting and overcoming a common affliction, such as addiction, obesity, or illness, can improve self-efficacy.

Imagined Experience - Using our imagination to overcome challenges or confront feared behaviors can improve self-efficacy. Cognitive therapy for anxiety and fear issues typically attempts to modify visual images of danger and anxiety, and includes images of successfully coping with the feared situation. Imaginal (covert) modeling is an effective intervention for increasing assertive behavior and self-efficacy for assertiveness (Kazdin, 1979). Systematic desensitization and implosion are established behavioral therapy techniques that highlight the capacity to image coping effectively with problematic situations (Emmelkamp, 1994). Misrepresented and maladaptive imagery underlie depression and anxiety, hence, various techniques exist to modify these dysfunctional assumptions comprising the client's visual images of sadness, danger and anxiety. Clients can feel control over a difficult situation by imagining a future self that skillfully manages this situation.

Verbal Persuasion - Most therapeutic interventions engage in verbal persuasion to elevate client self-efficacy and promote small risks that may produce small successes. Therapists using cognitive and cognitive-behavioral therapies (Holland, Stewart, & Strunk, 2006) guide clients to disclose dysfunctional attitudes, behaviors, and expectancies and then assist clients to understand the irrationality and self-defeating essence of these beliefs. Therapists inspire clients to acquire and employ new, adaptive beliefs and expectancies. In turn, clients experience successful outcomes that can render lasting changes in self-efficacy beliefs and adaptive behavior. On a routine basis, people experience verbal persuasion as a self-efficacy facilitator when they seek support from others to face challenges such as losing weight, continuing an exercise program, or confronting a boss or loved one.

Physiological and Emotional States - People generally feel more capable when they are calm rather than aroused or distressed. Techniques for managing emotional arousal (i.e., anxiety) while experimenting with new behaviors are likely to heighten self-efficacy beliefs and chances of successful enactment. Hypnosis, biofeedback, relaxation training, meditation, and medication are common strategies for lowering physiological arousal associated with low self-efficacy and poor performance.

Positive psychology and social cognitive theory understand the social interrelatedness of the individual and, at times, the need for a person to work cooperatively and efficaciously with others. This concept is illustrated in "collective efficacy": "a group's shared belief in its conjoint capabilities to organize and execute the courses of action required for producing given levels of attainments" (Bandura, 1997, p. 477; Zaccaro, Blair, Peterson, & Zazanis, 1995). Collective efficacy assesses the degree to which people believe they can effectively work together to accomplish a shared goal.

Collective efficacy has proven relevant in numerous collective situations. Spouses who feel more rather than less efficacious about their shared ability to achieve important shared goals are more satisfied with their marriages (Kaplan & Maddux, 2002); this also applies to college-age dating couples (Zapata & Maddux, 2006). An athletic team's collective efficacy can be increased or decreased by false feedback regarding ability and can influence its success in competitions (Hodges & Carron, 1992). Teachers' individual and collective efficacy for effective instruction apparently influences academic achievement of school children (Bandura, 1993, 1997). The productivity of self-managing work teams (Little & Madigan, 1994) and group "brainstorming" (Prussia & Kinicki, 1996) appears associated with a collective sense of efficacy. Personal and collective efficacy interconnect because a "collection of inveterate self-doubters is not easily forged into a collectively efficacious force" (Bandura, 1997, p. 480).

Research on self-efficacy, spanning over thirty years, supports the idea that few limits exist to what can be accomplished by an individual with firm belief in her or his goals and capacity for achievement. Bandura (1997) expresses, "People see the extraordinary feats of others but

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not the unwavering commitment and countless hours of perseverant effort that produced them" (p. 119). These people overestimate "talent" and underestimate self-regulation when evaluating accomplishment. Self-efficacy findings reveal that confidence, effort, and persistence are more pertinent than innate ability. Self-efficacy underscores human potential and possibilities, therefore, it is a worthy construct within positive psychology.

SECTION 3

The term, positive psychology, was first used by Abraham Maslow, in 1954, to portray the concepts of creativity and self-actualization in a book chapter denoting that the "science of psychology has been far more successful on the negative than on the positive side. It has revealed to us much about man's shortcomings, his illness, his sins, but little about his potentialities, his virtues, his achievable aspirations, or his full psychological height. It is as if psychology has voluntarily restricted itself to only half its rightful jurisdiction, the darker meaner half" (Maslow, 1954, p. 354). Maslow desired to help people realize their full potential rather than solely to create the absence of illness. In 1998, Martin Seligman, president of the American Psychological Association, declared that psychology was "half-baked" and promoted the need to examine the good qualities of people. Existing technologies for studying mental illness and weakness were thought to be conducive to understanding human strength and well-being.

Research on positive psychology covers diverse topics; this section explores the concepts of problem-solving appraisal, self-determination, curiosity and interest, courage, relationship connection, adult attachment security, empathy and altruism, and forgiveness, with the goal of improving the quality of life.

PROBLEM-SOLVING APPRAISAL

A strength for coping with challenges and demands is demonstrated by one's appraisal of her or his problem-solving skills and style, and awareness of whether approach or avoidance is generally utilized. Some individuals tap into personal strengths and skills to solve life's many problems while others exhibit consistent problem-solving deficits. The ways that people appraise their problem-solving influences how they cope with problems and their psychological adjustment.

The Problem Solving Inventory (PSI) is a widely used measure of applied problem solving (Heppner, 1988) which assesses problem-solving ability, style, behavior, and attitudes within a 35-item test. Three constructs are evaluated: a) Problem-solving confidence, defined as a person's self-assurance within a broad range of problem-solving activities, general problem-solving self-efficacy, and coping effectiveness; b) Approach-Avoidance Style which examines the tendency to approach or avoid various problem-solving activities; and c) Personal Control which measures belief in one's emotional and behavioral control (Heppner,

1988; Heppner & Baker, 1997). The PSI can be used in counseling to provide information about the client's problem-solving style or appraisal that can help with daily functioning.

Early research showed that problem solving is linked to psychological adjustment (D'Zurilla & Goldfried, 1971). Numerous studies (i.e., Heppner, Witty, & Dixon, 2004) show that perceived effective (versus ineffective) problem solvers self-reported that they were "more" adjusted on a general psychological measures such as the Minnesota

Multiphasic Personality Inventory (i.e., Elliott, Herrick, & Witty, 1992); b) specific measures of personality variables such as positive self-concepts (e.g., Heppner, Reeder, & Larson, 1983) and locus of control (e.g., Cook & Heppner, 1997); c) frequency of personal problems (e.g., Heppner, Hibel, Neal, Weinstein, & Rabinowitz, 1982); d) racial identity statuses in African American students (Neville, Heppner, & Wang, 1997); and e) coping with grief experiences (Reid & Dixon, 2000). Further, research consistently finds that positive problem-solving appraisal, measured by the PSI, is associated with social skills (Heppner et al., 2004). In support, perceived effective (versus ineffective) problem solvers reported having more social skills (i.e., Elliott, Godshall, Herrick, Witty, & Spruell, 1991), less social uneasiness/distrust/distress (e.g., Larson, Allen, Imao, & Piersel, 1993), and more social support (i.e., Wright & Heppner, 1991). The association exists between positive problem-solving appraisal and better social and psychological adjustment.

Strong empirical support across various populations and cultures reveals a connection between positive problem-solving appraisal and less depression. Perceived effective (compared to ineffective) problem solvers not only report overall lower levels of depression but also when encountering high levels of stress.

Schotte and Clum's (1982, 1987) diathesis-stress-hopelessness model of suicidal behavior predicts that strong problem-solvers, when experiencing naturally occurring high negative life stress, are cognitively more able to generate effective alternative solutions for adaptive coping than deficient problem solvers. Consequently, people with effective (versus ineffective) problem solving skills, even during high stress, have lower probability of feeling hopelessness that increases suicidal behavior risk. At least 12 studies have examined and found support for Schotte and Clum's model (i.e., Heppner et al., 2004); lower problem-solving appraisal is a consistent and stable predictor of hopelessness and suicidal ideation, in contrast, increases in perceived effective problem solving were linked to lower hopelessness levels (e.g., Witty & Bernard, 1995) and suicidal ideation (i.e., Rudd, Rajab, & Dahn, 1994) across a number of populations.

One possible explanation for effective problem-solving style under high stress preventing hopelessness and depression is the construct of hope, specifically agency and pathways (planning to achieve goals; i.e., Snyder, Michael, &

Cheavens, 1999). Empirically supported, hope is a significant predictor of problem-focused appraisal (e.g., Snyder et al., 1999).

Cognitive-social learning theorists suggest that drug and alcohol abuse associates with a lack of self-efficacy for coping with stressful situations. Hence, alcohol and drug use becomes a coping strategy for alleviating feelings of personal inadequacy. At least six studies support this connection between problem-solving appraisal and alcohol/drug use (see Heppner et al., 2004). Three studies showed a significant linear relationship between a more positive problem-solving appraisal and lower alcohol use/abuse (Godshall & Elliott, 1997; Heppner et al., 1982; Wright & Heppner, 1991). Two studies, however, revealed a more uncertain link between problem-solving appraisal and alcohol use/abuse (Larsen & Heppner, 1989; Williams & Kleinfelter, 1989); it suggests the possible existence of different drinking patterns related to different components of problem-solving appraisal. Moreover, one study found no linear relationship between problem solving and alcohol abuse, instead, an interaction between the participants' alcohol abuse and parental drinking (Slavkin et al., 1992). In conclusion, though some support exists for a significant linear relationship between a more positive problem-solving appraisal and less alcohol use/abuse, in all probability, a more complex association underlies these variables.

Expectedly, more positive problem-solving appraisal associates with lower anxiety (i.e., Larson, Piersel, Imao, & Allen, 1990), lower anger, higher curiosity, and a stronger senses of instrumentality (i.e., Heppner, Walther, & Good, 1995). Stronger relationships occur with trait as compared to state anxiety and instrumentality.

Positive problem-solving appraisal is associated with positive health expectancies (e.g., Elliott & Marmarosh, 1994), with fewer health complaints regarding chronic pain, cardiovascular issues, premenstrual and menstrual pain, and health problems in general (e.g., Elliott, 1992; Heppner et al., 2004), and it can predict objective favorable behavioral health outcome complications, such as urinary track infections (i.e., Elliott, Pickelman, & Richeson, 1992). These findings further reflect a connection between problem-solving appraisal and human adjustment.

Numerous studies have found that a positive problem-solving appraisal is linked to self-reports of approaching (versus avoiding) and trying to change the cause of the stressful problem (e.g., MacNair & Elliott, 1992). This research concludes that problem-solving appraisal is related to consistent self-reports of actively focusing on the issue and attempting to resolve the cause of the problem (this defines the concept entitled problem-focused coping).

Baumgardner, Heppner, and Arkin (1986) analyzed why positive problem-solving appraisers generally approach (rather than avoid) and use problem-focused coping. They manipulated success and failure feedback and then asked participants for their causal attributions. The causal role of effort strongly differentiated between the self-appraised effective versus ineffective problem solvers. Perceived effort was essential for self-appraised effective problem solvers as a

dominant cause of their own personal problems along with their allegedly "failed" laboratory response in solving a problem. Effective problem solvers appear to take self-responsibility for their personal problems, and their heightened effort attributions for "failed" coping attempts signifies their effort associates with approach instead of avoidance of personal problems.

Effective utilization of our environmental resources can be vital for coping with stressful events. A logical assumption is that effective problem solvers are aware of their environment and avail themselves of relevant resources. In fact, more positive problem-solving college students tend to engage in help-seeking behavior, such as awareness and usage of social support, and reported satisfaction with campus resources (e.g., Neal & Heppner, 1986). This emphasizes a relationship between more positive problem-solving appraisal and effective coping activities.

The career decision-making process parallels a form of problem solving (Holland & Holland, 1977). Ways that people appraise their problem solving in general affects how they approach a particular endeavor, including career decision making.

How people appraise their problem-solving skills and style correlates to various facets of psychological adjustment. Positive problem-solving appraisal (compared to negative) associates with positive self-concept, less depression and anxiety, and vocational adjustment. Problem-solving appraisal is a learned response, and assumed to be the product of myriad environmental interactions, including parental modeling and training, and formal educational training. Therapists can possibly enhance the client's problem-solving appraisal and problem-solving effectiveness by examining such environmental effects. Problem-solving appraisal may be open to change since it is learned.

SELF-DETERMINATION

The application of self-determination as a psychological construct exists within "self-determination theory" (SDT; Deci & Ryan, 2002), which explains aspects of personality and behavioral self-regulation through interactions between innate and environmental determinants occurring within social contexts (Ryan & Deci, 2000a). SDT combines human tendencies, social contexts, and motivators for action to demonstrate how compatibility between one's basic needs and core values stimulates personal agency that culminates in overall well-being.

SDT suggests that three basic psychological needs - autonomy, competence, and relatedness - are driving forces and fulfilling these needs promotes well-being (Deci & Ryan, 2000). Within this model, autonomous actions convey integrity and rely on the individual's core or "higher order values" (Ryan & Deci, 2004). External influences (i.e., social context) can cause values to conflict and a choice must be rendered that represents the true self. An autonomous action, therefore, is having a rationale for a specific action response (behavior) to an extrinsic pressure

that reflects one's core values. SDT research (Sheldon, Ryan, Deci, & Kasser, 2004) reveals that autonomous motives (e.g., personal identification and enjoyment) correlate with higher well-being levels more than controlled motives (e.g., external rewards and guilt). The innate need for competence constitutes the motivation to be effective within one's environments and is based on the theory of effectance motivation which proposes an inherent drive for environmental mastery (Deci & Ryan, 2000; White, 1959). This drive results in behavioral responses that maintain and improve individual capabilities (Ryan & Deci, 2002). The psychological need for relatedness is the feeling of connectedness and belonging we have with others, and it centers on personal perceptions of relatedness rather than on goal outcomes (Reis, Sheldon, Gable, Roscoe, & Ryan, 2000). Autonomy, competence, and relatedness needs can complement one another or be in conflict (Deci & Ryan, 2000).

The construct of self-determination originated in philosophy in relation to "determinism" and "free will." Determinism professes that events, for instance, human behavior, are the effects of preceding causes.

John Locke was a soft determinist, meaning he believed that both causality and volition or will were central in human behavior. He thought the human mind demonstrates the "active" power of initiating or terminating its own operations based on the activation of a preference; exercising that power is volition or will. Locke defined freedom or liberty as "the power to act on our volition, whatever it may be, without any external compulsion or restraint" (Locke, 1690). In current terms, people act freely when they are able to translate their mental preferences into performance of the desired action (Kemerling, 2000-2001). Freedom is viewed as the human capacity to act, or not act, as one chooses or prefers, without external compulsion or restraint.

Locke's beliefs that the causes of human action are both caused and volitional, and secondly, that it is the "agent" (the person) who can freely act rather than the action itself (which is "caused" by perception or sensation) are pertinent to the theory of self-determination.

Ryan and Deci (2000a) recommend that a complete understanding of optimal human functioning and well-being must include the agentic nature of human behavior. Self-determination is a subset within the theories of human agency. Human agency is defined as "the sense of personal empowerment, which involves both knowing and having what it takes to achieve one's goals" (Little, Hawley, Henrich, & Marsland, 2002, p. 390). These researchers describe the agentic individual as possessing the following traits: "the origin of his or her actions, has high aspirations, perseveres in the face of obstacles, sees more and varied options for action, learns from failures, and overall, has a greater sense of well-being. In contrast, a non-agentic individual can be a pawn to unknown extra-personal influences, has low aspirations, is hindered with problem-solving blinders, often feels helpless and, overall, has a greater sense of ill-being" (Little et al., 2002, p. 390).

Theories of human agency "share the meta-theoretical view that organismic aspirations drive human behaviors" (Little, Snyder, & Wehmeyer, 2006, p. 61). An organismic viewpoint sees people as active contributors to their behavior, and behavior is depicted as self-governed and goal-directed action. Contrasted to stimulus-response theories, actions are viewed as purposeful and self-initiated activities (Brandstadter, 1998; Chapman, 1984; Harter, 1999).

Little et al. (2006) state that human agentic actions are:

1. Motivated by biological and psychological needs (Deci & Ryan, 2002; Hawley, 1999; Hawley & Little, 2002; Little et al., 2002);
2. Directed toward self-regulated goals that fuel short- and long-term biological and psychological needs;
3. Mobilized by awareness of interactions among agents, means, and ends (Chapman, 1984; Little, 1998; Skinner, 1995, 1996), and led by general action-control behaviors that involve self-chosen forms and functions (Little, Lopez, & Wanner, 2001; Skinner & Edge, 2002; Vanlede, Little, & Card, 2006).
4. Behaviors that generate self-determined management of behavior and development, and reflect hope-related individual differences.
5. Manifested in contexts that offer support and opportunities, along with blockages to goal pursuit.

Additionally, self-determination requires cognizance of the interplay between the self and context (Little et al., 2002). People influence and are influenced by the contexts they live within, and individuals become agents of their own control through the person-context interaction.

Wehmeyer and colleagues (Wehmeyer, 1996, 2001, 2005) developed a functional theory of self-determination (fSDT) in which self-determined "actions" are recognized by four "essential characteristics": a) the individual acts "autonomously"; b) the behavior is "self-regulated"; c) the person commences and responds to the event in a "psychologically empowered" way; and d) the individual acts in a "self-realizing" manner. These essential characteristics do not correspond to the specific performed behavior, rather, to the "function" (i.e., purpose) the behavior provides the person, in other words, if the action permitted the person to act as a causal agent.

In this model, self-determined behavior represents "volitional actions that enable one to act as the primary causal agent in one's life and to maintain or improve one's quality of life" (Wehmeyer, 2005, p. 117). "Causal agency" means that it is the person who makes things happen in her or his life, moreover, the individual acts with the goal of "causing" an effect that will yield a positive result or produce change.

fSDT is based on behavioral autonomy, (similar to the concept of individuation, and autonomy as synonymous with independence), along with the constructs of self-regulation, psychological empowerment, and self-realization. Developmental psychologists believe that individuation, the development of the person's individual identity (Damon, 1983), is a key to social and personality development. Sigafos et al. (1988) define individuation as "a progression

from dependence on others for care and guidance to self-care and self-direction" (p. 432), which results in autonomous functioning, also termed behavioral autonomy.

Self-regulation is defined as "a complex response system that enables individuals to examine their environments to make decisions about how to act, to act, to evaluate the desirability of the outcomes of the actions and to revise their plans as necessary" (Whitman, 1990, p. 373). Self-regulated behaviors involve utilizing self-management strategies (i.e., self-monitoring, self-instruction, self-evaluation, and self-reinforcement), goal setting and attainment behaviors, problem-solving and decision-making behaviors, and observational learning strategies.

The construct of psychological empowerment relates to the multiple dimensions of perceived control. Zimmerman (1990) believes that people develop a perception of psychological empowerment that facilitates their achieving desired outcomes through learning, using problem-solving skills, and attaining perceived or actual control in life (e.g. learned helpfulness).

Self-realization refers to the "tendency to shape one's life course into a meaningful whole" (Angyal, 1941, p. 355). Those who are self-determined are self-realizing such that they rely on an extensive and basically accurate knowledge of themselves (i.e., their strengths and limitations) fostering the ability to act on this knowledge. This self-knowledge and self-understanding develops by experiencing and interpreting one's environment and is influenced by evaluation of significant others, reinforcement, and attributions of one's own behavior (Little, 1998).

The concept of self-determination is a worthy contribution to positive psychology because it regards people as active contributors to their self-regulated and goal-directed behavior, allowing them to become "causal agents" in their own lives.

CURIOSITY and INTEREST

Curiosity and interest are central to intrinsically motivated action and they involve seeking new experiences, choosing complexity over simplicity, and pursuing actions due to intrinsic interest. Curiosity and interest (which will be used synonymously) represent a positive motivational-emotional state associated with exploration.

Historically, curiosity was understood as an appetitive, approach-oriented motivational state (Arnold, 1910; Dewey, 1913). Berlyne (1971) hypothesized that complex, new, and surprising things activate a reward system that produces positive affect. The reward system stimulates novelty seeking and rewards exploration of novel things. Too much novelty and complexity activates an aversion system that motivates avoidance. When people are interested in something, they pursue actions for their own sake rather than for rewards. Interest encompasses facial and vocal expressions, subjective experience, motivational qualities, and adaptive functions spanning across the entire life span (Silvia, 2006, chap. 1).

When people are curious, they ask questions (Peters, 1978), manipulate interesting objects (Reeve & Nix, 1997), read deeply (Schiefele, 1999), examine interesting images (Silvia, 2005), and persevere on challenging tasks (Sansone & Smith, 2000). Theories of curiosity agree that the immediate function of curiosity is to learn, explore, and engage oneself in the interesting event. Longer-term, curiosity provides a more global function of building knowledge and competence. Exploring novel stimuli results in learning new things, meeting new people, and establishing new skills.

An operational definition of curiosity is: the recognition, drive, and strong interest to explore novel, challenging and uncertain events. When curious, people are aware of and receptive to the present moment. By virtue of focusing on the novelty and challenge transpiring each moment, there is an impending expansion (however small) of information, knowledge, and skills. Further, we are not controlled by internal or external pressures regarding what we should or should not be doing.

Interest and enjoyment are different types of positive experiences with different functions, causes, and consequences. Whereas interest motivates people to experience complexity and novelty, enjoyment motivates people to become attached to familiar things and reinforce activities that were previously enjoyable (Tomkins, 1962). Interest, for example, stimulates people to visit a new place while enjoyment motivates people to revisit the place they liked the year before.

Research on music, games, pictures, and anagrams finds that interesting things are rated as new, complex, dynamic, and challenging while enjoyable things are rated as familiar, calming, stable, and resolved (Berlyne, 1971, pp. 213-220; Iran-Nejad, 1987; Russell, 1994). Turner and Silvia (2006) examined emotional responses to art and found that disturbing and complex artwork was rated as interesting whereas calming and simple works of art were rated as enjoyable.

Interest and enjoyment display different consequences. Interest strongly predicts exploratory action, for instance, the length of time they visually explore images, play games, persist on tasks, and listen to music. Enjoyment only modestly predicts exploratory action. A study on music found that interest explained 78% of the variance in length of time participants listened to music, and enjoyment only explained 10% (Crozier, 1974, experiment 4). A study of visual art determined that interest explained 43% of the variance in viewing artwork while enjoyment explained merely 14% (Berlyne, 1974).

Positive emotions ensue upon assessing an event as being congruent with one's goals (Lazarus, 1991), however, having interest in something does not require the event to be appraised as goal-congruent. Individuals are commonly interested in unpleasant, unfamiliar, and potentially unrewarding activities (Turner & Silvia, 2006). Curiosity and interest could be categorized as "knowledge emotions" as this classification includes emotions associated with learning and thinking, for instance, surprise, confusion, interest, and awe (Keltner & Shiota, 2003). This category reflects

curiosity's emphasis on developing knowledge, skills, and relationships, and it shows how curiosity adds to well-being (Kashdan & Steger, 2007).

Curiosity has positive effects upon our social interactions. First, social situations are commonly ambiguous and challenging, but these characteristics provide potential for self-expansion. Relationship partners who offer self-expansion possibilities are often viewed as desirable. The positive consequences of self-expansion frequently enhance the feelings of connectedness and meaningfulness in the relationship. Second, when people sense their partner is secure and responsive, they typically pursue growth opportunities by exploring, learning, and risk-taking (even if there are uncomfortable feelings; Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969). Third, curiosity can establish social bonds by initiating behaviors, such as responsiveness, openness, and flexibility to other people's different perspectives on life. These qualities are desirable in social interaction and during the formative stages of relationship development (Kashdan & Fincham, 2004; McCrae 1996). People who display greater curiosity experience more positive social outcomes (Kashdan & Roberts, 2004; Peters, 1978). People who exhibit greater curiosity accept the ambiguity of social activity, and they encounter growth opportunities resulting from their novel social interactions and the new information obtained from these encounters.

Fourth, studies in educational settings indicate that perceptions of threat and supportiveness influence students' levels of curiosity and exploration. Generally, students with more curiosity experience greater academic success than less curious students (Hidi & Berndorff, 1998; Schiefele, Krapp, & Winteler, 1992). Various intervening variables affect whether curious students excel academically. Students high in trait curiosity ask three times the number of classroom questions compared to less curious students, however, both groups become more inhibited if their teachers are viewed as threatening (Peters, 1978). Further, a large study of students in Hong Kong revealed that adolescents exhibiting greater trait curiosity who viewed their schools as academically challenging had the best grades and performance on national achievement tests while students with greater trait curiosity in less challenging schools displayed the worst academic performance (Kashdan & Yuen, 2007).

The functions of curiosity can influence well-being, for example, curiosity has been labeled one of the basic mechanisms of the biologically based reward sensitivity system (Depue, 1996) and intrinsic motivation (Ryan & Deci, 2000), which affect well-being. People with greater curiosity who engage in novel and challenging activities enhance their knowledge, skills, goal-directed efforts, and sense of self (i.e., Ainley, Hidi & Berndorff, 2002). Feeling curious may also increase tolerance for distress resulting from trying novel things and acting in ways outside of one's comfort zone (Kashdan, 2007; Spielberger & Starr, 1994).

Curiosity motivates people to explore their world and meet personal challenges and it facilitates need-fulfillment, intellectual development, and even longevity. Various research designs have shown that people scoring higher on

trait curiosity routinely report greater psychological well-being (Naylor, 1981; Park, Peterson, & Seligman, 2004; Vitterso, 2003). Three-year-old children who exhibit greater curiosity and exploratory behavior have greater intelligence at age 11 (Raine, Reynolds, Venables, & Mednick, 2002). Adults in their early 70s with greater curiosity live longer across a 5-year period compared to less curious peers (Swan & Carmelli, 1996).

People with greater curiosity gravitate toward activities that are personally and socially enriching, which fosters development of durable psychological resources (Silvia, 2006). Such people are more reactive to situations that offer growth, competence, and high levels of stimulation. A study lasting 21 days showed that higher trait curiosity people reported more frequent growth-oriented events (e.g., persevering at goals given adversity, displaying gratitude to benefactors), more daily curiosity, and more sensitivity to these daily events and states (Kashdan & Steger, 2007). Also, for those revealing greater trait curiosity, greater daily curiosity had more of a chance of continuing into the next day, which culminated in heightened perceptions of the meaning and purpose in life. Lower trait curiosity people reported greater sensitivity to hedonistic events and states (i.e., having sex for pleasure purposes, binge drinking), which yielded only temporary benefits. These findings concluded that feelings of curiosity associate with novelty and growth potential, not indiscriminate, positively valenced events.

A growing body of research illustrates the impact of curiosity and exploratory behavior on living a full life. Without the experience of curiosity, the following would be lacking or non-existent: exploration of the self and world, introspection, search for meaning in one's life, appreciation of the aesthetics, scientific discovery, product creation, and to an extent, personal growth. Engagement in novelty and challenge typically elicits behavioral responses associated with curiosity and anxiety. Therapeutically, Sheldon and Elliot (1999) suggest an intervention involving promoting clients' awareness of discrepancies between their core values and their actual daily functioning, such an exercise could unify clients' behavioral patterns and goal pursuits with their intrinsically motivated values.

COURAGE

Philosophers have considered courage as a key virtue, possibly the essential virtue, as a prerequisite for all other virtues (i.e., Johnson [quoted in Boswell, 1791/2004]). Aristotle (circa 350 BCE/1999) stated that courage resides between the extremes of cowardice and rashness. The person's abilities and situation defined cowardice and rashness, therefore, the same action was construed as courageous for one person and cowardly or rash for another. To Stoic philosophers, courage was upholding integrity while encountering life's difficulties. For existentialists, courage is the act of experiencing freedom with complete cognizance of our responsibility (Putnam, 2010).

Various types of people and actions categorized as courageous changes as society changes. Support of a doomed or lost cause was deemed heroic in the early 1900s but may be interpreted as inflexibility in today's world (Barczewski, 2008; Knight & Saal, 1986).

Though conceptions of courage change with the times, courage itself is praised universally across cultures (e.g., Dahlsgaard, Peterson, & Seligman, 2005). This concept commands societal interest today, for example, Google hits of web pages for "courage," "bravery," or "heroism," are approximately 795,000 which is close to the 1,190,000 Google hits for "fear," "anxiety," or "avoidance." Conversely, interest from psychologists, indexed by PsychINFO on March 27, 2008, reveals the terms "courage," "bravery," or "heroism" are keywords for 128 peer-reviewed entries whereas "fear," "anxiety," or "avoidance" are keywords for 45,446 peer-reviewed entries - a ratio of 1:355. Research on courage is increasing as more than 50% of all peer-reviewed studies on the subject have been published since 2001.

Lord (1918) used the psychological tenets of his era to explain that courage occurs when the instinct of fear is neutralized by another, stronger instinct or sentiment. He identified different types of courageous action, based on the opposing instinct or sentiment, that evolved from lower to higher functioning. He differentiated "simpler and lower forms" of courage, which have opposing forces that are instincts, such as anger, sex, or self-assertion, from "higher forms of courage," which have opposing forces that are acquired sentiments, such as love, honor, or duty. Patriotic courage was the next upward level, and the highest levels reflected a mature philosophy of life, honor of self-respect, religious faith, and the dignity of individuals. The "courage of despair" is the ultimate form of courage and represents pursuing a lost cause to which one feels loyalty and self-identification. Lord, who lived during World War I, contended that German soldiers were seeking a baser sentiment than Allied soldiers and were thereby less courageous.

Geel (1931) analyzed United States Army records from World War I in relation to bravery citations and identified five categories. "Individual bravery" is responding alone during a battle, for instance, charging a small enemy group. "Voluntary collective bravery" is volunteering to join a group on a hazardous mission. "Line of duty bravery" is carrying out assigned duties while being attacked. "Altruistic bravery" is saving others disregarding risk to self. "Bravery under physical duress" is continuing on a mission despite being wounded.

Shaffer (1947) operationally defined courage as a decrease in fear, based on retrospective surveys of aerial combat fliers during World War II. He observed three types of beliefs or actions that augmented courage: having confidence in equipment, crew, and leaders; effective activity; and social stimulation. External rewards or feeling a broader commitment to the war did not decrease fear, though it made missions easier.

Deutsch (1961) introduced a model of social courage (moral courage, in current terms) which defines the term as inner conviction divided by punishment potential. Levels of courage can be altered by changing inner conviction, punishment potential, or the perception of either variable. Deutsch also theorized that both external forces and individual differences can explain differences in the demonstration of courageous behavior.

Numerous contemporary definitions of courage represent it as taking an action in the face of internal or external opposition (i.e., Lopez, O'Bryne, & Petersen, 2003; Peterson, & Seligman, 2004; Worline & Steen, 2004). Higher levels of opposition are more likely to be assessed as courageous, but also lower the probability of the action's occurrence (Miller, 2002).

Rate, Clarke, Lindsay, & Sternberg (2007) studied implicit definitions of courage in adults and found the concept has four necessary features. The first two are examples of intentional behavior: "willfulness and intentionality" and "mindful deliberation." The third is "objective substantial risk to the actor," and fourth, "a noble or worthy end." Children tend to exhibit a simpler conception of courage that becomes more complex with age (i.e., Szagun & Schauble, 1997).

Research generally focuses on three types of courage: physical courage - confronting physical risks and dangers; moral courage - defending a moral principle despite social opposition (Lopez et al., 2003), and "vital courage," also called "psychological courage" (Putnam, 2004) - transcendence of personal limitations, but it can also include physical risks associated with medical illnesses. Each type of courage has different risks and difficulties: physical courage encompasses physical risks and difficulties; moral courage concerns risk to one's social image; and moral and psychological courage regard internal struggles (Pury, Kowalski, & Spearman, 2007).

Courageous acts can be differentiated by level of risk. High risk to life and limb in the context of pursuing social values defines "heroism" (Becker & Eagly, 2004; Smirnov, Arrow, Kennett, & Orbel, 2007). How heroism differs from other types of courage is unknown.

Courage can also be categorized by motivation. "Civil courage" is bravery for the purpose of moral norms without regard of risk to self (Greitemeyer, Osswald, Fischer, & Frey, 2007). "Military courage" is risking one's life for the group within a military environment (e.g., Castro, 2006; Smirnov et al., 2007). "Existential courage" (i.e., Larsen & Giles, 1976) is being authentic despite threat to survival or social standing.

The Values in Action system (VIA; Peterson & Seligman, 2004b) identifies courage by "bravery-" not avoiding threat; "persistence-" completing what one begins; "integrity-" being authentic; and "vigor-" entering situations with energy. Studies show that persistence, bravery, and integrity are common to numerous courageous actions but vigor is not (Pury & Kolwalski, 2007).

An underlying theme to courage is taking action in opposition to various emotional forces, especially fear.

Rachman (1990) analyzed subjective and physiological fear responses in courageous groups, such as decorated bomb disposal operators. Highly courageous individuals generally exhibited lower subjective and physiological fear responses to laboratory stressors compared to less courageous persons (i.e., Cox, Hallam, O'Connor, & Rachman, 1983; O'Connor, Hallam, & Rachman, 1985). As courage appears to be acting in an approach manner to situations that generate subjective or physiological fear, perhaps labeling such behavior "fearless" instead of courageous may be more appropriate. This type of fearlessness evolves comparably to decreasing fear in exposure therapy. Trainees for dangerous military jobs display less fear and more confidence as training progresses (Rachman, 1990).

In years past, Lord and Deutsch sensed an additional internal state in courage that overcomes fear - an instinct or sentiment for Lord and an inner conviction for Deutsch. More recently, Hannah, Sweeny, and Lester (2007) examined the subjective experience of courage and found that a number of internal characteristics influence courageous behavior: inner convictions or values, duty, selflessness, integrity, honor, valor, loyalty, and independence. Courageous actions are frequently associated with feelings of confidence (Pury et al., 2007; Rachman, 1990). Another internal characteristic, hope, defined as creating pathways in pursuit of a goal and the perceived agency to achieve the goal (Snyder, 2002), is correlated with courage in theory (Hannah et al., 2007) and empirical observation (Kowalski et al., 2006; Pury & Kowalski, 2007).

Belief that one acted with courage in the past can increase the likelihood of future courageous behavior. Boyd and Ross (1994) found enhancement in self-perception and inner resources after participants described a past courageous action. Fingeld (1999) asserts that labeling oneself as a courageous person increases vital courage and personal growth. Castro (2006) assessed the battlemind model of courage and determined that courageous actions foster the development of self-confidence and selfless love, which leads to more courageous behavior. Hannah et al. (2007) believe that retroactively labeling one's behavior as courageous links to the positive states, values, and beliefs that increase the probability of future courageous actions.

Courage also has social influences, for instance, Zimbardo's (2007) model of heroism shows that situational determinants, mainly from negative social forces, can lead actors to overlook immoral behavior. When negative social forces are present, people are less likely to see wrongdoing if the behavior is approved by the group. Those who display moral courage to stop immoral group behavior are likely to be outside of the social forces of the group.

Hannah et al. (2007) observed that positive social forces, such as interdependence, social identity, cohesion, and informational influence can stimulate courageous behavior.

Observing courage in others acts as a social influence. Worline (2004) noted that observation of courageous action in the workplace leads observers to feel inspired and to become aware of the possibility of change. Further, learning about the courageous behavior of others can initiate

courageous actions in the observer (e.g., Worline, 2004; Nemeth & Chiles, 1988).

Courage research is in its infancy as measurement of individual differences in courage and courageous behavior is being developed and tested; applications to practice lies in the future.

RELATIONSHIP CONNECTION

The concept of relationship connection, an important element within positive psychology, primarily pertains to methods of enhancing closeness within romantic relationships, and also applies to friendships, and family relationships. Closeness refers to mutual satisfaction, behavior that contributes to each person's goals and hopes, and a sense of feeling special in the relationship.

Kelley et al. (1983) define close relationship as "one of strong, frequent, and diverse interdependence (between two people) that lasts over a considerable period of time" (p. 38). Interdependence is interpreted as the degree to which two people are closely intertwined relative to their behavior toward one another and thoughts and feelings about each other. The time factor encompasses months or years rather than days.

"Minding the close relationship" is a theoretical model (Harvey & Omarzu, 1997, 1999) which examines ways to develop and increase closeness over time by assessing how people focus on and think about their relationships. "Minding" represents thought and behavior patterns that produce stability and feelings of closeness in a relationship. Harvey and Pauwels (2009) define minding as "a reciprocal knowing process that occurs nonstop throughout the history of the relationship and that involves a complex package of interrelated thoughts, feelings, and behaviors."

Langer (1978, 1989) was one of the first scholars to illuminate the differences between mindful and mindless behavior in daily life. Mindfulness represents present moment awareness; active attention to the present. Langer posited that mindlessness is generally the chosen way to interact with one's environment and it occurs more often than thoughtful, active attention in many endeavors. Langer's conceptions have been tested and supported in different compliance behavior settings (e.g., making copies on a copier, obeying instructions from others that do not have our interest in mind). This implies that people routinely relinquish control and rely on conditioned scripts. This concept applies to relationship situations whereby people act incompetently in relating to close others, such as not appreciating others' needs and stresses, taking others for granted, and not sensing the effects of their behavior on others.

Rubenstein and Firstenberg (1999) devised a major application of mindfulness to organizational behavior, which also matches the process of minding a close relationship. Relative to minding an organization, all the involved parties join together at the start and identify the issues. Each unit in the organization is aware of the functioning of the other units

and strives to establish a cohesive system. The organization retains a coordinated focus on the future, shares information, admits and learns from mistakes of its participants, improves its powers of perception, and expresses itself creatively in numerous ways.

Minding a close relationship involves various components, first of which is acting in ways that foster knowing one's partner. This includes asking your partner about his or her thoughts, feelings, and past experiences, and disclosing about yourself (Altman & Taylor, 1973). The exploration to know a partner can result in and include intuition. Based on knowledge of one another, partners can perceive subtle nonverbal cues, understand covert emotions and motivations, and "read in between the lines."

Well-minded relationship partners understand that people change physiologically and psychologically over time, which can make knowing each other a considerable challenge. Effort and time may be needed to find an environment facilitating open and expressive disclosure.

Central to minding is "wanting to know" about one's partner, including their history, hopes, fears, and concerns. Minding theory acknowledges that "good communication" is vital in a relationship, but it transcends the importance of one's own self-expression to include actively pursuing the other's self-expression or information.

The second component of minding a close relationship is the attributional style used to assess the partner's behavior. Attributions are the interpretations or explanations used by people to make sense of their life events. One can attribute success or failure to the personal disposition of self or other, to the environment, or to an interaction of disposition and the environment.

Relationship-enhancing attributions are generally those that attribute positive behavior to dispositional causes (i.e., "He helped me because he cares about me"), and negative behavior tends to be attributed to external causes (e.g., "He could not help me because his car would not start").

Partners in well-minded relationships understand that it is easy to be wrong in assessing their partner's behavior, feelings, and intentions. Flexibility and openness to reexamining attributions about their partner is common to well-minded relationships.

Malle (1999, 2004) notes that when people explain another's behavior, a significant judgment made early during the explanation is whether the other person acted intentionally or unintentionally. For actions judged as intentional, three types of explanations for understanding the other's behavior can be used: reasons, causal history of reasons, or enabling factors (Malle, 2004).

A partner can explain the other's behavior by assessing the perceived potential specific "reasons" for the action (He helped me because he intentionally wanted me to succeed"), which represents a best guess of the other's intent as the other was acting.

The "causal history of reasons" involves causal factors that can contribute to the other's reasons for acting, such as family history or personality characteristics. The partner attributes

the other's actions to these previous circumstances (e.g., He helped me because he was raised in a generous and helpful family, or because his personality is generous and thoughtful).

"Enabling factors" represents the partner judging how the behavior was made possible by the other (i.e., He helped me because his raise at work afforded him opportunity to be very goodhearted).

Acceptance and respect are also important components of minding a relationship, specifically, frequently accepting what we learn about the other person and respecting the other given this new information. Two quintessential features of love are acceptance and respect (Fehr, 1988).

Predictably, couples who express positive social behavior with one another report more relationship satisfaction (Gottman, 1994, 1995; Jacobson & Christensen, 1996). These positive behaviors include listening respectfully to the other's opinions, compromising in a way that accepts the other's needs, attending to the other during conflicts, and accepting the other's responses. Such behaviors demonstrate respect for, and acceptance of the other's feelings and thoughts. Conversely, less happy couples present less respectful behavior toward one another, for instance, verbal attacks, withdrawal, or criticism of the other's attitudes and behavior.

Gottman's research on close relationships reveals that nearly all couples experience negative patterns of interaction now and then. In managing negative interactions, he recommends maintaining a focus on specific and "complaint-" oriented behaviors, and consistently conveying more positive than negative communication toward one another. Couples who are effectively minding their relationship are aware of the potential destructiveness of a continued period of negative communication and atmosphere; recognize the detrimental effects of criticism, contempt, and avoidance; and agree that each partner can express thoughts and feelings that will be acknowledged (Rusbult, Zembrodt, & Gunn, 1982).

The concept of forgiveness encourages acceptance, for example, the commitment level in a relationship may be causally related to the amount of forgiveness in the relationship (Finkel, Rusbult, Kumashiro, & Hannon, 2002). This suggests that partners in a well-minded relationship that has commitment are more likely to offer forgiveness to one another upon exposure to upsetting information.

Relationships require equity such that each partner obtains from the relationship an approximate equal amount she or he gives to the relationship. A person giving more than receiving can feel underappreciated while an individual taking more than giving can feel guilty or obligated. An inequitable relationship can lower long-term relationship stability and satisfaction. In minding theory, the component of equity is termed reciprocity: each partner contributes relationship-enhancing thoughts and behaviors, in a timely manner. Each person is committed to the reciprocity process, even if sometimes such behaviors manifest in a scripted way (Schank & Abelson, 1977).

The component of continuity and minding refers to a requirement for closeness illustrated by Kelley and colleagues (1983): "the close relationship is one of strong, frequent, and diverse interdependence that lasts over a considerable period of time" (p. 38). People and situations change, therefore, the accumulated knowledge acquired about a partner by minding is continuous and not static. Long-term relationships require personal planning and action directed at attaining and updating knowledge regularly (Acitelli & Holmberg, 1993).

Halford and Behrens (1997) propose five behaviors that strongly associate with marital satisfaction: affection, respect, support and assistance, shared quality time, and appreciation. Each behavior reflects minding in that minding highlights active behavior that has a plan and purpose for relationship enhancement.

Harvey and Omarzu (1997, 1999) believe that minding is a teachable skill, and McAdams (1989) proposes that it is measurable, similar to intimacy motivation. Minding is a mixture of cognitive, emotional, motivational, and behavioral skill. A minding scale exists to differentiate individuals who mind well versus those who do not (Omarzu, Whalen, & Harvey, 2001). Sample items include: "You should avoid telling a loved one too much personal detail about your past;" "There is no reason to discuss your past relationships with a new love;" "It is important to keep some mystery about yourself in a relationship;" "The people that we love are really strangers to us."

Harold Kelley (1979) concluded his study of personal relationships with the following perception on the difficulty of connecting intimately with another mind: "The unavoidable consequence of human social life is a realization of the essentially private and subjective nature of our experience of the world, coupled with a strong wish to break out of that privacy and establish contact with another mind. Personal relationships hold out to their members the possibility, though perhaps rarely realized in full, of establishing such contact" (1979, p. 169).

The principles of minding theory present opportunity to transcend the private and subjective experience and establish intimate contact with another mind. Minding helps people to plan, solve issues, and create meaningful relationships that maintain a sense of connection.

ADULT ATTACHMENT SECURITY

Secure intimate adult relationships are integral to the field of positive psychology. Attachment theory (Bowlby, 1969/1982) has significantly contributed to recognizing how social relationships impact adaptive adult functioning, mental health, and well-being. Bowlby succinctly described the socialization process as follows: "All of us, from the cradle to the grave, are happiest when life is organized as a series of excursions, long or short, from the secure base provided by our attachment figures" (Bowlby, 1988, p. 62). Many studies have shown that "insecure" adult attachments can be risk factors for maladjustment and dysfunctional development,

and that benefits of attachment security are limited to simply being stress-buffering. Research within the scope of positive psychology, however, (Lopez & Brennan, 2000; Mikulincer & Shaver, 2005) suggests that adult attachment security surpasses only being a protective factor, and as Bowlby introduced, may be the framework sustaining maximum growth and development.

John Bowlby believed that healthy relationships can lead to optimal psychological growth and development across the life span. He proposed that forming and maintaining lasting affectional bonds, or attachments, with others acted as an innate, independent, and biologically based motivational system, crafted by evolution, to protect the species from external threat and predation. Further, he suggested that natural selection created interdependent links between the attachment or proximity-seeking system and two other motivational systems vital to survival and reproduction: exploration and caregiving.

Bowlby presumed that, from birth, the infant's attachment system responds and reacts to the caregiver's support, or lack thereof, within the immediate relational context. As the infant experiences distressing emotions, such as fear, discomfort, or illness, the attachment system is activated which motivates a search for the caregiver. Once the infant's needs are satisfied by the caregiver, the infant's attachment system returns to a calm state which permits exploratory behavior until the next threat or distress creates the need for proximity and support. This satisfying relationship dynamic was thought to enhance the infant's attainment of affect self-regulatory abilities and represent a "secure base" for progressive exploration and environmental mastery.

The interactional patterns between caregiver and infant during the first year of life, according to Bowlby, become cognitively represented by the child as an "internal working model" of self and other (Bowlby, 1988, p. 165). This schema embodied self-perceptions of lovability, assessments of caregiver dependability, and interactional strategies for dealing with insecurity. Once developed, the internal working model was proposed to become a cognitive template that influenced patterns of affective self-regulation social behavior in current and future relationships (Bowlby, 1988). Bowlby used a railway analogy to describe this process such that, from birth, everyone has a range of potential lines or "tracks" of healthy development and ongoing attachment security assisted in maintaining the engine or organismic growth "on track" along one of the potential positive trajectories. Contrarily, ongoing attachment insecurity, defined as continued neglect or rejection by caregivers, would probably yield a problematic working model that could guide the course of development along a more dysfunctional pathway.

There is much empirical support for Bowlby's key belief that relationships are a primary context for development (i.e., Reis, Collins, & Berscheid, 2000). Current literature on adult attachment agrees that attachment security facilitates human effectiveness and resilience (i.e., Lopez & Brennan, 2000; Mikulincer & Shaver, 2004).

Adult attachment security, as assessed by interview, self-report, or contextually initiated through experimental laboratory methods, is associated with positive emotions in numerous studies (e.g., Rowe & Carnelley, 2003; Shorey, Snyder, Xiangdong-Yang & Lewin, 2003) guiding some researchers to conclude that attachment security offers the fundamental relational platform that supports Fredrickson's "broaden and build" theory of positive emotions (Mikulincer & Shaver, 2005).

Findings also show a relationship between adult attachment security and hope and dispositional optimism, more flexible cognitive processes, and more integrated and resilient perceptions of self-worth. Thus, secure attachment schema may guide positive affect to being constructive by operating as cognitive structures that manage negative self and other appraisals. Supportively, secure attachment adults displayed less pessimism (Heinonen, Raikonen-Jarvinen, & Strandberg, 2004) and had less likelihood of forming either hasty or rigid social judgments of others (Green-Hennessy & Reis, 1998; Zhang & Hazan, 2002). Moreover, secure attachments to supportive and responsive adults are linked to hopeful and goal-directed thinking and mental health (Shorey et al., 2003) and to greater internal coping abilities from adolescence to early adulthood (Seiffge-Krenke & Beyers, 2005). Additionally, adults with secure attachment styles compared to their insecure attachment style counterparts apparently derive their self-esteem from "noncontingent" sources of self-worth (Park, Crocker, & Mikelson, 2004); display more balanced, consolidated, and complex self-structures (Banai, Mikulincer, & Shaver, 2005; Kim, 2005); and experience more self-reflective, meta-cognitive capabilities (Fonagy & Target, 1997).

Individuals with a secure attachment orientation are more likely than those with an insecure orientation to advocate mastery goals and to reveal more openness and desire to exploring novel stimuli (Elliot & Reis, 2003; Green & Campbell, 2000). The connection between attachment security and positive exploratory attitudes are shown to be mediated by appraisals of threat construal and competence valuation. These findings propose that secure attachment schema, whether a disposition or periodically contextually activated, fosters the release of "appetitive" exploratory dispositions unaffected by fear of failure or negative evaluation (Elliot & Reis, 2003, p. 328). In support, adult attachment security has been associated with college students' enhanced curiosity and acceptance of academic social interactions while attachment insecurity has been correlated with academic performance anxieties and less exploratory behavior (Aspelmeier & Kerns, 2003), with higher amounts of maladaptive perfectionism (Rice, Lopez, & Vergara, 2005), and with a "disorganized and unfocused approach to academic work" (Aspelmeier & Kerns, 2003, pp.24-25), especially in men.

Adult attachment security seems to assist in academic learning environments, such as within the high school to college period where transitions in contexts and expectations may produce adjustment-related challenges. Lopez and

Gormley (2002) found that entering university freshmen who maintained a stable and secure attachment style compared to their peers who reported an insecure or unstable attachment style over a 6-month period, experienced consistently high levels of self-confidence, positive affect (e.g., low depression scores), and ego integration. Furthermore, Larose, Bernier, and Tarabulsky (2005) ran a short-term longitudinal study of students from the end of high school through the end of their first college semester examining attachment security level, academic performance, and learning dispositions (i.e., ability to concentrate, seeking help from peers and instructors, time management, test anxiety) and found that secure students revealed significantly better learning dispositions and performance levels.

The life domain of work can promote self-determination, social connectedness, and life satisfaction during adulthood (Blustein, 2006). The connections between adult attachment security and positive exploratory attitudes and learning dispositions logically suggests a favorable effect on work and career adjustment. Preparing for, entry into, and perseverance in the domain of work produces demands and stress. Adult attachment security is shown to strengthen the individual's work-related functioning.

Adult attachment security is linked to early career development variables, such as reduced indecisiveness, less commitment fears, and greater vocational self-concept crystallization (Tokar, Withrow, Hall, & Moradi, 2003; Wolfe & Betz, 2004). Also, individuals reporting a secure adult attachment style, compared to their less secure peers, demonstrated a confident approach to work, a balanced concern for relationship and work issues, reported more job satisfaction, and were relatively free of performance-related fears (Hazan & Shaver, 1990). Workers with secure adult attachment orientations reported less work stress and more stable perceptions of supervisor support relative to their less secure peers (Schirmer & Lopez, 2001). Additionally, secure adult attachment styles were negatively correlated with work burnout within several different cultural groups (Pines, 2004).

Individuals with secure adult attachment styles and orientations report greater desire to balance and invest in multiple life roles (Lopez & Fons-Scheyd, 2006) and they seem more successful than their less secure peers in managing the different challenges of work and family responsibilities (Sumer & Knight, 2001; Vasquez, Durik, & Hyde, 2002).

Bowlby professed that consistent parental responsiveness to the child's inherent needs for closeness and protection would bolster the child's valuing of intimate connections and help develop an effective and mature interdependence in adult life (Bowlby, 1969/1982); this countered the prevailing psychoanalytic view that consistent parental responsiveness would reinforce unhealthy infantile dependencies. Current adult attachment research supports Bowlby on this topic and shows connections between secure adult attachment orientations and various appraisal processes and social competencies vital to the creation and maintenance of

intimate adult relationships. The findings also reveal that adult attachment security consistently predicts relationship quality better than basic personality traits (Noftle & Shaver, 2006).

Persons with secure adult attachment orientations compared to their less secure peers reveal higher-quality self-disclosure patterns with their partners (Keelan, Dion, & Dion, 1998; Mikulincer & Nachson, 1991), more openness to and valuing of social feedback (Brennan & Bosson, 1998), greater respect, perspective taking, and empathic concern for their intimate partners (Frei & Shaver, 2002; Joireman, Needham, & Cummings, 2001), and stronger belief in nondeceptive, authentic communication with their partners (Lopez & Rice, 2006). Additionally, people with secure attachment orientations are more likely to perceive that their partners meet desired performance standards and expectations (Lopez, Fons-Scheyd, Morua, & Chaliman, 2006), to use collaborative methods of problem solving (Corcoran & Mallinckrodt, 2000), and to forgive their partners' transgressions (Lawler-Row, Younger, Ptferi, & Jones, 2006).

Laboratory experiments and observational studies have found direct associations between adult attachment security and support-giving behaviors and more psychologically rewarding interactions with others (Collins & Feeney, 2000; Feeney & Collins, 2001; Kafetsios & Nezlek, 2002). Late adolescents initially assessed as secure/autonomous were judged by parents and friends as having greater capacity for mature intimacy three years later, which supports Bowlby's belief that attachment security advantageously influences the developmental course (Scharf, Maysel, & Kivenson-Baron, 2004). Research also shows that the effective appraisal processes and communication skills linked to secure adult attachment styles and orientations seems to have beneficial and reciprocal effects on relationship problem solving and conflict resolution in dating couples (Creasey & Hesson-McInnis, 2001), predicts relationship adjustment and satisfaction in young married couples (Cobb, Davila, & Bradbury, 2001; Gallo & Smith, 2001), and fosters more favorable family dynamics (Mikulincer, Florian, Cowan, & Cowan, 2002).

The connection between attachment security and intimate social competencies has been shown in the realm of positive parenting attitudes and behaviors, such that healthy psychological development is promoted through enhanced personal satisfaction with parenthood, sustaining family ties over time, and coping with family stresses across the life span. Male and female college students with avoidant attachment styles indicated less desire, compared to peers with secure styles, to become parents and more commonly endorsed harsh discipline practices with young children (Rhodes, Simpson, Blakely, Lanigan, & Allen, 1997). First-time parents with avoidant attachment styles reported more parenting-related stress and to perceive the parenting role as less satisfying and meaningful (Rhodes, Simpson, & Friedman, 2006). Mothers with avoidant attachment styles disclosed less emotional engagement with their young children and were evaluated by observers as being less

supportive to these children when they were trying to learn a new task (Rhodes, Simpson, & Blakely, 1995).

Contrarily, mothers categorized as secure exhibited the most open and flexible mind-set in managing their own and their toddlers' emotions (DeOliveira, Moran, & Pederson, 2005).

Mothers reporting high levels of attachment insecurity may have greater risk of negative mental health and marital outcomes when caring for infants with major medical problems such as congenital heart defects (Berant, Mikulincer, & Florian, 2001, 2003). This research involved 1-year longitudinal studies that found the significant relationships between attachment avoidance and marital/mental health outcomes appeared to be mediated by poor marital coping and negative evaluations of the parenting role.

Adult attachment security seems to assist the reversal of caregiver roles between adults and their aging parents. Securely attached adult children, in contrast to their less secure peers, expressed less caregiving burden and offered more frequent caregiving behaviors when nurturing their elderly parents (Bradley & Cafferty, 2001). Supportively, Sorensen, Webster, and Roggman (2002) researched this same group of caregivers and found that higher attachment security levels predicted their feelings of preparedness, even after controlling for the actual preparation activities in caring for the elder parents.

Research on adult attachment security has also expanded into domains such as civic responsibility, existential well-being, global prosocial values, acceptance of cultural differences, and posttraumatic stress recovery and growth. Mikulincer et al. (2003) ran three experimental studies on causal links between attachment security (both dispositional and experimentally/contextually induced) and the endorsement of "self-transcendence values" (p. 299) and found that adult attachment security (i.e., low levels of avoidance) was significantly related to greater concerns for social justice and others' welfare. A naturalistic study of community-related volunteerism covering three countries (United States, the Netherlands, and Israel) likewise noted that attachment avoidance was negatively correlated to volunteerism behaviors (e.g., caring for elders, donating blood), and high levels of attachment anxiety was linked to egoistic (in contrast to altruistic) motives for volunteering (Gillath et al., 2005). Likewise, the experimental "priming" of attachment security generated more expressions of compassion and willingness to help someone in distress, even after controlling for self-esteem and neuroticism (Mikulincer, Shaver, Gillath, & Nitzberg, 2005).

Adult attachment security is also linked to less negative reactions to "out-groups" (Mikulincer & Shaver, 2001) and to better levels of intercultural adjustment in a group of recent Dutch emigrants (Bakker, Van Oudenhoven, & Van Der Zee, 2004). These findings suggest that the benefits of adult attachment security may transcend family and peer relationships to include broad, versatile worldviews that foster resilience and existential well-being. Hart, Shaver, and Goldenberg (2005) suggested that attachment security be

considered (with self-esteem and world-view processes) as part of a three-prong security system in managing symptoms of terror attacks. Their four studies showed that adult attachment security was a defense system itself and was chosen by many participants over other defenses in managing the experience of terror. Reinforcing this view, securely attached New Yorkers, who lived close to the World Trade Center on September 11, 2001, compared to their less secure peers, displayed fewer posttraumatic distress symptoms and had greater probability of being perceived by family and friends as showing increased adjustment after the terrorist attacks (Fraley, Fazzari, Bonnano, & Dekel, 2006).

The research shows that adults with secure attachment styles and orientations, compared to their insecurely attached peers, have enhanced capacities for affective self-regulation, more flexible and coordinated information-processing abilities, and broader ranges of social competencies. The findings attest to Bowlby's conviction that the attainment and internalization of a secure adult attachment orientation is important in sustaining optimal human development over the life span.

EMPATHY and ALTRUISM

"Altruism" may be defined as "a motivational state with the ultimate goal of increasing another's welfare." In contrast, when the ultimate goal is to increase one's own welfare, the motivation is termed "egoistic," or is classified as "universal egoism." "Helping" relates to "behavior that benefits another, regardless of the ultimate goal" (Batson, Ahmad, & Lishner).

Questions remain as to whether altruism is a component of human nature and if it even exists. Conceptions of human behavior and potential will vary dependent upon whether altruistic motivation is a viable construct, therefore, it is important to know if altruism exists or not. Altruism, if it exists, is a worthy contributor to the field of positive psychology.

Universal egoism is the main argument against the existence of altruism and it proposes that every human action, regardless of how benevolent, honorable, and beneficial to others, targets the ultimate goal of self-benefit. Common self-benefits of helping others include material rewards, prestige, or avoiding public criticism. More covertly, we may personally gain by helping others when external rewards are not present. For instance, we can feel good about ourselves for helping another or avoid the shame and guilt for withholding help. We may help a friend to avoid loss of the friendship or with expectation of a returned favor. Observing a person in distress may cause us to feel distress and we may take action to alleviate that person's discomfort for the purpose of reducing our own.

The classic example of a soldier diving on a grenade may benefit from his apparent selfless act by escaping the guilt of allowing others to die, gaining prestige or praise, or being rewarded in an anticipated afterlife; he also may have simply

underestimated the danger of the situation. Such possibilities must be explored to assess whether altruism truly exists.

Altruism advocates agree that helping others is frequently egoistic but they also believe that some situations, for some people, promote helping another with the goal of benefiting the person in need as the ultimate goal. Despite the existence of self-benefits for helping, these benefits were not the reason or goal for the help, instead, they were unforeseen consequences.

Universal egoism relies on a simpler model that emphasizes the sole motivator of self-benefit rather than a more complex multi-motivational mixture of both self-benefit and another's benefit serving as the ultimate goal. One argument suggests that the simplicity of universal egoism leads the majority of Renaissance and post-Renaissance philosophers, and contemporary psychologists, biologists, and economists to perceive people as purely egoistic, such that we care for others only to the degree that their well-being affects our own (Mansbridge, 1990; Wallach & Wallach, 1983).

The most common trigger of altruistic motivation is an other-oriented emotional reaction to seeing another individual in need. This type of emotional reaction has been labeled "sympathy" (Eisenberg & Strayer, 1987), "sympathetic distress" (Hoffman, 1981), "tenderness" (McDougall, 1908), "pity" or "compassion" (Hume, 1740/1896; Smith, 1759/1853), and currently, "empathy" (Batson, 1987). The construct of empathy, however termed, has been the main source of altruism as cited by historical and contemporary philosophers and psychologists.

An operational definition of empathy is "an other-oriented emotional response elicited by and congruent with the perceived welfare of someone else" (Batson, Ahmad, & Lishner, 2002). Other-oriented empathic emotion results from a) perceiving another person as being in need, and b) adopting the other's perspective (e.g., sensing and imagining how the other is feeling). These two variables are commonly combined in laboratory research to create empathy (Batson, 1991). The causal variables of empathy in daily life when confronting a person in need (without instruction to imagine how the other person feels) are thought to be a) perceiving the other as being in need, and b) noninstrumental valuing of the other person's welfare. Valuing the other person's welfare involves a response to circumstances affecting the other's welfare, and vigilance (being mindful of events that could affect this person's welfare). Hence, valuing the other spontaneously guides us to adopt his or her perspective. We are inclined to imagine how the other thinks and feels about the situation because her or his pleasure and discomfort become part of our own value system.

The notion that feeling empathic emotion for a person in need elicits altruistic motivation to relieve that need is termed the "empathy-altruism hypothesis" (Batson, 1987, 1991). The hypothesis proposes that the greater the empathy felt for someone in need, the greater the altruistic motivation to see

the need relieved. Research supports the premise that feeling empathy for someone in need leads to increased helping of the person (Dovidio, Allen, & Schroeder, 1990; Batson, 1991). Observing an empathy-helping relationship, though, is not instructive of the nature of the relationship, in other words, the helping motivation can be altruistic, egoistic, or both.

Three types of self-benefits can arise from helping a person for whom one feels empathy: a) reduction of empathic arousal, which can be felt as aversive; b) avoidance of potential social and self-punishment for not helping; and c) gaining social and self-rewards for acting in a manner that is good and right. The empathy-altruism hypothesis agrees that these self-benefits of empathy-induced helping exist, but regarding the motivation evoked by empathy, these self-benefits are unintended consequences of attaining the ultimate goal of reducing the other person's need. In contrast, proponents of egoistic motivation to the empathy-altruism hypothesis suggest that one or more of these self-benefits is the ultimate goal of empathy-induced helping.

The most common egoistic explanation of the empathy-helping relationship is aversive-arousal reduction. Accordingly, feeling empathy for a person who is suffering is unpleasant, and empathically aroused people help so they can terminate their empathic feelings. Benefiting the individual for whom empathy is felt is solely a means to this self-serving end. Experimental findings support the empathy-altruism hypothesis and not the aversive-arousal reduction explanation which reduces the validity of this egoistic interpretation (Batson, 1991; Stocks, 2005).

The second egoistic explanation argues that people are socialized to feel obligated to help others for whom they feel empathy, and failure to do so culminates in feelings of shame and guilt. Hence, when people are feeling empathy, they are confronted by imminent social or self-censure beyond any type of general punishment related to failure to help. Their internal dialogue might be, "How will others or I feel about myself if I do not help when I feel like this?" The person then helps due to an egoistic interest to avoid these empathy-specific punishments. Research findings support the empathy-altruism hypothesis rather than this explanation (Batson, 1991).

The third prevalent egoistic explanation states that people are socialized to believe that rewards such as praise, honor, and pride accompany helping a person for whom they feel empathy. Therefore, when people feel empathy they ponder these rewards and help due to an egoistic desire to acquire them. Once again, findings support the empathy-altruism hypothesis and not this explanation (studies 1 & 5, Batson et al., 1988; Batson & Weeks, 1996).

Piliavin and Chang (1990) reviewed the empathy-altruism research along with literature from sociology, economics, political science, and biology and concluded: "There appears to be a 'paradigm shift' away from the earlier positions that behavior that appears to be altruistic must, under closer scrutiny, be revealed as reflecting egoistic motives. Rather, theory and data now being advanced are more compatible

with the view that true altruism - acting with the goal of benefiting another - does exist and is a part of human nature." (p. 27)

At least two other forms of prosocial motivation exist, beyond the egoism-altruism debate, whereby the ultimate goal is not to benefit self or another individual: collectivism and principalism. Collectivism is motivation to benefit a specific group as a whole and the goal is to increase the welfare of the group rather than the welfare of self or specific others. Dawes, van de Kragt, and Orbell (1988) described this as "Not me or thee but we," and they postulated that collectivist motivation is a product of group identity (Tajfel, 1981; Turner, 1987).

Collectivism may simply be a subtle type of egoism because attending to group welfare can represent enlightened self-interest. For example, politicians and social activists appeal to enlightened self-interests by suggesting societal changes of polluting less and not wasting natural resources. These appeals imply that collectivism is another form of egoism.

Moral philosophers recommend prosocial motivation to have the ultimate goal of promoting a universal and impartial moral principle, like justice (Rawls, 1971). Such a moral motivation is termed "principalism" (Batson, 1994).

The nature of principalism as a prosocial motive requires asking whether undertaking an action with the ultimate goal of upholding a moral principle is possible, or are we following moral principles as a way to attain the ultimate goal of self-benefit? Acting morally offers self-benefits such as social and self-rewards of being perceived by others and sensing oneself to be a good person, also, avoiding social and self-punishments of shame and guilt for not acting morally. Freud (1930) thought that society might instill moral principles in the young for the purpose of restraining their antisocial impulses by making it in their personal interest to act ethically (Campbell, 1975).

If a person's motivation to uphold a moral principle (i.e., justice) is a means to the end of reaching the ultimate goal of self-benefit then the motivation is simply egoism. Contrarily, upholding the principle as the ultimate goal and resulting self-benefits are unintended consequences defines principalism as a form of prosocial motivation, independent of egoism, altruism, and collectivism.

Staub (1989) and Schwartz (1992) have illustrated how values are determinants of prosocial behavior. Batson (1994) suggests that prosocial values and motives interacts in the following ways: enhanced personal welfare is the value underlying egoism; the value supporting altruism is the increased welfare of one or more individuals as individuals; improved group welfare is the value underlying collectivism; and upholding a moral principle is the value supporting principalism. Research has supported the predicted relationship between empathic emotion (an altruistic motivation source) and valuing another person's welfare (Batson, Turk, Shaw, & Klein, 1995); the other three value-motive relationships need to be tested.

Universal egoism, defined as the belief that all human behavior is ultimately driven by self-interest, has long been the accepted view by psychology and other social and behavioral sciences (Campbell, 1975; Mansbridge, 1990; Wallach & Wallach, 1983). Positive psychology-related literature proposes that if people feeling empathy act, at least, partly, with the ultimate goal of enhancing the welfare of another, then the concept of universal egoism should be changed to a more complex model of motivation that includes egoism and altruism. Such a motivation model implies that we may be more social than previously thought as we perceive others to be more than sources of personal fulfillment and gain, instead, we have the ability to care about the welfare of others.

The empathy-altruism relationship necessitates asking why empathic feelings exist and their evolutionary purpose. A possible explanation associates empathic feelings with parenting within mammals, who care for vulnerable offspring for some time (Bell, 2001; de Waal, 1996; Hoffman, 1981; McDougall, 1908; Zahn-Waxler & Radke-Yarrow, 1990). The species could become extinct if parents did not promote the welfare of their progeny. Empathic feelings for our children and the accompanying altruistic motivation may enhance one's reproductive potential not by increasing the number of offspring, rather, by increasing the probability of their survival.

Empathic feelings transcend one's own children and can involve numerous targets (including nonhumans), given there is not preexisting antipathy (Batson, 1991; Batson, Lishner, Cook, & Sawyer, 2005). The evolutionary perspective claims this added attachment potential results from cognitive generalization such that one "adopts" others, which facilitates the primitive and essential impulse to care for progeny when these adopted others are in need of nurturance (Batson, 1987; Hoffman, 1981; MacLean, 1973). This cognitive generalization may have been fostered by human cognitive capacity, including symbolic thought and the absence of evolutionary advantage for a division of empathic feelings in early human small hunter-gatherer groups. In these groups, one's children or close kin were those in need of care but one's own welfare was intertwined with the welfare of others who were not close kin (Hoffman, 1981).

William McDougall (1908) expressed these concepts in his description of the "parental instinct," which included cognitive, affective, and motivational components. Attending to cues of distress from one's offspring, as well as cognitively adopted offspring (i.e., a pet), elicit what McDougall termed "the tender emotion" (empathy), which results in altruistic motivation.

Since empathic feelings can generate altruistic motivation, people periodically suppress or avoid these feelings to eschew involvement or commitment. Loss of empathy for clients may be a causal factor for burnout among case workers in the helping professions (Maslach, 1982). Awareness of the intense effort required for helping or the difficulty of helping completely, case workers, nurses working with terminal patients, or pedestrians encountering

homeless people may intentionally escape feeling empathy to elude the resulting altruistic motivation (Shaw, Batson, & Todd, 1994; Stotland, Mathews, Sherman, Hansson, & Richardson, 1978).

Therapeutic programs that promote altruistic impulses by facilitating perspective taking and empathic feelings may help people develop better interpersonal relations, particularly long-term relationships; another advantage may be personal health benefits (Luks, 1988; Williams, 1989).

Research illustrates that empathy-induced altruism can improve attitudes toward stigmatized outgroups. Empathy inductions have improved racial attitudes, along with attitudes and behavior toward people with AIDS, the homeless, convicted murderers and drug dealers (Batson, Chang, Orr, & Rowland, 2002; Batson, Polycarpou et al., 1997; Dovidio, Gaertner, & Johnson, 1999). Empathy-induced altruism also has increased cooperation in a competitive situation, even when the participant knows that the other person has acted competitively (Batson & Ahmad, 2001; Batson & Moran, 1999).

Research findings of over 30 experiments that tested the empathy-altruism hypothesis against various egoistic options leads to the tentative conclusion that feeling empathy for a person in need elicits altruistic motivation to see that need be relieved. Further research into the motivational and emotional components of altruism might contribute to a more caring society and to the discipline of positive psychology.

FORGIVENESS

Human nature, as described by evolutionary biology, moral philosophy, and theology, includes human intentions that are good and bad, perpetrating and forgiving. When wronged, a person may pursue vengeance and such revenge desire has an appetitive feeling that produces contentment when satisfied (Crombag, Rassin, & Horselenberg, 2003; de Quervain et al., 2004), but the resulting short-term contentment may also yield physiological arousal and subjective discomfort (Witvliet, Ludwig, & VanderLaan, 2001). The act of revenge happens across species (Aureli, Cozzolino, Cordischi, & Scucchi, 1992; Dugatkin, 1988), and people in nearly every culture have demonstrated revenge to control aggression (Daly & Wilson, 1988) and induce cooperation among unrelated individuals (Axelrod, 1984; Boyd & Richerson, 1992). This widespread desire for revenge suggests it results from adaptive design (Schmitt & Pilcher, 2004).

People often choose to avoid a revenge and counter-revenge cycle by enacting positive behavior, such as peacemaking - which is an active process and not only an absence of aggression (Fry, 2006). Humans and various social animals generally work together to regain a peaceful relationship following aggression and conflict (Aureli & de Waal, 2000), and one method is through forgiveness. Some research contends that the ability to forgive may emanate by natural selection (Hruschka & Henrich, 2006; Nowak & Sigmund, 1993). McCullough (2008) suggests that the

capacity to forgive is as natural to human nature as is revenge.

Forgiveness entails overcoming one's relationship-destructive reactions toward a transgressor with relationship-appropriate prosocial responses (McCullough, Root, Tabak, & Witvliet, 2009).

Three pivotal variables that facilitate forgiveness are "careworthiness," "expected value," and "safety" (McCullough, 2008). Transgressors are considered "careworthy" when the victim senses that the transgressor is an acceptable target for moral concern. Transgressors possess expected value when a victim foresees that the relationship will offer future utility. Transgressors appear safe when they are perceived to be unable or averse to hurting their victims again. Personality variables also may affect forgiveness by influencing perceived careworthiness, expected value, and safety.

Careworthiness - Forgiveness may have similarities to the act of caring for others, for instance, people often forgive others to whom they feel empathy and a sense of closeness (McCullough et al., 1998; McCullough, Worthington, & Rachal, 1997; Zechmeister & Romero, 2002). Empathy stimulates the desire to lessen other people's suffering (Batson, Ahmad, Lishner, & Tsang, 2002) and fosters forgiveness in relationships between coworkers, friends, romantic partners, as well as between perpetrators of crimes and their victims (Berry, Worthington, Wade, Witvliet, & Keifer, 2005; Eaton & Struthers, 2006). Empathy also lowers motivation to retaliate (Batson & Ahmad, 2001), possibly by conflicting with the brain's predisposition to perceive revenge seeking as appetitive (Singer et al., 2006), and impeding the approach motivation that regulates efforts to retaliate (Harmon-Jones, Vaughn-Scott, Mohr, Sigelman, & Harmon-Jones, 2004).

Expected Value - The brain signals that rewards are approaching when people have positive expectations for a future social interaction (Knutson & Wimmer, 2006). The expectation of forthcoming rewards then influences how people interact with their partners. Relationships having reward value (measured by commitment feelings) instill greater motivation to forgive (Finkel, Rusbult, Kumashiro, & Hannon, 2002). The concept of expected value may illustrate why people frequently want some type of compensation before forgiving (Boehm, 1987; Bottom, Gibson, Daniels, & Murningham, 2002). Compensation indicates that the transgressor can be valuable to the victim in the future.

Safety - People are more apt to forgive others whom they trust and are less likely to forgive individuals who have harmed them deeply and hence, seem more dangerous (Hoyt, Fincham, McCullough, Maio, & Davila, 2002). Trust and safety are increased when transgressors appear unwilling to harm again, for instance, if they have repented or expressed remorse (Bottom et al., 2002; Gold & Weiner, 2000). As a transgressor conveys sympathy for a victim's suffering and exhibits a sincere desire to follow a society's moral standards, the risk of harming the victim again decreases (Gold & Weiner, 2000; Nadler & Liviatan, 2006; Zechmeister et al.,

2004). People are also more prone to forgive transgressors whose harmful action was unintentional, unavoidable, or enacted without awareness of its possible negativity (Eaton & Struthers, 2006; Gordon, Burton, & Porter, 2004).

Personality can affect the desire to forgive, for example, neuroticism, agreeableness, narcissism, and religiousness. Personality traits act as filters that shape a person's perceptions of the transgressor (McCullough & Hoyt, 2002), especially, perceptions of the transgressor's careworthiness, value, and safety; in turn, personality-forgiveness associations develop.

An inverse relationship exists between neuroticism and forgiveness (Brose, Rye, Lutz-Zois, & Ross, 2005), possibly because neuroticism increases the perceived severity of transgressions (McCullough & Hoyt, 2002). People who believe that they have experienced much pain may sense forgiveness as compromising their safety or summoning too much psychological energy. Given that neuroticism intensifies the perceived pain of the transgressor's action, the perceived value of a future relationship with the transgressor and the motivation for such declines.

Agreeableness can facilitate a victim's empathy and trust for their transgressors which makes transgressors appear more careworthy and safe (hence, more forgivable). Further, highly agreeable individuals are more likely to project that a relationship with a transgressor offers future value. Depue and Morrone-Strupinsky (2005) hypothesize that agreeableness (which they call "affiliation") originates from a neural system such that affiliative stimuli (i.e., neural representations of specific individuals) stimulate opioid release. This explanation suggests that affiliative people can forgive a transgressor because they are more likely to perceive that the relationship may produce future fulfillment. This hypothesis also explains why the "warmth" feature of extroversion, which measures capability to gain pleasure from social interaction, is associated with the tendency to forgive (Brose et al., 2005).

Narcissism is also a personality variable displaying a negative association with forgiveness (Eaton, Struthers, & Santelli, 2006), particularly its entitlement feature (Exline, Baumeister, Bushman, Campbell, & Finkel, 2004). After experiencing a transgression, narcissistically entitled individuals demand more punishment for the transgression and compensation before forgiving (Exline et al., 2004). Narcissists' difficulty to forgive is heightened because they often diminish the value or careworthiness of others and are offended more easily (McCullough, Emmons, Kilpatrick, & Mooney, 2003). As such, narcissistically entitled individuals may sense that forgiveness produces more costs than benefits.

Self-reports of forgiveness are consistently associated with higher levels of religiousness (McCullough, Bono, & Root, 2005; Tsang, McCullough, & Hoyt, 2005). Findings show that intrinsic religious motivation is linked to lower self-reported vengefulness (extrinsic religious motivation is related to higher levels of vengefulness), and that some facets of traditional religiousness may be related to behavioral

retaliation (Greer, Berman, Varan, Bobrycki, & Watson, 2005).

A person's core beliefs and values strongly define what forgiveness means and requires (Mahoney, Rye, & Pargament, 2005). Broadly, individuals who self-identify as religious, rather than spiritual, consistently exhibit more forgiving personalities than those who self-identify as spiritual, rather than religious (DeShea, Tzou, Kang, & Matsuyuki, 2006). In a comparison of religions, Cohen, Malka, Rozin, and Chermas (2006) observed that Protestant Christians and Jews differ in their conception of forgiveness, with Jews more often believing that some offenses are not forgivable, and using theological reasons to support this belief.

Forgiveness is generally linked to psychological well-being, physical health, and desirable relationship outcomes (Worthington & Scherer, 2004). Supportively, people who frequently forgive others score lower on measures of anxiety, depression, and hostility (Brown, 2003; Thompson et al., 2005). People who tend to forgive (or do not seek revenge when harmed by others) have lower risk for depressive disorders, several anxiety disorders, substance abuse disorders, and even nicotine dependence disorders (Kendler et al., 2003). Forgiveness also associates with enhanced psychological well-being, such as high positive emotion, low negative emotion, high life-satisfaction, and low self-reported physical health symptoms (Bono & McCullough, 2006).

When people entertain forgiving imagery of a past experienced transgression or describe the transgression, they exhibit less cardiovascular reactivity (i.e., blood pressure and heart rate) in contrast to ruminating or entertaining grudge-related imagery (Witvliet et al., 2001) or describing a past transgression that they have not forgiven (Lawler et al., 2003).

Forgiveness promotes mental and physical health partly because sincere forgiveness inhibits inappropriate responses and fosters beneficial emotion regulation processes. Forgiveness substitutes for unhealthy psychological responses such as rumination, suppression, and repression, which presumably have negative effects on mental and physical health (McCullough, Orsulak, Brandon, & Akers, 2007; Witvliet & McCullough, 2007). Forgiveness may be an alternative to risky behaviors such as smoking and alcohol/drug use (Kendler et al., 2003) in response to negative emotions and social experiences. Additionally, genuine forgiveness assists beneficial emotion regulation processes, for example, processing information that can stimulate compassion and experiencing merciful thoughts, feelings, and behaviors that generally produce more positive and relaxed psychophysiological states (Witvliet et al., 2001).

Forgiveness influences social support which is a significant predictor of mental and physical health (House, Landis, & Umberson, 1988). Given that people who generally forgive their transgressors are better at maintaining positive bonding with their relationship partners (McCullough et al., 1998), they may also be more effective at

gaining benefits of social support, experiencing relational closeness, commitment, willingness to accommodate or sacrifice, and cooperation after a transgression (Karremans & Van Lange, 2004; McCullough et al., 1998; Tsang, McCullough, & Finchman, 2006). Conversely, not forgiving close relationship partners can cause "psychological tension" that accompanies the ambivalence stemming from failure to demonstrate benevolent behavior to a relevant relationship partner (Karremans, Van Lange, Ouwerkerk, & Kluwer, 2003). This psychological tension can lower life satisfaction and state self-esteem, and increase negative affect. Moreover, enacting forgiveness makes people more focused on other people, more likely to volunteer in the aid of others, and contribute to a charity, thus, pro-relationship motivation expands beyond the forgiver's association with a particular offender (Karremans et al., 2005).

The propensity for forgiveness to produce increased relationship motivation has its drawbacks, for instance, such behavior may underlie the perpetuation of intimate partner violence (Gordon et al., 2004). Still, the literature mainly supports that forgiveness can lead to new, and renewed, motivation to interact with and care for other people, which offers explanation for some correlations between forgiveness and health.

Forgiveness interventions have found that the amount of time spent empathizing with the offender, committing to forgive, and implementation of strategies as relaxation and anger management significantly related to forgiveness (Wade, Worthington, & Meyer, 2005). The research shows that forgiveness interventions promote forgiveness better than no-treatment conditions or interventions not expected to yield strong effects. Bono and McCullough (2006) suggest incorporating cognitive factors such as attributions, empathy, perspective taking, and rumination, that seem to influence forgiveness, into forgiveness interventions.

Forgiveness interventions targeting larger-scale social issues have shown promise. Participants in the 1994 Rwandan genocide could be helped to forgive and reduce trauma by participating in psychoeducational groups (Staub, Pearlman, Gubin, & Hagengiam, 2005). Further, forgiveness interventions have fostered forgiveness with victims of convicted criminals (Sherman et al., 2005).

Expanding forgiveness literature reveals that forgiveness is associated with emotional stability, agreeableness, having a focus on others, and religious commitment. Forgiveness is facilitated by apology, restitution, and genuine remorse, which may affect forgiveness by creating the perception that transgressors are worthy of care, valuable, and safe. Forgiveness can be promoted by individual and group interventions, and it is related to happiness, well-being, physiological indicators of resilience, and enhanced personal relationships.

SECTION 4

Foundations underlying the positive psychology movement include humanistic psychology as elucidated by Rogers (1951) and Maslow (1970); primary prevention programs

focused on wellness (Albee, 1982; Cowen, 1994); human agency and efficacy (Bandura, 1989); giftedness studies (i.e., Winner, 2000); interpretations of intelligence viewed as multiple (i.e., Gardner, 1983; Sternberg, 1985); and quality of life studies among medical and psychiatric patients transcending only symptoms and diseases (i.e., Levitt, Hagan, & Bucosky, 1990).

Research on positive psychology covers diverse topics; this section explores the concepts of gratitude, love, appetitive and aversive relationship processes, self-verification, humility, the biology of social support, sustainable happiness, and meaning in life, with the goal of improving the quality of life.

GRATITUDE

An operational definition of the construct of gratitude is: People experience the emotion of gratitude (e.g., state gratitude) upon acknowledging that something good has happened to them and they largely attribute the positive outcome to someone else (derived from Emmons, 2004). "Someone else" can be a supernatural force or human benefactors; the perceived benefit can include the absence of a negative event (i.e., avoiding a car accident while driving in inclement weather). When feeling grateful toward impersonal forces and objects (e.g., I'm grateful that fate was on my side while driving in the storm), people are granting intentional benevolence onto the impersonal benefactor (Watkins, Van Gelder, & Frias, 2009).

A common assessment of the emotion of gratitude is asking participants to report their extent of feeling grateful, thankful, and appreciative (McCullough et al., 2002).

Personality wise, grateful individuals frequently are agreeable, emotionally stable, self-confident but less narcissistic, and non-materialistic (McComb, Watkins, & Koles, 2004; McCullough et al., 2002; McLeod, Maleki, Elster, & Watkins, 2005; Watkins & Woodward et al., 2003). Gratitude appears to be positively related to spirituality, for example, grateful people exhibit more intrinsic religious motivation and less extrinsic religiosity (Watkins, Woodward et al., 2003). Grateful people report that religion has more importance to them, that they attend more religious services, read the Scriptures more often, pray more, and state having a closer relationship with the Lord than less grateful people (McCullough et al., 2002).

Questions remain regarding the associations between gratitude and religiosity. Given that most religions encourage gratitude, the assumed causal direction is from religiosity to gratitude. A counterpoint suggests that since positive affect facilitates one's capability to understand meaningful relationships, and resultantly, meaning in life (King, Hicks, Krull, & Del Gaiso, 2006), possibly gratitude promotes religiosity. Future research examining grateful experiences in the absence of a human benefactor should prove interesting (Watkins, Gibling et al., 2005).

Correlations of trait gratitude and with emotional well-being show moderate to strong relationships, indicating that grateful people tend to be happy people (McCullough, et al., 2002; Watkins, Woodward et al., 2003). Relative to the 24 Values in Action strengths, gratitude was third in importance (behind hope and zest) in predicting subjective well-being (Park, Peterson, & Seligman, 2004). Trait gratitude predicted increased happiness one month later (Spangler, Webber, Xiong, & Watkins, 2008).

Personality traits are known to be stronger predictors of happiness than demographic variables (Diener, Suh, Lucas, & Smith, 1999). Interestingly, gratitude predicted happiness more than the Big Five personality traits (extroversion, neuroticism, conscientiousness, agreeableness, and openness to experience), and gratitude was the strongest trait predictor of happiness (McComb et al., 2004; McCullough et al., 2002; Wood, Joseph, & Maltby, 2008). These findings are upheld by self-report measures and informant reports (McCullough et al., 2002).

Research supports the theory that gratitude enhances happiness, but such correlations do not address causation. Gratitude can be the consequence of being happy, happiness can be the consequence of feeling gratitude, or both happiness and gratitude can result from a third variable such as reward sensitivity. Several experimental studies have supported the hypothesis that gratitude causes happiness. In two studies, gratitude manipulations improved mood state (studies 3 and 4, Watkins, Woodward et al., 2003). Three studies observed that the practice of counting one's blessings improved several subjective well-being measures relative to control conditions (Emmons & McCullough, 2003). This intervention also proved effective with adolescents (Froh, Sefick, & Emmons, 2008). These results were replicated with the additional finding that more is not necessarily better in relation to counting your blessings; greater improvement in life satisfaction occurred for individuals who counted their blessings once a week as compared to three times per week (Lyubomirsky, Sheldon, & Schkade, 2005). The efficacy of gratitude interventions is assumed to be moderated by individual differences.

Another effective gratitude intervention involved participants writing a letter of gratitude to someone they believe had benefited them but had "not properly thanked" and then they delivered the letter to their benefactor (Seligman, Steen, Park, & Peterson, 2005, p. 416). This intervention produced strong happiness increases and depression decreases compared to the placebo condition, and was more immediately impactful than other positive psychology interventions. Significant treatment gains remained one month after the intervention, but happiness and depression scores returned to baseline by six months (this temporal decrement can be expected due to "hedonic adaptation" which notes that people return to their normal happiness baseline level after a positive or negative event).

Watkins, Van Gelder, and Frias (2009) propose several explanations for the positive influence of gratitude on happiness. First, they suggest that gratitude enhances positive affect, as well as a person's enjoyment of benefits.

Chesterton expressed, "gratitude produced. . . the most purely joyful moments that have been known to man" (1924/1989, p. 78). His rationale was, "All goods look better when they look like gifts." In support, studies indicate that there is greater tendency to feel grateful when people believe that a benefit was intentionally given for their well-being (McCullough et al., 2001).

Second, gratitude may enhance mood by guiding people's focus to good things already in their possession and away from things they lack, which prevents unpleasant emotional states associated with upward social comparison and envy. In fact, trait envy and materialism are negatively correlated with trait gratitude (McCullough et al., 2002).

Third, gratitude may promote happiness by improving one's social relationships. Stable social relationships seems to be one of the most reliable predictors of happiness (Diener et al., 1999). Logically, therefore, if gratitude enhances quality relationships, then it should also enhance happiness.

Informants view grateful people as being more likable (Watkins, Martin, & Faulkner, 2003), and expressions of gratitude produce more social reward (McCullough et al., 2001). It has been hypothesized that gratitude may enhance social bonding (Fredrickson, 2004), and findings support this theory (Algoe, Haidt, & Gable, 2008). Gratitude is related to prosocial action tendencies, and inhibits antisocial urges (Watkins, Scheer et al., 2006). Two studies completed by Bartlett and DeSteno (2006) determined that gratitude inductions increased the probability of demonstrating prosocial behavior toward a benefactor or stranger, even when the task was unpleasant. Further, Dunn and Schweitzer (2005) found that experimental inductions of gratitude enhanced trust; trust is an essential quality of healthy relationships, hence, this research may help explain how gratitude might improve happiness through supportive relationships. In sum, these research findings suggest that gratitude may improve happiness because it is a prosocial trait.

Fourth, gratitude may enhance happiness by improving adaptive coping. Resulting from focusing on the positive consequences of a difficult experience that one may be grateful for, a person can understand and accept stressful life events. Research shows that grateful people report having more adaptive coping techniques (i.e., Neal, Watkins, & Kolts, 2005), and report experiencing less posttraumatic symptoms after a trauma compared to less grateful people (e.g., Kashdan, Uswatte, & Julian, 2006). Gratitude for the Lord also seems to be a buffer for the effect of stress on illness in the elderly (Krause, 2006). Furthermore, the unpleasantness of negative memories often fades faster for grateful than less grateful people (Watkins, Grimm, & Kolts, 2004). The grateful processing of troubling memories may facilitate closure, lessen the unpleasant effect, and lower the intrusiveness of these memories (Watkins, Cruz, Holben, & Kolts, 2008).

Fifth, gratitude may promote subjective well-being by increasing the accessibility of positive memories. C. S.

Lewis (1996, p. 73) expressed, "A pleasure is only full grown when it is remembered." Logically, past positive events may not benefit one's subjective well-being without the ability to recall these events. Several studies have shown that happy people have greater ability to recall past pleasant events (i.e., Seidlitz & Diener, 1993). Memory processes are assumed to be important to gratitude as well. Watkins, Van Gelder, and Frias (2009) suggest that encoding and reflecting on pleasant events with a sense of gratitude should promote a positive memory bias, which could support one's happiness. Research has revealed that gratitude is associated with a positive memory bias (Watkins, Gilber et al., 2005). For instance, trait gratitude predicts positive memory bias one month later, and this relationship was independent of depression, positive affect, and happiness (Watkins, Van Gelder, & Maleki, 2006). The conclusion is that grateful people seem to reflect more positively on their past, and readily retrievable positive memories may promote one's emotional well-being. If gratitude does enhance a positive memory bias, then gratitude may also foster happiness by decreasing depression (Wood, Maltby, Gillett, Linley, & Joseph, 2008). Supportively, depression is related to a negativistic memory bias, and having at one's disposal an accumulation of positive memories may assist in countering the mood and memory detrimental cycle in depression (Watkins, Grimm, Whitney, & Brown, 2005).

A single action of counting one's blessings will likely not influence long-term happiness, instead, a regular practice of displaying gratitude may yield long-lasting happiness increases. The regularity of gratitude expression required probably depends on the person and type of gratitude practice - future research may address this question.

Gratitude has social benefits, however, such benefits are not attainable if there is suspicion that the person's expression of gratitude is solely to receive more benefits (Carey, Clicque, Leighton, & Milton, 1976). Similarly, gratitude has emotional benefits, but a focus on these benefits may lessen their efficacy. In contrast, authentic gratitude is an emotion focused outside of the self, onto the giver, transcendent of one's own emotional circumstances (Watkins, Van Gelder, & Frias, 2009).

Poetically, Henry Ward Beecher (n.d. para. 1) concluded, "Gratitude is the fairest blossom which springs from the soul."

LOVE

Historically, conceptions of love were associated with abstract virtues, for instance, "the good," or to gods. Singer (1984) noted four broad conceptual views of love: "Eros" is desire for the good or for the beautiful; "Philia" is friendship love; "Nomos" is submitting to a god's will, and in human terms, complying with the desires of a loved one; and "Agape" is a divine bequeath of love upon creation.

Hatfield (1988) contends that passionate love, in the form of intense attraction, has pervaded in all cultures and historical periods, and is a "human universal." Passionate love and marriage with the same person is a more recent

cultural adoption. Marriage for love was not a common tradition throughout much of human existence. As this practice developed during the Middle Ages, courtly love comprised an intricate stylized ritual that signified moving away from the tradition of arranged marriages. Courtly love idealized the love felt for a person to whom one was not married.

In a slow moving evolution, this concept of passionate love between man and woman in a courtship context culminated in "love marriages," frequently in dismay to those upholding traditional norms of arranged marriages. Love marriages expanded widely in the Western world during the 18th century. In contemporary times, the perceived link between love and marriage is still changing. A 30-year longitudinal study of college students' perceptions of the relevance of love as a basis for marriage showed that, over the passage of time, participants evaluated romantic love as an increasingly important basis for marriage; also, remaining in love was seen as necessary for marriage continuation (Simpson, Campbell, & Berscheid, 1986). A study of American men and women revealed a stronger connection between love and marriage than a Chinese sample "and also believed that passionate love was a more important prerequisite for entering marriage" (Sprecher & Toro-Morn, 2002, p. 139). Supporting this cultural difference, love and marriage were more strongly related for college students from Western/Westernized nations than their peers from Eastern nations (Levine, Sato, Hashimoto, & Verma, 1995). The strongly perceived link between love and marriage suggests that the high divorce rate may be spurred by the attitude that when passions cease, so do marriages and intimate partnered relationships.

When passion is low in a relationship, friendship is one love component that can strengthen the bond and ease the tension of passion's ebb and flow. Many young couples currently seek partners who are effective companions as well as good lovers. S. Hendrick and Hendrick (1993) instructed college students to write an essay about their romantic relationship or closest friendship. Friendship was the dominant theme used to describe their romantic relationship, and almost 50% of participants named their romantic partner as their closest friend. Additionally, Sprecher and Regan (1998) observed that both companionate love and passionate love were associated with commitment and relationship satisfaction. Friendship is therefore an important component of romantic love, along with passion.

Numerous perspectives on the study of love exist but they can be classified under two broad headings: naturalistic/biological and psychological/social. Naturalistic approaches focus on the body, emotion, and evolutionary heritage (particularly as evolution links to sexuality). The psychological/social approach highlight concepts such as cognition, social motives, interaction and communication, and various classifications of love.

Naturalistic/Biological Approaches - Berscheid and Walster (1978) define passionate love as two lovers being in a state of total absorption, with mood swings ranging between ecstasy and anguish. Companionate love is the deep

affection experienced by two people whose lives are intricately intertwined. Generally, love initiates with the heat of passion and then cools into companionship. Hatfield (1988) contends that passion and companionship coexist in a relationship rather than being sequential, and people seem to want both in their love relationships - other scholars as well agree with this view (i.e., Noller, 1996).

The attachment theory of love emanated from studies by Bowlby (1969), who researched the types of relationships (i.e., secure, anxious, avoidant) that infants develop with their caregivers. It is theorized that these early attachments are causally related to future relationships. Hazan and Shaver (1987) applied attachment theory to adult love relationships and concluded that this model explains the joys and sorrows observed in adult love. The correlation between childhood and adult attachment styles, however, is mixed and needs further study (Feeney & Noller, 1996).

The evolutionary theory of love, for example, Mellen (1981), contends that human survival required an emotional bond between breeding pairs of partners, thus, each partner would nurture their dependent infants. Pairs of partners without this emotional bond lost the evolutionary race due to higher infant mortality. This primitive emotional bonding is considered the dawn of love. The evolutionary psychologist, Buss (1988), reinforces this origination of love by defining love as behaviors performed by both females and males that support the bonding function and ultimately serves to preserve and perpetuate the species.

Psychological/Social Approaches - In the prototype model of love, Fehr (1994) assessed that respondents rated companionate love as representing the most typical form of love (the prototype or "best example"), with maternal love, parental love, and friendship illustrating the best examples. Passionate and sexual love were viewed as less representative (less prototypical) of love. In another prototypical study of love, respondents rated the quintessential features of love and passion was included on the list of central features but it ranked below several companionate features, such as honesty and trust (Regan, Kocan, and Whitlock, 1998). The most general concept of love is companionship within this prototype research model of love. Romantic love is conceptualized as companionate love with passion.

The self-expansion model of love, construed by Aron and Aron (1996), is based on Eastern schools of thought on the concept of self and suggests that people have a basic motive for self-expansion. Such self-growth can include physical possessions, power, and influence. Falling in love produces a fast expansion of self-boundaries and is thus pleasurable. Two people falling in love can mutually include one another into this expansion process (e.g., Aron, Norman, Aron, McKenna, & Heyman, 2000), in turn, "you and me" becomes "we."

Sternberg (1986) devised the triangular theory of love in which love is a mixture of intimacy, passion, and commitment. A relationship can demonstrate high or low levels of each concept resulting in eight types of possible love. For example, "consummate love" is the presence of all three features, "nonlove" is the absence of all three,

"liking/friendship involves intimacy, infatuated love is passion, empty love is commitment (as in an arranged marriage), romantic love is passion and intimacy, companionate love is intimacy and commitment, fatuous love is passion and commitment (a commitment is made based on passion but without the stability of intimate involvement). Consummate love is a complete form of love, depicting an ideal relationship that people strive towards. This "perfect couple," according to Sternberg, continues to enjoy great sex at least fifteen years into the relationship, believes no other person can offer a happier long-term bond, confronts and overcomes their few difficulties smoothly, and genuinely enjoys the relationship with one another. Sternberg warns that maintaining a consummate love is more difficult than initially acquiring it. He advises that enacting the three components of love is vital, by affirming, "Without expression, even the greatest of loves can die." Consummate love, therefore, is not always permanent, for instance, companionate love will develop if passion dissipates over time.

Investigation into a typology of the different ways that people love has resulted in six relatively unrelated styles of love. "Eros" is characterized by passionate love, the lover idealizes the partner, has specific preferences for physical characteristics in the partner, and pursues love intensely. "Ludus" is love played as a game, for mutual satisfaction, does not have the intensity of Eros, lacks commitment, and can occur with different people simultaneously. "Storge" is friendship love and is synonymous with companionate love. "Pragma" is practical love and is characterized by "shopping" for a partner with a list of preferred qualities clearly in mind (i.e., computer dating). "Mania" is manic love such that the individual desperately wants love but frequently experiences pain associated with the process. Specifically, there may be a cycle of jealousy, emotionally-charged breakups, followed by dramatic reunifications, thus, the relationship is described as "stormy passion." The sixth type of love, "agape," is selfless and involves giving love due to genuine concern for the partner's well-being. Much research supports the styles of love conception for the examination of love (C. Hendrick & Hendrick, 2006).

Hecht, Marston, and Larkey (1994) introduced a typology of "love ways," which categorized the verbal and nonverbal ways, (styles) of expressing love to a partner. They observed seven different ways of communicating love that represented the experiences of more than 90% of lovers:

Active love - Love centers on activity and doing things together; there are feelings of increased self-confidence and strength.

Collaborative love - Love is viewed as a partnership involving mutual support, negotiation, enhanced energy, and intensified emotion.

Committed love - Love is based on commitment that produces a strong sense of connection, spending time with one another, and planning for the future.

Intuitive love - Love is a feeling that is generally communicated with nonverbal behavior as touch and gaze,

and experienced through physical reactions, for example, feeling warm inside, losing appetite, and feeling nervous. Secure love - Love is based on security and intimacy; it is experienced via a sense of safety and warmth and communicated through intimate self-disclosure.

Expressive love - Love is demonstrated by overt behavior, doing things for the partner, and expressing "I love you" often.

Traditional romantic love - Love manifests togetherness and commitment and a sense of feeling healthy and beautiful.

Awareness and understanding of each other's love style can help perpetuate a happy relationship.

Marston and Hecht (1994) offered ways to manage love styles to enhance relationship satisfaction. First, it is recommended to recognize that one's love style may be different from their partner's. John may express love through public affection but he should not expect Mary to necessarily reciprocate because she may dislike such, instead, she may show love through shared activities. Second, they suggest not overvaluing specific elements of one's love way. Mary has an active love style and she is concerned that John is developing different sports and movie interests from her own. Mary would benefit by realizing that other aspects of their relationship can express love. Third, people are advised to not verbalize statements such as "If you really loved me, you would tell me more often," rather, they can be cognizant of numerous other ways to express their love. Two partners may have different expectations about love, hence, it may be wise to value what each person is contributing rather than forcing the other to match their own love style.

Murray and Holmes (1997) found that the positive illusions that love partners have about each other and their relationship may influence relationship outcomes in a positive manner. Reflecting this finding, the perceptions of a partner's disclosure was more predictive of relationship satisfaction than the partner's actual level of disclosure (Meeks, Hendrick, & Hendrick, 1998). These results show that love is communicated in complex and sometimes unpredictable ways.

Gender differences in love styles are apparent in most studies, for instance, men frequently report more game-playing (ludic) love whereas women report more friendship-based (storgic) and practical (pragmatic) love (C. Hendrick & Hendrick, 1986). Men also report more altruistic (agapic) love (C. Hendrick et al., 1998). Not surprisingly, game-playing love has shown a negative correlation with relationship satisfaction (S. Hendrick, Hendrick, & Adler, 1988). Similarly, women's tendency to display more friendship oriented and practical love styles than men is not strongly related to satisfaction. Men and women have few differences regarding passionate love, which is strongly correlated with relationship satisfaction. Actually, passion is highly predictive of relationship satisfaction across age and cultures (Contreras, Hendrick, & Hendrick, 1996).

Regan and Berscheid (1999) observed that sexual desire is a fundamental component of romantic love. Positive relationships have been found between love and sex

(C. Hendrick, Hendrick, & Reich, 2006), for instance, greater erotic and altruistic love are associated with more idealistic sexuality, and game-playing love is related positively to casual and biologically oriented sexuality.

S. Hendrick and Hendrick (2002) found that people link love and sex (perceived as more than simply intercourse) within their romantic relationships. This research determined that love was the most important thing in the relationship and it took precedence over sex in significance and sequencing. Additionally, sex was believed to be a profoundly important way to demonstrate love.

A large-scale study of sexual behavior in the United States concluded that respondents who reported the greatest physical pleasure and emotional satisfaction in their relationships were in partnered, monogamous relationships (Laumann, Gagnon, Michael, & Michaels, 1994). One research conclusion is that though love may be experienced without sexual/physical intimacy and sex may be experienced without love, generally, love and sex are linked (S. Hendrick, & Hendrick, 2002).

Research is finding that respect can positively influence romantic relationships and combined with love can lead to relationship satisfaction. John Gottman (1994), the distinguished couple researcher, wrote, most couples desire "just two things from their marriage - love and respect" (p. 18). Frei and Shaver (2002) developed a Respect for Partner Scale and found that respect for one's partner, coupled with love (Rubin, 1970), was a significant predictor of relationship satisfaction.

S. Hendrick and Hendrick (2006a) devised a Respect Toward Partner scale using the six dimensions of respect illustrated by Lawrence-Lightfoot (2000), including the variables of attention, curiosity, dialog, empowerment, healing, and self-respect. This scale correlated with love; respect significantly and positively correlated with passionate (erotic) love, altruistic (agapic) love, and friendship (storgic) love; it significantly and negatively correlated with game-playing (ludic) love. Frei and Shaver's (2002) respect scale correlated significantly and positively with Eros, Pragma, and Agape, and significantly and negatively with Ludus and Mania. Eros and the Respect Toward Partner Scale were also strong predictors of relationship satisfaction (S. Hendrick & Hendrick, 2006b).

Being in a relationship, and being in love, substantially contributes to the human condition. Baumeister and Leary (1995) profess that humans are a group species with a "need to belong." In support, Myers and Diener (1995) state, "Throughout the Western world, married people of both sexes report more happiness than those never married, divorced, or separated" (p. 15). A large sample study, which looked at links between happiness and various relationship variables, found that individuals who were in love were significantly happier than those not in love; further, happiness scores correlated positively with passionate love, friendship love, and relationship satisfaction (S. Hendrick & Hendrick, 2002).

Stress negatively affects love and sex, in fact, "less stress and more free time are the top things 45-59-year-olds say

would most improve their sex life" (Jacoby, 1999, p. 43). Also, "the vast majority of the medical complaints brought to doctors' offices are stress- and belief-related" (Benson, 1996, p. 292). Therapists who assist clients to simplify their lives, in turn, lowering their stress levels, may indirectly also be improving their relationships (love and sex).

APPETITIVE AND AVERSIVE RELATIONSHIP PROCESSES

Intimate relationships represent one of the most important components of life and close relationships significantly influence health and well-being. Having a large social network links to a lower mortality risk (Berkman & Syme, 1979), and the absence of strong social ties was found to be a mortality risk factor equivalent to smoking and high blood pressure (House, Landis, & Umberson, (1988). A review of 81 studies on social support and social integration revealed a consistent relationship between social ties and enhanced physiological functioning of the cardiovascular, endocrine, and immune systems (Uchino, Cacioppo, & Kiecolt-Glaser, 1996). Close relationships also strongly correlate with subjective reports of happiness and life satisfaction (i.e., Diener & Seligman, 2002).

In contrast, interpersonal relationships also provide negative outcomes (e.g., Rook, 1984). Partner loss due to death or divorce can be detrimental and frequently results in large well-being decreases (e.g., Stroebe, Stroebe, Abakoumkin, & Schut, 1996). Further, negative social relationships can impart much stress and pain (i.e., Kiecolt-Glaser, 1999; Seeman, 2001), hence, relationship quality is relevant. Marriage appears to be associated with positive health and psychological outcomes but only if the marriage is happy and nondistressed (i.e., Kiecolt-Glaser & Newton, 2001). In sum, social ties improve health and well-being but relationships characterized by negative emotions and conflict accompany the risk of health and well-being adversity.

One way to differentiate between the positive and negative features of relationships is by examining the appetitive and aversive dimensions of motivation which distinguishes between moving "toward" rewarding and desired outcomes (appetitive processes) and moving "away" from punishing and undesired outcomes (aversive processes; i.e., Carver, 1996). The appetitive domain manages approach-oriented behavior such as concentrating on rewarding stimuli, and the aversive domain regulates avoidance-oriented behavior such as focusing on punishing stimuli (Gable, 2006).

Separate biological systems regulate the two processes (Elliot & Covington, 2001), specifically, brain research has shown that individual differences in the behavioral activation system (BAS) and the behavioral inhibition system (BIS) scores (i.e., Gray, 1987) differentially predicted prefrontal cortex activity in that individuals with higher BAS exhibited more greater resting activity in the left prefrontal cortex while participants with higher BIS demonstrated greater resting activity in the right prefrontal cortex (Sutton & Davidson, 1997). Additionally, the appetitive and aversive systems are thought to be mainly independent (Gable, Reis,

& Elliot, 2003) in relation to motivation, affect, personality, attitude formation, and more.

Videotaped interactions of partners demonstrating aversive social relationship behaviors such as anger, violence, and conflict have illustrated negative patterns, for example, demand-withdrawal patterns, whereby criticism and defensiveness underlie conflict management (Christensen & Heavey, 1990). Gottman's (1998) research identified some predictors of divorce, including contempt, negative affect reciprocity, stonewalling, belligerence, and criticism. Supportively, it is theorized that two of the most relevant variables influencing relationship satisfaction and stability are conflict and negative affect management (Christensen & Walczynsky, 1997; Gottman, Coan, Carrere, & Swanson, 1998).

Contrarily, trust in relationships produces predictability, dependability, and other positive outcomes (Rempel, Ross, & Holmes, 2001). Likewise, "felt security" (i.e., Holmes, 2002), defined as feeling secure in one's relationship, helps to defend against the threat of rejection and fosters feeling more loved and accepted by one's partner (e.g., Murray, 2005).

People differ relative to the frequency and influence of positive emotions on a day-to-day basis. Specifically, individuals who display higher approach-oriented motivation frequently experience more positive emotions daily and are likely to attribute more of their daily subjective well-being to their positive emotional experiences (Updegraff, Gable, & Taylor, 2004). These effects were independent of the impact of any negative emotions, which supports the research indicating that positive and negative emotions are essentially independent dimensions rather than opposite ends of a single continuum (i.e., Watson, Clark, & Tellegen, 1988).

Maintaining focus on positive emotional experiences has interpersonal advantages. For example, people who commonly reported greater positive affect showed more facility with social interactions and demonstrated interactions of higher quality but negative affect did not predict either of these valued outcomes (Berry & Hansen, 1996). Further, a daily diary study of friendship dyads noted that high positive affect linked to feelings of closeness while high negative affect was associated with feelings of irritation and conflict in the friendship (Berry, Willingham, & Thayer, 2000).

Numerous positive emotions are fundamentally social in nature. The emotions of love, gratitude, and compassion, for instance, usually lead to an interpersonal target. Emotions in the genre of joy can stimulate play behavior that bolsters relationships (Fredrickson, 2001). Emotions such as pride can produce interpersonal benefits by encouraging people to divulge their achievements and thus strengthen interpersonal communication and bonding (Lewis, 1993). For individuals who have positive emotions together, such as amusement and excitement, these shared experiences can yield possibly long-lasting social bonds (Fredrickson, 2001). The emotion of gratitude associates with greater prosocial activity along with enhanced empathy for others (e.g., McCullough, Emmons, & Tsang, 2002).

Social support in close relationships is based on the interaction of individual differences (i.e., attachment style),

contextual factors (e.g., ones' mood, severity of the stressor), relationship factors (i.e., satisfaction), and the support that is offered (Lakey, McCabe, Fiscaro, & Drew, 1996).

Social support research traditionally has examined the communication of negative and stressful events to others. A newer concept within this construct involves "capitalization," defined as disclosing positive events with others and acquiring additional benefits as a consequence of the disclosure (Gable, Reis, Impert, & Asher, 2004). These researchers found that various benefits arise from sharing positive events with others, such as increased daily positive affect and well-being, and these increases are also significant when controlling for benefits generated by the positive event. Moreover, it is theorized that capitalization interactions can produce greater relationship intimacy and closeness without risking one's self-esteem or self-worth as might occur when requesting support for a negative event (Bolger, Zuckerman, & Kessler, 2000).

Capitalization happens frequently, in fact, Gable and colleagues assessed that people share positive events with others about 80% of days during a 10-day period. The greatest capitalization benefits occur when the listener reacts actively and constructively, for example, responding with enthusiasm and genuineness (Gable et al., 2004). A laboratory study of responses to positive event disclosures also determined that active and constructive responses significantly linked to positive post-interaction reports and to various relationship well-being measures (Gable, Gonzaga, & Strachman, 2006). Another concept within the relevance of positive events is "savoring," which is focusing on and attending to positive emotions and experiences (Bryant, 1989). Supportively, participants were randomly assigned to positive reminiscence conditions and positive reminiscences produces greater savoring and increases reports of happiness (i.e., Bryant, Smart, & King, 2005).

Another measure of appetitive processes in relationships involves intimacy and perceived partner responsiveness (i.e., Reis & Patrick, 1996). People possess a need to belong and to pursue intimacy with close others (Reis & Shaver, 1988). A model of intimacy, proposed by Reis and Shaver, commences with an individual's self-disclosure to a romantic partner followed by the partner interpreting the disclosure (through the lens of individual differences and contextual factors) and responding accordingly. The disclosing person then interprets the partner's response (through the lens of factors such as goals, personality traits, and context). The outcome of this process may be "perceived partner responsiveness," which is the sense that one is understood, validated, and cared for by the partner (Reis & Patrick, 1996).

Self-disclosure and responsiveness are thereby key elements of intimacy. Self-disclosure by itself is not sufficient to establish intimacy (Reis & Patrick, 1996), rather, much research shows the relevance of perceived responsiveness to self (i.e., Reis, Clark, & Holmes 2004), and its link to relationship satisfaction (e.g., Reis & Patrick, 1996) and felt security (i.e., Holmes, 2002). The effects of disclosure and responsiveness on intimacy was studied by

Laurenceau et al. (1998) who observed that perceived partner responsiveness was a strong mediator of the association between self-disclosure and intimacy. Manne and colleagues (2004) studied couples in which one partner had cancer and also determined that perceived partner responsiveness mediated the link between self-disclosure and increases in intimacy.

A further important appetitive process in relationships is self-expansion (i.e., Aron, Aron, Trudor, & Nelson, 1991), defined as including a close other into one's concept of the self. The self-expansion process can involve adopting a close other's "resources, perspectives and characteristics" (Aron et al., 1991, p. 243). Findings show that partners' shared involvement in novel and arousing experiences can increase relationship satisfaction, possibly due to such experiences providing continued self-expansion. The value of appetitive processes in relationships is apparent as evidenced by findings showing that partners who are motivated to experience fun and exciting activities together, (e.g., outdoor sports and travel), are likely to exhibit high levels of marital satisfaction (i.e., Hill, 1988).

Experimental studies also illustrate that relationship satisfaction increases when couples engage in novel and physiologically arousing tasks (Aron et al., 2000). Presumably, high positive affect rather than lower negative affect may be the mediating factor between such novel tasks and enhanced relationship satisfaction (Strong & Aron, 2006). These results transfer from married couples to other relationships as well, for instance, Fraley and Aron (2004) observed an increase in stranger closeness resulting from a shared humorous experience. Continued exploration on how couples maintain relationship fun and excitement may help to prevent decreased satisfaction.

Investigations are underway into the biological systems that regulate appetitive and aversive social processes. Panksepp, for example, suggests that an underlying reward system in the brain may "mediate specific behavioral sequences related to appetitive engagements with the world" (Panksepp, Knutson, & Burgdorf, 2002, p. 462). This "seeking system" for social rewards is thought to be independent of a separation-distress system. Likewise, analysis of the brain using electroencephalograms (EEGs) shows that different parts of the brain are activated when people approach rewarding stimuli versus avoiding punishing stimuli (i.e., Pizzagalli, Sherwood, Henriques, & Davidson, 2005). Examination of the biological basis of affiliative behavior suggests that the hormone oxytocin seems to lower anxiety and increase a person's willingness to trust others and participate in prosocial behavior (Bartz & Hollander, 2006). Neuroscience research may ultimately help explain the association of interpersonal relationships and biology (e.g., Fisher, Aron, Mashek, Li, & Brown, 2002).

Related to appetitive social processes, positive emotions can facilitate interpersonal and intrapersonal well-being. Findings reveal that positive emotions and dispositional positive affect are related to better health. Harker and Keltner (2001) observed that women who displayed more positive affect in their college yearbook photographs reported

better emotional and physical health thirty years later. Also, autobiographies of Catholic nuns written when the women were in their early twenties indicated a significant correlation between high positive emotional content in the autobiographies and increased longevity (Danner, Snowdon & Friesen, 2001). One way that positive emotions may influence health is through the beneficial consequences of social relationships. Supportively, individuals displaying higher trait levels of positive affect and agreeableness are likely to have better relationships (Watson, Clark, McIntyre, & Hamaker, 1992), which may result in enhanced health and well-being.

Examination of appetitive relationship processes, such as positive emotions, capitalization, perceived partner responsiveness, and novel experiences sheds light on the anatomy of healthy relationships. Continued research on positive psychology and close relationships may further demonstrate how positive variables in relationships impact relationship satisfaction and individual functioning.

SELF-VERIFICATION

John Steinbeck originally titled his famous novel, *Of Mice and Men* as "Something That Happened," which mirrored his life philosophy of accepting things as they are without dispensing judgment (Shillinglaw, 1994), a philosophy he termed "is thinking." He wrote that this style of thinking "concerns itself primarily not with what should be, or could be, or might be, but rather with what actually 'is' ..." (Steinbeck, 1951). Steinbeck believed "is thinking" was adaptive because it promoted understanding and acceptance. Self-verification theory reflects "is thinking" due to its tenet that people are motivated to pursue confirmation of their positive, and negative, self-views (Swann, 1983). Self-verifiers enjoy interacting with "is thinkers," in other words, people who see them as they assert they truly are, rather than as they want to be, could be, or should be. Self-verification, similar to "is thinking," is adaptive for the rationale offered by Steinbeck and for intrapsychic and interpersonal advantages inherent in self-verification.

Self-verification theory professes that once people establish their self-views, these self-views supply a strong sense of coherence and ability to predict and control their world (Cooley, 1902; Mead, 1934). Given that self-views perform such meaningful functions, people strive to maintain them, even their negative self-views (Swann, 1983). Accordingly, people will prefer to interact with others who perceive them as they perceive themselves. Hence, people with positive self-views will choose interaction partners who perceive them positively, and people with negative self-views prefer interaction partners who see them negatively (i.e., Hixon & Swann, 1993; Robinson & Smith-Lovin, 1992; Swann, Hixon, Stein-Seroussi, & Gilbert, 1990; Swann, Pelham, & Krull, 1989).

Self-verification theory predicts the relationship partners that people choose, the degree of happiness experienced in the relationships, and whether the relationships continue or terminate. Studies show that people obtain greater

relationship quality and more intimacy in romantic relationships when partners verify their self-views (De La Ronde & Swann, 1998; Swann, De La Ronde, & Hixon, 1994). Likewise, people often move away from relationships when the relationship partner does not offer self-verification. College students with negative self-views living with roommates who evaluated them positively began planning to find new roommates (Swann & Pelham, 2002). Further, married people with negative self-views over time became less intimate with their partners who perceived them more positively than they saw themselves (i.e., Burke & Stets, 1999; De La Ronde & Swann, 1998; Murray, Holmes, & Griffin, 2000; Ritts & Stein, 1995; Schafer, Wickrama, & Keith, 1996; Swann et al., 1994) and separated or divorced overly positive, nonverifying partners (e.g., Cast & Burke, 2002).

Self-verification theory's prediction that people with positive self-views prefer interacting with others who see them as positive is supported by self-enhancement theory's belief that people want to think well of themselves (Jones, 1973). The notion that people with negative self-views desire partners who perceive them negatively is less apparent, but the self-verification strivings of people with negative self-views which dominate over their self-enhancement strivings is logical given that, for those with negative self-views, negative evaluations are believable and validating, but positive evaluations can create cognitive dissonance and anxiety. Thus, acquiring self-verification produces psychological coherence, which is a sense that one's self, the world, and things in general are as one believes they are.

Psychological coherence is an important source of emotional comfort (Swann, Chang-Schneider, & Angulo, 2007). Self-verification strivings promote psychological coherence because they facilitate the validation of self-views. People often avoid interaction with others who do not support their self-views which allows the bypassing of negative feelings accompanying the absence of psychological coherence. Swann, Stein-Seroussi, and Giesler (1992) noted the comments of self-verifiers which illustrates that psychological coherence associates with the self-verification process and is valued. Self-verifiers with negative self-views explained their rationale for interacting with a confederate who evaluated them negatively. One participant stated, "Yeah, I think that's pretty close to the way I am. [The negative evaluator] better reflects my own view of myself, from experience." The following participant's comment shows the desire for psychological coherence over positive appraisals from others: "I like the [favorable] evaluation but I am not sure that it is, ah, correct maybe. It sounds good, but [the negative evaluator] ... seems to know more about me. So, I'll choose [the negative evaluator]."

Self-verification lowers anxiety (Swann, Chang-Schneider, & Angulo, 2007), based on studies showing that verifying feedback produces less anxiety than nonverifying feedback. Mendes and Akinola (2006), for instance, studied cardiovascular responses to positive and negative evaluations that were either verifying or nonverifying. People with

negative self-views, upon receiving positive feedback, felt physiologically "threatened" (avoidant and distressed), and upon receiving negative feedback, they felt physiologically "galvanized" (i.e., cardiovascular arousal was present but in a positive way, similar to approach motivation). As predicted, people with positive self-views reacted in the opposite manner. Likewise, Wood, Heimpel, Newby-Clark, and Ross (2005) examined the responses to success experiences of high- and low-self-esteem individuals. High-self-esteem participants responded favorably to success whereas low-self-esteem respondents became anxious, presumably because the feedback was inconsistent with their self-views (Lundgren & Schwab, 1977). Further, students' reactions to receiving midterm examination grades were observed and those with low self-esteem exhibited the largest increase in overall distress, including anxious and depressive symptoms, after they received grades viewed as successful to them. Thus, low-self-esteem individuals felt more distress to grades that they interpreted as acceptable than to grades they interpreted as failures (Ralph & Mineka, 1998). Collectively, these research findings conclude that non-self-verifying events increase anxiety, even if the outcome is positive, and verifying events and feedback lower anxiety, even if they are negative.

There is some empirical support for the hypothesis that the stress resulting from positive but nonverifying events for people with negative self-views, over a long period of time, can be harmful to physical health. Brown and McGill (1989) examined the effect of positive life events on health outcomes for high- and low-self-esteem individuals. Positive life events (i.e., earning very good grades, living conditions improvement) predicted increases in health for those with high self-esteem and decreases in health for participants with low self-esteem. Shimizu and Pelham (2004) replicated this result and observed that positive life events predicted increased illness for low-self-esteem participants, even when controlling for negative affectivity which negated the possibility that negative affect influenced both self-reported self-esteem and reports of physical symptoms. It is theorized that the distinction between positive life events and a negative identity may be mentally threatening enough to negatively impact physical health (Iyer, Jetten, & Tsvirikos, 2008).

Self-verification may promote authenticity, defined as "the unobstructed operation of one's true, or core, self in one's daily enterprise" (Kernis, 2003, p. 1). Authenticity is enhanced when a person's inner experience is validated (Kernis, 2003). Authentic behavior is thought to occur when people feel they will be accepted by being themselves (Leary, 2003). Authenticity in children is theorized to develop when caregivers love the children for being themselves (Deci and Ryan, 1995).

Authenticity is viewed as a character strength (Peterson & Seligman, 2004) and is related to various positive psychological outcomes such as positive affect (Harter et al., 1996) and greater psychological well-being (Sheldon, Ryan, Rawsthorne, & Ilardi, 1997). Conversely, deficient authenticity has been linked to negative psychological

outcomes, such as neuroticism (Horney, 1950) and narcissistic disorders (Bleiberg, 1984).

The association between self-verification and authenticity is amplified by research indicating that a lack of self-verification processes is related to inauthenticity. In fact, inauthenticity may arise when self-verification strivings are non-existent and people engage in relationships with others who do not perceive them as they see themselves. Such inauthenticity, at its worse, can yield neurosis and narcissistic disorders.

Self-verification strivings are adaptive within social relationships because they stimulate entry into relationships with honest, "is thinking" partners which promotes enhanced intimacy and trust in relationships. Self-verification is also related to greater predictability in people's behavior, which facilitates genuine, natural interactions, and trust in relationships (Rempel, Holmes, & Zanna, 1985).

Self-verification strivings are related to enhanced intimacy in relationships. Swann et al. (1994) found that among married couples, participants indicated having more intimacy when their spouses perceived them as they saw themselves; this finding was true for people with positive self-views and those with negative self-views. Participants whose spouses perceived them in an "extremely" favorable way often withdrew from the relationship, even for people with positive self-views. A meta-analysis of self-verification in marriages supported the propensity for people whose spouses saw them in a self-verifying way to have superior relationship quality (Chang-Schneider & Swann, 2009), regardless of the people having positive or negative self-views. Cassidy (2001) believes that intimacy "is making one's innermost known, sharing one's core, one's truth, one's heart, with another" (p. 122); this conceptualization is the focus of self-verification, which is pursuing relationship partners who perceive you as you believe you truly are.

Feeling understood, which is central to intimacy (Cassidy, 2001; Reiss & Shaver, 1988), may be a key variable for the link between self-verification and intimacy. Swann et al. (1992) noted that self-verifiers with negative self-views explained why they chose a confederate who evaluated them negatively. One participant stated, "Since [the negative evaluator] seems to know my position and how I feel sometimes, maybe I'll be able to get along with him." Feeling understood draws people to relationship partners who support their self-views.

Honesty is also a link to intimacy and self-verification strivings. Lerner (1993, p. 15) contends that "closeness requires honesty" and "truth telling" is the "foundation of ... intimacy." More intimacy and satisfaction is produced when we interact with others who see us as we are rather than a glorified, less honest portrayal of self.

The behavior of self-verifiers' and their relationship partners becomes more predictable due to the self-verification process. Self-verifiers' act in stable, predictable ways and they interact with others who confirm their self-view, thus, the interaction partner's behavior becomes more stable and predictable. Such mutual predictability generates more compatible relationships. Social relationships would be

under pressure if a partner failed to demonstrate a stable self-view and manifested different personalities. The evolutionary model professes that mutual predictability among small hunter-gatherer groups facilitated division of labor and improved survival chances (Goffman, 1959, Swann, Chang-Schneider, & Angulo, 2007). Predictability in the behavior of a relationship partner is a highly valued personality characteristic (Athay & Darley, 1981; Rempel et al., 1985).

The self-verification process promotes greater predictability in behavior which fosters trust. Rempel et al. (1985) contend that the three essential components of trust are predictability, dependability, and faith. Self-verification stimulates finding honest interaction partners, and honesty produces trust.

Self-verification can be maladaptive and problematic for individuals with negative self-views because of the perpetuating nature of self-verification. Research often links low self-esteem with depression (Trzesniewski et al., 2006; Roberts, Gotlib, & Kassel, 1996) and high self-esteem with happiness (Diener & Diener, 1995; Furnham & Cheng, 2000; Shackelford, 2001), therefore, the maintenance of low self-esteem through self-verification can be harmful (Swann, Chang-Schneider, & McClarry, 2007).

The self-views accompanying low self-esteem and depression may be unwarranted and assuming that one is hopeless is arbitrary and subjective. In fact, depressed individuals often harbor inaccurate, negative assumptions regarding their ability-levels and likability. Self-verification predicts these individuals prefer to interact with people who perceive them negatively, despite the negative perceptions not necessarily being accurate, due to these relationships providing psychological coherence, in other words, a feeling that self and the world are as one thinks they are. Such a cycle will preserve the negative, inaccurate self-views and possibly hinder goal-attainment and happiness.

Low self-esteem is prevalent in one-third of the population (Swann, 1987), suggesting a need to be examined. Self-verification does not improve self-esteem, however, it can help the process by stabilizing a person's self-view with awareness of his or her current level of functioning and a plausible brighter future.

Telling people with negative self-views that their views are inaccurate is not likely to raise their self-esteem. Self-verification research asserts that people are motivated to preserve their self-views, and they will either choose to not interact with partners who do not verify their self-views or they will emotionally withdraw from the relationship. Our self-views are deeply engrained and offer us psychological coherence, hence, significant changes to these views can cause uneasiness, confusion and unproductive outcomes. John Steinbeck would label the attempt to raise a person's self-esteem through persuasion as "teleological thinking," rather than "is thinking" (also termed "non-teleological thinking"). Teleological thinking focuses on what could or should be as opposed to what is (Steinbeck, 1951). Steinbeck advised that teleological thinking does not produce effective change, as illustrated by the following: "In their

sometimes intolerant refusal to face facts as they are, teleological notions may substitute a fierce but ineffectual attempt to change conditions which are assumed to be undesirable, in place of the understanding-acceptance which would pave the way for a more sensible attempt at any change" (Steinbeck, 1951, p. 138). He recommends that "is thinking" is a better vehicle for change, but "is thinking" involves accepting things as they are, thus, the question arises of how such thinking can produce change.

The answer to this paradox is that validating a person's self-views, which occurs in self-verification and "is thinking" is a first step in the process of change. This first step grants stability, coherence, and a feeling of being understood and accepted. Deci and Ryan (1995) agree with this methodology by suggesting that enhancing self-esteem in someone encompasses "valuing the other for who he or she is and taking that other's frame of reference ... it means beginning by accepting and relating to the self of the other. It is precisely by acceptance of self - first by others and then by oneself - that supports the development and maintenance of true self-esteem" (p. 46). This form of acceptance parallels Carl Rogers' concept of "unconditional positive regard" whereby therapists can foster personal growth and effective change in clients by creating an environment of unconditional acceptance. Rogers commented on this method in his book, *On Becoming a Person*: "So I find that when I can accept another person, which means specifically accepting the feeling and attitudes and beliefs that he has as a real and vital part of him, then I am assisting him to become a person" (p. 21). Rogers responded to the unanticipated connection between acceptance and change by stating, "the curious paradox is that when I accept myself as I am, then I change" (Rogers, 1961, p. 17). Accepting what a person is experiencing versus what one believes the person could or should experience is an important first step to enacting change. Self-verification, within this framework, represents a relevant first step to improving self-esteem.

Self-esteem can be raised by slowly providing positive feedback, which opposes negative self-views, within a context of self-verification. Positive feedback offered by a relationship partner can motivate a person to internalize a new self-view (Jones, Gergen, & Davis, 1962), hence, positive remarks can enhance self-esteem but in tandem with verification. Finn and Tonsager (1992) found that combining verification and positivity improves self-esteem. College students were given feedback about a problem-focused personality test within a supportive environment and they demonstrated a self-esteem increase, despite the feedback often being negative. These researchers concluded that the self-esteem enhancement resulted from a combination of "creating a positive emotional tone, while verbally offering self-confirmatory (and often negative) feedback" (p. 285). In other words, the two-fold process of accepting an individual's reality or perception while slowly and gently introducing positivity that challenges negative self-views improves the self-esteem of a person with a negative self-view. This method can initiate positive self-views without creating

defensiveness. The process of self-verification can now resume based on positive and adaptive self-views.

The combination of accepting another's current reality with incremental positive change is instrumental in various therapies. Acceptance and Commitment Therapy (ACT) teaches clients to substitute the control of thoughts or feelings with nonjudgmentally observing and accepting them, while changing behaviors in positive ways to improve living (Hayes, 1994). Likewise, Dialectical Behavior Therapy (DBT) advises clients to accept themselves completely, while striving to change their behaviors and environments to better their lives (Baer, 2003). Acceptance and positivity, in this order, can improve self-esteem.

North and Swann, Jr. (2009) believe that the self-verification process can promote happiness in that self-acceptance (offering oneself self-verification) is central to happiness. They contend that acceptance of our deficiencies, imperfections, and full range of emotions is relevant to happiness, on intrapsychic and interpersonal dimensions.

In sum, self-verification theory believes that people strive to maintain their self-views by seeking their confirmation, regardless of the self-views being positive or negative. This process interfaces positive psychology because it is adaptive and benefits intrapsychic and interpersonal functioning. Self-verification strivings contribute in positive ways such as enhancing authenticity, relationship intimacy, self-esteem, and happiness.

HUMILITY

The *Oxford English Dictionary* (1998) defines humility as "the quality of being humble or having a lowly opinion of oneself; meekness, lowliness, humbleness, the opposite of 'pride' or 'haughtiness.'" The fields of psychology, philosophy, and theology offer a broader and brighter conception of humility, for instance, Emmons (1998) expresses:

Although humility is often equated in people's minds with low self-regard and tends to activate images of a stooped-shouldered, self-deprecating, weak-willed soul only too willing to yield to the wishes of others, in reality, humility is the antithesis of this caricature. To be humble is not to have a low opinion of oneself, it is to have an accurate opinion of oneself. It is the ability to keep one's talents and accomplishments in perspective (Richards, 1992), to have a sense of self-acceptance, an understanding of one's imperfections, and to be free from arrogance and low self-esteem. (Clark, 1992, p. 33)

Templeton (1997) also characterizes humility positively: Humility is not self-deprecation. To believe that you have no worth, or were created somehow flawed or incompetent, can be foolish. Humility represents wisdom. It is knowing you were created with special talents and abilities to share with the world; but it can also be an understanding that you are one of many souls created by the Lord, and each has an important role to play in life. Humility is knowing you are smart, but not all-knowing. It is accepting that you have personal power, but are not omnipotent... Inherent in

humility resides an open and receptive mind... it leaves us more open to learn from others and refrains from seeing issues and people only in blacks and whites. The opposite of humility is arrogance - the belief that we are wiser or better than others. Arrogance promotes separation rather than community. It looms like a brick wall between us and those from whom we could learn (pp.162-163).

Humility is associated with open-mindedness, willingness to admit mistakes and receive advice, and an interest to learn (Hwang, 1982; Templeton, 1997). Humility encompasses less self-focus and preoccupation, which Templeton (1997) labels as becoming "unserved," a concept that also reflects recognizing a person's place in the world. Those who have achieved humility are not centered on self, instead they focus on the community at large, of which they are one part.

Subsequent to transcending an egocentric perspective, people with humility increase their recognition and acceptance of the abilities, potential, and worth of others. Becoming "unserved" means we do not have the need to defend and aggrandize the ego, or self, at the expense of our perceptions and evaluations of others (Halling, Kunz, & Rowe, 1994). Our perspective broadens and we can non-defensively appreciate the potential and actualization of others. Means, Wilson, Sturm, Biron, and Bach (1990) illustrate this concept by articulating that humility "is an increase in the valuation of others and not a decrease in the valuation of oneself" (p. 214). Myers (1979) paraphrased C. S. Lewis by the following: ...Humility leaves people free to esteem their special talents and, with the same honesty, to esteem their neighbor's. Both the neighbor's talents and one's own are recognized as gifts and, like one's height, are not fit subjects for either inordinate pride or self-deprecation (p. 38).

Clearly, the discipline of psychology presents the construct of humility as more multi-dimensional than dictionary definitions that highlight unworthiness and low self-regard.

Humility includes these central aspects:

- Accurate evaluation of one's abilities and accomplishments (not skewed to favorable or unfavorable)
- Acknowledgment of one's faults and limitations
- Openness to novel ideas, contradictory information, and advice
- Keeping one's abilities, achievements, and place in the world in perspective (e.g., perceiving oneself as simply one person in a large world)
- Maintaining a low self-focus; being self-transcendent
- Acknowledging the value in all things and non-defensively accepting the multitude of ways that people and things contribute to the world

Personality research suggests that humility is an uncommon characteristic. Social psychology research reveals many "self-enhancement biases" that limit the presence of humility (Baumeister, 1998; Greenwald, 1980), evidenced by our propensity to accent the positive and suppress the negative. People generally take credit for their successes but blame others for their failures (Baumeister, Stillwell, & Wotman, 1990; Snyder, Higgins, & Stucky,

1983; Zuckerman, 1979). Further, people frequently perceive, ponder, and remember positive information about themselves, but negative information is "lost in the shuffle" (Mischel, Ebbsen, & Zeiss, 1976). This self-enhancement tendency implies that humility contradicts human nature and is exceptional.

Still, people can manage their degree of self-enhancement in response to the social setting, for instance, more modesty is demonstrated in interactions with friends than strangers (Tice, Butler, Muraven, & Stillwell, 1995).

The benefits of modesty, particularly "moderate" modesty, have surfaced in many studies (Baumeister & Ilko, 1995; Robinson, Johnson, & Shields, 1995). People like and feel less threatened by those who display modesty about their accomplishments, while conceited and arrogant behavior usually breeds social disapproval.

Predispositions toward self-enhancement, grandiosity, and narcissism provide poor prognosis for long-term adjustment, notably in the interpersonal domain (Ehrenberg, Hunter, & Elterman, 1996; Means et al., 1990). Psychological maladjustment is related to the degree that people rate themselves more favorably than the ratings of others (Asendorpf & Ostendorf, 1998; Colvin, Block, & Funder, 1995).

Exline et al. (2000) observed a connection between humility and forgiveness. Participants who were primed to experience humility (i.e., they wrote about a non-self-deprecating humility experience) retaliated less to a provoking laboratory task, whereas those primed to feel morally superior judged another's transgression with more harshness and less forgiveness.

Humility encompasses a "forgetting of the self," and acknowledgment that one is "just one part" of a larger world. This tendency to be "unserved" may offer psychological and physical advantages. In contrast, well-documented links exist between excessive self-focus and numerous psychological issues, including, but not limited to, anxiety, depression, and social phobias. Baumeister (1991) suggests many advantages abound to "escaping the self," including respite from the affliction of self-preoccupation (Halling et al., 1994), and the need to defend the vulnerable self. Further, medical researchers propose that excessive self-focus is a risk factor for coronary heart disease (Fontana, Rosenberg, Burg, Kerns, & Colonese, 1990; Scherwitz & Canick, 1988).

Promoting humility may be a secondary goal of various therapies. For narcissistic personality disorder, cognitive-behavioral therapy may help to lower the client's egocentric bias. Many psychotherapies touch upon philosophical and existential themes related to a sense of humility. Insight-oriented, humanistic, and existential therapies commonly address one's place in the world. Moreover, "talk" therapies assist clients to acquire a realistic view and acceptance of both their strengths and shortcomings.

Parents, teachers, and role models in various forms such as sports figures, world and community leaders model or do not model humility for all to see. Many life experiences enhance a sense of humility, including exposure to different people

and cultures, significant life-changing events (e.g., serious illness or accident, birth of a child, divorce), religious beliefs, or "transcendental" experiences. Humility is one of the classic virtues and certainly is a worthy construct within positive psychology.

THE BIOLOGY OF SOCIAL SUPPORT

Social relationships can significantly influence health. Much research shows that close, supportive bonds can produce numerous positive effects, for example, having diverse social connections consistently predicts longevity, even controlling for demographic factors and health behaviors (i.e., Berkman & Syme, 1979; House, Landis, & Umberson, 1988). Not having close personal connections relates to an increased mortality risk comparable to other known risk factors as obesity and smoking (Berkman & Syme, 1979). People who have high amounts of social support or are socially well integrated exhibit lower susceptibility to infection (i.e., Cohen, Doyle, Skoner, Rabin, & Gwaltney, 1997), reduced rates of cardiovascular disease progression (e.g., Lett et al., 2005), and slower cognitive declines with aging (i.e., Seeman, Lusignolo, Albert, & Berkman, 2001).

Stressful situations can provoke physiological changes that, if experienced without relief, can lead to disease. Acute stressors potentially can activate the sympathetic nervous system (SNS), which arouses elevations in heart rate, blood pressure, blood glucose, and secretion of the catecholamines epinephrine (adrenaline) and norepinephrine (noradrenaline). Release of the hormones epinephrine and norepinephrine is part of the fight-or-flight response. The hypothalamic-pituitary-adrenal (HPA) axis can also be activated, causing release of the hormone cortisol. Cortisol is released in response to stress and it facilitates survival given exposure to immediate threats. Prolonged cortisol secretion, which chronic stress can produce, may induce significant physiological changes. The combination of sympathetic and HPA activation is important for immediate and short-term behavior because it regulates various somatic functions required for responses to stressors (i.e., accelerated heart function and lung action, metabolic activity changes, reduced digestion, tunnel vision (peripheral vision loss)). Chronic or repeated exposure to stressors, and the accompanying exposure to stress hormones, is related to many negative outcomes, including suppression of particular parts of the immune system (e.g., decreased lymphocyte proliferation), hippocampal neuron damage, and depressive symptomatology increases (i.e., Heim & Nemeroff, 1999; Sapolsky, Romero, & Munck, 2000). Elevated levels of SNS and HPA hormones are associated with pathophysiological parameters (i.e., high blood pressure, elevated cholesterol levels, larger waist-to-hip ratios), which are risk factors for many negative health conditions such as cardiovascular disease and diabetes (McEwen & Seeman, 2003). Further, proinflammatory cytokines can be activated by stress (Segerstrom & Miller, 2004), and their elevations are linked to increased mortality

risk (Reuben et al., 2002), and the incidence and progression of disease (e.g., Black, 2003).

The quantity and quality of social connections are related to indicators of positive physiological regulation. Community-based population studies have observed associations between higher levels of social support and lower resting heart rate, cholesterol, blood pressure, norepinephrine levels and markers of systemic inflammation (i.e., Bland, Krogh, Winkelstein, & Trevisan, 1991; Loucks, Berkman, Gruenewald, & Seeman, 2006; Seeman, Blazer, & Rowe, 1994; Thomas, Goodwin, & Goodwin, 1985; Uden, Orth-Gomer, & Elofsson, 1991). These relationships existed when controlling for health behaviors, chronic health problems, and current physical health.

Deficient levels of social support and feelings of loneliness have been linked to lower immune response outcomes (e.g., reduced natural killer cell activity; Kiecolt-Glaser, Speicher, Holliday, & Glaser, 1984; Kiecolt-Glaser et al., 1984). Contrarily, social support has been associated with a positive influence on functional immune parameters (e.g., blastogenic response to antigen; Uchino et al., 1996). A study, for instance, on medical students' responses to a series of hepatitis B inoculations noted that participants reporting more social support had stronger immune responses to the vaccine (Glaser, Kiecolt-Glaser, Bonneau, Malarkey, & Hughes, 1992). This implies that the people with inadequate social support systems would experience a delayed antibody response to pathogens, placing them at risk for illness (Kiecolt-Glaser, 1999).

A study showed that people with fewer social network ties displayed more susceptibility to the common cold than individuals with more diverse social connections (Cohen et al., 1997). Moreover, as the quantity of social connections increased, the number of viral replications and severity of objective and self-reported symptoms decreased. The study also revealed that chronic interpersonal stressors also predicted catching a cold (Cohen et al., 1998), implying that social connections are beneficial but only to the degree that they are not conflict laden. The research concluded that diverse social ties appear to help in preventing infection, but conflicted relationships can increase acute illness incidence.

Research has offered credibility to the stress reactivity hypothesis, which suggests that social relationships improve health by lessening physiological responses to stressors. Laboratory stressor reactivity studies generally subject participants to an acute laboratory stress task (i.e., mental arithmetic, public speaking), under conditions of either being alone or with a friend or supportive audience. Many studies show that social support reduces cardiovascular responses to the stressor (Christenfeld et al., 1997; Kamarck, Annunziato, & Amateau, 1995), but some results are mixed (Christian & Stoney, 2006).

Social support is defined in different ways in stress reactivity literature, which can add to some of the inconsistent results. To offer resolution, Lepore (1998) distinguished between "active" and "passive" support. Active social support is receiving unambiguous emotional support from a friend or confederate, and this group typically

exhibits lessened cardiovascular response compared to the alone condition (i.e., Thorsteinsson, James, & Gregg, 1998). Passive support is simply the presence of a friend or stranger with support implied by physical nearness. Fear of negative evaluation, which can interfere with support, can arise in this situation (Lepore, 1998), but when evaluation was removed, passive support lessened cardiovascular responses (Kararck et al., 1995).

The supportive partner does not need to be physically present to lower cardiovascular responses to stressors. Systolic blood pressure responses were lower in individuals asked to simply think about a close friend before exposure to a stressor (Ratnasigam & Bishop, 2007). The conclusion is that having mental representations of social support may be sufficient for lowering cardiovascular reactivity to stressors.

Studies have observed the effects of social support on stressful situations relative to cortisol responses and have found positive correlations. Participants who had frequent interactions with supportive others over a 10-day interval demonstrated lower cortisol responses to a future laboratory stressor (Eisenberger, Taylor, Gable, Hilmert, & Lieberman, 2007). Another study presented to the experimental group video-relayed emotional support to a laboratory stressor and results showed reductions in cortisol levels and heart rate during a cognitive challenge relative to a no-support control group (Thorsteinsson et al., 1998). Likewise, men supported by their romantic partners or friends revealed less cortisol responses in relation to a speech/math stressor than no-support control conditions (Heinrichs et al., 2003). The connection between social support and cortisol reactivity, however, can change due to variables such as gender (Kirschbaum et al., 1995) and culture (Taylor Welch, Kim, & Sherman, 2007). Thus, social support is concluded to offer beneficial effects through attenuated cortisol reactivity to stressors, but this effect is a function of several variables, including individual characteristics of the support provider and recipient.

Whereas social support in the midst of an acute stressor can buffer cardiovascular and neuroendocrine responses, conflict or negative interactions can cause reactivity. Cardiovascular reactivity is increased when in the presence of people being nonsupportive (e.g., showing boredom/disinterest, overtly disagreeing or undermining; Sheffield & Carroll, 1994). Stressors in the realm of social-evaluative threat (i.e., exposure to an evaluative audience) are linked to greater cortisol responses and longer recovery times compared to those not exposed to such (Dickerson & Kemeny, 2004). Further, couples engaging in negative interactions (i.e., criticism, put-downs) while communicating about a marital issue displayed more sympathetic and HPA responses and immune functioning decreases compared to those not demonstrating this negative behavioral pattern (Kiecolt-Glaser, 1999). Collectively, these findings show that non-supportive or antagonistic interactions can initiate or exacerbate SNS, HPA, and immune reactivity in response to an acute stressor, while social support can frequently lessen the response.

Much of the research on social support and physiological reactivity has occurred in the laboratory, but more studies are focusing on daily living. Utilizing ambulatory monitoring, people who have high amounts of social support or interact with close others have demonstrated better cardiovascular profiles (e.g., higher cardiac output and less total peripheral resistance, lower blood pressure) than individuals who are lonely or deficient in strong social connections (i.e., Hawkley, Burleson, & Cacioppo, 2003; Holt-Lunstad et al., 2003). Other research has shown that high amounts of social support has the potential to buffer cardiovascular reactivity to negative emotional states in daily life (Ong & Allaire, 2005). These results suggest that the relationship between social support and positive physiological responses generally seen in the laboratory may have positive transfer to naturally occurring events.

Individual differences such as personality, gender, or other factors can influence the effect of social support on physiological response. Hostility, for instance, comprises negative beliefs about people, including cynicism, mistrust, and aspersion, which can eliminate highly hostile people from accruing the benefits of social support. Lepore (1995) tested this idea by having participants scoring high and low on cynicism give a speech either alone or with a supportive confederate. Social support lowered cardiovascular reactivity for the low but not high cynicism individuals. Hostility can increase cardiovascular disease risk due to not utilizing social support in stressful situations.

Many studies have revealed interactions between gender, social support, and physiological reactivity. By example, the presence of a supportive male partner under stress can produce "exaggerated" cardiovascular and cortisol reactivity in women (i.e., Glynn, Christenfeld, & Gerin, 1999; Kirschbaum et al., 1995; Sheffield & Carroll, 1994), which is opposite the pattern of less reactivity generally seen in men. Women also appear to show greater physiological responsiveness to negative marital interactions (e.g., Kiecolt-Glaser, 1999). Interestingly, the health-protective effects of social ties are stronger in men than women (i.e., House et al., 1988). Generally, women are more emotionally responsive to conflict and they report more negative interactions in their relationships (Schuster, Kessler, & Aseltine, 1990). Hence, women may not attain the same benefits from social relationships as men because women appear to be more vulnerable to negative social interactions (Taylor et al., 2000).

These findings suggest that the buffering effect of social support on physiological stress responses varies across individuals and situations.

Positive social relationships may be vital during particular developmental stages of the life span. Neonatal, infant, and early child developmental phases are critical times in which social interaction can impact later social behavior and physiology (Cushing & Kramer, 2005; Repetti, Taylor, & Seeman, 2002). The lack of positive interaction or negative interaction during these early development periods can result in adverse physiological and behavioral outcomes in people and animals. Positive social contact and relationships during

early postnatal phases in animals (e.g., nursing, handling, grooming) can yield positive effects. Rat pups who are repeatedly separated from their mothers, for instance, exhibit greater stress vulnerability in adulthood (i.e., increase HPA responses to novel stimuli; Francis et al., 1999).

Research shows that oxytocin, a hormone that also acts as a neurotransmitter in the brain, and the endogenous opioid system, an innate pain-relieving system consisting of widely scattered neurons that produce opioids which act as neurotransmitters and neuromodulators, are involved in the development and maintenance of social bonds, and can lessen physiological responses to stress. These physiological mechanisms can help explain the complex relationships between social support physiology, and health (Taylor et al., 2000; Taylor, Dickerson, & Klein, 2002).

Oxytocin is related to many social processes in animals, for instance, it can facilitate social affiliation, parental nurturing behaviors, and the development of selective mother-infant bonds (Bartz & Hollander, 2006; Carter et al., 2006). Oxytocin can influence stress-regulatory responses, for example, newborn rats exposed to high levels of oxytocin exhibited lower HPA reactivity in adulthood (Holst, Peterson, & Uvnas-Moberg, 2002).

The growing body of research on humans matches the findings from animal studies demonstrating that oxytocin lessens the stress response and is associated with increased social affiliation. Oxytocin has been associated with prosocial emotions (Carter, 1998). Intranasally administered oxytocin lead to significant increases in trust in people (Kosfeld, Heinrichs, Zak, Fischbacher, & Fehr, 2005), and oxytocin, naturally released in response to breastfeeding is related to subsequent calmness (Heinrichs et al., 2002; Nissen et al., 1998).

A double-blind, placebo-controlled experiment showed that people who received both intranasally administered oxytocin and social support revealed lower cortisol and anxiety and increased calmness in response to a laboratory acute psychosocial stress compared to the control group (Heinrichs et al., 2003). It is theorized that oxytocin may offer protective effects on SNS and HPA activity, especially within a social context.

Endogenous opioids are also involved in social behaviors and physiological stress response regulation (Nelson & Panksepp, 1998). Human and animal studies indicate that opioids are released during social contact, act as a reward for social affiliation, and assist with social learning (Nelson & Panksepp, 1998; Ribeiro et al., 2005). Opioids can lessen SNS and HPA responses to stressors in humans and animals. In support, McCubbin (1993) observed that giving an opioid antagonist to people before a laboratory stressor produced increased blood pressure, heart rate, and cortisol responses, relative to a placebo injection. It was concluded that opioids can contribute to attenuation of stress responses.

Findings from human and animal studies illustrate that oxytocin and endogenous opioids are released during social bonding activities and are associated with lessened physiological stress responses and decreases in anxiety and anxiety-related behaviors. Such stress-buffering, positive

physiological effects may result in long-term beneficial health effects, and the positive psychological effects may enhance motivation to pursue social contact and support.

In sum, social support and social interaction are related to beneficial physiological outcomes, including decreased SNS and HPA activity, and increased immune functioning whereas a lack of social relationships or having social conflict associates with negative biological outcomes. Social support can produce positive health outcomes through decreasing the physiological stress response, and this process could be facilitated by the biological mechanism of administering oxytocin or endogenous opioids.

SUSTAINABLE HAPPINESS

The circumstantial factors present in people's lives, including marriage, age, gender, culture, income, and life events, do not completely explain the differences between happy and unhappy people. Lyubomirsky (2001) contends that happy and unhappy people significantly differ in their "subjective experience and construal of the world," thus, happy individuals perceive and interpret their environment differently than less happy persons. Therefore, this construal theory examines the effects of attitudes, behaviors, motivations, and so forth rather than the objective circumstances of one's life, upon happiness.

Findings show that happy people generally perceive the world more positively and with a happiness-promoting style. Self-reported happy people described their previous life experiences and evaluated them as more pleasant at the time of occurrence and when recalling them (study 1, Lyubomirsky & Tucker, 1998; Seidlitz, Wyer, & Diener, 1997), whereas self-reported unhappy people evaluated their past life experiences comparatively unfavorably at both time points. Experimentally pertinent, objective judges did not rate the happy people's experiences as more positive than those of the unhappy people, implying that happy and unhappy people experience similar events but interpret them qualitatively differently. Moreover, these same participants evaluated hypothetical situations and the happy people rated the events more positively than the unhappy group, even after controlling for mood (study 2, Lyubomirsky & Tucker, 1998).

Happy people also maintain a positive perspective during evaluation of themselves and others. For instance, in a laboratory study, students interacted with a female stranger and later evaluated her personality. Self-described happy students evaluated the stranger more positively and reported greater interest in establishing a friendship with her versus the self-described unhappy students (study 3, Lyubomirsky & Tucker, 1998). Additionally, happy people frequently judge almost everything regarding themselves and their lives positively and favorably, including their friendships recreation, self-esteem, energy levels, and purpose in life (Lyubomirsky, Tkach, et al., 2006; Lucas, Diener, & Suh, 1996; Ryff, 1989).

The self-perceptions of happy people are stable and relatively unaffected by social comparisons. In support,

participants solved anagrams in the presence of a confederate who performed the same task either more quickly or slowly (study 1, Lyubomirsky & Ross, 1997). Exposure to a slower confederate improved confidence in the skill set of both the self-reported happy and unhappy participants. The presence of a faster confederate did not change judgments of ability at anagram solving in happy individuals but unhappy people lowered judgments of their skills.

Happy and unhappy people display different levels of acceptance to decisions they have made. Happy people generally are more satisfied with all of their available options (along with the ultimately-chosen option) and they usually only reveal dissatisfaction in situations in which their sense of self is threatened. Lyubomirsky and Ross (study 1, 1999) noted that after being accepted by individual colleges, self-reported happy students increased their liking and interest of those colleges, and self-protectively, decreased their overall ratings of the colleges that rejected them. This cognitive dissonance reduction method apparently fostered the happy participants' ability to preserve positive feelings and self-regard and was concluded to be an adaptive strategy. Self-reported unhappy individuals did not employ the same strategy of fostering positivity, rather, they (maladaptively) preserved their liking for the rejecting colleges.

Happy and unhappy people differ in making decisions when many options are available. Happy individuals frequently "satisfice," defined as being satisfied with an option that is simply "good enough," and not being concerned with alternative, potentially better options (Schwartz et al., 2002). Unhappy individuals, conversely, frequently "maximize" their options, meaning they pursue making the absolute best choice. Certainly, maximizers' decisions can yield the best results, but research shows that maximizers experience more regret and less well-being than satisficers (Lyengar, Wells, & Schwartz, 2006). The maximizing trait of unhappy people may reinforce their unhappiness.

Happy people are significantly less likely than their unhappier peers to overly self-reflect and dwell on themselves. Several studies found that unhappy students who "apparently" failed a verbal task experienced negative affect and intrusive negative thoughts, which impaired their concentration and performance on a subsequent intellectually challenging test (Lyubomirsky et al., 2008). These results infer that unhappy people experience negative and maladaptive dwelling more than happy people and this tendency leads to feeling bad and to negative outcomes (Lyubomirsky & Kasri, 2006). Other research demonstrated that manipulating an individual's focus of attention (e.g., presenting reflecting information or distracting information designed to either enhance or reduce concentration, respectively) can eliminate the differences in the cognitive strategies and processes exhibited by happy and unhappy people (study 3, Lyubomirsky & Ross, 1999). This finding shows the power of our thoughts and a key difference between happy and unhappy people, in that happy people can appear to be unhappy by instructing them to ruminate about

themselves, and unhappy people can resemble happy people by directing their attention away from themselves.

Ways that people interpret their past life events may affect levels of happiness. Happy people are more likely to report savoring past life experiences, and they conclude being much better off today than in the past, while unhappy people frequently report ruminating about past negative experiences and they feel much worse off today than in the past (Lieberman et al., 2008; Tversky & Griffin, 1991). These findings imply that the strategies used by happy people to process life events fosters positive emotions, and the strategies used by unhappy people diminishes the intrinsic positivity of positive events and heightens the negative affect of negative events.

Happy people maintain attitudes and behaviors that reinforce their happiness. The question arises whether unhappy people can adopt such ways of thinking and behaving leading to enhanced well-being. Findings show that people do try to become happier, for instance, college students utilize different strategies to increase happiness such as social affiliation, pursuing goals, enjoying leisure activities, engaging in religion, and "direct" attempts (i.e., acting happy, smiling; Tkach & Lyubomirsky, 2006). Some of these strategies (particularly social affiliation and direct attempts) positively correlate with happiness, but it is inconclusive whether these techniques cause happiness increases or whether happy people simply are more likely to employ them.

The feasibility of changing one's level of happiness is debated. Arguments to the contrary emphasize that twin and adoption studies contend that genetics account for roughly 50% of the variation present in well-being (Lykken & Tellegen, 1996). For instance, Tellegen and colleagues (1988) studied the well-being of identical and fraternal twins who were raised together or apart. Identical (monozygotic) twins develop from one zygote that splits and forms two embryo whereas fraternal (dizygotic) twins develop from two separate eggs which are fertilized by two separate sperm. Happiness levels of the identical twin pairs were highly correlated and this correlation was equally strong whether they were raised in the same home ($r = .58$) or miles apart ($r = .48$). Fraternal twin pairs, however, revealed significantly smaller correlations between their happiness levels, even when they experienced the same upbringing and home ($r = .23$ versus $r = .18$). Longitudinal studies of changes in well-being across extended periods of time reinforce these findings. Supportively, positive and negative life experiences increase or decrease happiness levels only for short periods of time, and people then quickly return to their baselines of happiness (Headey & Wearing, 1989; Suh, Diener, & Fujita, 1996). These findings illustrate that each individual may have a personal set point for happiness that is genetically determined and resistant to influence.

Another argument against lasting modifications to well-being involves the concept of hedonic adaptation, which suggests that subsequent to positive and negative life experiences, people rapidly habituate to their new conditions and ultimately return to their baseline of happiness present

before the life experiences (Brickman & Campbell, 1971). This concept has been termed a "hedonic treadmill" and contends that people adapt to circumstantial changes, particularly positive events. Though people suspect that a significant positive life change (e.g., winning a lottery) will make them much happier, a study compared lottery winners with a control group that did not experience a sudden windfall and found that lottery winners were no happier (and seemed to derive less pleasure from daily activities) than nonwinners (Brickman, Coates, & Janoff-Bulman, 1978). Thus, hedonic adaptation is another obstacle to enhancing long-term well-being (i.e., Diener, Lucas, & Scollon, 2006; Lucas, Clark, Georgellis & Diener, 2003).

An additional argument against lasting change in happiness is the significant relationship between happiness and personality (Diener & Lucas, 1999). Personality traits are relatively fixed and do not vary over time (McCrae & Costa, 1994). One school of thought views happiness as part of one's stable personality, hence, a construct not amenable to relevant change (Costa, McCrae, & Zonderman, 1987).

Lyubomirsky, Sheldon et al. (2005) argue that sustainable increases in happiness is possible. Their construct of chronic happiness, or the level of happiness experienced during a specific period in life, is influenced by three factors - set point (50%), life circumstances (10%), and intentional activities engaged in (40%). As noted, the set point is "set," fixed, and inflexible, therefore, it is resistant to change and unlikely to yield sustainable increases in happiness.

A person's life circumstances account for only approximately 10% of individual differences in chronic happiness (Diener et al., 1999). Life circumstances include factors such as national or cultural region, demographics (i.e., gender and ethnicity), personal experiences (e.g., past significant hardships and successes), and life status variables (i.e., marital status, educational attainment, health, and income). These circumstances are essentially constant, therefore, they are prone to adaptation and have a relatively small effect on happiness. As such, changing circumstantial factors is unlikely to produce long-term increases in happiness.

Though most people rapidly adapt to positive life changes such as getting married or winning the lottery, individual differences are observed in degrees of adaptation. For instance, research on people's reactions to marriage showed that some newlyweds reported significant life satisfaction increases after the wedding and for years beyond, some reported returning to their happiness baseline level, and others became unhappy and remained relatively unhappy (Lucas et al., 2003). These results infer that individuals vary in ways they intentionally behave in relation to changing circumstances, for instance, the degree they show gratitude to their marriage partner, work at cultivating the marriage, or enjoy positive experiences together.

Intentional activity thereby represents the best way to change chronic happiness (Lyubomirsky, 2008). Intentional activity involves voluntary action requiring commitment and effort that can be behavioral (e.g., engaging in acts of kindness), cognitive (i.e., displaying gratitude), or

motivational (e.g., seeking value-laden, important life goals). Intentional activities resist adaptation because they are variable and episodic (have beginning and ending points). In other words, it is harder to adapt to something that is always changing (e.g., the activities we pursue) compared to something that is relatively constant (i.e., our circumstances and situations).

Reinforcing this view, Sheldon and Lyubomirsky (2006a) asked participants to rate features of recent positive changes in their activities (i.e., beginning a new fitness program) in contrast to positive changes in their circumstances (e.g., moving to a better apartment), and they reported their activity-based changes as more "variable" and more resistant to adaptation. Further, activity-based changes predicted well-being at 6 and 12 weeks after the study began, while circumstance-based changes predicted well-being only at week 6. The study concluded that participants adapted to their circumstantial changes but not to their intentional activities by week 12.

Research findings show that happiness interventions encompassing intentional activities can increase and maintain happiness. Fordyce (1977, 1983) was an early pioneer in teaching volitional strategies to increase happiness and his model included the following "14 fundamentals:"

1. Be more active and keep busy
2. Spend more time socializing
3. Be productive at meaningful work
4. Get better-organized and plan things out
5. Stop worrying
6. Lower your expectations and aspirations
7. Develop positive optimistic thinking
8. Get present oriented
9. Work on a healthy personality
10. Develop an outgoing, social personality
11. Be yourself
12. Eliminate the negative feelings and problems
13. Close relationships are the #1 source of happiness
14. Value happiness (happy people value happiness more than average, and much more than unhappy people, who commonly perceive happiness as an unimportant life goal).

Boehm, Lyubomirsky, and Sheldon (2008) experimented with the happiness intervention method of having participants engage in kind acts (e.g., holding the door open for a stranger, washing a roommate's dishes). Committing acts of kindness was postulated to increase happiness due to enhanced self-regard, positive social interactions, and eliciting charitable feelings toward others and the greater community. The frequency and variety of practicing acts of kindness was assessed. The frequency had no effect on subsequent well-being but the variety of kind acts influenced later happiness. Participants who were asked to perform a wide variety of kind acts experienced happiness increases, even through the 1-month follow-up, but those asked to not vary their kind acts became less happy midway through the study (they returned to their baseline level of happiness at the follow-up assessment). It was concluded that happiness can be increased by behavioral intentional activities.

Lyubomirsky, Sheldon et al. (2005) observed the effect of expressing gratitude ("counting one's blessings") on well-being. Being grateful was theorized to increase happiness because it fosters the savoring of positive events and situations, and it possibly resists hedonic adaptation by having people perceive goodness in their life instead of taking such for granted. Participants wrote in gratitude journals up to five things they were grateful for in the past week, with frequencies of either once a week, three times a week, or not at all. The "blessings" included significant and trivial factors. Well-being increases only occurred in those recounting their blessings once a week rather than three times a week. This study shows that intentional activity can increase happiness but moderating variables must be considered.

Sheldon and Lyubomirsky (2006b) studied the effect of visualizing and writing about one's ideal self (participants considered desired future images of themselves) on enhancing happiness. King (2001) previously showed that writing about one's best future self increases well-being, possibly because it fosters optimism and integrates a person's priorities and goals. The 2006 study revealed significant happiness increases in participants who visualized their best possible self.

People across many cultures indicate that the pursuit of happiness is one of their most important and meaningful life goals (Diener & Oishi 2000; Diener, Suh, Smith, & Shao, 1995). Fortunately, evidence shows that less happy people can boost their happiness by deliberately practicing happiness-enhancing strategies. Boehm and Lyubomirsky (2009) believe that hedonic adaptation to life's positive changes is a major barrier to happiness, happily, engaging in intentional activities can counteract the adaptation process.

MEANING IN LIFE

The "meaning in life" is a multifaceted concept, however, one effective operational definition views having meaning in life as comprehending, making sense of, or perceiving significance in one's life, along with believing oneself to have a purpose, mission, or overarching goal in life. Meaning enables people to understand, interpret, and organize their life experience, realize a sense of worth and place in the world, recognize relevancy, purposefully manage their energy, and quintessentially, promotes the belief that their lives are significant and they transcend the transient and fleeting present. Frankl's (1963, 1965) theory of meaning centered on each person having a unique purpose or overarching goal for their life that reflected their values and benefited the community. Meaning is experienced by actively pursuing one's most relevant strivings and ambitions.

Much research demonstrates that people who report having meaning or purpose in life appear to be better off, for instance, they are happier (i.e., Dehats, van der Lubbe, & Wezeman, 1993); indicate greater overall well-being (e.g., Bonebright, Clay, & Ankenmann, 2000), life satisfaction (i.e., Chamberlain & Zika, 1988; Steger, Kashdan, Sullivan, & Lorentz, 2008), and control over their

lives (i.e., Ryff, 1989); and feel more involved with their work (Bonebright et al., 2000; Steger & Dik, 2009). People who report high levels of meaning also indicate less negative affect (e.g., Chamberlain & Zika, 1988), depression and anxiety (i.e., Dehats et al., 1993), workaholism (Bonebright et al., 2000), suicidal ideation and substance abuse (e.g., Harlow, Newcomb, & Bender, 1986), and less need for therapy (Battista & Almond, 1973). Meaning also seems to be stable and independent of other aspects of well-being over a one-year time period (Steger & Kashdan, 2007).

Predictably, evidence shows that people who have dedicated themselves to an important cause, or to an ideal transcending trivial concerns, report higher levels of meaning than others. People who are experiencing psychological distress, such as psychiatric patients (i.e., Crumbaugh & Maholick, 1964), report having lower levels of meaning in their lives. Illustrating the benefit of therapy, research reveals heightened meaning in life for psychiatric patients at posttreatment versus at pretreatment (Crumbaugh, 1977; Wadsworth & Barker, 1976), and treatment of psychological distress helps people to rebuild meaning in life (e.g., Wadsworth & Barker, 1976). Meaning in life, therefore, is related to well-being and optimal functioning (King & Napa, 1998; Ryff & Singer, 1998).

Baumeister and Vohs (2002) contend that "the essence of meaning is connection," (p. 608) and people gain a sense of stability relative to the changing conditions of their lives through these connections. This view relates to defining meaning in life in terms of assessing one's intentions, significance, and what he or she stands for.

The two main unidimensional ways to define meaning in life are thereby purpose-centered or significance-centered, in addition, multidimensional approaches to defining meaning in life unite these dimensions with an emotional dimension that also examines fulfillment in one's life. For instance, Reker and Wong (1988) define meaning by the ability to see order and coherence in one's life, pursuing and achieving goals, and resulting feelings of affective fulfillment from such coherence and pursuits. Individuals who fulfill the multidimensional perspective of meaning in life likely have clear goals, warmly accept the way-of-the-world, and confidently believe they have life figured out.

Finding meaning in life, based on the concept's various definitions, may develop by understanding one's existence, recognizing and attaining valued goals, and feeling fulfilled by life, or by a combination of these factors. Additional schools of thought describe ways to find meaning. Frankl (1963), for example, believes that meaning in life may be found by pursuing creative endeavors, having elevating experiences, or reflecting upon and growing from negative life experiences and suffering. Baumeister (1991; Baumeister & Vohs, 2002) describe four ways to achieve meaning: having a sense of purpose, feeling self-worth, fully understanding the values system for judging right from wrong, and establishing efficacy in the world. A person's sense of meaning may arise from the stories and narratives that explain their lives (e.g., McAdams, 1993; Niemeyer & Mahoney, 1995). Supportively, writing about one's life

events can help integrate the events into a broader meaning system (King & Pennebaker, 1996).

Emmons (2003) described a four-part "taxonomy" of meaning involving work/achievement, intimacy/relationships, spirituality, and self-transcendence/generativity. Seligman (2002) suggests that meaning may be derived by applying one's signature talents to an endeavor beyond one's self, which parallels the transcendence variable of Emmons' taxonomy. Reker and Wong (1988) also value self-transcendence as they contend that greater self-transcendence produces deeper meaning in life.

Evidence also shows that finding meaning in traumatic events (termed meaning making or event appraisal) can enhance meaning in life (i.e., Bower, Kemeny, Taylor, & Fahey, 1998; McIntosh, Silver, & Wortman, 1993). Frankl (1963) also firmly believed that confronting and overcoming adversity can yield meaning in life.

Research reveals numerous ways to find meaning in life. Agreement generally abounds that achieving meaning is fostered by engaging in self-transcendent activities and pursuing valued goals while comprehending one's worth and abilities; further, pursuing personal growth and relationship tending are facilitative (Steger, Kashdan, & Oishi, 2008).

Common sources for attaining meaning in life include relationships, religious beliefs, health, pleasure, and personal growth. Generally, having relationships with others is perceived as the most important source of meaning in life (i.e., Emmons, 2003).

Understanding the deepest of philosophical questions, such as "What does it all mean?" is beyond basic psychology, but examining the following question is within the realm of general psychology and positive psychology - "What does 'my life' mean?" Findings illustrate that the answer to this question is relevant to one's well-being, that our relationships influence the answer, and life is perceived as more meaningful when one feels good, whether due to positive affect, valued religious commitments, or the absence of disturbing psychopathology.

The importance of having meaning in life can even affect our longevity. Meaning in life predicted successful aging (e.g., greater well-being and physical health, less psychopathology) 14 months later, even controlling for demographic variables and relevant predictors such as social and intellectual resources (Reker, 2002).

Meaning in life allows our experiences to unite and our lives to consolidate into a meaningful whole.

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TEST - POSITIVE PSYCHOLOGY

10 Continuing Education Hours

Record your answers on the Answer Sheet (click the "NCC Answer Sheet" link on Home Page and click your answers).

Passing is 70% or better.

For True/False questions: A = True and B = False.

- 1. The two-factor model of mental health states that complete mental health means the individual is without mental illness and is flourishing.**
A) True B) False
- 2. Optimists demonstrate better physical and mental health and may live longer than pessimists.**
A) True B) False
- 3. Perceived control is defined as the judgment of having the capacity to attain desired outcomes and to avoid undesirable outcomes.**
A) True B) False
- 4. Positive affectivity is significantly limited by objective conditions such as age, wealth, and status.**
A) True B) False
- 5. Research on courageous groups shows that highly courageous individuals generally exhibit lower subjective and physiological fear responses to laboratory stressors compared to less courageous persons.**
A) True B) False
- 6. The accumulated knowledge acquired about a partner by minding is continuous and not static.**
A) True B) False
- 7. Persons with secure adult attachment orientations compared to their less secure peers reveal higher-quality self-disclosure patterns with their partners.**
A) True B) False
- 8. Relationships having reward value (measured by commitment feelings) instill greater motivation to forgive.**
A) True B) False
- 9. The absence of strong social ties was not found to be a mortality risk factor equivalent to smoking and high blood pressure.**
A) True B) False
- 10. Prolonged cortisol secretion, which chronic stress can produce, may induce significant physiological changes.**
A) True B) False
- 11. Individuals who manifest balanced character strength scores (less disparity across scores within the same person) report _____.**
A) increased stress
B) lower life satisfaction
C) more anxiety
D) higher life satisfaction
- 12. Research suggests that _____ of happiness is attributed to volitional activity (our chosen actions).**
A) 40%
B) 80%
C) 10%
D) 100%
- 13. Recent research shows that not all people adapt to major changes in life, therefore, the construct of _____ should not be considered fixed.**
A) gratitude
B) flow
C) behavioral intervention
D) set-point
- 14. Individuals high in positive affectivity frequently experience intense periods of _____.**
A) pleasant, pleasurable mood
B) reduced levels of happiness
C) low self-confidence
D) anxiety
- 15. Gottman's research on close relationships reveals that _____ experience negative patterns of interaction now and then.**
A) about 20% of couples
B) very few couples
C) nearly all couples
D) about 50% of couples

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16. **Supporting research asserts that higher levels of hope associate with _____.**
- A) more perceived social support
 - B) more social competence
 - C) less loneliness
 - D) All of the above
17. **The findings reveal that _____ consistently predicts relationship quality better than basic personality traits.**
- A) adult attachment security
 - B) nurturance
 - C) empathy
 - D) congeniality
18. **When passion is low in a relationship, _____ is one love component that can strengthen the bond and ease the tension of passion's ebb and flow.**
- A) making promises
 - B) gift-giving
 - C) friendship
 - D) recalling the past
19. **_____ professes that once people establish their self-views, these self-views supply a strong sense of coherence and ability to predict and control their world.**
- A) Self-verification theory
 - B) Intrinsic motivation theory
 - C) Predisposition theory
 - D) Self-disclosure theory
20. **Research has offered credibility to the stress reactivity hypothesis, which suggests that social relationships improve health by _____.**
- A) decreasing natural killer cell activity
 - B) increasing physiological responses to stressors
 - C) lessening physiological responses to stressors
 - D) increasing systolic blood pressure

Please transfer your answers to the Answer Sheet (click the “NCC Answer Sheet” link on Home Page and click your answers).

Press “Back” to return to “NCC Courses” page.