Gratitude is held in high esteem by virtually everyone, at all times, in all places. From ancient religious scriptures through modern social science research, gratitude is advanced as a desirable human characteristic with the capacity for making life better for oneself and for others. Though gratitude is associated with pleasantness and highly desirable life outcomes, it is certainly not an easy or automatic response to life situations. Resentment and entitlement often seem to come naturally. Individual personality flaws such as neuroticism or narcissism make it difficult to recognize the positive contributions of others. The very fact that gratitude is a virtue suggests that it must be deliberately cultivated. Like any virtue, it must be taught, or at least modeled, and practiced regularly, until it becomes, in an Aristotelian sense, a habit of character. A grateful person is one who is prone to react to the goodness of others in a benevolent and receptive fashion, reciprocating kindness when opportunities arise. The grateful person has been able to overcome tendencies to take things for granted, to feel entitled to the benefits they have received, and to take sole credit for all of their advantages in life. They are able to gladly recognize the contributions that others have made to their well-being. Further, they are able to discern when it is appropriate to express gratitude and are not overly concerned with exacting gratitude from those whom they benefit.

What have we learned about gratitude and the grateful personality? First, a definition: Gratitude is an acknowledgment that we have received something of value from others. It arises from a posture of openness to others, where we are able to gladly recognize their benevolence. Societies through the ages have long extolled the benefits of gratitude, and classical writings have deemed it the “greatest of the virtues.” But only recently has psychological theory and research on gratitude begun to catch up with philosophical commendations. In the first part of this chapter, we review research on gratitude and positive human functioning. First, we briefly consider the research on gratitude and well-being. After a consideration of this evidence, we explore the mechanisms by which gratitude enhances well-being. We consider several explanations and evaluate the empirical evidence for each. In the latter part of the chapter, we establish an agenda for the future by considering some ways in
which the scientific field of gratitude can be advanced.

Gratitude and Well-Being: Taking Stock

Gratitude is foundational to well-being and mental health throughout the lifespan. From childhood to old age, accumulating evidence documents the wide array of psychological, physical, and relational benefits associated with gratitude. In the past few years, there has been an accumulation of scientific evidence showing the contribution of gratitude to psychological and social well-being (Emmons & McCullough, 2003; McCullough, Kilpatrick, Emmons, & Larson, 2001; Wood, Froh, & Geraghty, 2010).

Gratitude has been shown to contribute to not only an increase in positive affect and other desirable life outcomes but also to a decrease in negative affect and problematic functioning as demonstrated in diverse samples such as among patients with neuromuscular disease, college students, hypertensives, and early adolescents (Emmons & McCullough, 2003; Froh, Sefick, & Emmons, 2008; Shipon, 2007).

Based on Rosenberg's (1998) hierarchical levels of affective experience, gratitude has been identified as a trait, emotion, and mood. The grateful disposition can be defined as a stable affective trait that would lower the threshold of experiencing gratitude. As an emotion, gratitude can be understood as an acute, intense, and relatively brief psychophysiological reaction to being the recipient of a benefit from another. Lastly, as a stable mood, gratitude has also been identified to have a subtle, broad, and longer-duration impact on consciousness (McCullough, Tsang, & Emmons, 2004). Both state and dispositional gratitude have been shown to enhance overall psychological, social, and physical well-being. Gratitude promotes optimal functioning at multiple levels of analysis—biological, experiential, personal, relational, familial, institutional, and even cultural (Emmons & McCullough, 2004).

Two main measures have been administered to assess dispositional gratitude: the six-item Gratitude Questionnaire (GQ; McCullough, Emmons, & Tsang, 2002), and the 44-item Gratitude Resentment and Appreciation Test or the GRAT (Watkins, Grimm, & Hailu, 1998).

The GQ-6 measures dispositional gratitude as a generalized tendency to recognize and emotionally respond with thankfulness, after attributing benefits received to an external moral agent (Emmons, McCullough, & Tsang, 2003). The 44-item GRAT form measures three dimensions of gratitude: resentment, simple appreciation, and appreciation of others (Watkins et al., 1998). Beyond these scales to assess gratitude, other measures include personal interviews (Liamputtong, Yimyam, Parisunyakul, Baosoung, & Sansiriphon, 2004), rating scales (Saucier & Goldberg, 1998), and other self-report measures such as free response (Sommers & Kosmitzki, 1988) and personal narratives (Kashdan, Mishra, Breen, & Froh, 2009).

Dispositional gratitude has been shown to uniquely and incrementally contribute to subjective well-being (McCullough et al., 2004; Watkins, Woodward, Stone, & Kolts, 2003; Wood, Joseph, & Malby, 2008) and to benefits above and beyond general positive affect (Bartlett & DeSteno, 2006). Dispositional gratitude has also been found to be positively associated with prosocial traits such as empathy, forgiveness, and willingness to help others (McCullough et al., 2002). People who rate themselves as having a grateful disposition perceived themselves as having more prosocial characteristics, expressed by their empathetic behavior, and emotional support for friends within the last month. Similar associations have been found between state gratitude and social well-being (Emmons & McCullough, 2003).

While gratitude has been studied as trait, it has also been studied as a state—feeling grateful and equivalent states (appreciation, thankfulness) at the moment. State gratitude has been experimentally activated through the self-guided exercise of jornalizing. In the first study examining the benefits of experimentally induced grateful thoughts on psychological well-being in daily life, a gratitude induction was compared to a hassles and a neutral life events condition (Emmons & McCullough, 2003). The cultivation of grateful affect through daily and weekly journaling led to overall improved well-being, including fewer health complaints and a more positive outlook toward life. Participants in the gratitude condition also reported more exercise and appraised their life more positively compared to participants in the hassles and neutral conditions. Furthermore, in a study examining the contribution of gratitude in daily mood over 21 days, gratitude was strongly associated with spiritual transcendence and other positive affective traits (e.g., extraversion) (McCullough et al., 2004). In the past few years, a number of laboratory and research-based intervention studies have also been examining the positive impact of
gratitude-induced activities (e.g., the gratitude visit, gratitude letter) on psychological well-being, including happiness, depression, and materialism (Bono, Emmons, & McCullough, 2004; Lyubomirsky, Sheldon, & Schkade, 2005; McCullough et al., 2004; Seligman, Steen, Park, & Peterson; 2005; Watkins, 2000).

Given the emerging strong association between gratitude and well-being, an important step becomes exploring the reasons for this relationship. What are the mechanisms responsible for why gratitude promotes well-being? A number of possible explanations have been suggested; however, not all of them have been fully investigated. In the next section, we examine several explanations for the relation between gratitude and well-being, some of which stem from new research from our laboratory that is relevant to these hypotheses.

Hypothesis 1: Gratitude Facilitates Coping with Stress

Pondering the circumstances in one’s life for which one is grateful appears to be a common way of coping with both acute and chronic stressful life events. Our first hypothesis is that gratitude improves well-being by providing useful coping skills for dealing with losses. These include building a supply of more positive thoughts, increasing the focus on benefits in life and on others, and reducing the maladaptive focus on losses (Fredrickson, 2004; Watkins, 2000). For example, gratitude has been associated with distinct coping styles of seeking social support, positive reframing, approach-oriented problem solving, and active coping (Wood, Joseph, & Linley, 2007). The coping styles linked with gratitude might be based on the recognition of benefits, stronger social bonds, prosocial motivation, and the evolutionary adaptation of gratitude as an emotion for regulating reciprocal altruism (McCullough et al., 2001; McCullough, Kimeldorf, & Cohen, 2008; Trivers, 1971). In the past few years there has been growing empirical evidence for gratitude’s association with coping and post-traumatic growth (Peterson, Park, Pole, D’Andrea, & Seligman, 2008).

One of the first studies examining the benefits of psychological strengths on well-being in combat veterans found that, compared to veterans with Post-Traumatic Stress Disorder (PTSD), veterans without PTSD reported more dispositional gratitude on the GQ-6 (Kashdan, Uswatte, & Julian, 2006). Gratitude also emerged as one of the strongest themes for quality of life (toward the donor, their families, and the renal team) in a sample of kidney transplant recipients, followed by long-lasting psychosocial effects on the recipients (Orr, Willis, Holmes, Britton, & Orr, 2007).

In a prospective study examining college students in the aftermath of the September 11 terrorist attacks, gratitude emerged as one of the primary themes and contributed to resilience and post-crisis coping (Fredrickson, Tugade, Waugh, & Larkin, 2003). Lastly, a recent study including undergraduate women with trauma history showed strong associations between gratitude (measured by a four-item post-trauma gratitude scale including the items “fortunate,” “grateful,” “appreciated life,” and “relieved”) and emotional growth ($r = .43$, $p < .001$). Most importantly, gratitude after trauma was negatively associated with PTSD symptom levels ($r = -.18$, $p < .05$) (Vernon, Dillon, & Steiner, 2009). Therefore, the evidence strongly supports the supposition that gratitude promotes adaptive coping and personal growth.

Hypothesis 2: Gratitude Reduces Toxic Emotions Resulting from Self and Social Comparisons

Another possible explanation for the relation between gratitude and well-being is that grateful individuals are less likely to engage in upward social comparisons that can result in envy or resentment, or self-comparisons with alternative outcomes in one’s own life that can result in regret. Either type of these invidious comparisons can cause people to feel that they lack something important that either others have or that they desire for themselves. Envy is a negative emotional state characterized by resentment, inferiority, longing, and frustration about other people’s material and non-material successes (Parrott & Smith, 1993). Considerable research has shown that envy creates unhappiness and is associated with a host of negative mental health indicators (Smith & Kim, 2007). As gratitude is a focus on the benevolence of others, it is incompatible with envy and resentment, as the grateful person appreciates positive qualities in others and is able to feel happy over the good fortune that happens to others (Smith, Turner, Leach, Garonzik, Urch-Druskat, & Weston, 1996).

Grateful people, who tend to focus on the positive contributions of others to their well-being, probably devote less attention to comparing their outcomes with those of other people and thus...
experience less envy as a result. Using Smith, Parrott, Diener, Hoyle, & Kim’s (1999) measure of dispositional envy and the envy subscale of Belk’s materialism scale (Ger & Belk, 1996 McCullough et al., 2002) reported moderate negative correlations (ranging from –.34 to –.40) between gratitude and envy. Furthermore, the correlations between trait gratitude and envy remained significant after controlling for positive affect, negative affect, and agreeableness. Grateful people do experience less frustration and resentment over the achievements and possessions of other people, and the overlap between gratitude and envy is not produced by their common bond with trait affect.

Regret is a counterfactual emotion produced by perceptions of what might have been. In regret, some action, event, or state of affairs is construed as “unfortunate” and contrasted with some more propitious alternative that “might have been” (Roberts, 2004). In that it is a form of welling on the negative, regret generates related unpleasant states of anxiety, unhappiness, and even depression (Isenberg, 2008; Landman, 1993). There is no empirical evidence that directly tests the hypothesized linkage between regret and gratitude, though the opposing causal attributions that give rise to gratitude versus regret have been well-established (Weiner, 2007). It is likely that the dispositionally grateful have a firewall of protection against incapacitating regrets because they are inclined to dwell on the favorable, rather than the regrettable, in life (Roberts, 2004). By appreciating the gifts of the moment, gratitude offers freedom from past regrets. While a promising hypothesis, more research is needed before we can draw definitive conclusions concerning this hypothesis.

Hypothesis 3: Gratitude Reduces Materialistic Strivings
Gratitude and materialism represent opposing motivational goals. Gratitude may aid well-being by motivating people to fulfill basic needs of personal growth, relationships, and community—motives that are incompatible with materialism (Polak & McCullough, 2006). As a route to the bolstering of well-being, gratitude may block materialistic pursuits. Materialism is damaging to subjective well-being. Materialistic adults tend to exhibit life dissatisfaction (Richins & Dawson, 1992); unhappiness (Belk, 1985; Kasser & Kanner, 2004); low self-esteem (Kasser, 2003); less concern with the welfare of others (Sheldon & Kasser, 1995); less relatedness, autonomy, competence, and meaning in life (Kashdan & Breen, 2007); and higher levels of depressive symptoms (Kasser & Ryan, 1993) and envy (Belk, 1985). Materialistic adults are less satisfied with their standards of living, family lives, and the amount of fun and enjoyment they experience (Richins & Dawson, 1992).

Gratitude is most closely related to the values of benevolence, an orientation characterized by “the preservation and enhancement of the welfare of people with whom one is in frequent personal contact” (Bilsky & Schwartz, 1994, p. 167) and universalism, defined as “understanding, appreciation, tolerance, and protection for the welfare of all people and for nature” (Bilsky & Schwartz, 1994, p. 167). Furthermore, in the Values-in-Action taxonomy of human strengths (Peterson & Seligman, 2004), gratitude is one of the five strengths that falls under the broader virtue of transcendence. These value orientations are diametrically opposed to power (“social status and prestige, control or dominance over people and resources”) (p. 167) and hedonism (pleasure and sensuous gratification for oneself”) (p. 167), which likely are the two values in this theory most aligned with materialism. Values theory would therefore predict a negative correlation between gratitude and materialism on the grounds that they represent opposing value systems.

Evidence suggests that gratitude can reduce the pernicious effects of materialism on well-being. Grateful people report themselves as being less materialistic and are less likely to define personal success in terms of material accomplishments and possessions (McCullough et al., 2002). In particular, grateful people report being more willing to part with their possessions, more generous with them, less envious of the material wealth of others, less committed to the idea that material wealth is linked with success in life, and less convinced of the idea that material wealth brings happiness. Using structural equation modeling, Froh, Emmons, Card, Bono, & Wilson (in press) found that gratitude mediates the relation between materialism and well-being. Apparently, material success is not a very important factor in the happiness of highly grateful people, so this hypothesis has received considerable support.

Hypothesis 4: Gratitude Improves Self-Esteem
Self-esteem has emerged as a powerful correlate of happiness (e.g., Denny & Steiner, 2009;
Lyubomirsky, Tkach, & DiMatteo, 2006; Walker & Schimmack, 2008). Gratitude might be important because focusing on receiving benefits from benefactors might enhance self-esteem and self-respect. This hypothesis has not been extensively tested, but the data that do exist are supportive. For example, grateful youth report high levels of self-esteem (Froh, Wajisblat, & Ubertini, 2008). They also report high levels of self-satisfaction concurrently (Froh et al., 2008, 2008; Froh, Yurkewicz, & Kashdan (2009) and three and six months later (Froh et al., 2008). Grateful people, in focusing on how their lives are supported and sustained by others, might feel more secure and are therefore less likely to seek material goods to strengthen their self-image. Grateful people may also have more stable self-esteem that is less contingent upon transient success and failure experiences, contributing to their ability to cope with stress, as discussed in Hypothesis 1. We do not yet know, however, the direction of the relation. It may be that high self-esteem leads to more feelings of gratitude because it makes it more likely that the person will respond positively to the benevolence of others. Conversely, it may be that feelings of gratitude produce more positive self-construals. Future research will have to decide this sequence.

Hypothesis 5: Gratitude Enhances Accessibility to Positive Memories
Gratitude has also been shown to contribute to well-being by boosting the retrieval of positive autobiographical memories. Grateful people are characterized by a positive memory bias (Watkins, Grimm, & Kolts, 2004). This positivity bias extends to both intentional and intrusive positive memories. These findings were reliably replicated in a subsequent study by the authors after controlling for depression. In a more recent study by Watkins, Cruz, Holben, & Kolts (2008), the reappraising benefit of gratitude on memory was shown to promote successful closure of unpleasant open memories, ultimately contributing to happiness. Therefore, gratitude enhances the retrievability of positive experiences by increasing elaboration of positive information. The positive impact of gratitude on memory was further confirmed in a study by Watkins et al. (2008). The grateful reappraisal of upsetting memories was shown to promote better emotional processing and closure of the upsetting open memories.

Future research could examine the influence of gratitude on the construction of self-construals. These construals might subsequently impact appraisals of autobiographical memories. According to Ross (1989), implicit theories of personal attributes can influence the retrieval of self-construal and facilitate biased recall. Furthermore, the perception of self can change (or remain relatively stable) over time (Ross, 1989). The role of gratitude in influencing construal of life histories might be tested both for state and trait gratitude. People high on trait gratitude may be better able to retrieve more positive personal life experiences compared to less grateful individuals. The effect of experimentally induced gratitude on the quality of autobiographical memories (e.g., positive-negative valence of the memories, perception of negative life events) could also be investigated.

Hypothesis 6: Gratitude Builds Social Resources
Gratitude may contribute to overall well-being by enhancing social relationships. Gratitude has been linked in a variety of ways to positive interpersonal functioning. Gratitude facilitates the building of social resources by broadening the thought action repertoire (i.e., via initiation of friendships or consideration of a wide range of strategies by the beneficiary as a form of repayment) (Fredrickson, 2004, pp. 150). Moreover, besides building new bonds, gratitude also helps strengthen and maintain existing relationships (Algoe, Haidt, & Gable, 2008) and fosters trust (Gino & Schweitzer, 2008). Grateful people possess a number of resources that make them desirable friends and romantic partners. They are extraverted, agreeable, empathic, emotionally stable, forgiving, trusting, and generous (McCullough et. al, 2002; Wood et al., 2008).

Further, gratitude is a strength of character that is highly desired in romantic partners (Steen, Kachorek, & Peterson, 2003). From an attachment perspective, gratitude has been shown to promote social bonds since it is closely associated with attachment security. In a sample of Israeli undergraduates, attachment security uniquely contributed to the grateful disposition over and beyond the association of attachment security with self-esteem or trust (Mikulincer, Shaver, & Slav, 2006). In a subsequent study the link between trait gratitude and attachment security was examined in context of new marital relationships. For both husband and
wife, the perceived positive behavior of the partner was strongly associated with greater gratitude toward the partner on a particular day (Mikulincer et al., 2006, pp. 203). The link is not limited to newlyweds. In a sample of older adults, greater social support from adult children was found to be related with a higher sense of gratitude (Dahua, Yan, & Liqing, 2004).

The social benefits of gratitude can also be construed in terms of the affect theory of social exchange proposed by Lawler (2001). This theory proposes that positive emotions generated by social exchange partners lead to social cohesion and strengthening of social networks. Therefore, by promoting prosocial behavior, building social resources, fostering trust, attachment security, and social exchange, gratitude is a vital interpersonal emotion, the absence of which undermines social harmony.

Hypothesis 7: Gratitude Motivates Moral Behavior

Gratitude is an essential part of creating and sustaining positive social relations. One way that gratitude sustains personal relationships is that it motivates moral behavior—action that is undertaken in order to benefit another. McCullough et al. (2001) proposed that gratitude possesses three psychological features that are relevant to processing and responding to prosocial behavior: It is a benefit detector as well as both a reinforcer and motivator of prosocial behavior. In this functional account, gratitude is more than a pleasant feeling. Gratitude is also motivating and energizing. It is a positive state of mind that gives rise to the “passing on of the gift” through positive action. As such, gratitude serves as a key link in the dynamic between receiving and giving. While a response to kindness received, gratitude drives future benevolent actions on the part of the recipient. In the language of evolutionary dynamics, gratitude leads to “upstream reciprocity” (Nowak & Roch, 2007), the passing on of a benefit to a person uninvolved in the initial exchange. Part of gratitude’s magnetic appeal lies in its power to evoke a focus by the recipient on the benevolence of others, thereby ensuring a perception that kindness has been offered, and its beneficial consequences that frequently are the motive to respond favorably toward another. The idea that the capacity to receive and be grateful fosters the desire to return goodness is theoretically compelling and empirically viable.

Recent experimental evidence indicates that gratitude is a unique facilitator of reciprocity (Bartlett & DeSteno, 2006; Watkins, Schnee, Ovnicke & Kolts, 2006). After appraising the evidence that gratitude fosters moral behavior, McCullough, Kimeldorf, and Cohen (2008) propose that gratitude evolved to facilitate social exchange. Compelling evidence suggests that gratitude evolved to stimulate not only direct reciprocal altruism but also upstream reciprocity (Nowak & Roch, 2007).

Hypothesis 8: Grateful People Are Spiritually Minded

Several studies have found a relationship between religion, spirituality, and gratitude (Adler & Fagley, 2005; Emmons & Kneezel, 2005; McCullough et al., 2002; Watkins et al., 2003). People with stronger dispositions toward gratitude tend to be more spiritually and religiously minded. Not only do they score higher on measures of traditional religiousness, but they also scored higher on non-sectarian measures of spirituality that assess spiritual experiences (e.g., sense of contact with a divine power) and sentiments (e.g., beliefs that all living things are interconnected) independent of specific theological orientation. All measures of public and private religiousness in the Emmons and Kneezel (2005) study were significantly associated with both dispositional gratitude and grateful feelings assessed on a daily basis. Although these correlations were not large (ranging from \( r = .28 \) to \( r = .52 \)), they suggest that spiritually or religiously inclined people have a stronger disposition to experience gratitude than do their less spiritual/religious counterparts. Research is also beginning to examine gratitude toward God. Krause (2006) found that gratitude felt toward God reduced the effect of stress on health in later-life adults and deteriorated neighborhood. The stress-buffering effect of theocentric gratitude was more pronounced among the women compared to the men in Krause’s (2006) study.

Many world religions commend gratitude as a desirable human trait (see Carman & Streng, 1989; Emmons & Crumpler, 2000), which may cause spiritual or religious people to adopt a grateful outlook. Religion also provides texts, teachings, and traditions that encourage gratitude. When contemplating a positive circumstance that cannot be attributed to intentional human effort, such as a miraculous healing or the gift of life itself, spiritually inclined people...
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may attribute these positive outcomes to a non-
human agent (viz., God or a higher power) and
thus experience more gratitude. Third, spiritu-
ally inclined people also tend to attribute posi-
tive outcomes to God’s intervention, but not
negative ones (Lupfer, De Paola, Brock, &
As a result, many positive life events that are not
due to the actions of another person (e.g., pleas-
ant weather, avoiding an automobile accident)
may be perceived as occasions for gratitude to
God, although negative events (e.g., a long
winter, an automobile accident) would likely not
be attributed to God. This attributional style,
then, is likely to magnify the positive emotional
effects of pleasant life events.

Hypothesis 9: Gratitude Facilitates
Goal Attainment

The possession of and progression toward impor-
tant life goals are essential for long-term well-
being (Emmons, 1999). Goal attainment is a
major benchmark for the experience of well-
being. Quality of life therapy (Frisch, 2006)
avovates the importance of revising goals, stan-
dards, and priorities as a strategy for boosting
life happiness and satisfaction. Yet goal striving
and gratitude or the grateful disposition have not
been explicitly linked. In one experimental study
on gratitude and well-being, we asked partici-
ants at the beginning of the gratitude journal-
ning study to provide a short list of goals they
wished to accomplish over the next two months.
As these were students, most goals fell into the
interpersonal or academic domains. Participants
in the gratitude condition, relative to the control
and hassles conditions, reported making more
progress toward their goals over the 10-week
period. The results of this study stand in strong
opposition to an empirically undocumented
but widely held assumption that gratitude pro-
motes passivity and complacency. On the con-
trary, gratitude enhances effortful goal striving.
Much more future research could examine the
goal correlates of gratitude, as well as grateful
affect as an emotional regulator of goal-directed
action.

Hypothesis 10: Gratitude Promotes
Physical Health

Gratitude is a mindful awareness of the benefits in
one’s life. Dwelling on goodness may promote
more efficient physical functioning, through either

inhibiting unhealthy attitudes and emotions or
facilitating more health-promoting inner states.
A small number of studies have reported physi-

cal health benefits of gratitude, and these rela-
tions have been largely independent of trait
negative affect (Wood, Joseph, Lloyd, & Atkins,
2008). Gratitude interventions have been shown
to reduce the bodily complaints, increase sleep
duration and efficiency, and promote exercise
(Emmons & McCullough, 2003; Wood et al.,
2008). Experimental research suggests that dis-
crete experiences of gratitude and appreciation
may cause increases in parasympathetic myocar-
dial control (McCray & Childre, 2004), lower
systolic blood pressure (Shipon, 2007), as well as
improvements in more molar aspects of physical
health such as everyday symptoms and physi-
cian visits (Emmons & McCullough, 2003).
McCray and colleagues found that appreciation
increased parasympathetic activity, a change
thought to be beneficial in controlling stress and
hypertension, as well as “coherence” or entrain-
ment across various autonomic response chan-
nels. Therefore, there might be some direct
physiological benefits to frequently experiencing
grateful emotions. This line of research con-
ducted by McCray demonstrates a link between
positive emotions and increased physiological
efficiency, which may partly explain the growing
number of correlations documented between
positive emotions, improved health, and increased
longevity.
Mechanisms. What are the active ingredients in gratitude interventions? It is not known whether the effects of these activities are relatively specific (e.g., increases in happiness alone) or are more general (e.g., increases in perceived physical health and decreases in negative mood). In addition, no research has attempted to examine the effects of these activities in the context of participants’ levels of dispositional gratitude, an established individual difference that may modulate the positive effects of activities aimed at increasing gratitude in one’s life (McCullough et al., 2002). The active ingredients may relate to processes of reflecting on things for which one is grateful, or recording these in some way, or expressing them. Until it is known which of these is essential, we cannot state why these exercises work and it is difficult to make informed recommendations about how they might be used. Future research must employ increasingly sophisticated designs using statistical tests of mediating and moderating effects.

Comparison groups. What is the most appropriate condition to contrast with gratitude? Nearly one-half of the studies that have been published to date found support for gratitude interventions when making contrasts with techniques that induce negative affect (e.g., record your daily hassles). Gratitude interventions have shown limited benefits, if any, over control conditions. Thus, there is a need to better understand whether gratitude interventions are beyond a control condition and if there exists a subset of people who benefit. Perhaps gratitude interventions are differentially effective for groups of people with varying backgrounds. Sample characteristics themselves might show differences. People who are actively seeking positive psychology interventions may have greater expectations for their efficacy compared to college students participating for extra credit or to fulfill a course requirement.

Trait moderators. A moderating effect might be found if pre-existing trait characteristics of people affect their ability to profit from gratitude interventions. Several dispositional factors may moderate the effectiveness of gratitude interventions. Of these, trait affect and dispositional gratitude are obvious candidates for consideration. It seems a reasonable prediction that persons high in positive affect (PA) may have reached an “emotional ceiling” and thus are less susceptible to experiencing gains in well-being. People lower in PA, however, may need more positive events—like expressing gratitude to a benefactor—to “catch up” to the positive experiences of their peers. Froh, Kashdan, Ozimkowski, and Miller (2009) examined whether individuals differences in positive affective style moderated the effects of a gratitude intervention where youth were instructed to write a letter to someone to whom they were grateful and deliver it to them in person. Eighty-nine children and adolescents were randomly assigned to the gratitude intervention or a control condition. Findings indicated that youth low in PA in the gratitude condition, compared with youth writing about daily events, reported greater gratitude and PA at post-treatment and greater PA at the two-month follow-up. Children and adolescents low in PA in the gratitude condition, compared with the control group, reported more gratitude and PA at two later time points, at three-week and two-month follow-ups. This is an important study because it is the first known randomized controlled trial of a gratitude intervention study in children and adolescents and the first paper to reinterpret the gratitude intervention literature arguing to carefully consider controls groups when concluding the efficacy of gratitude interventions. Furthermore, when considering both youth and adult populations, it is also the first known attempt at investigating positive affect as a moderator.

Then there is dispositional gratitude. Can we expect gratitude inductions to be more effective in increasing the well-being of grateful individuals or less grateful persons? Grateful individuals would be more susceptible to recognizing when others are being kind to them, and more open to perceiving benefits more generally. One could even postulate a gratitude schema (Wood et al., 2008) as an interpretive bias on the part of dispositionally grateful individuals prone to making benevolent appraisals. Alternatively, gratitude interventions might also be more efficacious for individuals low on trait gratitude since they may have more room for improvement on the gratitude dimension. No published studies have examined dispositional gratitude as a moderator of state gratitude interventions.

Trait gratitude might also interact with trait affect. Froh et al. (2009) found that, compared to the control group, individuals in the gratitude group who were low on positive affect benefited the most from the gratitude intervention. Given the recent evidence on the contribution of positive affect as a moderator, it might also be reasonable to examine the possibility of a curvilinear relationship between trait gratitude and well-being. For example, individuals at the extreme...
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Is there an equivalent dose-response relationship for gratitude interventions? Interventions have asked people to keep gratitude journals every day to a few times a week to once a week for 10 weeks. While some differences have been reported across these studies, an insufficient number of trials have yet to be conducted such that recommendations could be made with confidence. The definition of a dose itself is up for debate. Should a dose be considered a single session of writing in a gratitude journal? Should a minimum time be set for participants to write in their journals each session? We would expect that the greater the degree of elaboration over a simple listing or counting of blessings, the greater would be the potential payoff. But a systematic comparison of the relevant variables that “gratitude dosages” vary on has yet to be conducted.

Gender. Gender may be another critical individual factor affecting the outcomes of intervention studies. Given the interpersonal correlates and interdependent nature of gratitude, women might have an edge over men in extracting benefits from gratitude interventions. In fact, recent studies have demonstrated significant gender differences in gratitude (Kashdan et al., 2009; Watkins et al., 2005). However, in another recent study by Froh et al. (2009), the usual trend of gender differences couldn’t be captured in an adolescent sample. Even though adolescent girls reported more gratitude, adolescent boys appeared to derive more social benefits from gratitude for whom a stronger relationship between gratitude and family support was found.

As an extension of possible gender differences in gratitude, it would be compelling to examine the contribution of gratitude in romantic relationships. Dyadic interventions involving grateful activities might foster higher-quality relationships. For example, a recent study examined the influence of attachment orientations on gratitude in new marital relationships over a period of 21 days (Mikulincer et al., 2006). Daily feelings of gratitude for the partner were related to appraisals of partner’s behavior (i.e., the higher the level of partner’s perceived positive behavior, the greater the gratitude). For both partners, perceived positive behavior by the partner toward the self on one day was significantly associated with greater gratitude toward the partner on that same day. Moreover, in the same study, attachment avoidance was found to be associated with lower feelings of gratitude for the partner across the 21 days. However, most interestingly, only
the husband’s avoidance orientation moderated
3 the relationship between the perceived partner’s
4 behavior and feelings of gratitude (i.e., avoidant
5 husbands reported lower gratitude even on days
6 when they appraised their wife’s behaviors to be
7 highly positive). As an extension of these find-
8 ings, future studies can examine if and why grati-
9 tude has the potential of contributing more to
10 the relationship quality for women, compared to
11 men. Given the interdependent and interper-
12 sonal nature of gratitude, women might be more
13 susceptible toward perceiving a partner’s positive
14 behaviors as gifts and extract more benefits from
15 gratitude in their romantic relationships. Women
16 are expected to expand their caretaking and rela-
17 tional roles, whereas men are expected to focus
18 on their emotional expression on the expansion and
19 pursuit of power and status (Brody, 1997, 1999;
20 Stoppard & Gruchy, 1993). Therefore, seeking
21 more of a “provider’s” role in marital relation-
22 ships, gratitude may trigger feelings of vulnera-
23 bility and weakness for men, which they may
24 perceive to be harmful to their masculinity and
25 social standing (Levant & Kopecky, 1995). As a
26 result, men might extract fewer benefits from
27 gratitude to enhance their relationship quality.
28
29 Enhancing retention in self-guided programs.
30 Gratitude interventions may increase compli-
31 ance with and the possible success of self-guided
32 therapies in the realms of health management.
33 Given that grateful people tend to take better
34 care of their health, would an intervention to
35 increase gratitude lead a person to stick with
36 their commitments say to reduce weight, eat
37 more nutritionally, exercise, or reduce smoking?
38 Attrition is a major problem, especially in
39 Internet interventions (Christensen, Griffiths,
40 Mackinnon, & Brittiffe, 2006). A recent study
41 found that retention in a two-week intervention
42 for depressed persons was significantly higher
43 for those who completed gratitude journals com-
44 pared to recording automatic thoughts (Geraghty,
45 Wood, & Hyland, 2010).
46 Gratitude was effective in both reducing drop-
47 out and lowering depression scores, and increased
48 retention by 12% over those recording daily
49 thoughts.
50
51 The Uniqueness of Gratitude Interventions
52 An important issue to be addressed in future
53 research concerns the unique contributions that
54 gratitude interventions make to well-being out-
55 comes that distinguish them, say from related
56 positive psychology interventions. The unique-
57 ness of these interventions could be compared
58 with other positive psychological constructs such
59 as forgiveness and hope, both of which have been
60 shown to contribute to well-being (Bono,
61 McCullough, & Root, 2008; Snyder, Rand, &
62 Sigmon, 2002). What is different about grati-
63 tude? First, the underlying prosocial and rela-
64 tional nature of gratitude, subsequently leading
65 to strengthened social bonds, might facilitate
66 unique pathways to well-being. Second, grati-
67 tude has a fulfillment aspect to it, unlike hope,
68 that might facilitate extraction of benefits via
69 mindful appreciation of both present and past
70 received benefits. For example, given that hope is
71 a positive motivational state driven by goal-di-
72 rected energy and planning toward reaching
73 future goal(s) (Snyder, 2000), it probably reaches
74 its fruition only in a prospective fashion in the
75 absence of a desired goal—a goal that may or
76 may not be attained. Gratitude has also been
77 shown to be activated strongly by first focusing
78 on absence of benefits (Koo et al., 2008). However,
79 unlike hope, gratitude is almost always felt in
80 retrospective, thereby facilitating a positive cog-
81 nitive framework toward an already present
82 benefit. Furthermore, gratitude may be extracted
83 from immediate or present life circumstances
84 (e.g., “I am grateful for all the benefits that
85 I received today”), and also from the past (e.g.,
86 “I am grateful for the love and support that I
87 received when I was sick two years back”), pro-
88 moting more expanded positive emotional expe-
89 rience. Besides the retrospective recognition of
90 benefits, gratitude also drives future prosocial
91 motivations (e.g., “I want to return benefits to
92 others who have helped me”).
93 Forgiveness is a motivational and emotional
94 transformation whereby a person relinquishes
95 feelings of past hurts and engages in construc-
96 tive thoughts and possibly conciliatory actions
97 toward the person who has hurt him or her
98 (McCullough, Worthington, & Rachal, 1997).
99 Given the psychological hurdles preceding for-
100 giveness, such as overcoming past hurts, psycho-
101 logical well-being via forgiveness might be
102 attained more gradually compared to gratitude.
103 In our laboratory, we recently compared grati-
104 tude with these two other positive psychological
105 interventions and a control condition. Online
106 interventions for gratitude, forgiveness, and hope
107 were developed and implemented daily over a
108 two-week period. Participants were randomly
109 assigned to one of four conditions—the grati-
110 tude, forgiveness, hope, or control conditions.
In the gratitude condition, participants were asked to focus and engage grateful thoughts and feelings toward multiple gifts received each day. In the forgiveness condition the participants were asked to engage in benefit finding and forgiving thoughts toward an offender each day. In the hope condition, participants were asked each day to write about a goal that they hope to pursue in the future. The control group was asked to list activities attended each day over the two weeks. The four groups also reported their daily emotions and a daily checklist of spiritual, materialistic, prosocial, and grateful activities.

Compared to men, women in all three intervention conditions reported higher levels of both trait and state gratitude. More specifically, for the gratitude composite variable (i.e., appreciative, thankful, grateful) across the 14 days, gender differences were observed most strongly in the gratitude intervention condition. Women had higher levels of grateful emotions in the gratitude condition, indicating that women were more sensitive to the gratitude intervention. Women also reported higher levels of positive affect in the gratitude condition, compared to men (Mishra & Emmons, 2009). These findings resonate well with the gender differences findings revealed in recent studies (see Kashdan et al 2009; Watkins et al., 2003). As discussed earlier, the gender differences in gratitude may be explained by the greater susceptibility of women to extract benefits from gratitude because of its utility as an interpersonal emotion. Examining gender differences in gratitude may also lead to further insight into the possibility of gender-specific gratitude interventions that may applied in future studies.

Conclusion

The science of gratitude is young. Even so, considerable progress has already been made in understanding how both state and trait gratitude are conducive to well-being. Of the 10 hypotheses advanced in this chapter, considerable empirical support was found for the majority of them. Some of these have been the object of more research than others, so it may be premature to suggest that a comprehensive evaluation of each has been accomplished. One conclusion that we can draw with confidence is that relation between gratitude and well-being is multiply determined. In particular, we found considerable evidence that gratitude builds social resources by strengthening relationships and promoting prosocial actions. It is also likely that these 10 hypotheses do not exhaust the possible ways in which gratitude impacts well-being, and future research will undoubtedly uncover additional mechanisms. Toward that end, we offered some suggestions for the design of future studies that will hopefully continue to illuminate the richness and complexity of this social emotion and optimize the practice of gratitude for promoting harmonious intrapsychic and interpersonal functioning.

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260  PART V. PERSONALITY PERSPECTIVES

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