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Why Gratitude Enhances Well-Being: What We Know, What We Need to Know

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5 Gratitude is held in high esteem by virtually
6 everyone, at all times, in all places. From ancient
7 religious scriptures through modern social sci-
8 ence research, gratitude is advanced as a desir-
9 able human characteristic with the capacity for
10 making life better for oneself and for others.
11 Though gratitude is associated with pleasantness
12 and highly desirable life outcomes, it is certainly
13 not an easy or automatic response to life situa-
14 tions. Resentment and entitlement often seem to
15 come naturally. Individual personality flaws such
16 as neuroticism or narcissism make it difficult to
17 recognize the positive contributions of others.
18 The very fact that gratitude is a virtue suggests
19 that it must be deliberately cultivated. Like any
20 virtue, it must be taught, or at least modeled, and
21 practiced regularly, until it becomes, in an
22 Aristotelian sense, a habit of character. A grateful
23 person is one who is prone to react to the good-
24 ness of others in a benevolent and receptive
25 fashion, reciprocating kindness when opportuni-
26 ties arise. The grateful person has been able to
27 overcome tendencies to take things for granted,
28 to feel entitled to the benefits they have received,
29 and to take sole credit for all of their advantages
30 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 grati-
tude begun to catch up with philosophical com-
mendations. 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

1 which the scientific field of gratitude can be
2 advanced.

3 **Gratitude and Well-Being: Taking Stock**

4 Gratitude is foundational to well-being and
5 mental health throughout the lifespan. From
6 childhood to old age, accumulating evidence
7 documents the wide array of psychological,
8 physical, and relational benefits associated with
9 gratitude. In the past few years, there has been
10 an accumulation of scientific evidence showing
11 the contribution of gratitude to psychological
12 and social well-being (Emmons & McCullough,
13 2003; McCullough, Kilpatrick, Emmons, &
14 Larson, 2001; Wood, Froh, & Geraghty, 2010).
15 Gratitude has been shown to contribute to not
16 only an increase in positive affect and other
17 desirable life outcomes but also to a decrease in
18 negative affect and problematic functioning as
19 demonstrated in diverse samples such as among
20 patients with neuromuscular disease, college
21 students, hypertensives, and early adolescents
22 (Emmons & McCullough, 2003; Froh, Sefick, &
23 Emmons, 2008; Shipon, 2007).

24 Based on Rosenberg's (1998) hierarchical
25 levels of affective experience, gratitude has been
26 identified as a trait, emotion, and mood. The
27 grateful disposition can be defined as a stable
28 affective trait that would lower the threshold of
29 experiencing gratitude. As an emotion, gratitude
30 can be understood as an acute, intense, and rela-
31 tively brief psychophysiological reaction to being
32 the recipient of a benefit from an other. Lastly, as
33 a stable mood, gratitude has also been identified
34 to have a subtle, broad, and longer-duration
35 impact on consciousness (McCullough, Tsang, &
36 Emmons, 2004). Both state and dispositional
37 gratitude have been shown to enhance overall
38 psychological, social, and physical well-being.
39 Gratitude promotes optimal functioning at mul-
40 tiple levels of analysis—biological, experiential,
41 personal, relational, familial, institutional, and
42 even cultural (Emmons & McCullough, 2004).

43 Two main measures have been administered
44 to assess dispositional gratitude: the six-item
45 Gratitude Questionnaire (GQ; McCullough,
46 Emmons, & Tsang, 2002), and the 44-item
47 Gratitude Resentment and Appreciation Test or
48 the GRAT (Watkins, Grimm, & Hailu, 1998).
49 The GQ-6 measures dispositional gratitude as a
50 generalized tendency to recognize and emotion-
51 ally respond with thankfulness, after attributing
52 benefits received to an external moral agent

(Emmons, McCullough, & Tsang, 2003). The 53
44-item GRAT form measures three dimensions 54
of gratitude: resentment, simple appreciation, 55
and appreciation of others (Watkins et al., 56
1998). Beyond these scales to assess gratitude, 57
other measures include personal interviews 58
(Liamputtong, Yimyam, Parisunyakul, Baosoung, 59
& Sansiriphun, 2004), rating scales (Saucier & 60
Goldberg, 1998), and other self-report measures 61
such as free response (Sommers & Kosmitzki, 62
1988) and personal narratives (Kashdan, Mishra, 63
Breen, & Froh, 2009). 64

65 Dispositional gratitude has been shown to
66 uniquely and incrementally contribute to subjec-
67 tive well-being (McCullough et al., 2004; Watkins,
68 Woodward, Stone, & Kolts, 2003; Wood, Joseph,
69 & Maltby, 2008) and to benefits above and
70 beyond general positive affect (Bartlett &
71 DeSteno, 2006). Dispositional gratitude has also
72 been found to be positively associated with prosocial
73 traits such as empathy, forgiveness, and will-
74 ingness to help others (McCullough et al., 2002).
75 People who rate themselves as having a grateful
76 disposition perceived themselves as having more
77 prosocial characteristics, expressed by their empa-
78 thetic behavior, and emotional support for friends
79 within the last month. Similar associations have
80 been found between state gratitude and social
81 well-being (Emmons & McCullough, 2003).

82 While gratitude has been studied as trait, it has
83 also been studied as a state—feeling grateful and
84 equivalent states (appreciation, thankfulness) at
85 the moment. State gratitude has been experi-
86 mentally activated through the self-guided exer-
87 cise of journaling. In the first study examining
88 the benefits of experimentally induced grateful
89 thoughts on psychological well-being in daily
90 life, a gratitude induction was compared to a
91 hassles and a neutral life events condition
92 (Emmons & McCullough, 2003). The cultivation
93 of grateful affect through daily and weekly jour-
94 naling led to overall improved well-being,
95 including fewer health complaints and a more
96 positive outlook toward life. Participants in the
97 gratitude condition also reported more exercise
98 and appraised their life more positively com-
99 pared to participants in the hassles and neutral
100 conditions. Furthermore, in a study examining
101 the contribution of gratitude in daily mood over
102 21 days, gratitude was strongly associated with
103 spiritual transcendence and other positive affec-
104 tive traits (e.g., extraversion) (McCullough et al.,
105 2004). In the past few years, a number of labora-
106 tory and research-based intervention studies
107 have also been examining the positive impact of

1 gratitude-induced activities (e.g., the gratitude
2 visit, gratitude letter) on psychological well-
3 being, including happiness, depression, and mate-
4 rialism (Bono, Emmons, & McCullough, 2004;
5 Lyubomirsky, Sheldon, & Schkade, 2005;
6 McCullough et al., 2004; Seligman, Steen, Park,
7 & Peterson; 2005; Watkins, 2000).

8 Given the emerging strong association
9 between gratitude and well-being, an important
10 step becomes exploring the reasons for this
11 relationship. What are the mechanisms respon-
12 sible for why gratitude promotes well-being?
13 A number of possible explanations have been
14 suggested; however, not all of them have been
15 fully investigated. In the next section, we exam-
16 ine several explanations for the relation between
17 gratitude and well-being, some of which stem
18 from new research from our laboratory that is
19 relevant to these hypotheses.

20 Hypothesis 1: Gratitude Facilitates 21 Coping with Stress

22 Pondering the circumstances in one's life for
23 which one is grateful appears to be a common
24 way of coping with both acute and chronic stress-
25 ful life events. Our first hypothesis is that grati-
26 tude improves well-being by providing useful
27 coping skills for dealing with losses. These
28 include building a supply of more positive
29 thoughts, increasing the focus on benefits in life
30 and on others, and reducing the maladaptive
31 focus on losses (Fredrickson, 2004; Watkins,
32 2000). For example, gratitude has been associated
33 with distinct coping styles of seeking social
34 support, positive reframing, approach-oriented
35 problem solving, and active coping (Wood,
36 Joseph, & Linley, 2007). The coping styles linked
37 with gratitude might be based on the recognition
38 of benefits, stronger social bonds, prosocial moti-
39 vation, and the evolutionary adaptation of grati-
40 tude as an emotion for regulating reciprocal
41 altruism (McCullough et al., 2001; McCullough,
42 Kimeldorf, & Cohen, 2008; Trivers, 1971). In the
43 past few years there has been growing empirical
44 evidence for gratitude's association with coping
45 and post-traumatic growth (Peterson, Park, Pole,
46 D'Andrea, & Seligman, 2008).

47 One of the first studies examining the benefits
48 of psychological strengths on well-being in
49 combat veterans found that, compared to veter-
50 ans with Post-Traumatic Stress Disorder (PTSD),
51 veterans without PTSD reported more disposi-
52 tional gratitude on the GQ-6 (Kashdan, Uswatte,
53 & Julian, 2006). Gratitude also emerged as one of

54 the strongest themes for quality of life (toward
55 the donor, their families, and the renal team) in a
56 sample of kidney transplant recipients, followed
57 by long-lasting psychosocial effects on the recip-
58 ients (Orr, Willis, Holmes, Britton, & Orr, 2007).
59 In a prospective study examining college stu-
60 dents in the aftermath of the September 11 ter-
61 rorist attacks, gratitude emerged as one of the
62 primary themes and contributed to resilience
63 and post-crisis coping (Fredrickson, Tugade,
64 Waugh, & Larkin, 2003). Lastly, a recent study
65 including undergraduate women with trauma
66 history showed strong associations between
67 gratitude (measured by a four-item post-trauma
68 gratitude scale including the items "fortunate,"
69 "grateful," "appreciated life," and "relieved")
70 and emotional growth ($r = .43, p < .001$). Most
71 importantly, gratitude after trauma was nega-
72 tively associated with PTSD symptom levels
73 ($r = -.18, p < .05$) (Vernon, Dillon, & Steiner,
74 2009). Therefore, the evidence strongly supports
75 the supposition that gratitude promotes adaptive
76 coping and personal growth.

77 Hypothesis 2: Gratitude Reduces Toxic 78 Emotions Resulting from Self and Social 79 Comparisons

80 Another possible explanation for the relation
81 between gratitude and well-being is that grateful
82 individuals are less likely to engage in upward
83 social comparisons that can result in envy or
84 resentment, or self-comparisons with alternative
85 outcomes in one's own life that can result in
86 regret. Either type of these invidious compar-
87 isons can cause people to feel that they lack some-
88 thing important that either others have or that
89 they desire for themselves. Envy is a negative
90 emotional state characterized by resentment,
91 inferiority, longing, and frustration about other
92 people's material and non-material successes
93 (Parrott & Smith, 1993). Considerable research
94 has shown that envy creates unhappiness and is
95 associated with a host of negative mental health
96 indicators (Smith & Kim, 2007). As gratitude is a
97 focus on the benevolence of others, it is incom-
98 patible with envy and resentment, as the grateful
99 person appreciates positive qualities in others
100 and is able to feel happy over the good fortune
101 that happens to others (Smith, Turner, Leach,
102 Garonzik, Urch-Druskat, & Weston, 1996).
103 Grateful people, who tend to focus on the posi-
104 tive contributions of others to their well-being,
105 probably devote less attention to comparing their
106 outcomes with those of other people and thus

1 experience less envy as a result. Using Smith,
 2 Parrott, Diener, Hoyle, & Kim's (1999) measure
 3 of dispositional envy and the envy subscale of
 4 Belk's materialism scale (Ger & Belk, 1996
 5 McCullough et al., 2002) reported moderate neg-
 6 ative correlations (ranging from $-.34$ to $-.40$)
 7 between gratitude and envy. Furthermore, the
 8 correlations between trait gratitude and envy
 9 remained significant after controlling for posi-
 10 tive affect, negative affect, and agreeableness.
 11 Grateful people do experience less frustration
 12 and resentment over the achievements and pos-
 13 sessions of other people, and the overlap between
 14 gratitude and envy is not produced by their
 15 common bond with trait affect.

16 Regret is a counterfactual emotion produced
 17 by perceptions of what might have been. In
 18 regret, some action, event, or state of affairs is
 19 construed as "unfortunate" and contrasted with
 20 some more propitious alternative that "might
 21 have been" (Roberts, 2004). In that it is a form of
 22 welling on the negative, regret generates related
 23 unpleasant states of anxiety, unhappiness, and
 24 even depression (Isenberg, 2008; Landman,
 25 1993). There is no empirical evidence that
 26 directly tests the hypothesized linkage between
 27 regret and gratitude, though the opposing causal
 28 attributions that give rise to gratitude versus
 29 regret have been well-established (Weiner, 2007).
 30 It is likely that the dispositionally grateful have
 31 a firewall of protection against incapacitating
 32 regrets because they are inclined to dwell on the
 33 favorable, rather than the regrettable, in life
 34 (Roberts, 2004). By appreciating the gifts of the
 35 moment, gratitude offers freedom from past
 36 regrets. While a promising hypothesis, more
 37 research is needed before we can draw definitive
 38 conclusions concerning this hypothesis.

39 Hypothesis 3: Gratitude Reduces 40 Materialistic Strivings

41 Gratitude and materialism represent opposing
 42 motivational goals. Gratitude may aid well-being
 43 by motivating people to fulfill basic needs of per-
 44 sonal growth, relationships, and community—
 45 motives that are incompatible with materialism
 46 (Polak & McCullough, 2006). As a route to the
 47 bolstering of well-being, gratitude may block
 48 materialistic pursuits. Materialism is damaging
 49 to subjective well-being. Materialistic adults
 50 tend to exhibit life dissatisfaction (Richins &
 51 Dawson, 1992); unhappiness (Belk, 1985; Kasser
 52 & Kanner, 2004); low self-esteem (Kasser,
 53 2003); less concern with the welfare of others

(Sheldon & Kasser, 1995); less relatedness, 54
 autonomy, competence, and meaning in life 55
 (Kashdan & Breen, 2007); and higher levels of 56
 depressive symptoms (Kasser & Ryan, 1993) and 57
 envy (Belk, 1985). Materialistic adults are less 58
 satisfied with their standards of living, family 59
 lives, and the amount of fun and enjoyment they 60
 experience (Richins & Dawson, 1992). 61

62 Gratitude is most closely related to the values
 63 of *benevolence*, an orientation characterized by
 64 "the preservation and enhancement of the wel-
 65 fare of people with whom one is in frequent per-
 66 sonal contact" (Bilsky & Schwartz, 1994, p. 167)
 67 and *universalism*, defined as "understanding,
 68 appreciation, tolerance, and protection for the
 69 welfare of all people and for nature" (Bilsky &
 70 Schwartz, 1994, p. 167). Furthermore, in the
 71 Values-in-Action taxonomy of human strengths
 72 (Peterson & Seligman, 2004), gratitude is one of
 73 the five strengths that falls under the broader
 74 virtue of *transcendence*. These value orientations
 75 are diametrically opposed to *power* ("social status
 76 and prestige, control or dominance over people and
 77 resources") (p. 167) and *hedonism* (pleasure and
 78 sensuous gratification for oneself") (p. 167),
 79 which likely are the two values in this theory
 80 most aligned with materialism. Values theory
 81 would therefore predict a negative correlation
 82 between gratitude and materialism on the grounds
 83 that they represent opposing value systems.

84 Evidence suggests that gratitude can reduce
 85 the pernicious effects of materialism on well-
 86 being. Grateful people report themselves as being
 87 less materialistic and are less likely to define per-
 88 sonal success in terms of material accomplish-
 89 ments and possessions (McCullough et al., 2002).
 90 In particular, grateful people report being more
 91 willing to part with their possessions, more gen-
 92 erous with them, less envious of the material
 93 wealth of others, less committed to the idea that
 94 material wealth is linked with success in life, and
 95 less convinced of the idea that material wealth
 96 brings happiness. Using structural equation
 97 modeling, Froh, Emmons, Card, Bono, & Wilson
 98 (in press) found that gratitude mediates the rela-
 99 tion between materialism and well-being.
 100 Apparently, material success is not a very impor-
 101 tant factor in the happiness of highly grateful
 102 people, so this hypothesis has received consider-
 103 able support.

104 Hypothesis 4: Gratitude Improves Self-Esteem

105 Self-esteem has emerged as a powerful correlate
 106 of happiness (e.g., Denny & Steiner, 2009);

1 Lyubomirsky, Tkach, & DiMatteo, 2006; Walker
 2 & Schimmack, 2008). Gratitude might be impor-
 3 tant because focusing on receiving benefits
 4 from benefactors might enhance self-esteem and
 5 self-respect. This hypothesis has not been exten-
 6 sively tested, but the data that do exist are
 7 supportive. For example, grateful youth report
 8 high levels of self-esteem (Froh, Wajsblat, &
 9 Ubertini, 2008). They also report high levels of
 10 self-satisfaction concurrently (Froh et al., 2008,
 11 2008; Froh, Yurkewicz, & Kashdan (2009) and
 12 three and six months later (Froh et al., 2008).
 13 Grateful people, in focusing on how their lives
 14 are supported and sustained by others, might
 15 feel more secure and are therefore less likely
 16 to seek material goods to strengthen their self-
 17 image. Grateful people may also have more
 18 stable self-esteem that is less contingent upon
 19 transient success and failure experiences, con-
 20 tributing to their ability to cope with stress,
 21 as discussed in Hypothesis 1. We do not yet
 22 know, however, the direction of the relation. It
 23 may be that high self-esteem leads to more feel-
 24 ings of gratitude because it makes it more likely
 25 that the person will respond positively to the
 26 benevolence of others. Conversely, it may be that
 27 feelings of gratitude produce more positive self-
 28 construals. Future research will have to decide
 29 this sequence.

30 Hypothesis 5: Gratitude Enhances 31 Accessibility to Positive Memories

32 Gratitude has also been shown to contribute to
 33 well-being by boosting the retrieval of positive
 34 autobiographical memories. Grateful people are
 35 characterized by a positive memory bias
 36 (Watkins, Grimm, & Kolts, 2004). This positivity
 37 bias extends to both intentional and intrusive
 38 positive memories. These findings were reliably
 39 replicated in a subsequent study by the authors
 40 after controlling for depression. In a more recent
 41 study by Watkins, Cruz, Holben, & Kolts (2008),
 42 the reappraising benefit of gratitude on memory
 43 was shown to promote successful closure of
 44 unpleasant open memories, ultimately contrib-
 45 uting to happiness. Therefore, gratitude enhances
 46 the retrievability of positive experiences by
 47 increasing elaboration of positive information.
 48 The positive impact of gratitude on memory was
 49 further confirmed in a study by Watkins et al.
 50 (2008). The grateful reappraisal of upsetting
 51 memories was shown to promote better emo-
 52 tional processing and closure of the upsetting
 53 open memories.

Future research could examine the influence of 54
 gratitude on the construction of self-construals. 55
 These construals might subsequently impact 56
 appraisals of autobiographical memories. Accord- 57
 ing to Ross (1989), implicit theories of personal 58
 attributes can influence the retrieval of self- 59
 construal and facilitate biased recall. Furthermore, 60
 the perception of self can change (or remain rela- 61
 tively stable) over time (Ross, 1989). The role of 62
 gratitude in influencing construal of life histo- 63
 ries might be tested both for state and trait grati- 64
 tude. People high on trait gratitude may be 65
 better able to retrieve more positive personal life 66
 experiences compared to less grateful individu- 67
 als. The effect of experimentally induced grati- 68
 tude on the quality of autobiographical memories 69
 (e.g., positive-negative valence of the memories, 70
 perception of negative life events) could also be 71
 investigated. 72

73 Hypothesis 6: Gratitude Builds 74 Social Resources

75 Gratitude may contribute to overall well-being
 76 by enhancing social relationships. Gratitude has
 77 been linked in a variety of ways to positive inter-
 78 personal functioning. Gratitude facilitates the
 79 building of social resources by broadening the
 80 thought action repertoire (i.e., via initiation of
 81 friendships or consideration of a wide range of
 82 strategies by the beneficiary as a form of repay-
 83 ment) (Fredrickson, 2004, pp. 150). Moreover,
 84 besides building new bonds, gratitude also helps
 85 strengthen and maintain existing relationships
 86 (Algoe, Haidt, & Gable, 2008) and fosters trust
 87 (Gino & Schweitzer, 2008). Grateful people pos-
 88 sess a number of resources that make them
 89 desirable friends and romantic partners. They
 90 are extraverted, agreeable, empathic, emotion-
 91 ally stable, forgiving, trusting, and generous
 92 (McCullough et al., 2002; Wood et al., 2008).
 93 Further, gratitude is a strength of character that
 94 is highly desired in romantic partners (Steen,
 95 Kachorek, & Peterson, 2003).

96 From an attachment perspective, gratitude has
 97 been shown to promote social bonds since it is
 98 closely associated with attachment security. In a
 99 sample of Israeli undergraduates, attachment
 100 security uniquely contributed to the grateful
 101 disposition over and beyond the association of
 102 attachment security with self-esteem or trust
 103 (Mikulincer, Shaver, & Slav, 2006). In a subse-
 104 quent study the link between trait gratitude and
 105 attachment security was examined in context of
 106 new marital relationships. For both husband and

1 wife, the perceived positive behavior of the part-
2 ner was strongly associated with greater grati-
3 tude toward the partner on a particular day
4 (Mikulincer et al., 2006, pp. 203). The link is not
5 limited to newlyweds. In a sample of older adults,
6 greater social support from adult children was
7 found to be related with a higher sense of grati-
8 tude (Dahua, Yan, & Liqing, 2004).

9 The social benefits of gratitude can also be
10 construed in terms of the affect theory of social
11 exchange proposed by Lawler (2001). This theory
12 proposes that positive emotions generated by
13 social exchange partners lead to social cohesion
14 and strengthening of social networks. Therefore,
15 by promoting prosocial behavior, building social
16 resources, fostering trust, attachment security,
17 and social exchange, gratitude is a vital interper-
18 sonal emotion, the absence of which undermines
19 social harmony.

20 Hypothesis 7: Gratitude Motivates 21 Moral Behavior

22 Gratitude is an essential part of creating and
23 sustaining positive social relations. One way
24 that gratitude sustains personal relationships is
25 that it motivates moral behavior—action that
26 is undertaken in order to benefit another.
27 McCullough et al. (2001) proposed that gratitude
28 possesses three psychological features that are
29 relevant to processing and responding to prosocial
30 behavior: It is a benefit detector as well as
31 both a reinforcer and motivator of prosocial
32 behavior. In this functional account, gratitude is
33 more than a pleasant feeling. Gratitude is also
34 motivating and energizing. It is a positive state
35 of mind that gives rise to the “passing on of the
36 gift” through positive action. As such, gratitude
37 serves as a key link in the dynamic between
38 receiving and giving. While a response to kind-
39 nesses received, gratitude drives future benevo-
40 lent actions on the part of the recipient. In the
41 language of evolutionary dynamics, gratitude
42 leads to “upstream reciprocity” (Nowak & Roch,
43 2007), the passing on of a benefit to a person
44 uninvolved in the initial exchange. Part of grati-
45 tude’s magnetic appeal lies in its power to evoke
46 a focus by the recipient on the benevolence of
47 others, thereby ensuring a perception that kind-
48 ness has been offered, and its beneficial conse-
49 quences that frequently are the motive to
50 respond favorably toward another. The idea that
51 the capacity to receive and be grateful fosters the
52 desire to return goodness is theoretically com-
53 pelling and empirically viable.

Recent experimental evidence indicates that 54
gratitude is a unique facilitator of reciprocity 55
(Bartlett & DeSteno, 2006; Watkins, Schmeer, 56
Ovnicek & Kolts, 2006). After appraising the evi- 57
dence that gratitude fosters moral behavior, 58
McCullough, Kimeldorf, and Cohen (2008) pro- 59
pose that gratitude evolved to facilitate social 60
exchange. Compelling evidence suggests that 61
gratitude evolved to stimulate not only direct 62
reciprocal altruism but also upstream reciprocity 63
(Nowak & Roch, 2007). 64

Hypothesis 8: Grateful People Are Spiritually Minded 65

66
67 Several studies have found a relationship
68 between religion, spirituality, and gratitude
69 (Adler & Fagley, 2005; Emmons & Kneezel, 2005;
70 McCullough et al., 2002; Watkins et al., 2003).
71 People with stronger dispositions toward grati-
72 tude tend to be more spiritually and religiously
73 minded. Not only do they score higher on mea-
74 sures of traditional religiousness, but they also
75 scored higher on non-sectarian measures of spir-
76 ituality that assess spiritual experiences (e.g.,
77 sense of contact with a divine power) and senti-
78 ments (e.g., beliefs that all living things are
79 interconnected) independent of specific theologi-
80 cal orientation. All measures of public and pri-
81 vate religiousness in the Emmons and Kneezel
82 (2005) study were significantly associated with
83 both dispositional gratitude and grateful feelings
84 assessed on a daily basis. Although these correla-
85 tions were not large (ranging from $r = .28$ to
86 $r = .52$), they suggest that spiritually or reli-
87 giously inclined people have a stronger disposi-
88 tion to experience gratitude than do their less
89 spiritual/religious counterparts. Research is also
90 beginning to examine gratitude toward God.
91 Krause (2006) found that gratitude felt toward
92 God reduced the effect of stress on health in late-
93 life adults and deteriorated neighborhood. The
94 stress-buffering effect of theocentric gratitude
95 was more pronounced among the women com-
96 pared to the men in Krause’s (2006) study.

97 Many world religions commend gratitude as a
98 desirable human trait (see Carman & Streng,
99 1989; Emmons & Crumpler, 2000), which may
100 cause spiritual or religious people to adopt a
101 grateful outlook. Religion also provides texts,
102 teachings, and traditions that encourage grati-
103 tude. When contemplating a positive circum-
104 stance that cannot be attributed to intentional
105 human effort, such as a miraculous healing or
106 the gift of life itself, spiritually inclined people

1 may attribute these positive outcomes to a non-
 2 human agent (viz., God or a higher power) and
 3 thus experience more gratitude. Third, spiritu-
 4 ally inclined people also tend to attribute posi-
 5 tive outcomes to God's intervention, but not
 6 negative ones (Lupfer, De Paola, Brock, &
 7 Clement, 1994; Lupfer, Tolliver, & Jackson, 1996).
 8 As a result, many positive life events that are not
 9 due to the actions of another person (e.g., pleas-
 10 ant weather, avoiding an automobile accident)
 11 may be perceived as occasions for gratitude to
 12 God, although negative events (e.g., a long
 13 winter, an automobile accident) would likely *not*
 14 be attributed to God. This attributional style,
 15 then, is likely to magnify the positive emotional
 16 effects of pleasant life events.

17 Hypothesis 9: Gratitude Facilitates 18 Goal Attainment

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

47 Hypothesis 10: Gratitude Promotes 48 Physical Health

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

inhibiting unhealthy attitudes and emotions or 52
 facilitating more health-promoting inner states. 53
 A small number of studies have reported physi- 54
 cal health benefits of gratitude, and these rela- 55
 tions have been largely independent of trait 56
 negative affect (Wood, Joseph, Lloyd, & Atkins, 57
 2008). Gratitude interventions have been shown 58
 to reduce the bodily complaints, increase sleep 59
 duration and efficiency, and promote exercise 60
 (Emmons & McCullough, 2003; Wood et al., 61
 2008). Experimental research suggests that dis- 62
 crete experiences of gratitude and appreciation 63
 may cause increases in parasympathetic myocar- 64
 dial control (McCraty & Childre, 2004), lower 65
 systolic blood pressure (Shipon, 2007), as well as 66
 improvements in more molar aspects of physical 67
 health such as everyday symptoms and physi- 68
 cian visits (Emmons & McCullough, 2003). 69
 McCraty and colleagues found that appreciation 70
 increased parasympathetic activity, a change 71
 thought to be beneficial in controlling stress and 72
 hypertension, as well as "coherence" or entrain- 73
 ment across various autonomic response chan- 74
 nels. Therefore, there might be some direct 75
 physiological benefits to frequently experiencing 76
 grateful emotions. This line of research con- 77
 ducted by McCraty demonstrates a link between 78
 positive emotions and increased physiological 79
 efficiency, which may partly explain the growing 80
 number of correlations documented between 81
 positive emotions, improved health, and increased 82
 longevity. 83

84 Moving Forward: Future Directions

85 As the evidence we reviewed earlier in the chap- 86
 ter indicates, gratitude interventions in adults 87
 consistently produce positive benefits, many of 88
 which appear to endure over reasonably lengthy 89
 periods of time. Gratitude interventions lead to 90
 greater gratitude, life satisfaction, optimism, 91
 prosocial behavior (Emmons & McCullough, 92
 2003), positive affect (Emmons & McCullough, 93
 2003; Watkins et al., 2003, Study 4), and well- 94
 being (Lyubomirsky et al., 2005; Seligman et al., 95
 2005), as well as decreased negative affect 96
 (Emmons & McCullough, 2003; Seligman et al., 97
 2005; Watkins et al., 2003, Study 3) compared 98
 with controls for up to six months. Similar 99
 findings, over shorter follow-up periods, have 100
 been documented in youth (Froh et al., 2008). 101
 Despite these encouraging results, much remains 102
 unknown. We have several suggestions for future 103
 research involving gratitude interventions.

1 *Mechanisms.* What are the active ingredients
 2 in gratitude interventions? It is not known
 3 whether the effects of these activities are rela-
 4 tively specific (e.g., increases in happiness alone)
 5 or are more general (e.g., increases in perceived
 6 physical health and decreases in negative mood).
 7 In addition, no research has attempted to exam-
 8 ine the effects of these activities in the context of
 9 participants' levels of dispositional gratitude, an
 10 established individual difference that may mod-
 11 ulate the positive effects of activities aimed at
 12 increasing gratitude in one's life (McCullough
 13 et al., 2002). The active ingredients may relate to
 14 processes of reflecting on things for which one is
 15 grateful, or recording these in some way, or
 16 expressing them. Until it is known which of
 17 these is essential, we cannot state why these
 18 exercises work and it is difficult to make informed
 19 recommendations about how they might be
 20 used. Future research must employ increasingly
 21 sophisticated designs using statistical tests of
 22 mediating and moderating effects.

23 *Comparison groups.* What is the most appro-
 24 priate condition to contrast with gratitude?
 25 Nearly one-half of the studies that have been
 26 published to date found support for gratitude
 27 interventions when making contrasts with tech-
 28 niques that induce negative affect (e.g., record
 29 your daily hassles). Gratitude interventions have
 30 shown limited benefits, if any, over control con-
 31 ditions. Thus, there is a need to better understand
 32 whether gratitude interventions are beyond a
 33 control condition and if there exists a subset of
 34 people who benefit. Perhaps gratitude interven-
 35 tions are differentially effective for groups of
 36 people with varying backgrounds. Sample char-
 37 acteristics themselves might show differences.
 38 People who are actively seeking positive psy-
 39 chology interventions may have greater expecta-
 40 tions for their efficacy compared to college
 41 students participating for extra credit or to fulfill
 42 a course requirement.

43 *Trait moderators.* A moderating effect might
 44 be found if pre-existing trait characteristics of
 45 people affect their ability to profit from gratitude
 46 interventions. Several dispositional factors may
 47 moderate the effectiveness of gratitude interven-
 48 tions. Of these, trait affect and dispositional gra-
 49 titude are obvious candidates for consideration. It
 50 seems a reasonable prediction that persons high
 51 in positive affect (PA) may have reached an
 52 "emotional ceiling" and thus are less susceptible
 53 to experiencing gains in well-being. People lower
 54 in PA, however, may need more positive events—
 55 like expressing gratitude to a benefactor—to

56 "catch up" to the positive experiences of their
 57 peers. Froh, Kashdan, Ozimkowski, and Miller
 58 (2009) examined whether individuals differences
 59 in positive affective style moderated the effects of
 60 a gratitude intervention where youth were
 61 instructed to write a letter to someone to whom
 62 they were grateful and deliver it to them in person.
 63 Eighty-nine children and adolescents were ran-
 64 domly assigned to the gratitude intervention or a
 65 control condition. Findings indicated that youth
 66 low in PA in the gratitude condition, compared
 67 with youth writing about daily events, reported
 68 greater gratitude and PA at post-treatment and
 69 greater PA at the two-month follow-up. Children
 70 and adolescents low in PA in the gratitude condi-
 71 tion, compared with the control group, reported
 72 more gratitude and PA at two later time points,
 73 at three-week and two-month follow-ups. This is
 74 an important study because it is the first known
 75 randomized controlled trial of a gratitude inter-
 76 vention study in children and adolescents and
 77 the first paper to reinterpret the gratitude inter-
 78 vention literature arguing to carefully consider
 79 controls groups when concluding the efficacy of
 80 gratitude interventions. Furthermore, when con-
 81 sidering both youth and adult populations, it is
 82 also the first known attempt at investigating
 83 positive affect as a moderator.

84 Then there is dispositional gratitude. Can we
 85 expect gratitude inductions to be more effective
 86 in increasing the well-being of grateful individu-
 87 als or less grateful persons? Grateful individuals
 88 would be more susceptible to recognizing when
 89 others are being kind to them, and more open to
 90 perceiving benefits more generally. One could
 91 even postulate a gratitude schema (Wood et. al,
 92 2008) as an interpretive bias on the part of dispo-
 93 sitionally grateful individuals prone to making
 94 benevolent appraisals. Alternatively, gratitude
 95 interventions might also be more efficacious for
 96 individuals low on trait gratitude since they may
 97 have more room for improvement on the grati-
 98 tude dimension. No published studies have
 99 examined dispositional gratitude as a moderator
 100 of state gratitude interventions.

101 Trait gratitude might also interact with trait
 102 affect. Froh et al. (2009) found that, compared to
 103 the control group, individuals in the gratitude
 104 group who were low on positive affect benefited
 105 the most from the gratitude intervention. Given
 106 the recent evidence on the contribution of posi-
 107 tive affect as a moderator, it might also be rea-
 108 sonable to examine the possibility of a curvilinear
 109 relationship between trait gratitude and well-
 110 being. For example, individuals at the extreme

1 ends of the gratitude distribution might extract
2 the least benefits from gratitude interventions.

3 *The effect of instructional set.* The instruc-
4 tions that participants in the gratitude condition
5 are given appear to be essential. The counting
6 blessings gratitude intervention guides partici-
7 pants to reflect on and record benefits in their
8 lives. Participants generally focus on the pres-
9 ence of good things in their lives that they cur-
10 rently enjoy. Yet a recent study found that
11 people's affective states improve more after
12 mentally subtracting positive events from their
13 lives than after thinking about the presence of
14 those events (Koo, Algoe, Wilson & Gilbert,
15 2008). People wrote about why a positive event
16 might never have happened and why it was sur-
17 prising or why it was certain to be part of their
18 lives and was not at all surprising. The results
19 showed that the way in which people think about
20 positive life events is critical, namely whether
21 they think about the presence of the events (e.g.,
22 "I'm grateful that I was in Professor Wiseman's
23 class") or the absence of the events (e.g., "imag-
24 ine I had never met Professor Wiseman!"). The
25 latter impacted positive affect more than did the
26 former. Inasmuch as most previous studies
27 adopted the former approach, asking participants
28 to think about the presence of positive events,
29 the effects of gratitude on well-being may well
30 have been underestimated. Koo et. al adduce that
31 thinking about how events might have not hap-
32 pened triggers surprise, and it is surprise that
33 amplifies the event's positivity. Along these lines,
34 another recent study (Bar-Anan, Wilson, &
35 Gilbert, 2009) found that the uncertainty of an
36 event intensifies felt reaction, such that outcomes
37 that are uncertain produce greater emotional
38 reactions. Another recent study found that focus-
39 ing on an experience's ending could enhance
40 one's present evaluation of it (Kurtz, 2008).
41 Future gratitude interventions could capitalize
42 on these three studies by giving participants
43 explicit instructions to include in their journals
44 events or circumstances that might not have
45 happened, have turned out otherwise, where the
46 initial outcome may have been uncertain, or
47 increasing an awareness that the experience is
48 soon ending.

49 *Dose-Effect Relationship.* More than two
50 decades ago, an influential psychotherapy review
51 article reported that by eight sessions of psycho-
52 therapy, approximately one-half of patients
53 show a measureable outcome improvement, and
54 that by 26 sessions, this number increases to
55 75% (Howard, Kopta, Krause, & Orlinsky, 1986).

56 Is there an equivalent dose-response relationship
57 for gratitude interventions? Interventions have
58 asked people to keep gratitude journals every
59 day to a few times a week to once a week for
60 10 weeks. While some differences have been
61 reported across these studies, an insufficient
62 number of trials have yet to be conducted such
63 that recommendations could be made with confi-
64 dence. The definition of a dose itself is up for
65 debate. Should a dose be considered a single
66 session of writing in a gratitude journal? Should
67 a minimum time be set for participants to write
68 in their journals each session? We would expect
69 that the greater the degree of elaboration over
70 a simple listing or counting of blessings, the
71 greater would be the potential payoff. But a
72 systematic comparison of the relevant variables
73 that "gratitude dosages" vary on has yet to be
74 conducted.

75 *Gender.* Gender may be another critical indi-
76 vidual factor affecting the outcomes of interven-
77 tion studies. Given the interpersonal correlates
78 and interdependent nature of gratitude, women
79 might have an edge over men in extracting ben-
80 efits from gratitude interventions. In fact, recent
81 studies have demonstrated significant gender
82 differences in gratitude (Kashdan et al., 2009;
83 Watkins et al., 2003). However, in another recent
84 study by Froh et al. (2009), the usual trend of
85 gender differences couldn't be captured in an
86 adolescent sample. Even though adolescent girls
87 reported more gratitude, adolescent boys appeared
88 to derive more social benefits from gratitude for
89 whom a stronger relationship between gratitude
90 and family support was found.

91 As an extension of possible gender differences
92 in gratitude, it would be compelling to examine the
93 contribution of gratitude in romantic relation-
94 ships. Dyadic interventions involving grateful
95 activities might foster higher-quality relation-
96 ships. For example, a recent study examined the
97 influence of attachment orientations on grati-
98 tude in new marital relationships over a period
99 of 21 days (Mikulincer et al., 2006). Daily feel-
100 ings of gratitude for the partner were related to
101 appraisals of partner's behavior (i.e., the higher
102 the level of partner's perceived positive behavior,
103 the greater the gratitude). For both partners, per-
104 ceived positive behavior by the partner toward
105 the self on one day was significantly associated
106 with greater gratitude toward the partner on that
107 same day. Moreover, in the same study, attach-
108 ment avoidance was found to be associated with
109 lower feelings of gratitude for the partner across
110 the 21 days. However, most interestingly, only

1 the husband's avoidance orientation moderated
 2 the relationship between the perceived partner's
 3 behavior and feelings of gratitude (i.e., avoidant
 4 husbands reported lower gratitude even on days
 5 when they appraised their wife's behaviors to be
 6 highly positive). As an extension of these find-
 7 ings, future studies can examine if and why grati-
 8 tude has the potential of contributing more to
 9 the relationship quality for women, compared to
 10 men. Given the interdependent and interper-
 11 sonal nature of gratitude, women might be more
 12 susceptible toward perceiving a partner's positive
 13 behaviors as gifts and extract more benefits from
 14 gratitude in their romantic relationships. Women
 15 are expected to expand their caretaking and rela-
 16 tional roles, whereas men are expected to focus
 17 their emotional expression on the expansion and
 18 pursuit of power and status (Brody, 1997, 1999;
 19 Stoppard & Gruchy, 1993). Therefore, seeking
 20 more of a "provider's" role in marital relation-
 21 ships, gratitude may trigger feelings of vulnera-
 22 bility and weakness for men, which they may
 23 perceive to be harmful to their masculinity and
 24 social standing (Levant & Kopecky, 1995). As a
 25 result, men might extract fewer benefits from
 26 gratitude to enhance their relationship quality.

27 *Enhancing retention in self-guided programs.*
 28 Gratitude interventions may increase compli-
 29 ance with and the possible success of self-guided
 30 therapies in the realms of health management.
 31 Given that grateful people tend to take better
 32 care of their health, would an intervention to
 33 increase gratitude lead a person to stick with
 34 their commitments say to reduce weight, eat
 35 more nutritionally, exercise, or reduce smoking?
 36 Attrition is a major problem, especially in
 37 Internet interventions (Christensen, Griffiths,
 38 Mackinnon, & Brittcliffe, 2006). A recent study
 39 found that retention in a two-week intervention
 40 for depressed persons was significantly higher
 41 for those who completed gratitude journals com-
 42 pared to recording automatic thoughts (Geraghty,
 43 Wood, & Hyland, 2010).

44 Gratitude was effective in both reducing drop-
 45 out and lowering depression scores, and increased
 46 retention by 12% over those recording daily
 47 thoughts.

48 **The Uniqueness of Gratitude Interventions**

49 An important issue to be addressed in future
 50 research concerns the unique contributions that
 51 gratitude interventions make to well-being out-
 52 comes that distinguish them, say from related

53 positive psychology interventions. The unique- 53
 54 ness of these interventions could be compared 54
 55 with other positive psychological constructs such 55
 56 as forgiveness and hope, both of which have been 56
 57 shown to contribute to well-being (Bono, 57
 58 McCullough, & Root, 2008; Snyder, Rand, & 58
 59 Sigmon, 2002). What is different about grati- 59
 60 tude? First, the underlying prosocial and rela- 60
 61 tional nature of gratitude, subsequently leading 61
 62 to strengthened social bonds, might facilitate 62
 63 unique pathways to well-being. Second, grati- 63
 64 tude has a fulfillment aspect to it, unlike hope, 64
 65 that might facilitate extraction of benefits via 65
 66 mindful appreciation of both present and past 66
 67 received benefits. For example, given that hope is 67
 68 a positive motivational state driven by goal-di- 68
 69 rected energy and planning toward reaching 69
 70 future goal(s) (Snyder, 2000), it probably reaches 70
 71 its fruition only in a prospective fashion in the 71
 72 *absence* of a desired goal—a goal that may or 72
 73 may not be attained. Gratitude has also been 73
 74 shown to be activated strongly by first focusing 74
 75 on absence of benefits (Koo et al., 2008). However, 75
 76 unlike hope, gratitude is almost always felt in 76
 77 retrospection, thereby facilitating a positive cog- 77
 78 nitive framework toward an already present 78
 79 benefit. Furthermore, gratitude may be extracted 79
 80 from immediate or present life circumstances 80
 81 (e.g., "I am grateful for all the benefits that 81
 82 I received today"), and also from the past (e.g., 82
 83 "I am grateful for the love and support that I 83
 84 received when I was sick two years back"), pro- 84
 85 moting more expanded positive emotional expe- 85
 86 rience. Besides the retrospective recognition of 86
 87 benefits, gratitude also drives future prosocial 87
 88 motivations (e.g., "I want to return benefits to 88
 89 others who have helped me"). 89

90 Forgiveness is a motivational and emotional 90
 91 transformation whereby a person relinquishes 91
 92 feelings of past hurts and engages in construc- 92
 93 tive thoughts and possibly conciliatory actions 93
 94 toward the person who has hurt him or her 94
 95 (McCullough, Worthington, & Rachal, 1997). 95
 96 Given the psychological hurdles preceding for- 96
 97 giveness, such as overcoming past hurts, psycho- 97
 98 logical well-being via forgiveness might be 98
 99 attained more gradually compared to gratitude. 99

100 In our laboratory, we recently compared grati- 100
 101 tude with these two other positive psychological 101
 102 interventions and a control condition. Online 102
 103 interventions for gratitude, forgiveness, and hope 103
 104 were developed and implemented daily over a 104
 105 two-week period. Participants were randomly 105
 106 assigned to one of four conditions—the grati- 106
 107 tude, forgiveness, hope, or control conditions. 107

1 In the gratitude condition, participants were
 2 asked to focus and engage grateful thoughts and
 3 feelings toward multiple gifts received each day.
 4 In the forgiveness condition the participants
 5 were asked to engage in benefit finding and for-
 6 giving thoughts toward an offender each day. In
 7 the hope condition, participants were asked each
 8 day to write about a goal that they hope to pursue
 9 in the future. The control group was asked to list
 10 activities attended each day over the two weeks.
 11 The four groups also reported their daily emo-
 12 tions and a daily checklist of spiritual, material-
 13 istic, prosocial, and grateful activities.

14 Compared to men, women in all three inter-
 15 vention conditions reported greater levels of
 16 both trait and state gratitude. More specifically,
 17 for the gratitude composite variable (i.e., appreci-
 18 ative, thankful, grateful) across the 14 days,
 19 gender differences were observed most strongly
 20 in the gratitude intervention condition. Women
 21 had higher levels of grateful emotions in the
 22 gratitude condition, indicating that women were
 23 more sensitive to the gratitude intervention.
 24 Women also reported higher levels of positive
 25 affect in the gratitude condition, compared to
 26 men (Mishra & Emmons, 2009). These findings
 27 resonate well with the gender differences find-
 28 ings revealed in recent studies (see Kashdan et al
 29 2009; Watkins et al., 2003). As discussed earlier,
 30 the gender differences in gratitude may be
 31 explained by the greater susceptibility of women
 32 to extract benefits from gratitude because of its
 33 utility as an interpersonal emotion. Examining
 34 gender differences in gratitude may also lead to
 35 further insight into the possibility of gender-
 36 specific gratitude interventions that may applied
 37 in future studies.

38 Conclusion

39 The science of gratitude is young. Even so, con-
 40 siderable progress has already been made in
 41 understanding how both state and trait gratitude
 42 are conducive to well-being. Of the 10 hypothe-
 43 ses advanced in this chapter, considerable empiri-
 44 cal support was found for the majority of them.
 45 Some of these have been the object of more
 46 research than others, so it may be premature
 47 to suggest that a comprehensive evaluation of
 48 each has been accomplished. One conclusion that
 49 we can draw with confidence is that relation
 50 between gratitude and well-being is multiply
 51 determined. In particular, we found considerable
 52 evidence that gratitude builds social resources by

strengthening relationships and promoting 53
 prosocial actions. It is also likely that these 10 54
 hypotheses do not exhaust the possible ways 55
 in which gratitude impacts well-being, and 56
 future research will undoubtedly uncover addi- 57
 tional mechanisms. Toward that end, we offered 58
 some suggestions for the design of future studies 59
 that will hopefully continue to illuminate the 60
 richness and complexity of this social emotion 61
 and optimize the practice of gratitude for pro- 62
 moting harmonious intrapsychic and interper- 63
 sonal functioning. 64

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260 PART V. PERSONALITY PERSPECTIVES

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