

Running head: THE UNIQUE ASPECTS OF APPRECIATION

MORE THAN JUST GRATITUDE: A CONFIRMATORY FACTOR ANALYSIS OF THE
UNIQUE ASPECTS OF APPRECIATION

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Abstract

Adler and Fagley (2005) defined the term appreciation as a higher-order construct that includes gratitude, along with seven other aspects, and involves “acknowledging the value and meaning of something—an event, a person, a behavior, an object—and feeling a positive emotional connection to it” (pg. 81). The eight aspects of appreciation are represented in the acronym, “HARPS-GLI”, which highlights each part’s distinctiveness: “Have” Focus, Awe, Ritual, Present Moment, Self/Social Comparison, Gratitude, Loss/ Adversity, and Interpersonal Appreciation. These aspects are represented in the eight subscales of the Appreciation Scale (Adler & Fagley, 2005). The purpose of this study was to test whether the underlying structure of the instrument is consistent with Adler and Fagley’s (2005) model of appreciation derived, in part, from qualitative themes. Undergraduate students completed the 57-item Appreciation Scale (N=365). A confirmatory factor analysis was computed to test the eight component model as well as three other models. These were derived based on empirical relations between factors (Awe and Present Moment) and also based on logical analysis of the concepts, such as noting that some aspects reflect interpersonal versus personal qualities (Fagley, 2016) or conceptual analyses by others (e.g. Lambert et al., 2009; Wood, Maltby, Stewart, & Joseph, 2008b; Lin, 2014). Overall, none of the tested models had acceptable fit to proceed with parameter estimates for the items. Model comparison indices suggest that the four factor model had the best relative fit, which included “Have” Focus, a combined Awe and Present Moment factor, Gratitude, and Interpersonal Appreciation. Continued work is needed to explore possible factor structures as Loss/ Adversity, but not Ritual or Self/Social Comparison, may be another latent variable within the model. Fine-tuning the appreciation model can advance interventions in the future by providing participants

with specific cognitive or behavioral strategies that can be intentionally targeted, such as expressing gratitude to a partner or engaging in mindful awareness of the present moment.

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Introduction

Clinical psychology has historically been focused on the treatment of mental illness and categorization of disorders. However, it became clear that there was also a need to devote efforts to prevention and wellness, not just for diagnosed patients, but the general public. The modern positive psychology moment blossomed toward the turn of the 21st century with seminal work by Martin Seligman and Mihalyi Csikszentmihalyi. (2000) who wrote, “psychologists have scant knowledge of what makes life worth living. . . [and] know very little about how normal people flourish under benign conditions” (p.5). Unlike clinical populations, who receive treatment and feedback from trained professionals, the public is left with popular media to gain insight about improving their everyday functioning. Depending on the sources of media consumed, this puts a large number of people at risk of having little access to evidence-based behaviors that support wellbeing. As if it were a destination upon which we would all soon arrive, the media suggests we simplify our lives, slow down, be kind, or try a new diet to receive a one-way ticket. Happiness is not a place, though, and it is no surprise (and quite a relief) that we are not in this constant state.

Happiness is just one type of positive emotion, and there is certainly more required in the “formula” for wellbeing. What is it that makes people feel satisfied with life, or feel positive emotion? Personality is undoubtedly implicated in individual differences in wellbeing, and although Diener and colleagues (1999) found it to be the most consistent predictor of happiness, they agreed that does not seem reasonable to expect it to control all variability or certain people would always feel dissatisfied regardless of intervention. Advances in measuring wellbeing were supported with the creation of the widely used Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985), and it furthered the discussion about a broader term,

subjective wellbeing (SWB). SWB includes life satisfaction and positive and negative affect, which indicates that it requires both cognitive appraisals and affect and these are believed to change over time (Diener, Suh, Lucas, & Smith, 1999). The purpose of assessment is to guide intervention so the knowledge of measurement left the field of psychology with a charge to promote wellbeing using research-based strategies. Research on appreciation and gratitude emerged as a possible answer to this question (see Adler & Fagley, 2005; Emmons & Crumpler, 2000; Fagley, 2012; Frias, Watkins, Emmons, & Froh, 2011; Wood, Froh, & Geraghty, 2010).

Appreciation

Adler and Fagley (2005) defined the term *appreciation* as a higher-order construct that includes gratitude, among seven other aspects, and that is defined as “acknowledging the value and meaning of something—an event, a person, a behavior, an object—and feeling a positive emotional connection to it” (pg. 81). The aspects of appreciation are not viewed as necessary subparts to form appreciation, as the higher, whole, construct. Rather, they are viewed as dimensions of appreciations, or specific, detailed types of appreciation that are included within the construct (Adler & Fagley, 2005; Fagley, 2016). The eight aspects of appreciation are represented in the acronym, “HARPS-GLI”, which highlights the distinctness of each subpart: “Have” Focus, Awe, Ritual, Present Moment, Self/Social Comparison, Gratitude, Loss/Adversity, and Interpersonal Appreciation.

“*Have*” *Focus* represents the cognitive strategy of wanting what one has rather than being oriented to desiring or attempting to acquire possessions and privileges that others may have. This aspect can be viewed as a sort of antithesis to materialism, such that one may be satisfied with her possessions and circumstances of her life, even if she can acknowledge that she might want *more*—whether that means a new cell phone or promotion at work. Larsen and

Norris (2011) found that more materialistic individuals were only less happy when they also did not want what they had, which suggests low levels of Have Focus. *Awe* is described as feeling a transcendental connection to beauty, nature, or life. Noticing life and nature in this powerful, evocative way has been found to make people perceive time as being more expansive and be more likely to engage in prosocial behaviors, specifically by volunteering one's time (Rudd, Vohs, & Aaker, 2012). *Ritual* represents the behavioral component of engaging in practices that foster appreciation. Such behaviors, when labeled as a ritual, may help in the mitigation of negative emotion, such as grief (Norton & Gino, 2014). *Present Moment* captures mindful awareness and has been found to have a unique role in wellbeing (Brown & Ryan, 2003). *Self/Social Comparison* represents the comparison of changes over time in oneself or in one's conditions or differences between oneself and others to foster appreciation. Social comparison, specifically on social media, is related to increased rumination and negative affect (Feinstein et al., 2013). However, downward social comparison has been found to be related to the preservation of self-esteem when individuals are confronted with a threat situation (Wood, Taylor, & Lichtman, 1985). The term *gratitude* can refer to a state-like, "benefit-triggered" gratitude, which represents feeling grateful to another upon receiving a gift or benefit, as well as its trait-like counterpart-- the tendency to feel this emotion toward benefactors.. The research in this area has been growing at an increasing rate, and gratitude has been found to be predictive of both satisfaction with life and psychological wellbeing (Wood, Joseph, & Maltby, 2008; 2009). *Loss/ Adversity* is when one reflects on one's difficulties or the loss or absence of something to foster appreciation. Imagining the potential loss of a romantic partner, which represents reflecting on life in the absence of something or someone valued, was related to increased relationship satisfaction (Miller, 2003). *Interpersonal appreciation* represents noticing and

expressing that one values others, one's relationships with others, and the contributions these relationships make in one's life. In a study with couples, Gordon et al. (2012) found that one's feelings of being appreciated are informed by the partner's reported feelings of appreciation for him or her, which is suspected to influence a reciprocal model of relationship-maintaining behaviors. Moreover, having social connections can be viewed as a protective factor against negative emotions and outcomes, and has been found to be negatively associated to trait anxiety (Lee & Robbins, 1998).

Appreciation can be both a trait and a state because people can display individual differences in appreciativeness, but can also experience momentary increases influenced by natural life events or direct intervention. This model of appreciation, which is broken down using discreet aspects, lends itself to the creation of diverse interventions that are more resistant to hedonic adaptation, or a potential risk of engaging repeatedly in the same activity in a way that decreases the degree to which a person notices its value (Sheldon & Lyubomirsky, 2006). Although the state of research in this area is in a preliminary phase, appreciation has been found to be related to increased positive outcomes. Specifically, higher appreciation has been shown to make a significant unique contribution to life satisfaction over and above the Big Five personality factors and gratitude, which validates that it is a construct worth much attention in the ever-present challenge of helping people feel greater positive emotions, satisfaction, and fulfillment (Fagley, 2012).

Adler and Fagley (2012) also argued that appreciation is worth fostering in the workplace for both employee satisfaction and productivity gains for the employer. Specifically, employers who express gratitude towards their employees, provide opportunities for employees to express gratitude to others in their workplaces, and emphasize the present moment could reap the

benefits of increased social connections, satisfaction with the workplace, or even increased productivity. Such positive outcomes are supported by Fredrickson's (2001) theoretical model of positive emotions, the Broaden and Build theory, in which they create upward cycles of positive emotions and have an undoing effect on negative emotions. Beyond this, positive emotions are also upcycled to the creative thinking required for innovative ideas, problem solving, and working efficiently. As described by the theory name, positive emotions *broaden* attentional focus and *build* cognitive, behavioral, and social resources

The problem with defining appreciation. In the current literature, there have been debates about defining the broad construct of appreciation and it is often interchangeably used with “generalized” or a “higher-order” gratitude (Lambert et al. 2009; Wood, 2008). Moreover, recent models of trait-like gratitude have been measured with aspects from the appreciation scale, such as awe and present moment, that seem less to do with a tendency of being grateful and more to do with a character style of noticing and feeling positively towards the outside world (Wood, Froh, and Geraghty, 2010). This has also been supported by results of a second order exploratory factor analysis showing that gratitude and appreciation, measured by subscale scores on Adler and Fagley's (2005) Appreciation Scale, load onto a unitary factor (Wood et al., 2008b). This high-order factor, which they call “higher-order gratitude” is essentially appreciation as defined by Adler and Fagley (2005). Using these terms interchangeably is problematic because research requires that constructs or theories are operational defined, otherwise the conclusions being made lack validity. To persistently use the qualifier that the gratitude being discussed in research is either benefit-triggered or generalized/ higher-order is not only burdensome, but could be confusing to researchers aiming to build upon the conceptual

literature as well as interventionists. Moreover, it divides the overall research base as some scholars discuss appreciation and others discuss being grateful in a general way.

Although the argument over which term, gratitude or appreciation, should be used to describe a higher order trait could seem like a peripheral issue, the language used to operationally define a construct is of great importance. Language that is parsimonious should be favored over terms that need further explaining for the sake of both accurately defined and measured constructs in the future, as well as dissemination to the public who is less familiar with the research. To differentiate gratitude and “a higher order gratitude” requires additional explanation that almost invariably necessitates the term ‘appreciation’. For example, gratitude is described as feeling indebted to a benefactor, whereas “higher-order gratitude” is having a sense of appreciation for many aspects in one’s life. As a construct that has been conceptualized as a moral term or related to spirituality or religiosity (Fagley & Adler, 2012), the word ‘gratitude’ also seems to have a similar connotation as being indebted to a God or creator who has provided such benefits. Because appreciation contributes to life satisfaction over and above spirituality, this paper recommends moving towards appreciation instead of gratitude as a more secular label for this higher-order factor.

Appreciation Measurement

The Appreciation Scale (Adler & Fagley, 2005) comprises eight subscales of 57 total items used to measure the distinct aspects of appreciation previously described. Support for construct validity has been substantiated through principal component analysis, relationships to constructs in a nomological net, and known groups (Adler & Fagley, 2005). In its initial development, the survey was created from a pool of 81 items. Five items were deleted due to having item-total correlations of less than .1, and the remaining were removed after an item

analysis of the subscales demonstrated coefficient alpha increased with their deletion. Coefficient alpha for the overall measure was reported to be .94 and subscale reliabilities ranged from .62-.84 for Self/Social Comparison and Ritual, respectively (Adler & Fagley, 2005).

Subjects are asked to rate themselves in terms of either frequency (rated from 1-7, “Never”-“More than once a day”) or attitude intensity (rated 1-7, “Strongly disagree”-“Strongly agree”). An example of a frequency item is, “I reflect on how fortunate I am to have basic things in life like food, clothing, and shelter.”). Attitudinal questions include items such as, “It is important to appreciate things such as health, family, and friends.” The eight subscales can be totaled to derive an overall score representing one’s general appreciativeness, with higher scores indicating more of the positive construct. Items on each of the eight subscales are listed in Tables 2 through 9.

A short form with 18-items was developed with item total correlations above .5, which are the correlations between the subjects’ item score and total score on the instrument. Coefficient alpha was .91, which indicates strong internal consistency. The short form was strongly correlated with the original form ($r=.95$). Both the short and long forms were significantly correlated with other positive characteristics, such as optimism, spirituality, and emotional self-awareness. Moreover, positive life outcomes, such as subjective wellbeing and life satisfaction were correlated with both forms as well (Adler & Fagley, 2005).

In order to develop this scale, Adler (2002) conducted a qualitative study with undergraduates in psychology to deduce an operational definition of appreciation that could be used to develop an appreciation inventory. He and Fagley used data from this study as well as their knowledge of the extant literature to create 81 initial survey items. Five items were removed for poor fit, given correlations less than .10 with the total. After continued path analysis

and researching the nomological net of appreciation, Adler and Fagley (2005) presented the eight aspects, HARPS-GLI model of appreciation that is presently discussed and measured with the Appreciation Scale. Table 1 lists each of the eight aspects with a brief description.

Table 1

The eight aspects of appreciation: HARPS-GLI

Aspect	Description
Have focus	Focusing on what one has rather than what one lacks
Awe	Feeling a transcendental connection to nature, beauty, or life
Ritual	Engaging in rituals that foster appreciation
Present moment	Being mindfully aware of the present moment
Self/ social comparison	Using self or social comparisons to foster appreciation
Gratitude	Feeling grateful to someone for some gift or benefit received
Loss/ adversity	Reflecting on experiences of loss or adversity to foster appreciation
Interpersonal	Noticing and valuing the meaning of the relationships in one's life and expressing it to others

Source: Adapted from Fagley (2012) and Fagley & Adler (2012)

Lim (2015) studied appreciation using Noh and Lee's (2012) Korean- adapted Appreciation Scale to explore the relationship between aspects of appreciation and three dimensions of positive mental health (emotional, social, and psychological). The Korean adapted version was reduced to 23 items that tapped into similar aspects; "Have" Focus, Ritual, Expression, and Nature/Daily Life, Downward Comparison. Four of the original aspects were condensed into two variables. Adler and Fagley's (2005) aspects of Gratitude and Interpersonal Appreciation were combined as Expression, and Awe and Present moment were combined into Nature/ Daily Life. Cronbach's alpha for the adapted subscales ranged from .68 to .85 as reported by Lim (2015). "Have" Focus, Expression, and Nature/ Daily life had moderate to large correlations with all three dimensions of positive mental health. As one might expect, Ritual and Downward Social Comparison had small to moderate correlations (Lim, 2015), This is

consistent with previous work that suggestions these aspects could also be related to obsessive or compulsive rituals and denigrating others to feel better about oneself (Adler & Fagley, 2005; Fagley, 2012).

There are almost no other appreciation measures, which is possibly due to the focus on gratitude in the culture at large and the morphing of the definition of gratitude over time to encompass much of the broader construct that we have called appreciation. Perhaps, this in response to Wood et al.'s (2008b) suggestion and Lambert's (2009) criticism of the GQ-6 and the prototype analysis showing two forms of gratitude (benefit-triggered and generalized). The Gratitude and Resentment Appreciation Test (Watkins, Woodward, Stone, & Kolts, 2003) captures how these terms have been intertwined and will be discussed in the next section. Tucker (2007) created a General Appreciation Scale (GAS), which had a clear focus on appreciation instead of gratitude. The GAS has five items that requires participants to indicate how true each statement was (1= not true at all and 7= extremely true of me). To develop this scale, she entered 25 items into a principal component analysis. This indicated two factors, with a primary factor and a second factor that only seemed indirectly related to appreciation. As a result, she selected the five items that loaded onto the first factor above .70. Cronbach's alpha for the scale was reported to be .84. Almost all items included the term "appreciation", which could be limiting as it relies on the respondent to define the term (e.g. "I am a person who tends to appreciate things," and "People often notice how often I appreciate things.") A more subtle item of the five read, "I tend to feel very fortunate." Self-reported happier individuals not only reported more observations of appreciation in their own lives, but were more likely to feel appreciative of hypothetical situations. Tucker supported her hypothesis that happier and appreciative

individuals were sensitive to such input, and therefore have a lower threshold in feeling the positive emotions.

Improving Appreciation Measurement

The problem with accepting “a higher-order gratitude”. As appreciation was being studied, Wood and colleagues (2008b) proposed an opposing view that essentially argued appreciation, as defined by Adler and Fagley (2005), should actually be defined as a “higher-order gratitude” and that the traditional view of gratitude should be expanded to capture additional aspects. . As a result, he recommended that the gratitude and appreciation literature be integrated to simplify the research. A more subtle consequence of this recommendation is that “appreciation”, with specific operationally defined aspects, would no longer be discussed in the research and gratitude would continue to have multiple conflicting definitions. Wood et al.’s(2008b) paper does not address the contention by Fagley (2012, 2016) that gratitude and appreciation are hierarchically nested and she highlighted that this exploratory factor analysis only provides support that there is a higher order construct, not that the aspects of appreciation and gratitude subscales are interchangeable. Fagley (2016) used the biological classification taxonomy as an example to illustrate how the categorization of species can be used for the categorization of emotions, specifically how aspects of appreciation are related to each other and the overarching construct. For example, she described appreciation is one type of emotion that has particular defining features (e.g. valuing something and feeling a positive emotional connection). Each aspect has these particular defining features, but also has other specific features that are defining of each aspect and unequivocally rule out the possibility that it is another aspect (p. 77).

Lin (2014) carried on with Wood et al.'s (2008b) recommendation and wrote about a higher-order gratitude that has five aspects similar to Adler and Fagley's (2005) model of appreciation. The components have conceptual overlap with HARPS-GLI as well. Lin focuses on thanking others (Interpersonal Appreciation and Gratitude), thanking God (Awe), cherishing blessings ("Having" Focus), appreciating hardship (Loss/ Adversity), and cherishing the moment (Present Moment). In fact, some of the aspects are almost identical to those within the appreciation model. Moreover, he replicated the findings that this higher-order construct accounted for variances in subjective well-being above and beyond gender, age, religion, the Big Five personality traits, and a single gratitude. Similarly, the findings by Fagley (2012) show evidence that the appreciation subscales also accounted for unique variance in life satisfaction over and above similar variables; the Big Five personality traits and gratitude.

None of Adler or Fagley's work is cited in Lin's (2014) paper which poses a major weakness in this. Even though Wood et al. (2008b) recommended the literature should be combined in the future, individual papers that led up to this integration should continue to be cited. If the construct of appreciation was critiqued, then perhaps advancements could be made in terms of refining the model. Even more, the model of appreciation and its scale could be validated in another international sample, which Lin (2014) appropriately argues is much needed for the field of psychology as a whole. As discussed in the previous section, Noh and Lee (2012) developed the Korean version of the Appreciation Scale, and Lim (2015) recently used this version to find evidence to support relationships between aspects of appreciation and three dimensions of positive mental health (emotional, social, and psychological wellbeing). Because Lin (2014) did not incorporate the Appreciation Scale, it leaves questions about whether the findings would be replicated if the Appreciation Scale was substituted for Lin's measure and if

Lin's measure diverges from Noh's and Lee's (2012) version meaningful ways that could advance adapted scale validation across international samples.

Wood et al.'s (2008b) recommendation to integrate the literature came from an effort to synthesize the similarities between three scales of gratitude or appreciation and yield an improved construct, if possible. He analyzed 12 scales from three measures, the Gratitude Questionnaire 6 (McCullough et al., 2002), the Appreciation Scale (Adler & Fagley, 2005), and the Gratitude, Resentment, and Appreciation Test (Watkins, Woodward, Stone, & Kolts, 2003). While the GQ6 focuses primarily on emotional experiences and intensity of gratitude feelings, the Appreciation and GRAT represents many aspects of appreciation: of people (Appreciation Scale and GRAT), possessions, present moment, rituals, feelings of awe, existential concerns, expressions of gratitude, life, the absence of deprivation feelings. Although the GRAT uses the term 'gratitude', it does not have any items regarding benefit-triggered gratitude and instead contains items about social appreciation (also one of the 3 subscales) and 'having' focus about the benefits one may have (e.g. "I feel grateful for the education I have received."). Before this study, there had been no published correlations of the three measures, despite individually having excellent abilities to predict wellbeing.

Not surprisingly, Wood et al. (2008b) found good internal consistencies and medium to large intercorrelations were found between all three measures. The Sense of Abundance subscale on the GRAT was the only scale not significantly correlated with others. Because this scale has many negative items, it is possible that it diverged with the others because it not only captured the inverse of appreciation, but stronger hostile attributions to events in life. For example, items include "I basically feel like life has ripped me off," "It seems like people have frequently tried to impede my progress," and "There never seems to be enough to go around and I never seem to

get my share.” Instead of a person perhaps rating themselves to be low on appreciation measures, or not often taking the time to notice and feel positively towards event in their lives, this scale introduces a person who may ruminate about bad life circumstances and have poor interpersonal relationships. As a result, having lower levels of hostility or resentment seem to not necessarily converge with also having appreciation. Wood et al. (2008b) concluded that there is a single, unitary factor, which he called higher-order gratitude, after assessing the intercorrelations, extracting factors based on parallel analysis and minimum average partial (MAP) method, and findings from the exploratory factor analysis. To demonstrate the reliability of the factor structure, a confirmatory factor analysis across gender groups was conducted since women were found to report higher levels of appreciation across all twelve scales. His paper argues that the three scales should be combined in some way, with the exception of Sense of Abundance, so that the overlapping research can be streamlined and future measurement can take into account a higher-order “gratitude” with various aspects. However, Fagley (2016) would argue that the high-order “gratitude” is interchangeable with her and Adler’s (2005) conceptualization of appreciation.

One question left unanswered by Wood et al. (2008b) is whether the three measures have to be combined at all, or if it is sufficient to improve the Appreciation Scale and use it in future work. After all, it was noted to be the broadest measure and it is possible that it could capture constructs from the other scales (if it does not already do so). For example, the Appreciation Scale includes similar items as the GQ6. “I remind myself how fortunate I am to have the privileges and opportunities I have encountered in life,” on the Appreciation Scale is very similar to the GQ-6 item, “As I get older I find myself more able to appreciate the people, events, and situations that have been part of my life history.” Other items on the GQ6 capture a traditional

definition of gratitude and feeling thankful for what one has in life, which are included in the Gratitude and Have Focus subscales on the Appreciation measure. The two subscales on the GRAT that did not have statistical problems in Wood et al.'s (2008b) paper are Appreciation of Others and Simple Appreciation. Appreciation of others is highly similar to Interpersonal Appreciation and includes items about noticing the contributions others have made to one's life, including friends, family, and parents. Simple Appreciation includes items about feeling overwhelmed by music and noticing and being connected to nature and simple things in life. This is captured by items on the Appreciation Scale in the Awe and Present Moment subscales, such as "I feel a positive, emotional connection to nature," (Awe) and "I place special, positive meaning into neutral activities like taking a walk, a shower, or a nap"(Present Moment).

Purpose of the current work. The argument for combining the literature on gratitude and appreciation is clear; it will unite the work of many researchers in the future, improve the operational definition, and allow the work to advance from theoretical conceptualizations to intervention development and assessment. While appreciation is argued to be the term that is not only more linguistically appropriate, but has an existing scale that already captures the many aspects gratitude researchers have highlighted, this paper is not a recommendation to merely accept the Appreciation Scale as it currently exists. Because the eight aspects were originally created from qualitative themes, it is reasonable to assume that subject responses on each item may not load upon each of the eight factors in perfect alignment with the theoretical model. As a result, this paper discusses an attempt to further assess the model of appreciation by assessing if the 57 items of the Appreciation Scale (Adler & Fagley, 2005) load onto eight, independent factors (HARPS-GLI). The subsequent section will synthesize the extant literature pertaining to each aspect.

Review of Literature: The Eight Aspects of Appreciation

“Have” Focus

‘Having’ focus is to focus “on what one has rather than lacks... [which] includes material possessions and also such things as one’s health or opportunities” (Fagley, 2012, p. 59). Larsen and McKibban (2008) argued that it was not either having what one wants, or wanting what one has that makes a person happy—it’s *both*. This is reasonable given the short term reinforcement of materialism (Hudders & Pandelaere, 2012; Goldberg et al., 2003) and benefits of appreciation (Fagley, 2012). The opposite state of “Have” Focus can be conceptually understood as materialism, which one may suspect leads to empty consumption, addictive buying, or even feelings of emptiness. Ruvio, Somer, and Rindfleisch (2012) presented an important connection between the moderating effects of materialism on the relationship between traumatic events and the experience of traumatic events and maladaptive consumption. The absence of Have Focus, or materialism, predicted increased levels of post-traumatic stress, compulsive consumption, and impulsive buying than people with lower levels of materialistic values. Appreciation interventions can help with the negative consequences of materialism as Fagley (2012) found correlational evidence that greater appreciation uniquely predicts greater life satisfaction. See Table 2 for “Have” Focus items on the Appreciation Scale.

The relationship between materialism and addictive buying was mediated by life satisfaction in a recent study in Spain (Otero-López, Pol, Bolaño & Mariño, 2010). This supports interventions that increase life satisfaction as a means to combat overly materialistic values and increase individual wellbeing. “Have” Focus is not the only aspect of appreciation that may combat materialism, and Pieters (2013) found that materialism and loneliness had a bidirectional relationship whereby materialism is hypothesized to increase social isolation and is reinforced as

a coping strategy when one may feel isolated. As such, Interpersonal Appreciation may be helpful in supporting the negative opposites of “Have” Focus by increasing perceived social support and meaning. Perhaps this is because materialism may contain multiple facets just as appreciation does, yet is often cited and measured as a unitary construct (Segev, Shoham, & Gavish, 2015).

Table 2

The Appreciation Scale subscales: Have focus

Item
I am very thankful for my degree of physical health.
I count my blessings for what I have in this world.
I remind myself how fortunate I am to have the privileges and opportunities I have encountered in life.
I reflect on how fortunate I am to have basic things in life like food, clothing and shelter.
I really notice and acknowledge the good things I get in life.
I am content with what I have.
It is important to appreciate things such as health, family, and friends.
Although I don't have everything I want, I am thankful for what I have.
I remind myself to think about the good things I have in my life.
I appreciate my degree of success in life so far.

Source: Adapted Fagley & Adler (2005).

In a meta-analysis of 753 effect sizes from 259 independent samples, researchers found general consensus that multifaceted materialism is significantly correlated with lower well-being, with the strongest associations being between risky health, consumer behaviors, and negative self-appraisals. Across studies, materialism had the weakest associations to life satisfaction and negative affect, which indicates that materialism per se might not as good of a predictor of these two variables compared to other outcomes (Dittmar, Bond, Hurst, & Kasser, 2014).

Christopher, Saliba, and Deadmarsh, (2009) tested a mediated relationship between materialism and psychological wellbeing whereby materialism leads to a decreased sense of control and contributes to reduced psychological wellbeing. The hypothesis driving this mediating variable is that people with high levels of materialism rely on extrinsic approval of

their possessions, and this lowers the degree to which they control their own positive thoughts and feelings. To “have” focus is to shift thoughts away from acquiring possessions, and to notice and appreciate the possessions that are in one’s life. In accordance with Christopher et al.’s (2009) research, an external locus of control mediated the relationship between materialism and psychological wellbeing.

The only empirical, longitudinal study that measured materialism and outcomes over time was conducted by Kasser et al. (2014). They studied participants for varying time frames up to 12 years and found that wellbeing improves overtime when individuals are less oriented towards materialistic values or goals. It seems reasonable to hypothesize that this represents ‘having focus’ to be associated with increased wellbeing. Not only was the lack of materialism found to increase positive outcomes, but a materialistic orientation was associated with negative outcomes, such as lower psychological wellbeing. Moreover, adolescents who were assigned to a group based intervention regarding finances and re-evaluating “needs and wants” and reflecting on values rated themselves to have decreased materialism and increased self-esteem *even* after a follow-up several months after the intervention. This is an important finding because it shows that positive psychology interventions, specifically within the domains discussed in this literature review, can be both preventive and a prescription for healing, or undoing negative consequences. Specifically, when adolescents reflected on what they have versus what they need (“have” focus), they reaped positive benefits. Adolescents are a group of particular interest since consumer media culture targets youth incessantly to buy the newest versions of shoes, clothes, and technology. As a result, they may be well-positioned, and well in need, of interventions to increase levels of “Have” Focus and reduce materialism.

The lack of ‘have focus’ in youth. Froh et al. (2010) examined an interesting and direct comparison between youth outcomes when having high levels of gratitude versus materialism using the GQ-6, GRAT, and Gratitude Adjective Checklist (GAC; McCullough et al., 2002). It was the first published study to examine materialism and gratitude simultaneously, though the connection between these concepts was indirectly made throughout other works. More importantly, it allowed for conclusions to be made about unique predictors for grade point average, which could suggest to school administrators and legislators that there is room for and value in incorporating appreciation into school curricula. However, it should be noted that the “gratitude” measured, as defined by the scales used, also measures aspects of appreciation. Specifically, items that describe feeling grateful for a benefit (e.g. “If I had to list everything that I felt grateful for, it would be a very long list” from the GQ-6) actually taps into “Have” Focus as the person is feeling appreciative for some circumstance or privilege in life and *not* to the benefactor who intentionally made the situation possible. Materialism was found to be a full mediator for the relationship between benevolence and subjective wellbeing, which suggests that the attitudes of the former are completely in contrast with altruistic and kind attitudes (Karabi & Cemalcilar, 2010).

Research continued to explore the connections between materialism and gratitude in youth, and in a large sample of 1,035 public high school students in an affluent district, Froh et al. (2010) found that when controlling for materialism, gratitude uniquely predicts positive outcomes in GPA, life satisfaction, social integration and absorption, and lower envy and depression. Materialism was also a predictor of more negative outcomes in these areas. However, gratitude was a stronger predictor for all latent variables. Because gratitude was found to be a stronger predictor of these outcomes, it seems logical that interventions take a prevention

approach to increase levels of “have” focus universally, rather than try to screen for negative youth values and intervening post-hoc. Polak and McCullough (2006) also tapped into the “Have” Focus aspect of appreciation by suggesting that gratitude may have some personal benefits of undoing the materialistic views.

Goldberg, Gorn, Peracchio, and Bamossy (2003) created the Youth Materialism Scale, which was evaluated on a nationally representative sample of “tweens,” or youths 9-14 years old. Expectedly, this scale captures the cognitive component of sustaining materialistic values (e.g. “I have fun just thinking of all the things I own,” p. 281). This item is similar to an item on the Have Focus subscale of the Appreciation Scale (Adler, 2002); “I really notice and acknowledge the good things I get in life”, but with one important difference. In the materialistic item, the person is noticing possessions she has and feeling some positive affect. In the “Have” Focus item, the person could be noticing possessions, but then subsequently *appreciates* having received them. The practical difference of this is people who currently experience happiness to come from their possessions could benefit from simply expanding and focusing their thoughts beyond just enjoying possessions to valuing them and other privileges in life. This has yet to be extensively measured, despite gratitude interventions that contain some parts of appreciating possessions and what one has. The challenge may be not to condemn materialism completely, though, and acknowledge that some luxury consumption may be related to subjective wellbeing. However, without noticing and valuing what one has—whether it is a bottle of cold water on a hot day or the most expensive shoes in the world—feeling satiated and appreciative will likely never occur.

By empirically measuring how much a sample of college students had what they wanted and wanted what they had, Larsen and McKibban (2008) found that students were happiest when

they wanted what they had and had an objectively large number of possessions. Conversely, students who simply had high levels of wanting were less happy. When controlling for the extent to which participants wanted what they had, (or, level of “Have Focus” as is argued in this paper) the degree to which gratitude accounted for the variance in happiness dropped from 18 to 10%. This demonstrates that wanting what one has uniquely contributes to happiness. This is consistent with Fagley’s (2012) paper, which showed that life satisfaction comprises more than just gratitude; it involves specific aspects of appreciation.

Short-term positive effects of materialism. Hudders and Pandelaere (2012) explored this idea in their paper referring to the “silver lining” of materialism. In a large sample of college students in Belgium, perceived luxury consumption was related to increased positive affect and reduced negative affect for people regardless of their level of materialistic values. However, the researchers hypothesized that this rise in positive affect would not be sustained overtime and would essentially become contingent upon continued consumption. While higher positive moods may occur during the purchasing experience, materialism is also significantly related to higher *negative* moods towards the item purchased after shopping (Noguti & Bokeyar, 2014). Moreover, Norris and Larsen (2011) found that people who wanted many material possessions only experienced reduced happiness if they did not appreciate what they presently have. This finding again supports that the critical component of “have” focus is to engage in cognitive tasks that go beyond just noticing possessions and feeling happy, but also valuing them.

Materialism in the workplace. Deckop, Giacalone , and Jurkiewicz (2015) were interested in measuring whether materialism is related to negative workplace behaviors. They argued that materialism may be a highly regarded value by employers since money is objectively reinforcing, and materialistic people may value this reinforcer more than employees with less

materialistic values. Therefore, it is plausible to hypothesize that a contingent reinforcement schedule (e.g. being paid commission to meet sale goals) may motivate productivity more in materialistic people. Moreover, an environment in which employees are reinforced primarily by monetary rewards may result in employees increasing rewarded behaviors and reducing others, such as prosocial acts or “organizational citizenship behavior” (p. 788). When controlling for gender, education, task performance, work section, and years in management, Deckop et al. found that materialism was significantly negatively correlated with organizational citizenship behavior ($r = -.12$) and positively correlated with interpersonal deviance, or non-conforming interpersonal acts with colleagues ($r = .10$). These non-conforming acts are typically negative, as an example item on Bennett and Robinson’s (2000) workplace deviance scaled cited in the article was “[My peers make] fun of someone at work” with responses ranging from 1= never to 7=daily. However, no correlation was established between materialism and organization deviance, such as taking property from work.

Millar and Thomas (2009) tested whether materialism affected the relationship between discretionary activities, such as trips or creative activities, and happiness to see if there was a difference in values between people who spend money on possessions and those who spend money to have an experience or be creative. When randomly assigned to recall a material purchase, experiential purchase, or creative activity, materialistic subjects rated the highest levels of happiness and self-relevance with material objects. While this may not be entirely surprising, it highlights that changing materialistic values is likely a cognitive process. Simply engaging in different, non-material actions did not affect being happy and learning about oneself. Therefore, the individual must appraise the activity or possession to have value and personal meaning.

Awe

Awe “refers to feeling a deep emotional, spiritual, or transcendental connection to something—a stunning vista, a forest of Redwoods, or birth of a baby” (Fagley, 2012, p. 59). Table 3 lists Awe items from the Appreciation Scale. Haidt (2000) researched a positive emotion he labels as “elevation,” which seems related to awe with some important distinctions. The term “awe” captures beauty or phenomenon that could be somewhat startling, such as witnessing the aurora borealis before people had a label and explanation for the natural wonder. Elevation involves cognitively noticing and appraising some human act, feeling physiologically activated (e.g. “a warm glowing or feeling in the chest”), and behaviorally activating the person to connect with and help others. It seems reasonable to link elevation and awe together, such that they describe a similar, inspiring feeling that is simply elicited by either human or natural and supernatural triggers. Awe’s earliest roots link to religious stories and citizens were in both amazement and fear of gods (Keltner & Haidt, 2003). Haidt (2000) argues that elevation is a feeling one may have when witnessing “human moral beauty or virtue” (p.1). As such, elevation may occur when someone witnesses great human acts, such as when New Yorkers banded together with altruism and grace to help the city recover from the terrorist attacks on September 11, 2001.

In an attempt to create a prototype for this positive emotion Keltner and Haidt (2003) researched awe across interdisciplinary religious, philosophical, sociological, and psychological fields. They found that perceived vastness and a need for accommodation, such that one needs to expand or alter their current schemas to incorporate this new wonder, were required components of awe experiences. The researchers pulled themes from their literature review to account for the differences in awe experiences and factors that influence its felt intensity.

Table 3

The Appreciation Scale subscales: Awe

Item
I get caught up in the wonderment of life.
I have moments when I realize how fortunate I am to be alive.
I reflect on how lucky I am to be alive.
I feel that it is a miracle to be alive.
I feel a positive, emotional connection to nature.
When I see natural beauty like Niagara Falls, I feel like a child who is awestruck.

Source: Adapted Fagley & Adler (2005).

Five factors—threat, beauty, ability, virtue, and supernatural causality, were found to help differentiate types of awe experiences (Keltner & Haidt, 2003). Threat accounts for the startling element of awe that is mixed with fear, such as a massive tornado versus a meteor shower. Beauty adds aesthetic pleasure to the awe experience, which is subjective, but possibly triggered by a colorful vistas and attractive or sexually desirable people. Ability captures incredible talents and skills, such as artists with extremely developed photographic memories. The virtue aspect taps into the previously described emotion “elevation” (Haidt, 2000), and could be conceptualized as one type of awe. Lastly, supernatural entities, such as seeing a god, ghost, alien, or supernatural powers, contributes to a type of awe that Keltner and Haidt (2003) argue contains terror, but also amazement or benevolence depending on the stimulus.

Shiota, Keltner, and Mossman (2007) expanded on the preceding awe research by empirically testing assumptions about the construct. For example, they argued that the awe experience is “self-diminishing” such that there is a revelation that extraordinary greatness exists outside of the self, possibly in humankind and the universe. This idea, along with the evidence that awe is not elicited by anticipating material or social rewards, differentiates awe from other positive emotions such as happiness and joy. Moreover, they found evidence to support the claim that a person who experiences awe with some frequency or intensity is most comfortable flexibly

expanding her schemas. Lastly, this self-diminishing quality is related to one's identification with a "larger group" in her self-concept, as she is presumably realizing she is part of all of humankind, or a being within the universe. In later studies, the sense of a small self was found to be partially responsible for increased prosocial behavior, such as generosity, ethical decision making, and helping behavior in mediation analyses by Piff, Feinberg, Dietze, Stancato, and Keltner (2015).

Bonner and Friedman (2011) set out to continue clarifying and operationally defining "awe" so that it could continue to be measured as a construct, as well as a something psychologists can leverage in therapy settings. Using interpretive phenomenological analysis, the researchers explored themes from participant interviews from the book, *Awakening to awe: Personal stories of profound transformation* (Schneider, 2009) that yielded ten themes that could be categorized within three psychological groups; emotional, cognitive, and sensory. These groups highlight the conditions of Adler and Fagley's (2005) appreciation definition that one must notice (sensory) value (cognitive) and feel an emotional connection to someone or something.

The ten themes overlapped with past findings, such that awe captures existential awareness, openness and acceptance, vastness, fear, numinous, and connectedness (Keltner & Haidt, 2003; Shiota et al., 2007). Profoundness is slightly different from any aspect discussed before as it emphasizes a cognitive moment during which one recognizes that the stimuli is profoundly important or "utterly absorbing" (p. 227). Ineffable wonder had not previously been discussed in other works, but may be related to the emotion felt during, and behavioral activation after, assimilating the new awe-inspiring stimuli. Heightened perceptions and presence are two aspects that recognize a component to the awe experience during which one perceives time to

slow down and have increased sensations and perceptions. These sensory experiences and their possible benefits are important for future use developing interventions because it answers the simple question of why people want to encounter moments of awe if it may include some frightening or threatening qualities.

A qualitative analysis of themes was conducted to explore conceptual difference in awe and wonder based on language used to describe each experience. These constructs seemed separate based the perceptual descriptions of awe versus the depth of processing and tentative nature of the words needed to describe wonder (Darbor, Lench, Davis, Hicks, 2015). While this may suggest awe is a separate emotion from wonder, these narratives may be tapping into the cognitive tasks required of awe, such as accommodation (Keltner & Haidt, 2003), which requires uncertainty tolerance and is likely a more challenging process than perceiving and sensing a stimulus (Valdesolo & Graham, 2014).

Rudd, Aaker, and Vohs (2012) moved beyond conceptualizing and defining awe to empirically testing its benefits. They found that the sensory experience of expanding time is related to a host of benefits for folks in terms of their internal experience and behavioral changes. Not only did participants who felt awe perceive they had more time available and greater life satisfaction, they also felt less impatient and more willing to volunteer, and had a stronger preference for experiences over material goods. These findings are important for Adler and Fagley's (2005) conceptualization of appreciation because they show a connection between awe and "have" focus, such that awe helps enhance this aspect by nurturing a preference away from materialism, or "have" focus conceptual opposite. More importantly, though, this study posits that the mediator between awe and the expansion of time is activating present moment and prior

research has shown a strong correlation between Awe and Present Moment (Adler & Fagley, 2005).

Tourism has long tried to leverage the power of awe to enhance traveler experiences and capitalize on eliciting the emotion based on how it has been conceptualized in past research (Coughlan, Buckley, & Weaver, 2012; Powell, Brownlee, Kellert, & Ham, 2012). Spiritual and religious study participants were found to select spiritual over hedonistic tourism locations after experiencing awe (Van Cappellen & Saroglou, 2011). Although awe experiences have benefits for the general population, research has also focused on clinical populations to go beyond substantiating awe and appreciation experiences as preventative actions, but interventions to undo negative outcomes. Spiritual or religious patients with physical or mental illness were found to have lower awareness of gratitude and awe than those who did not engage in such practices (Büssing et al., 2014). However, it seems reasonable to wonder if those who were spiritual or religious simply dosed themselves with higher gratitude and awe behavioral interventions through their practice.

Some work has been done to conceptualize which types of people experience awe and if there are any common characteristics in personality or cognitive style. Valdesolo and Graham (2014) built upon the literature by empirically testing the relationship between awe and uncertainty tolerance, with a question regarding the possible negative consequences of inducing an awe experience for individuals who do not have higher dispositional awe and are more able to accommodate their cognitive schemas. Evidence suggests that awe does, in fact, affect tolerance for uncertainty and leads to increased agency detection, which is the tendency to appraise events as being intentional and meaningful (e.g. the phrase “everything happens for a reason”).

Silvia, Fayn, Nusbaum, and Beaty (2015) recently hypothesized that certain people may be more open to experiences and, therefore, more able to experience the powerful feeling of awe. Openness was measured by McCrae and Costa's (2007) NEO FFI, a 60 item scale of the 5 personality factors. The idea of openness is consistent with cognitive flexibility required of accommodating schemas (Shiota et al., 2007) and avoiding the negative consequences of having low uncertainty tolerance (Valdesolo & Graham, 2014). They found that personality characteristics, such as extraversion, had almost nothing to do with propensity to feel awe, but openness to experience predicted awe experiences when subjects observed images of deep space and listened to songs thought to evoke the emotion.

Ritual

The ritual aspects of appreciation refer to actions, such as family traditions, religious practices, or any regular practice that fosters appreciation. These rituals provide cues to notice and appreciate aspects of one's life in a way that undoes the effects of hedonic adaptation (Adler and Fagley, 2005). The extant literature in this area is considerably less than the other aspects of appreciation. However, this is likely because many behaviors could be considered rituals, or cues to engage in an appreciative experience. As such, the research is focused upon rituals that have been built into religious practices and family, or cultural, traditions. The positive benefits of rituals presumably have some caveats, as rituals are subject to hedonic adaptation and at risk of becoming a habit that can be performed without conscious attention (Brickman, Coats, Janoff-Bulman, 1978), or can become compulsive when associated with anxiety symptoms or obsessive compulsive disorder. See Table 4 for 'Ritual items on the Appreciation Scale.

Table 4

The Appreciation Scale subscales: Ritual

Item
I do things to remind myself to be thankful.
I stop to give thanks for my food before I eat.
I perform rituals (i.e. pray or “say grace before a meal”) that remind me to be appreciative.
I give thanks for something at least once a day.
I use personal or religious rituals to remind myself to be thankful for things.
I believe it is important to remind myself to be thankful for things on a consistent basis (i.e. daily, weekly, or monthly).

Source: Adapted Fagley & Adler (2005).

Páez (2011) researched the outcomes of naturally occurring family rituals, such as holiday dinners and traditions related to rites of passage. These rituals were hypothesized to have a positive relationship with increased social connections, positive affect, life satisfaction, and family environment. However, the negative consequences of these naturally occurring rituals could be interpersonal conflict and distress if the family system or social group is not healthy. The sample comprised Spanish college students who were predominantly female and living within two parent homes in satisfactory economic situations. The research provided evidence for family traditions, when it is valued as important, as being related to reduced negative affect and maintaining high satisfaction with life and social support. Moreover, students who had higher levels of participation showed more positive outcomes.

Vohs, Wang, Gino, and Norton (2013) explored a narrower outcome of rituals by measuring enhanced consumption experiences after assigning participants to either a ritual or other behavioral condition. When given ritualized instructions before eating chocolate, subjects took longer to consume the candy and rated more enjoyment during their consumption. When manipulating whether participants engaged in the ritual or watched the ritual, Vohs et al. (2013) found that personal involvement was a moderating factor in the positive, savoring effects of consumption. The findings related to savoring seem to tap into the ‘time expansion’ component

of awe and present moment ((Bonner & Friedman, 2011; Larsen and Norris, 2011). Perhaps rituals are yet another strategy or trigger to activating this perceptual experience.

Beyond joyous rituals, mourning rituals have also been explored as a positive intervention for grief experiences (Norton & Gino, 2014). Because rituals are so diverse and contextualized, the researchers posited that increased sense of control serves as a psychological mechanism that accounts for the change in grief experiences. Interestingly, the study not only explored mourning the loss of loved ones and romantic partners, but also losing the lottery as a manipulated grief condition. Although these three losses seem starkly different in that two regard the loss of life that occur regularly and for which many cultures have narratives and rituals to utilize for coping, all conditions tap into perceived loss of control, which was the target variable that needed to be empirically tested. In a pilot study, the most common rituals performed to cope with loss were found to be private, non-religious, and unique to the individual rather than being an established practice. From this finding, the researchers manipulated grief experiences and directed subjects to engage in a variety of behavioral and informational conditions. Regardless of whether the subject valued the ritual, performing a ritual after learning that people engage in them for coping was found to increase sense of control and reduced grief experiences.

Present Moment

The Present Moment aspect of appreciation captures parts of the increasingly discussed practice of mindfulness. It has been defined as “engaging in mindful awareness of the ‘here and now’, one’s surroundings and their positive qualities (Fagley, 2012, p. 60). Measurement tools reflect this definition and typically include a component related to present moment awareness in mindfulness scales, such as Mindful Attention and Awareness Scale (MAAS) (Brown & Ryan,

2003) and the Philadelphia Mindfulness Scale (Cardaciotto, Herbert, Forman, Moitra, & Farro, 2008). See Table 5 for Present Moment items on the Appreciation Scale.

Table 5

The Appreciation Scale subscales: Present moment

Item
I enjoy the little things around me like the trees, the wind, animals, sounds, sunlight, etc.
I remind myself to appreciate the things around me.
I place special, positive meaning into neutral activities like taking a walk, a shower, or a nap.
I notice things like the first flowers of spring.
I recognize and acknowledge the positive value and meaning of events in my life.
I stop and enjoy my life as it is.
When I stop and notice the things around me I feel good and content.

Source: Adapted Fagley & Adler (2005).

Brown & Ryan (2003) focused their work on mindfulness and highlighted an important distinction between dispositional and state mindfulness. This is important because it acknowledges that some people act in this way more frequently, but interventions are useful because there are still positive benefits of inducing this state in those who are practicing infrequently or for the first time. The researchers found empirical support for the benefits of a short term mindfulness program term (e.g. 8 weekly 90 minute group sessions and a half-day retreat, p. 841) for individuals receiving treatment for cancer. Regardless of demographics and the stage or duration of cancer, higher levels of mindfulness during the program predicted lower stress and mood disturbance. This supports Fredrickson's (2014) Broaden and Build theory of positive emotions, which asserts that they not only expand and facilitate continued positive affective states, but also have an undoing effect on negative emotions.

Present moment seems to have important ties to Borderline Personality Disorder (BPD) as a meta-analysis yielded large effect sizes for the inability to tolerate present moment experiences in this clinical population (Cavicchioli, Rugi, & Maffei, 2015). This group could be prime for intervention, but the function of present moment intolerance may serve a function that

is not well established. For example, there could be adaptive features of avoiding the present moment for those who have experienced traumatizing situations. Present moment initiatives with individuals who have BPD may need a trauma-sensitive approach that does not flood someone in a triggering experience. Grounding techniques, or strategies to anchor by noticing sensory experiences (e.g. auditory, tactile, and olfactory stimuli), could be a type of present moment intervention and are often used as strategies for unwanted or harmful dissociative symptoms.

Mind wandering, or what might be considered the conceptually opposite state of being in the present moment was studied by Stawarczyk and colleagues (2012). They defined mind wandering as “stimulus-independent and task-unrelated thoughts” or “STITUs” (p. 1) and acknowledge that such thoughts have been established as positive and functional as they contribute to planning and goal setting. However, one might hypothesize that mind wandering could have negative consequences when people are engaging in tasks while ruminating on negative thoughts or feelings. In an effort to explain possible reasons why research has found correlations between STITUs and increased depressive symptomology (see cited works such as Giambra and Traynor, 1978, Burg & Michalak, 2011), they found that the relationship between mind wandering and psychological distress is completely accounted for by dispositional mindfulness as measured by Brown and Ryan’s (2003) MAAS (Stawarczyk, Majerus, Van der Linden, & Argembeau, 2012). In other words, mind wandering is not “bad” per se, but not being connected to the present moment predicts some unwanted and distressing outcomes.

Nezlek, Holas, Rusanowska, and Krejtz (2015) conducted the first study examining subjects’ level of state and trait presence during everyday tasks over the course of two weeks. However, the participants retroactively reported an event of his or her choice and then reported their perceived level of being present. Nezlek et al. (2015) found that people who had high scores

on the MAAS reported higher state present awareness during daily events. Moreover, dispositional levels of mindfulness had a positive correlation with the frequency of how positive, non-stressful, and important these daily events were rated to be. As a result, there is evidence to support the idea that people who often engage in mindfulness (dispositional mindfulness) not only feel less stressed, but find more positivity and meaning in daily life.

Perhaps a limitation of Nezelek and his colleagues' work is that responses were subject to participant reporting bias, and there may have been some social desirability or tendency to not disclose upsetting events that created a sample of overly positive event reports. Weinstein, Brown, and Ryan (2008) partially addressed this by examining the types of stress and coping responses participants had through a sample of daily diary entries. Whether participants experienced stress more or less often was not the main purpose for the study, rather, they wanted to answer questions such as how distressing stressful events may be and how people then manage coping with these feelings. Mindfulness again had bolstering support as Weinstein et al. (2008) found that those higher in mindfulness had less disturbing appraisals of stress when it occurred and used avoidance less as a coping strategy.

Not all researchers focused on the positive outcomes related to present moment, though, and there has been some attention to the semantic meaning of this construct and implications for mindfulness meditation if present moment becomes secularized. After participating in a mindfulness-based stress reduction program (MBSR), Purser (2015) argued the downside of emphasizing the present moment as an object of meditation, such that a person is in some place trying to locate a moving target and bring it closer to the self:

“...to “be in the present” can in actuality lead to a freezing effect by an attempt to shut down experiential time and the passage of ordinary time. The direction of attention to one momentary object probably accounts for its temporary therapeutic and calming effects,

but it does not lead to any fundamental or significant change in the way the temporal order is viewed and experienced.” (p. 683)

While it is true that directing attention to a topic may be an opposite cognitive task that erases the mind’s opportunity to ruminate, Purser may be missing the benefits of the present moment, especially when coupled with awe experiences (see Keltner & Haidt, 2003; Shiota et al., 2007), and this could happen when a person attends to something extraordinary or notices the simplest, ordinary parts of the earth as one may do in a MBSR program. His philosophical analysis about present moment and its potential pitfalls as a secular component of MBSR provides an interesting and thought-provoking perspective, but de-emphasizes the utility present moment has already been found to have and the potential for future interventions.

Shonin and colleagues (2012) contributed to this cause with a meta-analysis of mindfulness based interventions and reported generally cost-effective interventions with generally moderate to strong effect sizes, and with positive results in clinical populations and in the reduction of anxiety and mood disorder symptoms. However, he also began drawing attention to the present moment as an elusive, fictitious construct because it is not a static place in which one can dwell (Shonin, 2014). Rather, it is a fleeting moment on the continuum of time. Again, these points seem to have little functional utility. However, present moment in the absence of a mindfulness discussion may be under less scrutiny as it is mindfulness mediation that was derived from sacred Buddhist practices and is well-positioned to be culturally appropriated by White, western practitioners and repackaged as “new.” Present moment taps into the simple cognitive task that is a part of this larger intervention. Hyland (2015) detailed the fear amongst current practitioners that the (already) Westernized mindfulness programs will become secularized, watered down “McMindfulness” interventions when they are

commercialized or disseminated without extensive instructor training to the general public, especially in places of employment.

While cultural appropriation of Buddhist practices is an important issue, it is different from the mission driving this paper. This paper argues that the fundamental point of studying any aspect of appreciation, or even appreciation on its own, is to extract the components that can be made into an intervention and improve the quality of life for all people, especially those who are suffering. If the term “present moment” has been adequately operationally defined and is a sufficient cue to prompt people to attend to their actions and surroundings in a particular way that leads to positivity, then the only direction to move towards is the fine tuning of strategies to make such benefits accessible in applied contexts.

Self/ Social Comparison

This aspect of appreciation involves a person using “comparison to others or one’s past to promote appreciating the positive aspects of one’s life” (Fagley, 2012, p. 59). An example of self-comparison would be to appreciate one’s home because it is safer or larger than the previous living situation. Social comparison would be to appreciate one’s home after going to a friend’s home, which may be less spacious or in an area with higher crime. A potential negative consequence of social comparison is that it may lead to devaluing another person or group in order to fuel the savoring of her own possession or circumstance. See Table 6 for Self/ Social Comparison items on the Appreciation Scale.

The risk is that downward social comparisons could be done without humility, which seems to more easily lead to feelings of empathy for the “other” in the situation. When one engages in humble social comparison, the individual not only benefits from her own positive

feelings, but may be primed to act with kindness and charity to others in worse circumstance (see also Fagley, 2016).

Table 6

The Appreciation Scale subscales: Self/ social comparison

Item
I reflect on the worst times in my life to help me realize how fortunate I am now.
I think of people who are less fortunate than I am to help me feel more satisfied with my circumstances.
When I swerve to avoid a car accident, I feel relieved that I am ok.
When I drive by the scene of a car accident, it reminds me to feel thankful that I am safe.
When I see someone less fortunate than myself, I realize how lucky I am.

Source: Adapted Fagley & Adler (2005).

The extant literature primarily focuses on social comparisons rather than ipsative comparisons. It is possible that this area falls within the Loss/ Adversity review as often times making self-comparisons involve reflecting on a time that was negative to appreciate positive events in the present. For example, the item capturing this on the Appreciation Scale (Adler & Fagley, 2002) is “I reflect on the worst times in my life to help me realize how fortunate I am now.” This could refer to traumatic times or times when basic needs were scarce. As such, these conceptually are more similar to the work on post-traumatic growth and savoring described in the Loss/Adversity section.

In regards to social comparisons, Wheeler and Miyake (1992) provided evidence that downward social comparison, or comparing oneself to others less fortunate, is related to increases in subjective wellbeing and upward social comparison was related to lower wellbeing. The idea behind these findings is that comparing oneself to someone less fortunate may prompt feelings of gratitude or contentment with life. Comparing oneself to people who are subjectively perceived as “better” in some way (e.g. more attractive, successful, or intelligent) may contribute to negative evaluations of the self. Respondent’s baseline mood was significantly related to the type of comparison made, such that people used upward comparisons when having higher rated

negative affect and downward comparisons when having more positive affect. This was slightly controversial because other theories posit that someone may feel bad and subsequently use downward comparison to make herself feel better, or cope with negative affect. However, these findings suggest the danger of social comparison, which is that people who feel bad might have a tendency to seek information that confirms maladaptive thoughts, or ruminate. Aspinwall and Taylor (1993) continued to try to define patterns in social comparison tendencies. They found that only subjects who had perceived low self-esteem and a negative mood showed increased positive affect after being exposed to a downward social comparison.

Lyubomirsky and Ross (1997) tested the hypothesis consistent with Aspinwall and Taylor's (1993) findings that individuals in worse moods would be more sensitive to social comparisons, and happier individuals would be less vulnerable to threatening social comparisons. To test this, they manipulated two conditions in which subjects saw a peer complete an anagram much slower or much faster. Happy individuals only responded, and in a positive way, to seeing a peer move slower, which suggests they are less vulnerable to self-esteem threats. The unhappy individuals were greatly affected by a peer mastering the task better and doubted their ability, had lower positive moods, and rated lower enjoyment of the experiment. Their sensitivity to social comparison was only found relative to threatening information though, and they showed no more sensitivity to positive comparisons than happy participants.

Some positive findings for the benefits of social comparisons have been found in clinical populations, specifically women with breast cancer. These patients are often presented with a variety of comparisons in terms of other patients or survivors who have had a shared experience. Wood, Taylor, and Lichtman (1985) posited that patients are shown media representations of

“supercopers”, they may meet patients in similar states, or they may see patients in worse or better circumstances. By conducting patient interviews, Wood and colleagues found that supercopers upward comparisons were related to negative appraisals of the individual’s coping. The women reported downward comparisons more frequently (60% of responses), and it was hypothesized that this was both a preliminary attempt at coping and related to the threat of a comparison that may suggest a patient is in potentially declining health state. Stanton, Danoff-Burg, Cameron, Snider, and Kirk (1999) also noted a tendency for breast cancer patients to use downward social comparison in regards to their self-evaluation, which provides further support for this theory. Despite using downward comparisons to evaluate themselves, the patients showed a pattern of increased affiliation (e.g. wanting support and more information) when presented with targets who were in good circumstances.

Envy is a negative outcome of social comparison that has been discussed for decades, and may be implicated in the previous discussion about the perpetuation of materialism and empty consumption. In a seminal study, Salovey & Rodin (1984) randomly assigned college students into experimental conditions. They were presented fake results of a personality test that they had been administered as well as how they compared to the person currently sitting in the cubicle next to them, which showed that they had either more positive or more negative results. When shown that they had performed worse than the other participant, subjects rated higher envy and less interest forming bonds with the other when they found the results to be self-relevant, as measured by prospective career interests.

The surge of social media apps makes social comparisons increasingly more accessible for adults, teens, and even early adolescents. Given the evidence that less happy individuals are more sensitive to negative social comparisons and that envy and resentment related to these

comparisons discourages social connections, one could only imagine the potential negative consequences of excessive social media usage. Feinstein et al. (2013) demonstrated that it is not necessarily the frequency with which one uses social media, but how the person uses the application. They assessed social comparison both generally and specific to Facebook, rumination, and depressive symptoms at baseline (Time 1) and after a three week follow-up (Time 2). General social comparison was measured with Iowa-Netherlands Comparison Orientation measure (see Gibbons & Bunk, 1999), which had items such as “If I want to find out how well I have done something, I compare what I have done with how others have done.” Facebook social comparisons were measured with an adapted form of the Social Comparison Rating Scale (see Allan & Gilbert, 1995) and items were modified to include the specific social media network (e.g. “When I compare myself to others on Facebook, I feel...”). The results demonstrated that college students who negatively compared themselves to others on Facebook predicted increased rumination, which mediated the relationship between social comparison and depressive symptoms.

Gratitude

Gratitude is defined with more specificity than in other research, such that it refers to “noticing a benefit received (gifts, perceived efforts, sacrifices/actions on one’s behalf) and feeling grateful to someone for it” (Fagley, 2012, p. 60). Fagley later added to the definition by including the beneficiary must also believe the act of the benefactor was intentional (2016). While gratitude can exist as a state and trait, its definition has wavered across studies. In its most simple form, which is consistent with Adler and Fagley (2005), gratitude is feeling appreciative to someone for some benefit provided (see McCullough, Emmons, & Tsang, 2002; Watkins, 2014). There have been debates in the current literature about defining the broad construct of

appreciation and it is often interchangeably used with “benefit-triggered” or “life-orientation” gratitude (Gordon, Impett, Kogan, Oveis, & Keltner, 2012; Sansone & Sansone 2010; Wood, Froh, and Geraghty, 2010). Appreciation has even been used as synonym for the more narrow definition of gratitude (see Converse & Fishbach, 2012).

Recent models of generalized gratitude have been measured with aspects from the appreciation scale, such as awe and present moment, that seem less to do with a tendency of being grateful and more to do with a character style of noticing and feeling positively towards the outside world (Wood, Froh, and Geraghty, 2010). When people rated scenarios which they thought described the term gratitude, they identified meaning beyond the typical benefactor relationship (Lambert, Fincham, & Graham, 2009). The purpose of the current paper is to highlight the need for further studying appreciation as the higher order construct and gratitude as just one aspect, agreeing that they are similar, but certainly not identical.

Gratitude has not escaped its roots in religiosity and is sometimes also considered a moral construct (McCullough, Emmons, Kilpatrick, & Larson, 2001). However, morality seems to be a synonym for behaviors that increase social bonds and reciprocity. It could be argued that morality is simply a term used to describe behaviors that have been identified as strengthening groups of people throughout history. Emmons and Crumpler (2000) shared a similar idea when they considered gratitude as a “human strength” and note how it has been conceptualized as a virtue. As such, this paper argues that framing gratitude in terms of its morality and a virtue can be further operationalized, and doing so may foster use in secular contexts, such as public schools and organizations. See Table 7 for Gratitude items on the Appreciation Scale.

Table 7

The Appreciation Scale subscales: Gratitude

Item
I say "thank you."
I notice the sacrifices that my friends make for me.
Food, clothing, and shelter are basic needs that I do not need to be grateful for because I entitled to them. (R)
I acknowledge when people go out of their way for me.
I say "thank you" to indicate my appreciation.
When a friend gives me a ride somewhere when he or she doesn't have to, I really appreciate it.
I say "thank you" in a restaurant when people bring my food to express my appreciation for their help.
I am very fortunate for the opportunity to receive an education.
I value the sacrifices that my parents (or guardians) have made (and/or make) for me.
Anything that my parents (or guardians) have done for me can be attributed to their responsibility as parents (or guardians) and I do not need to be thankful because that was their job. (R)

Source: Adapted Fagley & Adler (2005). (R) indicates item is reverse scored.

Benefits of gratitude. In spite of the semantic debates regarding gratitude and its roots, the benefits of promoting this construct have been measured in many studies. Compared to participants who were prompted to sustain positive feelings towards memorable events, those who recalled people, items, or moments for which they were grateful rated more satisfaction with life and self-esteem (Rash, Matsuba, & Prkachin, 2011). Notice that the gratitude prompt could also encompass Present Moment, Awe, "Have" Focus, Interpersonal Appreciation, and Gratitude. The personal benefits of gratitude are also abundant, as strong findings support the relationship between gratitude and increased positive affect (Emmons & McCullough, 2003).

Not only has gratitude been found to uniquely account for differences in psychological and subjective wellbeing above the Big Five Personality Factors (Wood, Joseph, & Maltby, 2009; Wood, Froh, & Geraghty, 2010), but it is also connected to social promotion. Naturally, gratitude is largely an interpersonal construct as an individual must be grateful to someone. Gratitude interventions have been found to have links to prosocial behavior (Barlett & DeSteno, 2006; Bartlett, Condon, Cruz, Baumann, DeSteno, 2012; Tsang, 2006). Algoe, Haidt, and Gable,

(2008) further explored how gratitude works and argued that gratitude does not just encourage people to reciprocate good deeds, but it may foster important relationship formation and maintenance behaviors. Through mediation analyses, Grant and Gino (2010) posited that the mechanism explaining this relationship is increased perceptions of social worth or value.

Measuring gratitude. The Gratitude Resentment and Appreciation Test (GRAT) is a 44 item and psychometrically sound measure validated in a sample of college students (Watkins, Woodward, Stone, & Kolts, 2003). The researchers identified three factors of gratitude, Sense of Abundance, Simple Appreciation, and Appreciation of Others. None of the items capture benefit-triggered gratitude, and the GRAT seems to measure generalized gratitude and other aspects of appreciation. For example, Simple Appreciation captures items on the Present Moment and Awe subscales (e.g. “Oftentimes I have been overwhelmed by the beauty of nature” and “I love to sit and watch the snow fall”, p.434). Although some features of the items on Sense of Abundance represent having focus on what one has, they add resentment for *not* having what one wants, such as feeling “ripped off” by life. Appreciation of Others naturally captures the Interpersonal aspect of appreciation.

Other scales that measure gratitude also include items that address aspects that this paper argues to be appreciation, such as the Gratitude Questionnaire- 6 (GQ-6) and the Gratitude Attitude Checklist (GAC) (McCullough, Emmons, & Tsang, 2002). The GQ-6 uses the term appreciation in item 5, which is reverse scored “As I get older I find myself more able to appreciate the people, events, and situations that have been part of my life history” (p.127). Further, one of the three adjectives on the GAC is appreciative. Similar to the GRAT, Lambert et al. (2009) noted that the GQ-6 includes some items that do not measure benefit-triggered gratitude.

Froh et al. (2011) aimed to support the use of statistically sound gratitude measures in younger samples and serves as a helpful resource to researchers looking to further develop the measures or measure gratitude in child populations. The Gratitude Questionnaire-6 (McCullough, Emmons, & Tsang, 2002), Gratitude Attitude Checklist (McCullough, Emmons, & Tsang, 2002), and Gratitude Resentment and Appreciation Test- Short form (Thomas & Watkins, 2003) were validated in a large sample of adolescents ages 10-19 and had acceptable internal consistency and similar factor structures across ages. However, the GRAT-short form had lower correlations to the other measures when assessing children ages 10-13. All three scales demonstrated convergent validity with positive affect and life satisfaction, but weak divergent validity with negative affect across age groups.

Gratitude in youth. Layous and Lyubomirsky (2014) suggested that gratitude interventions could be useful in child and adolescent populations once they have reached the necessary developmental stage and acquired the necessary cognitive and social competencies to understand and express gratitude. The most basic competencies are theory of mind, which would afford a child the capacity to consider and reflect on a benefactor's intention and emotional state, and the understanding of more complex emotional vocabulary. The researchers posit that approximately 7 years of age in a typically developing child might be the youngest target group who demonstrate both theory of mind and can identify advanced emotions, such as gratitude. To date, the youngest participants in a gratitude intervention were 8 years old (see. Froh et al., 2014), and it seems that children any younger may benefit from emotional vocabulary and literacy reflection questions to help them develop pre-requisite skills.

Jeffrey Froh and his colleagues (Froh et al., 2014) have led the charge on studying youth gratitude interventions and first found that writing and reading thank-you letters was related to

increased positive affect and gratitude among participants (ages 8-19) who had less positive affect to begin with (Froh, Kashdan, Ozimkowski, & Miller, 2009). Moreover, these outcomes were sustained over time as increased positive affect was still found in a 2-month follow-up assessment. A sample of sixth and seventh graders also benefited from a gratitude intervention, and students who wrote journals about their blessings for two weeks perceived greater school satisfaction during the post test and 3 week follow-up assessment (Froh, Sefick, & Emmons, 2008).

Although most research has focused on gratitude in youth populations, Froh et al. (2014) was the first project that focused on elementary-aged children 8-11 years old. Instead of gratitude-inducing tasks, this time students were randomly assigned to either a gratitude curriculum or an attentional control condition. The curriculum focused on benefit appraisals and essentially taught students to notice, label, and appreciate the contribution of beneficiaries in their lives. The attentional control focused on emotionally-neutral topics such as discussing activities they do in each season of the year. After only one week of five 30 minute lessons delivered in the classroom setting, the experimental group demonstrated gratitude by writing 80% more thank you notes when given the opportunity to do so two days post-intervention. When the intervention was administered weekly for 5 weeks, the experimental group showed gains in grateful thinking and positive outcomes that extended 5 months after treatment onset.

While random assignment controls for other variables that one might assume affect positive outcomes, such as baseline achievement, school engagement, and teacher relationship, strengthening the nature of the control group seems to be a widespread need that could differentiate the benefits of gratitude beyond attentional control. By utilizing Adler and Fagley's (2002) definition of appreciation, interventions tapping into different aspects of appreciation

could be measured against one another to test which type of appreciation intervention contributes to the highest outcomes that persist for the longest time. Comparing interventions to attentional controls is necessary, but seems insufficient in making an argument that gratitude is worth teaching compared to other positive psychology constructs, especially those under the umbrella of appreciation.

Monica Bartlett and colleagues (2006, 2012) induced benefit-triggered gratitude in a laboratory setting and examined its prosocial effects against other positive emotions. This is exactly the type of research that should continue to shed light on the differential benefits of specific aspects and mechanisms that increase wellbeing. Bartlett and DeSteno (2006) elicited gratitude by having a confederate performing a favor for the participant and subsequently asking him or her to complete a favor that was relatively aversive and time consuming (fill out another survey that would take 30 minutes). The time spent answering additional survey questions was used as a barometer of prosocial behavior. Compared to participants in the amusement and neutral conditions, participants in the gratitude condition spent more time helping the confederate. Moreover, a mediation analysis ruled out the possibility that participants in the gratitude were merely responding with reciprocity since they have received a favor.

Barlett et al. (2012) expanded on these findings by finding evidence that gratitude not only facilitates prosocial behavior, but social affiliation and inclusion. After participants in one study were in a similar gratitude or neutral condition, they were given the choice to continue to work with the confederate or alone. Those in the gratitude condition demonstrated more social affiliation by being more likely to choose to work with confederate than the neutral group, who was more likely to elect for independent work. In a second study, they demonstrated participants

included benefactors in a group game, even when it meant losing an opportunity to earn a small amount of money.

Loss/ Adversity

This aspect of appreciation involves “using one’s perceived losses, experiences of adversity, or close calls to promote appreciating the positive aspects of one’s life” (Fagley, 2012, p. 60). The research in this area focuses on ways to savor the good times that easily slip away and leverage grief or loss to feel more appreciative in life. Quoidbach, Berry, Hansenne, and Mikolajczak (2010) found that positive rumination, or savoring the good times increases positive affect, which provides an early rationale for why this may be an area of pursue. Participants were asked to imagine a variety experiences that were thought to elicit different types of positive affect, such as contentment, joy, awe, and gratitude. As a result, they concluded that savoring strategies maximizes happiness and makes it last. These strategies, or regulation techniques, accounted for 10% of the unique variance in positive affect and 18% in life satisfaction. While these findings support the use of savoring strategies to extend good times, it also supports fostering awe and gratitude, and savoring may be one strategy for building these aspects of appreciation. Jose, Lim, and Bryant (2012) expanded on this work by finding mediation and moderation effects of savoring regarding the relationship between momentary positive events and happy mood. See Table 8 for Loss/ Adversity items on the Appreciation Scale.

Frias, Watkins, Webber, and Froh (2011) tested the relationship between reflecting on death and increased appreciation of life, which they labeled “gratitude” rather than appreciation. The two reflection strategies are called mortality salience and death reflection. The former requires an individual to write or ponder her death, and the latter requires a person to imagine her death in a very specific manner (e.g. dying in a fire). Mortality salience is reflected in the

Appreciation Scale “Thinking about dying reminds me to live every day to the fullest” (Adler & Fagley, 2005). Almost immediately the limitations of these strategies, especially death reflection, become clear as participants may have a trauma history related to the death experience or have suicidal or morbid ideation. To expose a person to a trauma through death reflection would likely elicit an anxiety response. Moreover, exposing a person with suicidal or morbid ideation prompt might simply elicit positive rumination, which would be related to positive affect but not the proposed mediator, increase appreciation of life. However, these small groups may not represent the reaction that most, relatively healthy individuals who have coped with difficult times might exhibit. Although they found no significant differences between the death reflection and mortality salience condition in relation to increased gratitude, death reflection did have a larger effect size, which Frias et al. (2011) used to support the claim that death reflection enhances gratitude better than both of the other conditions.

Table 8

The Appreciation Scale subscales: Loss/ Adversity

Item
Experiences of loss have taught me to value life.
When something bad happens to me, I think of worse situations I could be in to make myself feel better.
I use my own experiences of loss to help me pay more attention to what I have now.
The thought of people close to me dying some day in the future makes me care more about them now.
If I were to lose something I cared about, I would focus on how lucky I was to have had it.
The problems and challenges I face in my life help me to value the positive aspects of my life.
Thinking about dying reminds me to live every day to the fullest.
I appreciate the things I have now, because I know that anything I have can be taken away from me at any given time.

Source: Adapted Fagley & Adler (2005).

Using the principle of temporal scarcity, Kurtz (2008) manipulated the perception of time regarding an upcoming positive event. College students were directed to keep a daily diary for two weeks and were either given prompts emphasizing that the occasion was very close or very distant. Similar to Frias et al. (2011), Kurtz posited that the awareness of a positive event (a

happy life, time at college) is ending soon may prompt some behavioral change and increased subjective well-being. Again, this is undoubtedly based on the individual's capability to reflect and have positive rumination rather than escape, avoidance, and reduced behavioral initiation or risky behaviors. The findings from the study bolster the principle of temporal scarcity as participants who were prompted to think about their graduation rapidly approaching showed the greatest increase in subjective wellbeing compared to the group who thought it was far away and a control group who made lists of what they do on a typical weekday. In future work, an even stronger control condition might be having students write about graduation with no temporal cue such that time effects can be measured above and beyond simple reflection and attention.

Miller (2003) took a similar approach to increasing appreciation through the principle of temporal scarcity. However, this time it was the scarcity of one's partner. Although this manipulation may still elicit negative affect, it could reduce the personal anxiety and fear one may get when thinking about graduation racing toward her. Participants in the current study were all in a committed relationship for at least one year and approximately half were randomly assigned to a mortality salience condition. The control group was asked to think about how they feel when relaxing (rather than what it might feel like to die) and report their thoughts and feelings. In future work, a stronger control may be to also include a prompt imagining one's partner relaxing, too. Although the other studies found positive relationships between imagining one's own death in some way and subjective wellbeing, it seems that it does not have any correlation to relationship satisfaction. However, imagining the death of one's partner did show enhanced relationship satisfaction. More than this, the manipulation was related to more favorable ratings of some partner personality characteristics.

Interpersonal Appreciation

Interpersonal Appreciation is defined as “noticing, acknowledging, and feeling positively toward (appreciating) the people in our lives” (Adler & Fagley, 2005, p. 84). Although this may seem similar to gratitude, it does not involve a benefactor component. For example, someone could have *gratitude* toward her mother due to the sacrifice she made by working overtime to fund the child’s hobby or interest. This momentary feeling could then lead to a more global, and unwavering *interpersonal appreciation* for the mother who has demonstrated in many ways that she provides an unconditional love that makes the child feel supported and loved. See Table 9 for Interpersonal items on the Appreciation Scale.

Table 9

The Appreciation Scale subscales: Interpersonal

Item
I acknowledge to others how important they are to me.
I recognize the value of my time with friends.
I let others know how much I appreciate them.
I remind myself to appreciate my family.
I reflect on how important my friends are to me.

Source: Adapted Fagley & Adler (2005).

Earlier papers have well substantiated the importance of social connections. Baumeister and Leary (1995) asserted that belongingness “is a powerful, fundamental, and extremely pervasive motivation” in all human beings from birth (p. 497). They cited support from Freud’s (1930) drives for interpersonal contact, Maslow’s (1968) hierarchy of need, and Bowlby’s (1969) attachment theory to indicate the ubiquity with which social connections have been historically discussed. Their belongingness theory has a broader definition, though, as it describes a motivation to make social connections, which will likely decrease when sufficiently connected,

and will likely lead to preferential treatment of in-group members and reluctance to break connections as maintenance bond behaviors.

Lee and Robbins (1998) found that social connectedness uniquely accounted for 16% of variance in trait anxiety, while social support made a much smaller contribution (3%) in a sample of female college students. Although social connectedness and social support may seem similar or be used interchangeably in everyday language, social connectedness is differentiated by tapping into sense of belonging. Sample items on the scale included “Even around people I know, I don’t feel that I really belong,” and “I don’t feel related to anyone” (see the Social Connectedness scale by Lee and Scott, 1997).

Since there is wide agreement that social connections are positive and necessary in a healthy life, the question becomes how to enhance connectedness in others and promote wellbeing. Adler (2002) (also Adler & Fagley, 2005) conceptualized that one way to do this is by fostering the last of eight aspects, interpersonal appreciation. Algoe, Gable, and Maisel (2010) tested this notion by measuring the effects of communicating gratitude and indebtedness in couples who lived together. Using daily diaries over the course of two weeks, couples were asked to individually record thoughtful actions from their partners, grateful feelings towards those behaviors, and to rate their overall relationship wellbeing for the day. Presumably, this daily record could be an intervention in itself, as a cue to notice the positives about their partners. The study went beyond this, though, and Algoe et al. (2010) found both male and female partners felt more grateful when they perceived their partner to do something thoughtful. More importantly, gratitude had some lasting effects as gratitude predicted more perceived thoughtfulness from their partners the next day. The authors describe this gratitude effect as a “booster shot” for romantic relationships.

Lambert and Fincham (2011) bolstered these findings when researching whether expressing gratitude to a romantic partner increases bonds (also see Gordon, Arnett, & Smith, 2011). They measured gratitude expression and comfort in voicing relationship concerns, which were conceptualized as a relationship maintenance behavior that enhances connectedness. Regardless of gender, gratitude expression was positively related to comfort expressing concerns, even when controlling for baseline comfort. For causal support, a longitudinal study was then conducted which replicated the initial results as well as showing that expressing gratitude at Time 1 was related to increased comfort at Time 2. In a following study, they demonstrated that expressing gratitude to a friend rather than writing a friend about a good time they shared together (experimental condition) or no taking no action (control accounting for natural relationship development over time) was related to more comfort in expressing relationship concerns. Through mediation analyses, the critical processing seems to be the increased positive perceptions of the partner or friend.

Gordon, Impett, Kogan, Oveis, and Keltner (2012) enhanced the study of appreciation in relationships, what this paper calls interpersonal appreciation, by creating an Appreciation in Relationships (AIR) Scale. Building off of the interpersonal appreciation subscale of Adler and Fagley's (2002) Appreciation Scale, the AIR scale also incorporates awe (e.g. "I am sometimes struck with a sense of awe and wonder when I think about my partner being in my life" p.263) and measures how appreciated the partner feels within her own relationship. This tool could be beneficial in the continued measurement of interpersonal appreciation, especially when couples engage in interventions together since it can provide self and collateral reports of perceived change.

Summary. The current literature on the aspects of appreciation is extensive. However, a closer analysis of the constructs measured, especially within gratitude research, suggests that appreciation may confound some of the reported outcomes. Using a confirmatory factor analysis, the current study will test the factor structure of the Appreciation Scale, which posits that there are eight unique aspects of appreciation. Three alternate models will be tested based on the appreciation research following the development of the scale in 2005 and to rule out competing models. For example, it is hypothesized that the model will improve when Awe and Present Moment are combined and when the model is reduced to fewer aspects (removing Loss/ Adversity, Ritual, and Self/ Social Comparison). These hypotheses and the models tested are explained with more detail in the next section.

Method

Procedures

Survey participants were recruited from a large Northeastern University's introductory psychology course. All students in this course are required to earn five research credits that are counted toward their grades by participating as a subject in research studies of their choice or by completing an alternate writing task. Students are provided information to log into an online portal that lists a variety of active studies at the University along with what is required in terms of participating online or in person, and the duration. Some researchers publicize additional benefits for participation through the study description, such as being entered into a raffle for a gift card upon completion. Participants for this study were informed that it was an internet-based questionnaire about wellbeing. No additional benefits, besides fulfilling one of their five required research credits, were provided to participants. The survey was available online for the entirety of one spring semester. Upon completion of the questionnaire, regardless of agreeing to submit

their responses for analysis, all students received research participation credit which fulfilled a course requirement.

Informed consent was obtained from the sample before completing the online survey, which briefly described the study and estimated length of time required to complete the survey. Subjects completed the Appreciation Scale and multiple other measures that assessed wellbeing. The only scale of interest in this research is the Appreciation Scale, so all other anonymous responses were deleted before any data analysis. After subjects completed the survey, a debriefing screen appeared and explained the purpose of the study in more detail. At this time, all subjects were informed that, with this deeper understanding, they had the option of not submitting their survey responses to the researchers to be analyzed and still receive the course credit for participation. Also included in the debriefing, as required by the Psychology Department's policy for students participating in the subject pool, were additional readings to encourage further learning and the researcher's contact information was listed in the event that there were additional questions. In order to promote candid responses, subjects' responses were anonymous, and this anonymity was noted in the informed consent. However, because appreciation was measured only by self-report, the sample is limited in the same way as other self-report- based research studies are subjected to rater bias.

Sample

Three hundred eighty-two undergraduates were initially recruited through the online portal and completed some portion of the questionnaire. Eight subjects who did not complete the Appreciation scale were removed from the analytic sample. After screening the data for univariate and multivariate outliers, the final analytic sample comprised 365 subjects. The sample was predominately female (62.7%) and over 70 percent identified as either White

(42.5%) or Asian/ Pacific Islander (31.8%). The remaining 30 percent of participants were diverse, and identified as Black (7.1%), Hispanic (10.7), Native American (.5%), or Other (5.8%). Subjects were required to pick one response, but some reported biracial or multiracial identities in the “Other” open-ended response form. Participants ranged from ages 18-26, with approximately 80 percent being between 18-19 years of age. The overwhelming majority of subjects were single and never married (97.8%). Six subjects declined to answer demographic questions. See Table 10 for demographic information of the survey participants. Conducting a confirmatory factor analysis relies upon an assumption of normality. Univariate descriptive statistics are reported in Table 11. Skewness and kurtosis were within normal limits. Kine (2005) suggested that skewness and kurtosis values less than 3 and 8, respectively, are considered acceptable and anything exceeding these limits is extreme.

Table 10

Survey Subject Demographics (N=365)*

Variable	N	Percentage	Valid Cumulative Percentage
<u>Gender</u>			
Male	129	35.3	35.9
Female	229	62.7	99.7
Other	1	0.3	100
<u>Race</u>			
Caucasian/ White	155	42.5	43.2
Asian/ Pacific Islander	116	31.8	75.5
African American/ Black	26	7.1	82.7
Hispanic/ Latino/ Latina	39	10.7	93.6
Native American	2	0.5	94.2
Other	21	5.8	100.0
<u>Age</u>			
18-19	288	78.9	80.2
20-21	58	15.9	96.4
22-23	11	1.1	96.7
24-26	2	0.6	100.0

**Note: Valid percentages reported to account for 6 subjects who did not complete demographics.*

Table 11

Descriptive statistics of the aspects of appreciation

	N	Min.	Max.	Mean	Std. deviation	Skewness		Kurtosis	
						Statistic	Std. error	Statistic	Std. error
H	365	6.00	70.00	54.9205	8.07531	-.851	.128	2.972	.255
A	365	4.00	42.00	29.9890	5.49474	-.515	.128	.835	.255
R	365	5.00	42.00	27.5342	7.37921	-.170	.128	-.424	.255
P	365	5.00	49.00	36.9918	6.23685	-.612	.128	1.254	.255
S	365	3.00	35.00	25.6575	4.47281	-.590	.128	1.441	.255
G	365	4.00	70.00	61.3068	7.64020	-1.944	.128	8.427	.255
L	365	5.00	56.00	43.4274	7.13514	-.728	.128	1.543	.255
I	365	5.00	35.00	25.2630	4.82802	-.559	.128	.537	.255

Data Screening and Scoring

The data was screened using SPSS software by removing any subjects who did not complete the full Appreciation scale. Univariate outliers were removed by standardizing scores and eliminating any z-score value above 4.0. To detect multivariate outliers, the Mahalanobis distance was calculated across each of the appreciation aspects and Keppel, Saufley, and Tokunaga's (1992) table of critical values of the chi square distribution was used to test for significant values. Although the total number of univariate and multivariate outliers was only about 3% of the sample, the researcher decided to take out the data in the event that such responses represented participants who filled out the survey without reading the items just to receive course credit. Because it was such a small number of outliers relative to the total sample size, it was determined that this cautionary move would not compromise the sample.

Measure. Participants completed the 57-item *Appreciation Scale* (Adler & Fagley, 2005). The scale comprises eight subscales used to measure the distinct aspects of appreciation previously explained. An additional 18 items were mixed in with the scale items for experimental purposes for the future revision of the instrument, totaling 75 items. Subjects were asked to rate themselves in terms of either frequency (rated from 1-7, "Never"-"More than once

a day”) or attitude intensity (rated 1-7, “Strongly disagree”-“Strongly agree”). An example of a frequency item is, “I perform rituals (e.g. pray or say grace before a meal). Attitudinal questions include items such as, “It is important to appreciate things such as health, family, and friends.” Refer to Tables 2-9 for all subscale items. The eight subscales can be totaled to derive an overall score representing one’s general appreciativeness; with higher scores indicating more of the positive construct (theoretical score range 57-399). Coefficient alpha for the overall measure was reported to be .94 and subscale reliabilities ranged from .62-8.4 for Self/Social Comparison and Ritual, respectively (Adler & Fagley, 2005). Support for construct validity has been substantiated through principal component analysis, relationships to constructs in a nomological net, and known groups (Adler & Fagley, 2005).

Hypotheses. (H1) The first hypothesis is that the eight latent variables (HARPS-GLI) reflect the eight subscales of the Appreciation Scale (Model 1). However, it is possible that this model will not have adequate fit because it was created as a theoretical construct first and could have some problems based on past findings (see Adler & Fagley 2005) such as Awe and Present Moment possibly representing one factor and potentially negative outcomes related to items on other subscales (e.g. Self/Social Comparison, Loss/Adversity, and Ritual). The subsequent hypotheses target specific ways we think the model could be improved given this understanding. **(H2)** The second hypothesis is that combining Awe and Present Moment as one factor in the structural equation model will improve the model since Adler and Fagley (2005) found the scales to be correlated .77. This combined Awe/ Present Moment latent variable is reflected in Models 2, 3, and 4. **(H3)** The third hypothesis is that removing the Loss/Adversity, Ritual, and Self/Social Comparison aspects will improve the model as they each capture an extreme version in which a person could be overly focused on loss and hardships, engage in compulsive rituals, or

devalue others to maintain self-esteem. Similar to the second hypothesis, these latent variables were removed from Models 2, 3, and 4 (**H4**) Model 3 tests the fourth hypothesis is that reducing the model to a two factor structure, such that gratitude is one factor and the remaining aspects of appreciation form a second factor, will rule out the possibility that appreciation is simply benefit-triggered gratitude (measured by the Gratitude subscale) and generalized gratitude (presumably measured by the other subscales). (**H5**)The last hypothesis is that combining Interpersonal Appreciation and Gratitude will enhance the model (demonstrated in Model 4), as those aspects seem to inherently involve an “other” and have some conceptual overlap. For example, feeling grateful for someone on repeated occasions may lead to having a sense of interpersonal appreciation for the contribution and support that person has in her life.

Analysis

A confirmatory factor analysis was conducted to test the theoretical model of Appreciation developed by Adler (2002; Adler & Fagley, 2005) and later studied by Fagley (2012). The covariance matrix of the survey items was subject to maximum likelihood estimation to estimate normality. Because this model was initially developed from qualitative themes, it was expected that the survey items might not load precisely onto each latent variable. The latent variables in this study are the eight aspects of appreciation and they comprise what is being measured in the research, or responses to individual scale items called “indicator variables”. In the structural model, paths were drawn from each latent variable (aspects of appreciation) to the indicator variables (Appreciation Scale items comprising that subscale) to demonstrate that each aspect of appreciation is the sum of the subscale items. A good fit would indicate the Appreciation Scale items load onto eight unique aspects of appreciation. A poor fit

suggests the eight-aspect, theoretical model of appreciation should be modified to better match the structural model supported by the data collected.

After this initial analysis was completed, additional models were tested based on the hypotheses so that the models could be compared to see which yielded the best fit. The other models tested in this analysis are technically exploratory because they are not based upon the initial model presented, and instead are hypotheses about how the items might otherwise load upon the factors given the extant literature. Because the latent variable needs to be scaled in this type of analysis, the subscale scores were transformed into standardized z-scores before being entered into the model. All data analysis and computations were completed through IBM SPSS Statistics—Version 21 and structural equation modeling was completed through the Amos—Version 22 SPSS add-on.

Models tested. The initial appreciation model was tested as well as three additional models that represent hypothesized alternative factor structures of appreciation. Model 1 depicts the HARPS-GLI eight factor structure (see Figure 1). The second model was a four factor model in which, in addition to “Have” Focus, Gratitude, and Interpersonal Appreciation, Awe and Present Moment were combined to represent one latent variable, and Loss/Adversity, Ritual, and Self/ Social Comparison were eliminated (see Figure 2). Model 3 tested a three-factor model in which Awe and Present moment were combined, Gratitude and Interpersonal Appreciation were combined, and “Have” Focus constituted the third latent variable (see Figure 3). The fourth model tested a two-factor structure with Have Focus, Awe, Present Moment, and Interpersonal Appreciation collapsed into one latent variable and Gratitude constituted another (see Figure 4). Although other factor combinations are possible, the models selected were thought to provide sufficient evidence for the hypotheses.

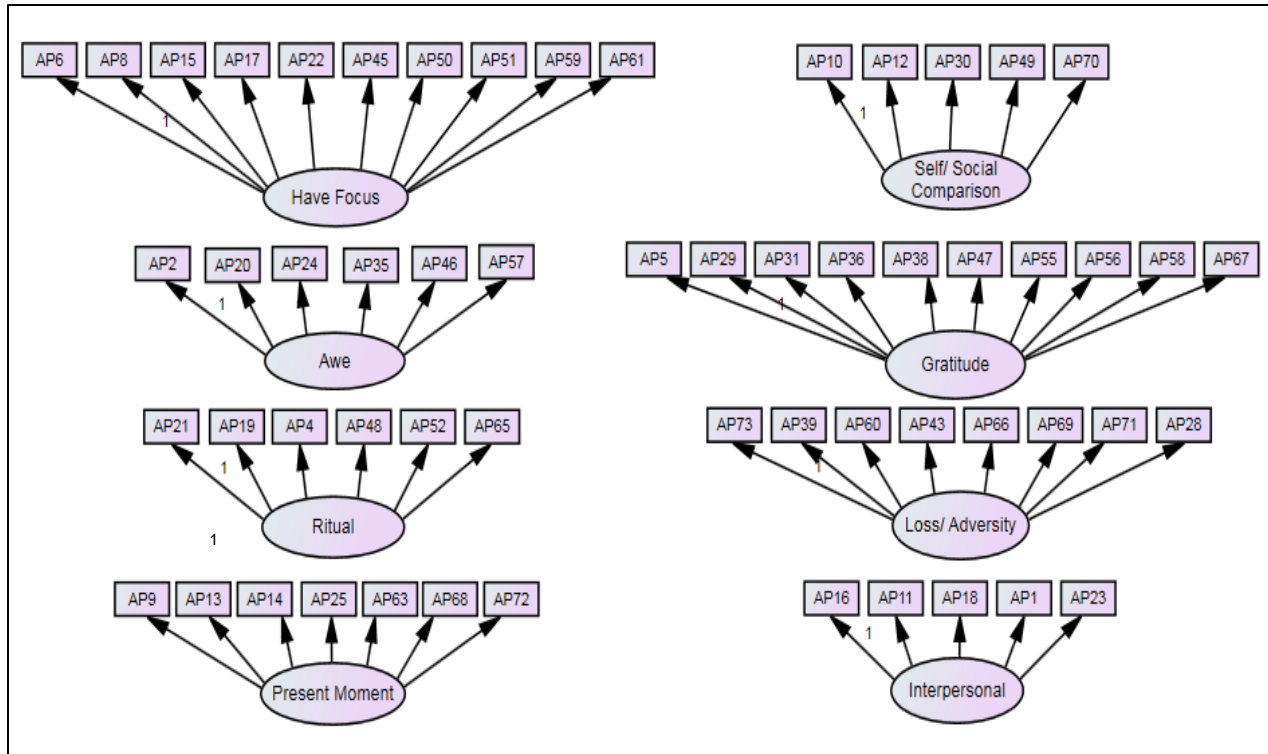


Figure 1. Model 1. This figure illustrates the factor structure of the original eight factor HARPS-GLI model of appreciation. *Note covariate relationships between each latent variable and error terms for each indicator variable were removed for visual simplification. “AP1”= Item 1 on the Appreciation Scale.

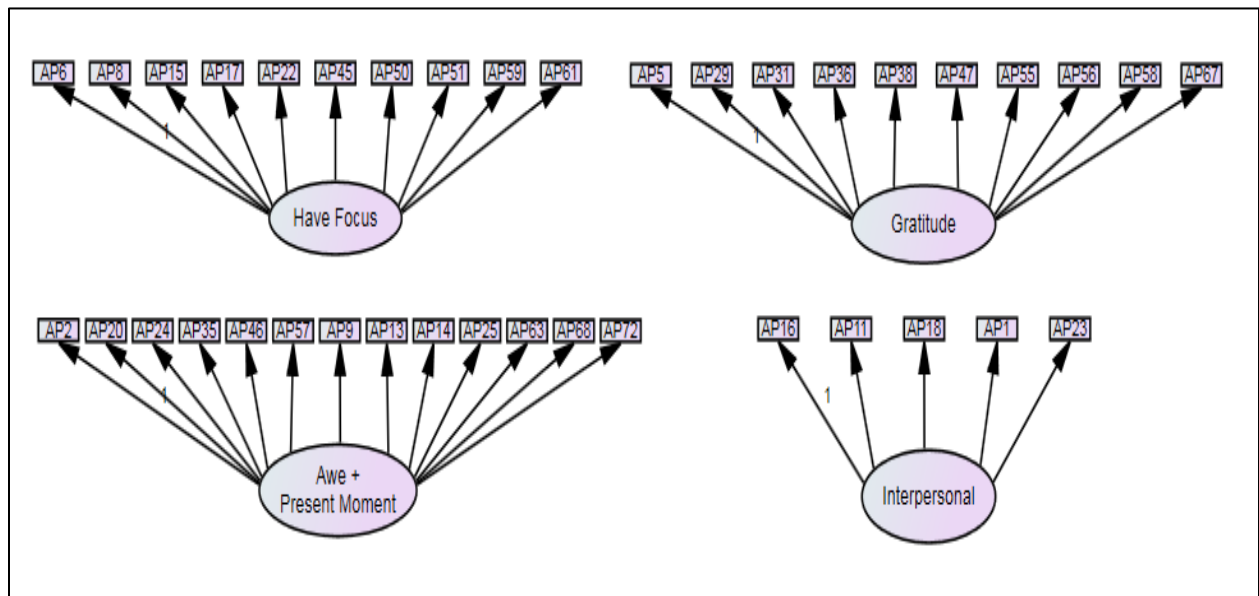


Figure 2. Model 2. This figure illustrates a reduced model of appreciation with four factors, including a combined awe and present moment factor. *Note covariate relationships between each latent variable and error terms for each indicator variable were removed for visual simplification. “AP1”= Item 1 on the Appreciation Scale.

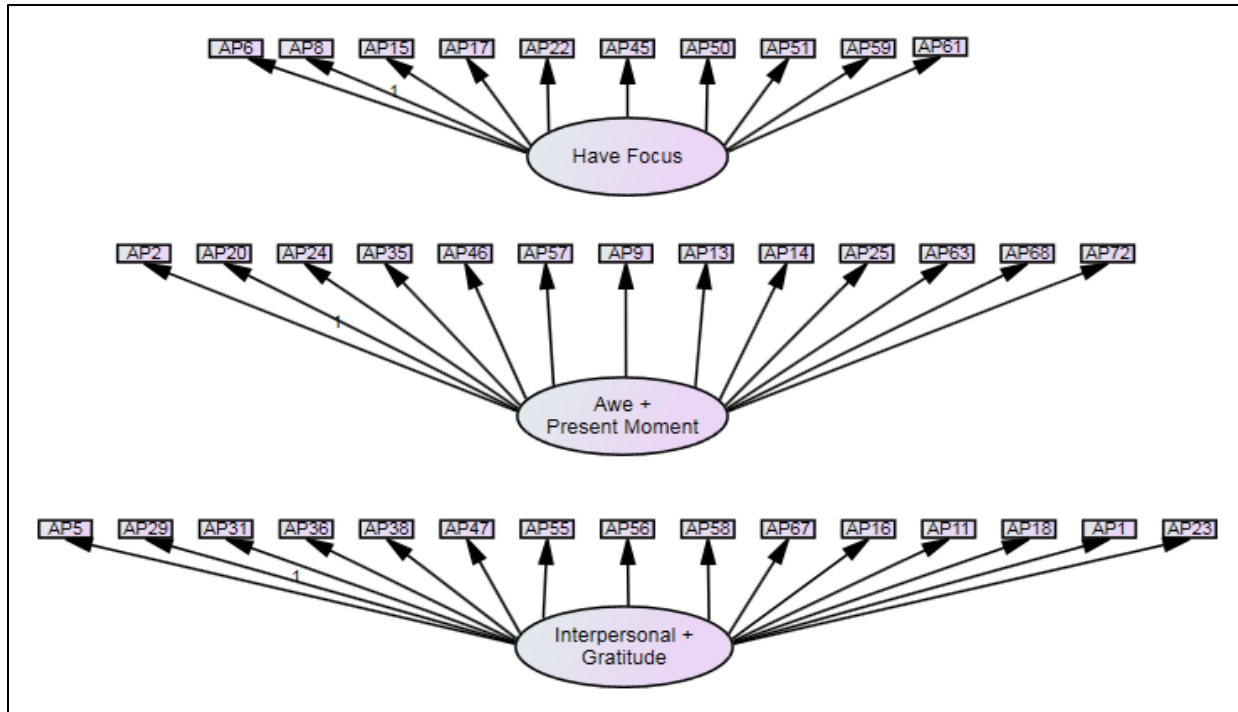


Figure 3. Model 3. This figure illustrates a three factor structure that notably combines interpersonal appreciation and gratitude. *Note covariate relationships between each latent variable and error terms for each indicator variable were removed for visual simplification. “AP1”= Item 1 on the Appreciation Scale.

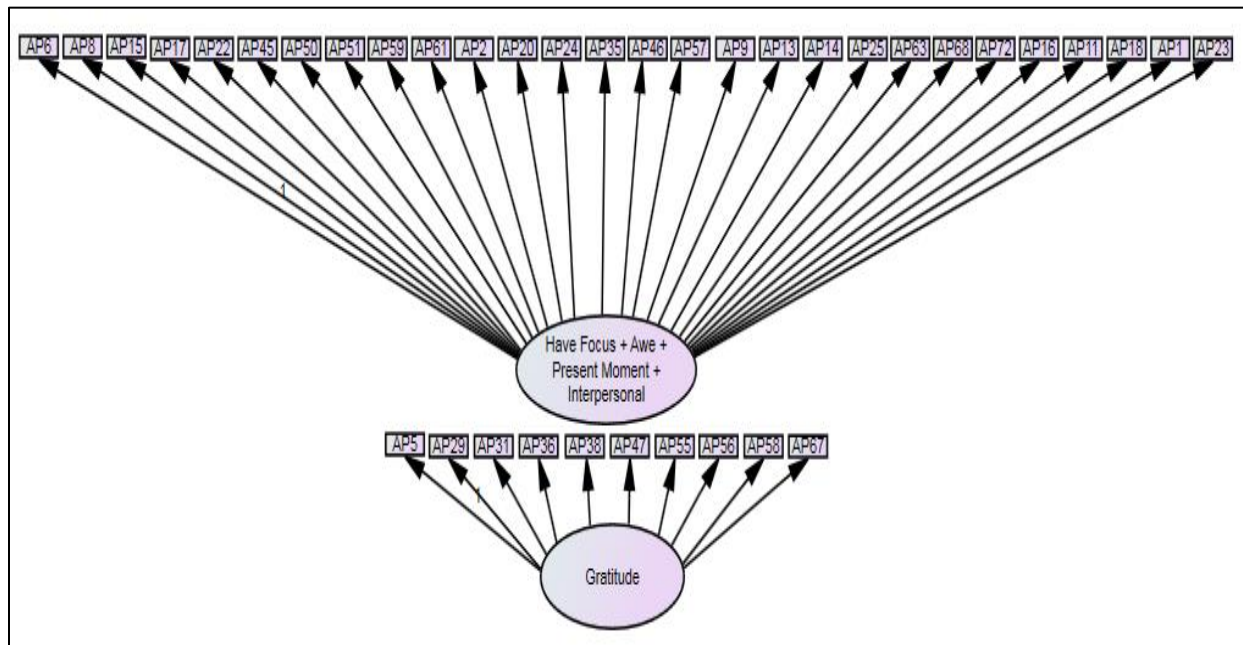


Figure 4. Model 4. This figure illustrates a two factor structure of appreciation with gratitude as a separate variable. *Note covariate relationships between each latent variable and error terms for each indicator variable were removed for visual simplification. “AP1”= Item 1 on the Appreciation Scale.

Results

Model Fit

Confirmatory factor analysis (CFA) was performed to test the structure of the 57- item Appreciation Scale (Adler, 2002; Adler & Fagley, 2005). The theoretical model of appreciation offered by Adler (2002) and Adler and Fagley (2005) indicates eight components and these are reflected in the eight subscales of the scale, however, this study is the first to examine if the underlying factor structure is consistent with this model. In addition to testing the eight component model, three other models were tested. These were derived based on empirical relations between factors (Awe and Present Moment) and also based on logical analysis of the concepts, such as noting that some aspects reflect interpersonal versus personal (Fagley, 2016) or conceptual analyses by others (e.g., Lambert et al.'s (2009) dichotomy of generalized vs. benefit-triggered gratitude, Wood et al.'s (2008b) higher-order gratitude variable, and Lin's (2014) 5 factor model). Meyers, Gamst, and Guarino (2013) recommend reporting chi-square, the Goodness of Fit Index (GFI), Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), and Normed Fit Index (NFI) as model fit measures. However, they also cite other recommendations that suggest reporting at least one absolute, relative, and parsimonious fit index value (see Jaccard & Wan, 2006).

The parsimonious fit indexes are to be used as model comparison measures with the higher value indicating a better fitting model. Absolute fit measures indicate how well the correlation or covariance of the theoretical model of appreciation match data from the sample. The relative fit measures indicate how well the data matches the hypothesized model on a continuum from worst (0) to perfect (1) fit, with .9 serving as the acceptable value cutoff. Chi-squared is often significant because of the large sample sizes used in CFA. As previously mentioned regarding relative fit indexes, the GFI value ranges from 0 to 1. RMSEA values less

than .1 are borderline acceptable with desired values less equal to or less than .08. Good fit of the CFI and NFI are indicated by values of at least .9.

When comparing the results of each model to the theoretical representation of appreciation, no model was a good fit across all fit indexes. All chi-square values were significant, as expected ($p < .0001$). The GFI was below the acceptable range of .90 for all models (see Table 12) with values ranging from .580 (3 factors) to .671 (4 factors), which suggests that the covariances amongst the latent variables from the sample did not closely resemble what was hypothesized. However, RMSEA values were acceptable for the original HARPS-GLI eight factor model (.076) and borderline acceptable for the others (four factor = .091, 2 factor = .094), with the exception of the 3 factor model that combined Interpersonal Appreciation and Gratitude as one factor (.101). The RMSEA has been cited as an important indicator of fit in covariance structure modeling and is relatively widely used (Meyers, Gamst, & Gaurino, p. 871). CFI values were between .626 (3 factors) and .697 (4 factors), which indicates a poor fit, but not egregiously so. Similarly, the other relative index also yielded NFI values below .9 with the 4 factor most closely approaching acceptable ranges with a value of .635. The parsimonious fit indexes suggest that the four factor model has the best individual fit (PGFI=.597) and the three factor model has the worst fit (PGFI=.518) in terms of simplicity. To present the data fairly, the adjusted GFI is also reported (see Table 12) because this parsimonious fit index did not deem any model to have a good fit as all values were below .9. However, this is not surprising as the unadjusted GFI values were not adequate, either.

Table 12

Model Fit Indices

Model	Description (factors)	Absolute Indices			Relative Indices		Parsimonious Indices	
		χ^2	GFI	RMSEA	CFI	NFI	AGFI	PGFI
1	H_A_R_P_S_G_L_I (8)	4689.620	.630	.076	.681	.594	.595	.576
2	H_AP_I_G (4)	264.791	.671	.091	.697	.635	.630	.597
3	H_AP_IG (3)	3112.854	.580	.101	.626	.571	.530	.518
4	HAPI_G (2)	2799.361	.656	.094	.674	.614	.616	.588

Note: Factors are separated by _'s in the description column to represent combined aspects. Numbers in parentheses indicate the number of factors in the model.

Model Comparisons

Similar to the parsimonious fit indexes, model comparison indexes allow models to be ranked from worst to best fit, but with *lower* values considered better fitting than higher values. Four common indexes reported are the Akaike information criteria (AIC), the Browne-Cudeck criterion (BCC), the Bayesian information criterion (BIC), and the expected cross-validation index (ECVI) (Meyers, Gamst, & Guarino, p. 872). Model comparison index values can be found in Table 13. The HARPS-GLI eight factor model had the worst comparative fit with much higher AIC, BCC, and BIC values (approximately 5,000-5,500) than the other three models. The three factor model had the second worst fit with AIC, BCC, and BIC values ranging from approximately 3,200 to 3,600. The remaining two models were closer in value, but the four factor model had the best relative results across all four comparison indexes.

Table 13

Model Comparison Indices

Model	Description (factors)	AIC	BCC	BIC	ECVI
1	H_A_R_P_S_G_L_I (8)				
2	H_AP_I_G (4)	2808.791	2828.471	3128.582	7.716
3	H_AP_IG (3)	3270.854	3289.814	3578.946	8.986
4	HAPI_G (2)	2953.361	29711.841	3253.653	8.114

Note: Factors are separated by _'s in the description column to represent combined aspects. Numbers in parentheses indicate the number of factors in the model

Hypotheses revisited. There were five original hypotheses regarding the structure of the Appreciation Scale. **(H1)** First, it was hypothesized that the eight factor model would reflect the eight subscales of the Appreciation scale (Model 1). While no model had perfect fit indexes individually, the comparison indexes support hypothesis one that HARPS-GLI had the worst fit relative to the other three models. **(H2)** The second hypothesis stated Awe and Present Moment were actually one latent variable, and, as predicted, the fit indices improved when Awe and Present Moment were combined as one latent variable. Because Awe and Present moment were not combined in any model with the latent variables Loss/ Adversity, Ritual, and Self/ Social Comparison, the data cannot fully attribute the improved fit to Awe and Present Moment being combined, the deletion of the three mentioned latent variables, or both. However, past findings from Adler and Fagley (2005) that demonstrate a correlation of .77 between Present Moment and Awe is good support that the variables be combined because correlations exceeding the mid .7's are generally not recommended to be used in multivariate analysis (Meyers, Gamst, & Guarino). As a result, Awe and Present Moment were combined in subsequent models (Model 3 and 4). **(H3)** Similar to the second hypothesis, there is also partial support for the model improving when Loss/ Adversity, Ritual, and Self/ Social Comparison were eliminated as all three models (Model 2, 3, and 4) without these latent variables had a better fit than the original HARPS-GLI design (Model 1). **(H4)** Model 3 provided evidence that the items do not indicate the Appreciation scale measures a benefit-triggered gratitude and a combined "generalized" gratitude (composed of Have' Focus, Awe, Present Moment, and Interpersonal Appreciation). **(H5)** Although Interpersonal Appreciation and Gratitude are both interpersonal in nature, the data did not reflect the presence of a combined Interpersonal/ Gratitude latent variable in Model 3.

Overall, none of the tested models had acceptable fit to proceed with parameter estimates for the items. The four factor model had the most support for a structure that had a reduced number of factors, combined Awe and Present Moment, and did not combine Gratitude with other variables. The discussions section will discuss directions for future work on the model of Appreciation.

Discussion

Appreciation is “acknowledging the value and meaning of something—an event, a person, a behavior, an object—and feeling a positive emotional connection to it” (Adler & Fagley, 2005, pg. 81). Research about appreciating the aspects of, and people in, one’s life has been discussed conceptually for some time, and increasingly so in the past decade and a half with the modern positive psychology movement. Conceptually, the research hit a block when it became clear that appreciation and state, or generalized, gratitude had conceptual overlap, but were being discussed and measured separately (Wood et al., 2008b). The present work argues that appreciation and gratitude differ in scope, and they are hierarchically nested categories in which gratitude is one type of appreciative emotion. As a result, the purpose of the present study was to further develop the Appreciation Scale (Adler and Fagley, 2005) by testing the factor structure of the 57-item measure that includes eight subscales that represent each aspect: “Have” Focus, Awe, Ritual, Present Moment, Self/ social comparison, Gratitude, Loss/ adversity, and Interpersonal appreciation.

The confirmatory factor analysis indicated that while the factor structure of the 57-item Appreciation Scale (Adler & Fagley, 2005) still needs to be modified, the best model was a 4 factor structure that included “Have” Focus, combined Awe and Present Moment, Gratitude, and Interpersonal Appreciation as each latent variable. The Appreciation Scale was initially created

based on qualitative themes found in Adler's (2002) work along with knowledge about the construct from the extant literature at the time (see Diener et al., 1999; Emmons & Crumpler, 2000; Fredrickson, 2001). Because the scale was created from a theory a priori, it was expected that the data may not reflect all eight hypothetical aspects of Appreciation on the 57-item scale. Other factor structures have been hypothesized that try to capture the differences between gratitude and appreciation, as well as the multi-dimensional nature of appreciation (e.g. Lambert et al., 2009; Wood et al., 2008b; Lin, 2014).

The present study found that the factor structure generally had a better fit when the number of latent variables was decreased from eight (the original HARPS-GLI aspects) to four ("Have" Focus, Awe/Present Moment, Interpersonal, Gratitude), but not when reduced all the way down to two ("Have" Focus/Awe/Present Moment/ Interpersonal and Gratitude) or three factors ("Have" Focus, Awe/Present Moment, Interpersonal/Gratitude). The four factor model had an acceptable chi-square value (264.791), though this is usually significant given the large sample sizes used in CFA, an acceptable RMSEA (.091), and poor relative fit index values (CFI=.697 , NFI=.635). However, a parsimonious index and model fit comparison values supported the four factor model to be the relative best of all factor structures (PGFI=.597, refer to Table 13 for all four model comparison indices).

Participants were primarily a late teenage (18-19 year old) sample enrolled in an undergraduate psychology class in the Northeast. The research pertaining to gratitude and appreciation spans beyond this age in both directions, as Froh and his colleagues (2010) have explored gratitude interventions in school-aged children and Fagley and Adler (2012) discussed the potential benefits of appreciation in the workplace, which includes older adult populations. Arguably, appreciation is a construct that could be beneficial to foster in any developmental

stage, as life is full of transitions that can be both wonderful and challenging. Because the sample represented a group of young adults in one particular stage of development, one limitation of the current study is that the factor structure could vary depending on developmental life stages (e.g. school-aged children, early adulthood, and seniors). Testing the factor structure across age groups could provide important information about how to foster appreciation in a developmentally sensitive way. Beyond developmental change, the sample was somewhat diverse (White, Asian/ Pacific Islander), but still can only speculate whether or not similar results would have been obtained for samples that differ on these characteristics. Appreciation, and expression of this positive emotion, is culturally relative. As such, continued work to validate the Appreciation Scale across culturally and linguistically diverse populations is needed in the future (see Lim, 2015; Lin, 2014).

Multiple steps can be taken to continue the charge of finding evidence for the factor structure of the Appreciation scale. First, given the findings, continued factor structures could be analyzed. Loss/ Adversity, but not Ritual or Self/Social Comparison could be another latent variable within the model. Although the model fit increased when the number of latent variables was reduced, Loss/ Adversity might still be of interest as a factor in future evaluations of the model, especially since a version of this aspect was included in Lin's (2014) analysis and had favorable CFA fit indices. In addition to this, specific items can be examined and improved to see if a revised scale has a model fit more consistent with what is expected based on the conceptual research. Once a model is deemed to have acceptable fit indices, it can be tested on another independent sample to explore evidence for the proposed factor structure.

The long term applications of studying appreciation, and specifically the factor structure of the construct, are to have a valid and reliable measure to study growth, explore differential

benefits or outcomes associated with each aspect of appreciation, and create culturally and developmentally sensitive interventions. Perhaps, specific aspects of appreciation may be found to have differential outcomes for specific age or cultural groups. This type of information enhances intervention development and can optimize the potential to increase wellbeing and mental health amongst participants. Appreciation interventions might have particular benefits in school settings, as aspects have been linked to increased social affiliation and inclusion (e.g. Bartlett et al., 2012) and positive mental health (Lim, 2015). Other potential uses could be developed for college campuses (e.g. new student orientation programs) and with older adults who experience stressors while working (see Fagley & Adler, 2012), managing parenthood, or when moving into retirement and the next developmental stage in life.

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