HOW FACETS OF PERFECTIONISM RELATE TO POSITIVE PSYCHOLOGY AND

PSYCHOPATHOLOGY-RELATED FACTORS

by

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ABSTRACT

HOW FACETS OF PERFECTIONISM RELATE TO POSITIVE PSYCHOLOGY AND

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Perfectionism has frequently been considered an underlying dispositional trait found in

various forms of psychopathology. Perfectionism has been operationalized as setting high

personal standards and self-evaluating based on reaching unrealistic goals. However,

there may be two key facets of perfectionism, adaptive and maladaptive perfectionism

(i.e., positive striving and maladaptive evaluative concerns), that could be associated with

distinct outcomes related to overall functioning. The adaptive facet of perfectionism may

be associated with positive characteristics such as hope and curiosity, two psychological

processes that promote positive affect, personal growth, and motivation to achieve.

Another potentially relevant adaptive characteristic, quiet ego, also involves an

orientation toward personal growth and mindful non-defensiveness in relation to others.

However, the relationships among perfectionism and these positive psychological factors

have been under-examined empirically. In this study, along with the examination of

positive psychology constructs, relevant constructs associated with maladaptive outcomes

were included to increase understanding of personality dispositions that may contribute negatively to perfectionism. A total of 289 students completed online questionnaires to assess levels of hope, curiosity, quiet ego, rejection sensitivity, fear of negative evaluation and facets of perfectionism. Hierarchical linear regression analysis results were consistent with hypothesized relationships linking hope and curiosity with positive striving perfectionism, and linking fear of negative evaluation, rejection sensitivity, and quiet ego with maladaptive evaluative concerns perfectionism. However, small, unexpected relationships were also found. Study findings support the interrelated nature of facets of perfectionism with constructs empirically related to both positive and negative outcomes.

Keywords: adaptive perfectionism, maladaptive perfectionism, quiet ego, hope, curiosity

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CHAPTER I:

INTRODUCTION

Perfectionism has been considered a personality trait, multidimensional disposition, and a transdiagnostic process, specifically, a risk or a maintaining factor for psychopathology (Bieling et al., 2004b; Egan et al., 2011). Perfectionism has consisted of two facets, adaptive and maladaptive, and each facet has been linked to healthy and unhealthy outcomes (Bieling et al., 2004a; Cox et al., 2002; Flett & Hewitt, 2002). Research has shown that people with maladaptive and adaptive facets of perfectionism may present with distinct levels of psychological functioning and their levels of perfectionism correlate with numerous behavioral and affective outcomes (Noble et al., 2014; Stoeber & Otto, 2006). The maladaptive facet of perfectionism has been associated with negative outcomes, such as the development and maintenance of psychopathology (e.g., anxiety related disorders, eating disorders, depression), psychological maladjustment, increased self-criticism, and procrastination (Bieling et al., 2004b; Egan et al., 2011; Shafran & Mansell, 2001). Maladaptive perfectionism has often been associated with personality traits like conscientiousness, neuroticism, and lower self-esteem, which may lead to experiencing lower life satisfaction, higher psychological distress, and negative effects on overall wellbeing (Ashby et al., 2006; Ashby et al., 2012; Suh et al., 2017). In contrast, the adaptive facet of perfectionism has been conceptualized as relating to desirable and adaptive characteristics and outcomes, including positive affect, conscientiousness, adaptive coping, achievement, motivation, self-efficacy, and self-esteem (Klibert et al., 2005; Mills & Blankstein, 2000; Rice & Lapsley, 2001; Rice & Dellwo, 2002; Stoeber & Otto, 2006; Stoeber, 2018a).

Although theory and evidence have suggested that maladaptive and adaptive perfectionism can be meaningfully differentiated, the literature could be extended.

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Specifically, there is a need to examine previously under-explored relationships between the two facets of perfectionism and constructs representing positive and pathological psychological functioning. Over recent decades, positive psychology has helped shift the paradigm of psychological health from a binary deficit view (unhealthy versus normal) to one that encompasses a broader dimensional view spanning from low to high functioning (Seligman & Csikszentmihalyi, 2000). In particular, positive psychology research has helped examine factors that influence overall wellbeing and create more openness to challenging experiences (Seligman & Csikszentmihalyi, 2000; Shorey et al., 2007; Suh et al., 2017). Three factors that have been under-examined in the context of multifaceted perfectionism are curiosity, hope, and a construct called *quiet ego*. Similarly, possible relationships between maladaptive perfectionism and more-pathological phenomena, such as interpersonal rejection-sensitivity and fear of negative evaluation, have not been adequately elucidated. These phenomena can significantly impact social and emotional functioning (Downey & Feldman, 1996; Haikal & Hong, 2010).

The present research examined whether presumably adaptive and maladaptive facets of perfectionism might relate to positive psychological constructs, such as hope, curiosity, and quiet ego, in theoretically consistent ways. Additionally, this study examined whether and how the two facets of perfectionism might be separately associated with anxiety related constructs, rejection sensitivity, and fear of negative evaluation. Each of these constructs and their potential interrelations are elaborated upon below.

CHAPTER II:

REVIEW OF LITERATURE

Perfectionism

Perfectionism has been conceptualized as involving characteristics such as setting excessively high personal standards, stringently evaluating one's behavior, and striving for flawlessness (Flett & Hewitt, 2002; Hewitt & Flett, 1991). Over the years, perfectionism has frequently been theorized to consist of two facets. These facets have been broadly classified as adaptive and maladaptive characteristics, though the terms to label these dichotomies have differed. Such dichotomies included, "normal and neurotic" (Hamachek, 1978), "positive and negative" (Terry-Short et al., 1995),"active and passive" (Adkins & Parker, 1996), "adaptive" and "maladaptive" (Rice et al., 1998), "functional" and "dysfunctional" (Rheaume et al., 2000), "healthy and unhealthy" (Stumpf & Parker, 2000), "personal standards" and "evaluative concerns" (Blankstein & Dunkley, 2002), "conscientious" and "self-evaluative" (Hill et al., 2004), and "perfectionistic striving" and "perfectionistic concerns" (Stoeber & Otto, 2006). This study was designed to examine the two specific facets of perfectionism, positive striving and maladaptive evaluative concerns (Bieling et al., 2004a; Cox et al., 2002; Frost et al., 1993).

Deriving Positive Striving and Maladaptive Evaluative Concerns Facets

Frost et al. (1990) and Hewitt and Flett (1991), presented models of perfectionism that offer insight into the various aspects of perfectionism that comprise *positive striving perfectionism* (i.e., adaptive perfectionism) and *maladaptive evaluative concerns perfectionism* (i.e., maladaptive perfectionism). These two facets of perfectionism are of greatest focus in the present study. As reviewed below, the conceptualization and operationalization of positive striving and maladaptive evaluative concerns facets were

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distilled from a progression of their previous model-driven research and then carried forth by Bieling and colleagues (2004a).

Hewitt and Flett (1991) described a multidimensional model of perfectionism, measured by the Hewitt and Flett Multidimensional Perfectionism Scale (HFMPS), which consisted of intrapersonal and interpersonal content. The Hewitt and Flett model consisted of three distinct traits (*self-oriented perfectionism, other-oriented perfectionism, and socially prescribed perfectionism*), as described below. All of these traits make up positive striving and maladaptive evaluative concerns perfectionism facets. Hewitt and Flett's traits of perfectionism were described as focusing on setting high standards and perfectionistic expectations for oneself (self-oriented perfectionism), the belief that others may hold excessively high standards for oneself (socially prescribed perfectionism), and the act of holding high standards and expectations for others (other-oriented perfectionism).

Frost and colleagues (1990) developed a model of perfectionism based on their interest in the etiology and inflexible standards of perfectionism as a personality trait. This model of perfectionism was developed and measured by the Frost Multidimensional Perfectionism Scale (FMPS), which assesses possible origins of perfectionism (e.g., past child-parent interactions) and other aspects of perfectionism. The FMPS measures six dimensions of perfectionism, which, as described below, make up positive striving and maladaptive evaluative concerns perfectionism, the constructs of focal interest in the present study. The FMPS dimensions include, *personal standards*, *concern over mistakes*, *doubts about actions*, *parental expectations*, *parental criticism*, and *organization*. These six dimensions of perfectionism involve various mechanisms. For instance, the *personal standards* factor was defined as setting high standards for the purpose of performing to the desired and expected high standard. The *concern over*

mistakes factor was defined as interpreting mistakes as equivalent to failure and the belief that one will lose respect from others due to this failure. The *doubt about action* factor was defined as the tendency to doubt the quality of one's actions and competence. The *organization* factor was defined as the tendency to be orderly and organized. The *parental expectations* and *parental criticism* factors were defined as parenting styles involving setting high standards and providing criticism, respectively (Frost et al., 1990).

Over time, investigators discovered that data collected from these perfectionism measures demonstrated an adaptive facet of perfectionism associated with positive reinforcements to achievement and reward, and another facet associated with negative reinforcement of problematic behaviors (e.g., avoidance) to prevent distress (Slade & Owens, 1998). Frost et al. (1993) was the first to examine the distinction between these two facets using the FMPS and HFMPS. Through the use of factor analysis, Frost et al. demonstrated that subscale items of these measures of perfectionism grouped into two distinct factors of perfectionism. Specifically, factor analysis results showed that five subscales' items loaded on to one factor, termed *maladaptive evaluative concerns*, and four subscales' items loaded on to a second factor, termed *positive striving* (Frost et al., 1993). Frost et al. also demonstrated that subscales of these two factors of perfectionism were either positively correlated with positive affect (e.g., personal standards, organization, self-oriented perfectionism) or uncorrelated with negative affect (e.g., other-oriented perfectionism, parental expectations) (Frost et al., 1993).

Cox and colleagues (2002) examined briefer versions of the HFMPS (Hewitt et al., 2008) and FMPS (Cox et al., 2002) perfectionism measures and also found evidence of a higher order two-factor solution consistent with a model of perfectionism with adaptive and maladaptive facets (Cox et al., 2002) (see **Appendix A** and **Appendix B** for brief measures of the HFMPS and FMPS, respectively). The maladaptive perfectionism

factor was derived from "concern over mistakes," "doubt about actions," "parental perceptions," and "socially prescribed perfectionism" subscale items. Adaptive perfectionism was derived from "personal standards," "organization" and "self-oriented perfectionism" subscales (Cox et al., 2002). According to Cox et al., the "other-oriented perfectionism" and the "parental expectations" subscales were excluded due to the findings from Frost et al. (1993) analysis that indicated their lack of relationship with either negative or positive affect.

Bieling and colleagues (2004a) set out to examine concurrent validity of perfectionism measures with measures of psychopathology and to compare different models of perfectionism. They utilized the HFMPS and FMPS separately, as a single perfectionism scale, and as a two-factor model examining maladaptive evaluative concerns and positive striving perfectionism, as described by Frost et al. (1993). Bieling et al. (2004a) found that the two-factor model was a more accurate representation of data emerging from the perfectionism scales than what could be assessed with any existing single measure of perfectionism. Bieling et al. (2004a) identified all the same subscales that Cox et al. (2002) used to make up the adaptive and maladaptive facets of perfectionism, but they made a few changes. Bieling et al. (2004a) used the full scales of the HFMPS and the FMPS and included the "other-oriented perfectionism" subscale to make up their adaptive or *positive striving* perfectionism construct. They also included the "parental expectations" subscale to make up their *maladaptive evaluative concerns* perfectionism construct. Bieling et al.'s (2004a) model of facets of perfectionism resulted in interesting correlations between the two facets and measures of symptoms of psychopathology (i.e., depression, anxiety, stress, and test anxiety) and was described further in this section (Bieling et al., 2004a; Frost et al., 1993). Thus, a measure consistent with the two-factor model of perfectionism was created by combining *socially*

prescribed perfectionism, *concern over mistakes*, *parental criticism*, *parental expectations*, and *doubt about actions* to assess the *maladaptive evaluative concerns* factor; *self-oriented perfectionism*, *other-oriented perfectionism*, *personal standards,* and *organization* were combined to assess the positive striving perfectionism factor (Bieling et al., 2004a).

Notably, brief measures of the FMPS (Cox et al., 2002) and HFMPS (Hewitt et al., 2008) may be used in studies to reduce concern of participants time and effort. In one study, Cox et al. (2002) found that the reduction in scale length for each measure of perfectionism did not compromise or reduce construct related validity. For that reason, in this study, perfectionism was measured using the brief scales of perfectionism and the two-facet model of perfectionism was constructed using the Bieling et al. (2004a) approach.

Correlates of Positive Striving and Maladaptive Evaluative Concerns

Examining each dimension of perfectionism, as described by Bieling et al. (2004a), Cox et al. (2002), and Frost et al. (1993), demonstrated that each dimension or subscale of perfectionism correlated with different psychological constructs. For instance, the *socially prescribed perfectionism* subscale from HFMPS has been associated with symptoms of depression, anxiety, and suicidal ideation (Cox et al., 2002). In a clinically depressed sample, subscales from the FMPS, *doubt about actions* and *concern over mistakes* subscales, were associated with emotional distress (Enns & Cox, 1999). Overall, research has shown that levels of maladaptive and adaptive facets of perfectionism have been associated with distinct levels of functioning (Noble et al., 2014). Further correlational relationships between the two facets of perfectionism, maladaptive evaluative concerns and positive striving perfectionism are described below.

The *maladaptive evaluative concerns* construct has been associated with setting high and inflexible standards for performance, engaging in self-criticism and fear of failure, experiencing dissatisfaction from performance, and perceiving a discrepancy between performance and standards (Cox et al., 2002). *Positive striving* has been considered a more "adaptive aspect of personal motivation" (Frost et al., 1993, p. 125) of perfectionism, although self-oriented positive striving perfectionism (Stoeber, 2018a) has been associated with both positive and negative characteristics (Bieling et al., 2004a). Regarding positive characteristics, groups with high levels of positive striving and low levels of maladaptive evaluative concerns perfectionism have reported lower levels of depression and anxiety related symptoms and better social functioning compared to groups with high levels of positive striving and high levels of maladaptive evaluative concerns perfectionism (Noble et al., 2014; Suh et al., 2017). Comparatively, the latter group has tended to endorse higher levels of depression, anxiety related symptoms, and stress (Noble et al., 2014; Suh et al., 2017).

Research suggests that higher levels of maladaptive evaluative concerns perfectionism can be problematic, as it can lead to limited interests and social isolation, and increased vulnerability to comorbid psychiatric conditions (Bieling et al., 2004b; Shafran et al., 2016). For example, Bieling et al. (2004b) examined the relationship among the facets of perfectionism and comorbid conditions (i.e., two or more co-occurring disorders measured by the SCID-IV) in patients ($n = 345$) at a specialty clinic for anxiety disorders. Their correlational analysis involving psychiatric comorbidities (e.g., anxiety and mood disorders), positive striving, and maladaptive evaluative concerns perfectionism supported the distinction that comorbidity is significantly associated with maladaptive evaluative concerns but not positive striving (Bieling et al., 2004b). Moreover, research has also demonstrated that both positive striving and maladaptive

evaluative concerns perfectionism have been positively associated with various psychological disorders, including generalized anxiety disorder (GAD), depression, eating disorders, obsessive compulsive disorder (OCD), and panic disorder. However, when controlling for positive striving, only maladaptive evaluative concerns perfectionism is associated with higher levels of psychopathology comorbidity (Bieling et al., 2004b; Egan et al., 2011).

Bieling et al. (2004a) differentiated maladaptive and adaptive perfectionism by specifically focusing on maladaptive evaluative concerns and positive striving perfectionism constructs. Their correlational analysis with a sample ($n = 198$) of undergraduate students revealed a medium positive correlation between maladaptive evaluative concerns and positive striving perfectionism ($r = 0.45$), suggesting these two facets of perfectionism are not independent of one another (Bieling et al., 2004a). Further, both maladaptive evaluative concerns and positive striving were positively associated with scores on measures of depression (i.e., DASS-D), anxiety (i.e., DASS-A), stress (i.e., DASS-S), and test taking anxiety (i.e., TAS). However, after further examination using four separate regression analysis equations with both facets of perfectionism included as predictors for depression, anxiety, stress, and test taking anxiety, maladaptive evaluative concerns significantly predicted scores on all symptom measures, while positive striving did not predict any of these outcomes (Bieling et al., 2004a). Conversely, in other studies, positive striving perfectionism has been linked to generally adaptive characteristics such as positive affect, conscientiousness, endurance, and life satisfaction (Stoeber & Otto, 2006; Stoeber & Rambow, 2007). Also, compared to higher levels of maladaptive evaluative concerns perfectionism, higher levels of positive striving have been associated with lower levels of depression and higher levels of self-esteem (e.g., Rice & Ashby, 2007; Rice & Lapsley, 2001).

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Researchers examining perfectionism have suggested that individuals with maladaptive evaluative concerns perfectionism often set standards for achievement or performance that are unrealistically high and as a consequence no effort is ever perceived as quite good enough (Slade & Owen, 1998). For these individuals, maladaptive evaluative concerns perfectionism could contribute to an ongoing cycle of engaging in challenging behaviors, by attempting perfection, that create feelings of failure and frustration (Slade & Owen, 1998). This description of maladaptive evaluative concerns perfectionists was comparable to Shorey et al.'s (2002) conceptualization of students with lower levels of hope who may form goals that are unrealistic, overwhelming, or anxiety-producing (Shorey et al., 2002). In contrast, positive striving perfectionists seem to have characteristics of high standards, persistence, and conscientiousness, all of which are characteristics that are typically socially acceptable, adaptive, and associated with positive outcomes (Bieling et al., 2004a). Preliminary understanding of psychological correlates and symptoms among maladaptive evaluative concerns and positive striving perfectionism has led to additional consideration of whether negative outcomes might be mitigated by other adaptive skills or psychological processes, such as hope, curiosity, and quiet ego.

Further examination and discussion of differences in positive striving and maladaptive evaluative concerns perfectionism may help explain previous and future empirical findings. Compared to those with greater maladaptive evaluative concerns perfectionism, those with greater adaptive perfectionism seem to be able to let go of attaining high standards with significantly less distress (Slaney & Ashby, 1996), which may be adaptive. Thus, compared to maladaptive evaluative concerns perfectionism, positive striving may also be associated with greater levels of positive psychological constructs like curiosity, hope, and quiet ego, which are thought to influence overall

wellbeing. These constructs are discussed further as important factors of interest in this study.

Hope

The first positive psychology factor of interest in this study was hope, which involves the ability to generate strategies to pursue and achieve goals and having the motivation to apply those strategies to pursue goals (Snyder et al., 1991). Hope, as a theoretical model, has been associated with the belief that set goals can be met and achieved (Snyder et al., 1991). As in perfectionism, perfectionists focus on setting high standards and experience distress if those standards are unmet. On the other hand, hope has been associated with increasing motivation, willingness to achieve goals, and problem-solve to reach valued goals (Snyder et al., 1991). In relation to perfectionism, hope might provide the strategies and the motivation required to achieve set high standards.

Hope has been defined as the belief in one's ability to achieve goals and access procedural knowledge that may create the desire to follow through with the process of pursuing goals (Snyder et al., 1991). Specifically, hope theory consists of core constructs labeled *pathways* and *agency*. *Pathways* refers to the ability a person has in identifying and developing new ways of attaining their goals, while *agency* relates to the ability a person believes they have to act on or follow their pathway to attain their goal (Snyder et al., 1991). Hope theory suggests that emotions resulting from hope-related cognitions flow from one's perception of having attained or not attained the perceived goal; thus, future agency perceptions may be influenced by perceptions of prior goal attainment (Snyder, 2002).

Given hopelessness is a factor associated with suicidality, hope is an important construct when considering psychopathology. Individuals with high hope may also have

more motivation to engage in action towards goals that may lead to accomplishing desired goals, enhancing self-esteem, and sense of self-sufficiency (Snyder, 2002). People with high levels of hope perceive potential barriers as a welcoming challenge (Snyder et al., 1991). Hope is a motivating force that leads to willingness and action to learn and change. Greater levels of hope are thought to facilitate a range of positive psychological outcomes, and empirical studies have provided relevant support. As an example, Shorey et al. (2002) found that hope positively correlated with self-esteem, perceived problem-solving capabilities, perceptions of control, optimism, positive affect, and positive outcome expectancies.

Particularly relevant to the present study, Ashby et al. (2011) examined hope and perfectionism in a group of middle school students ($n = 153$). Ashby and colleagues (2011) found that, compared to maladaptive perfectionists and non-perfectionists, the adaptive perfectionists had higher levels of hope. Investigators also reported that lower levels of hope mediated the relationship between maladaptive perfectionism and depressive symptoms (Ashby et al, 2011). Thus, adaptive perfectionism was indirectly related to lower levels of depressive symptoms only through greater hope. Ashby et al. (2011) speculated that the relationship between hope and adaptive perfectionism was due to *agency*. Specifically, maladaptive perfectionists may place their standards so high that they may not have the agency to attain their goal, and this can result in increased depressive symptoms.

Another study by Mathew and colleagues (2014), examined undergraduate student groups of maladaptive perfectionists, adaptive perfectionists, and non-perfectionists ($n = 152$) to study the function of hope in mediating the relationship between perfectionism and depressive symptoms. Mathew et al. (2014) demonstrated that both pathways and agency components of hope were strongly positively correlated with

adaptive perfectionism and negatively correlated with maladaptive perfectionism and depressive symptoms. Mathew et al. (2014) showed that higher levels of hope appeared to mitigate negative outcomes in those with elevated levels of positive striving or adaptive perfectionism. This might have occurred because, as reviewed earlier, positive striving perfectionists seem to be able to let go of attaining the high standards with significantly less distress than do maladaptive evaluative concerns perfectionists (Mathew et al., 2014; Slaney & Ashby, 1996). Similarly, Snyder et al. (1991, 2002) found that individuals with higher levels of hope were able to let go of problematic areas by downplaying their importance (i.e., changing their perception of the experience), whereas those with less hope tended to be more focused on these problematic areas. It may be that positive striving perfectionists (also known as adaptive perfectionists) and individuals with higher levels of hope are able to reframe experiences that fall short of their goals as learning experiences, rather than perceiving only that they failed. It appeared that higher levels of hope could act as a buffer for adaptive perfectionists, keeping them from experiencing the negative aspects of maladaptive perfectionism (Mathew et al., 2014). Mathew and colleagues (2014) identified the mediating role of hope between perfectionism and depression, which may identify a potential a target for intervention. Research could also examine the role of hope in comparison to other positive psychology processes that could potentially serve as future targets for intervention for perfectionism.

Curiosity

The present study sought to examine how curiosity relates to adaptive and maladaptive facets of perfectionism. Curiosity has been described as a special form of information seeking that can be internally motivated (Loewenstein, 1994). Curiosity has consisted of various dimensions of exploratory tendencies, labeled as *specific* curiosity

(also known as *absorption*) versus *diversive* curiosity (also known as *exploration*) (Berlyne, 1954; Kashdan et al., 2004). Kashdan et al. (2004) suggested that these two components of curiosity lead to proactive and intentional behaviors resulting from stimuli and activities with characteristics involving "novelty, complexity, uncertainty, and conflict" (Kashdan et al., 2004, p. 291). This model suggests that curiosity facilitates personal growth.

The *specific* and *diversive* dimensions of curiosity are thought to involve an intrinsic desire for exploration, deprivation sensitivity, and stress tolerance, while at the same time creating growth opportunities (Berlyne, 1954; Kashdan et al., 2011; Litman, 2005; Loewenstein, 1994). Diversive curiosity (or *exploration*) has been described as the desire and act of seeking sources of novelty and challenge (e.g., perceptual, and cognitive stimulation). Specific curiosity (or *absorption*) was described as the pursuit of information to enhance, deepen, and become fully engaged in desired experiences (Berlyne, 1954; Kashdan et al., 2004). Researchers have reported that these two components of curiosity can be interrelated as general information-seeking behaviors. Specifically, diversive curiosity fosters behaviors to access new stimuli, and these behaviors activate specific curiosity to gather information and address uncertainty (Kashdan et al., 2004; Krapp, 1999). Descriptions of the *exploration* and *absorption* dimensions of curiosity have highlighted the explorative tendencies of curiosity to reduce responses associated with uncertainty, such as anxiety (Kashdan et al., 2004; Loewenstein, 1994).The purported role of curiosity in modulating a response to uncertainty, such as anxiety, may explain negative associations between curiosity and the maladaptive facet of perfectionism.

Although there has been limited research linking curiosity with the two facets of perfectionism, correlational research has demonstrated the role of curiosity with other

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factors related to positive psychology and psychopathology, which are described below. Curiosity has often been associated with positive psychological factors. In fact, curiosity has been highly correlated with intelligence level, mental health, positive affect, and self-esteem (Macaskill & Denovan, 2014). Conversely, research has also shown that an under-expression of curiosity can be a symptom of depression, and an overexpression of curiosity could contribute to distractibility associated with various psychopathology (e.g., ADHD) (Kidd & Hayden, 2015). Maladaptive perfectionism, as described earlier, may also increase anxious responses to uncertainty by increasing expectations of negative experiences resulting from perceived failures rather than perceived challenging growth opportunities (Juster et al., 1996).

Consequently, both absorption and exploration have been shown to be positively related to positive affect, thoughts, and behaviors often associated with appetitive striving, a healthier pursuit of excellence (Kashdan et al., 2004). However, after further examination, Kashdan et al (2004) found that exploration and appetitive striving were no longer associated after controlling for absorption. These findings indicated that the self-regulation of attentional resources found in curiosity can be essential to appetitive striving (Kashdan et al., 2004). These findings also suggested that components of curiosity may foster desire and approach toward striving. However, as striving has been measured in the past (e.g., Striving Assessment Packet: Emmons, 1986) this form of striving has often been related to basic desires and not necessarily associated with novelty, challenge, excitement, or personal growth (Kashdan et al., 2004). There has been limited research demonstrating the association between curiosity and positive striving perfectionism, which can often be associated with positive motivation toward achieving high standards, challenges, and personal growth (Bieling et al., 2004a). Researching how

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curiosity relates to positive striving perfectionism and maladaptive evaluative concerns perfectionism may help expand the understanding of these constructs.

Further relevant to curiosity and perceptions of growth opportunities, curiosity drives interest in unfamiliar aspects of life and novel situations. For example, curiosity increases desire for deeper learning or meaning (Kidd & Hayden, 2015). According to Loewenstein (1994), curiosity is based on the information gap theory. This theory suggests that a gap in knowledge increases levels of curiosity, which leads to seeking knowledge to fill the gap, almost like hunger can lead to eating behaviors (Loewenstein, 1994). Further, according to the gap theory, once the knowledge and information emerges from curiosity, the levels of curiosity decreases (Kang et al., 2009). Curiosity has been considered a learning enhancer, which aligns with the gap theory. This theory indicates that the purpose of curiosity is to drive learning and be a mechanism to improve education (Kang et al., 2009; Kidd & Hayden, 2015). The conceptualization of curiosity, based on the gap theory, appears to be similar to hope theory since both focus on interrelated components of hope, including the importance of motivation and movement towards intentional behaviors to achieve a need. These two constructs, hope and curiosity, appear to be important factors associated with generally adaptive psychological characteristics (Kashdan et al., 2011; Loewenstein, 1994; Snyder et al., 1991).

Curiosity and hope both share important features with positive psychological constructs like personal growth initiative (e.g., intentional pursuit of the personal change and development process), which can affect thoughts and motivate action toward exploration (Fredrickson, 1998; Ryff, 1989). In one study, measures of curiosity, hope, gratitude, and personal growth were examined in a group of female college students ($n =$ 100), and significant positive correlations were found among the variables (Sharma & Garg, 2016). Investigators found the following positive and significant correlations:

personal growth and hope ($r = .624$, $p \le 0.01$), personal growth and curiosity ($r = .530$, $p \le 0.01$), and personal growth and gratitude ($r = 0.280$, $p \le 0.01$). Kashdan et al. (2004) suggested that the process of curiosity facilitates personal growth opportunities (e.g., using knowledge and expertise for self-improvement and actualization) (Kashdan et al., 2004; Robitschek, 1998). However, there are barriers to growth resulting from maladaptive cognitions (e.g., rigid thinking, unhealthy habits, cognitive distortions) that may affect human agency and prevent someone from moving towards change and growth (Robitschek, 1998). The barriers to change and growth appear to be similar to the negative outcomes of maladaptive evaluative concerns perfectionism. In both cases psychological distress and inflexibility can increase due to unmet standards (Egan et al., 2014).

Psychological inflexibility, automatic rigid thinking patterns, and distress associated with perfectionistic perceptions of challenge or unmet standards may be mitigated by the exercise of mindful attention (i.e., non-evaluative attention in the present moment), along with curiosity. Both practices, mindful attention and curiosity, challenge personal beliefs and foster adaptive responses to perceived threat (Bishop et al., 2004; Kashdan et al., 2011; Niemiec et al., 2010). Curiosity appears to be an important aspect of mindfulness as curiosity enables more openness to the exercise of mindful attention (Bishop et al., 2004). The benefits of mindful attention appear to be enhanced by a curious stance toward novel, uncertain features of the world, and as will be described in this section, curiosity and mindful attention can potentially help manage existential anxiety (Kashdan et al., 2009; Silvia & Kashdan, 2009). Kashdan et al. (2011) examined undergraduate students ($n = 118$) and the relationship between the levels of curiosity and mindful attention in ameliorating defensive responses (e.g., anxiety, negative evaluation) to an existential threat (e.g., mortality). In this study, both individuals high on both

curiosity and mindful attention and individuals low on curiosity and mindful attention responded nondefensively to stimuli that threatened their worldview. However, individuals with high levels of mindful attention but low on curiosity responded defensively to threatening stimuli. These findings indicate that curiosity may be particularly important to the exercise of mindful attention in challenging, threatening, or experiential situations, as this attitude could make experiences more openly accessible to mindful attention (Bishop et al., 2004). The increased levels of curiosity and mindful attention could be a protective factor for individuals with anxiety related to maladaptive perfectionistic tendencies.

In summary, because curiosity is thought to promote openness and flexibility to challenge and uncertainty it would be informative to examine further how curiosity relates to the facets of perfectionism. Curiosity and hope, two constructs of interest in this study, have been thought to positively influence personal growth and may also help manage or address mentioned barriers to growth, such as those that may result from perfectionistic tendencies (Fredrickson, 1998). Another construct of interest in this study, *quiet ego*, also encourages mindfulness or detached awareness, to increase positive affect, awareness, and personal growth, along with other positive outcomes (Wayment et al., 2015). The barriers to personal growth may be addressed or managed by the practice of growth-mindedness, a subcomponent of the quiet ego construct. The next section examines in further detail how quiet ego may relate to perfectionism and positive psychology factors of interest.

Quiet Ego

The ego

The term "ego" has various theoretical and methodological roots and definitions. The ego has often been associated with aspects of personality that regulate behaviors

(e.g., personal or biological desires as in psychoanalytic theory), affective aspects of the self (e.g., self-esteem, self-worth, self-confidence, self-image), the self in relation to others (e.g., identifying and/or bonding with others, psychosocial dimensions), and the construction, organization, and evaluation of the self-concept (e.g., a process) (Bauer & Wayment, 2008; Wayment et al., 2015). However, unlike the psychodynamic conceptualization of the ego as a mediator of undesired tendencies and impulses, in "quiet ego," the ego is conceptualized as a structure that creates content and thought for the physical self, social self, and psychological self (Wayment et al., 2015). According to Bauer and Wayment (2008), the ego refers to that which processes and conceptualizes the self and others. This ego definition by Wayment et al. (2015) is drawn from Piaget's structural theory of cognitive development, Loevinger's theory of ego development, and Kegan's theory of the evolving self (Kegan, 1982; Loevinger, 1976; Piaget, 1970; Wayment et al., 2015). This conceptualization of the ego also involves social and personality psychologists' view of the ego, including a person's self-image, self-evaluation, self-awareness, or self-concept (Wayment et al., 2015). The ego is the structure that works or "thinks," and creates concepts of the self and others (Wayment et al., 2015, p. 1001).

Quiet Ego Characteristics and Correlates

According to Bauer and Wayment (2008), *quieting the ego* conveys the process of lowering the influence of the ego in an effort to focus and listen to the needs and desires of the self and others. A quiet ego leads to increased self-awareness and understanding the importance of engaging in a compassionate experience and developing an interdependent compassionate identity (Bauer & Wayment, 2008). The benefits of a quiet ego include positive characteristics associated with positive psychology, such as gratitude, humility, altruism, interdependence, and self-compassion (Wayment et al.,

2015). Understanding the relationship between the quiet ego characteristics and positive striving and maladaptive evaluative concerns perfectionism could elucidate adaptive approaches potentially related to each construct.

The quiet ego is conceptualized as a balanced focus towards the interest of the self that leads to developing a desire for growth to approach life in a more compassionate way, therefore, facilitating balance and growth (Wayment et al., 2015). The quiet ego stance of balance and growth involves the gradual development process of viewing one's immediate situation with a future focus that can benefit one's own and other peoples' development over time (Wayment et al., 2015). According to Bauer and Wayment (2008), "ego-quieting" can be helpful but an excess amount of "ego-quieting" could be detrimental and affect a person's sense of identity (Bauer & Wayment, 2008, p. 10; Helgeson & Fritz, 1999). This balanced self-identity resulting from the quiet ego correlates with self-determination, authenticity, self-compassion, and self-transcendence, and is a predictor of psychological well-being (Wayment & Bauer, 2008; Wayment et al., 2011; Wayment et al., 2015). Self-compassion involves the practice of remaining present in moments of suffering, experiencing suffering while offering self-kindness, and non-judgmental understanding. Ultimately, a person may be able to see the suffering as part of the human experience (Neff, 2003). Self-compassion is associated with reduced depression, anxiety, rumination, self-criticism, and increased life satisfaction (Leary et al., 2007; Neff, 2003). All of these outcomes of self-compassion could positively impact individuals with maladaptive evaluative concerns perfectionism, as this facet of perfectionism is often associated with suffering and distress as a result of unmet standards and stringent expectations (Stoeber, 2018a). Quiet ego is explicitly distinguished from self-compassion, due to the self-transcendence in quieting the ego, which allows for increased self-awareness of one's overall values and goals in relation to

others, the environment, and the world (Wayment et al., 2015). The transcendence of the ego is associated with self-evaluation, self-enhancement, and negative and positive evaluations of the self and others; these may foster adaptive coping in difficult situations (Bauer & Bonnano, 2001). This balance of demonstrating interest in well-being of not only the self but also of others can be a positive trait to have along with positive striving and maladaptive evaluative concerns facets of perfectionism. This is because facets of perfectionism are often associated with increased focus on the self and can lead to negative evaluation and self-criticism (Hewitt et al., 2003), and self/other balance might mitigate self-criticism. Examining whether and how quiet ego relates differently with positive striving and maladaptive evaluative concerns perfectionism can expand knowledge on adaptive coping strategies associated with negative outcomes of perfectionistic tendencies. Components that make up the quiet ego are discussed in detail below.

The quiet ego consists of four components reflecting a person's readiness to think, feel, and behave in ways that convey balance and growth goals and values (Wayment et al., 2015). The four components are qualities that have been fostered from quieting the ego, and include *inclusive identity, perspective taking, detached awareness,* and *growth-mindedness. Inclusive identity* refers to the degree to which one identifies with others, views the self as the same as others, considers oneself to share personal qualities with others, or includes others within one's sense of psychosocial identity (Bauer & Wayment, 2008). Inclusive identity, according to Wayment et al. (2015), increases the likelihood of cooperation and decreases the likelihood of self-protective stances toward the other. *Perspective taking* refers to one's ability to shift attention away from the self. This form of perspective taking facilitates a conceptual understanding of the condition of those who one develops compassion for through inclusive identity. Inclusive identity and

perspective-taking both facilitate the quiet-ego feature of psychosocial balance and also represent growth. Thus, enhanced inclusive identity and perspective-taking could help individuals with self- and other-oriented perfectionism, who may engage in self-criticism and create unachievable standards for themselves and others (Montoya & Pittinsky, 2011). *Detached awareness,* refers to an adaptive and non-defensive type of attention similar to mindfulness (Wayment et al., 2015). Detached awareness involves specifically focusing on the immediate moment without judgment of what one should be doing or possible outcomes from the moment. *Growth-mindedness* refers to a perspective from which any given situation can be viewed not solely in terms of the immediate moment but rather in terms of how that situation might serve as an opportunity for personal growth for the self or for others (Wayment & Bauer, 2018). Growth-mindedness is an adaptive concern for personal meaningful development, which may involve the self, others, or relationships. As was described in the curiosity section above, curiosity can also foster personal growth, and barriers to growth can involve various cognitive distortions and unhealthy coping strategies (Sharma & Garg, 2016). Additionally, growth-mindedness can facilitate more adaptive and positive coping in moments of challenging growth opportunities. Thus, detached awareness and growth-mindedness both involve characteristics of self-relevant attention in the present moments and over time, respectively.

The positive psychology constructs of hope, curiosity, and quiet ego have been described as contributing positively to psychological functioning. Conversely, the constructs of interest described in the next sections, *rejection sensitivity* and *fear of negative evaluation,* are personality traits often described as maladaptive defenses and maladaptive coping styles. These constructs consist of avoidant behaviors (i.e., of threatening stimuli) and emotional reactivity similar to the maladaptive facets of

perfectionism often linked to psychological distress and interpersonal difficulties (Downey & Feldman, 1996; Dunkley et al., 2003; Levinson et al., 2013; Moroz & Dunkley, 2019).

Rejection Sensitivity

In this study, along with the examination of positive psychology constructs, it was important to examine relevant constructs associated with maladaptive outcomes to obtain a clear understanding of personality dispositions that may be contributing negatively to perfectionism. Rejection sensitivity (RS), has been conceptualized as a disposition involving attentional and perceptual processes in which an individual experiences heightened distress from anticipated, perceived, or experienced rejection (Downey & Feldman, 1996; Mehrabian, 1970). Rejection sensitivity has also been theorized to function as a defensive motivational system associated with maladaptive patterned attribution of distress developed from abuse, humiliation, or betrayal from significant others (Berenson et al., 2009; Downey & Feldman, 1996; Horney, 1937). Theories involved in the development of RS conceptualization included attachment, object relations, and cognitive social learning theories (Berenson et al., 2009; Downey & Feldman, 1996). The anticipatory anxiety associated with fear of rejection may be similar to Hewitt et al.'s (1991) description of outcomes of perfectionism associated with beliefs others have set high expectations of them (i.e., self-oriented perfectionism) and the importance to meet those expectations to prevent any judgement or criticism. In summary, Downey and Feldman's (1996) conceptualization of RS suggests that RS has a unique utility and effect on attention to social threat, not fully explained by social anxiety or other related constructs (e.g., self-esteem, attachment styles, depression, neuroticism) (Berenson et al., 2009; Downey and Feldman, 1996).

According to Frost et al. (1990), RS development aligns with development of maladaptive perfectionism, which may increase if parents set excessively high standards for the child or are overly critical of the child's mistakes (Flett et al., 2005; Frost et al., 1990). By comparison, Downey and colleagues (1997) model of RS emphasizes a biological vulnerability where RS is theorized to have developed during childhood when parents responded to a child's expressed needs with rejection (Downey & Feldman, 1996). This unmet need and rejection experience in childhood may prime the individual with the expectation of rejection in adulthood and motivation to detect and avoid any possibility of rejection (Downey & Feldman, 1996). RS as an interpersonal attribute is believed to modulate perception of social interactions and lead to self-protective responses and defensive coping strategies to diminish probability of rejection. As discussed earlier, Frost et al. (1990) described possible origins of perfectionism and both perfectionism and RS can lead to maladaptive outcomes and result in engagement of self-protective behaviors that limit progress in building, fostering, and nurturing relationships in adulthood. Similarly to those high in rejection sensitivity, maladaptive perfectionists tend to incorporate unhelpful strategies (e.g., avoidance) to prevent critical evaluation from others or diminish chance of failure and interpersonal rejection (Flett et al., 1996; Hewitt & Flett, 1991). These self-protective behaviors in both perfectionism and RS may reinforce the sense of rejection or need to be perfect (Downey et al., 1998; Flett et al., 2014). Additionally, as Flett et al. (2014) demonstrated through a moderation analysis, if individuals had high maladaptive perfectionism, they were significantly more vulnerable to depression if they also had high levels of RS; if they had low levels of RS, they were the association between perfectionism and depression was weakened (Flett et al., 2014).

Downey et al. (2004) found other vulnerabilities and demonstrated that RS in adulthood may lead to anticipatory anxiety. This anticipatory anxiety involved

hypervigilant behaviors of searching for signs of rejection and perceiving ambiguous cues as possible rejection, which could evolve to manifestations of intense emotional reactions (e.g., feelings of rejections, anger, withdrawal, hostility) (Downey & Feldman, 1996; Downey et al., 2004; Romero-Canyas et al., 2010). RS can become a self-fulfilling prophecy as an individual may demonstrate attention biases and respond to potential threats of rejection with intense affective and behavioral reactions, which ultimately lead to objective rejections that reinforce RS (Downey & Feldman, 1996). RS may be a contributing factor to psychopathology (e.g., depression, anxiety) and understanding how this construct associates with adaptive and maladaptive facets, such as perfectionism, may be valuable.

In addition to depression and anticipatory anxiety, RS has also been associated with various personality dispositions including low self-esteem, neuroticism, social anxiety, insecure attachment style, and perfectionism (Berenson et al., 2009; Hewitt & Flett, 2002). In this study, RS was defined as a personality disposition of experiencing distress and anxiety from perceived, actual, or expected rejection (Downey & Feldman, 1996; Downey et al., 1997). This conceptualization of RS has been associated with anxiety and avoidant behaviors, which may manifest in social anxiety related disorder and involve doubts and insecurities about making a positive impression on others (Berenson et al., 2009; Downey & Feldman, 1996; Schlenker & Leary, 1982). Specifically, Hewitt et al. (2008) demonstrated an increased response to threat of negative social evaluation in individuals with sensitivity to rejection and perfectionistic tendencies. Their response to a threat (e.g., negative social evaluation) appeared similar to the social anxiety response and natural tendency to want to meet a perfect standard due to the assumption that ambiguous or positive feedback may in fact be negative, harsh, or judgmental (Hewitt et al., 2008). This result demonstrated possible similarities among

RS, perfectionism, and fear of negative evaluation (reviewed below) as all constructs involve the concern and fear of criticism, humiliation in public or in performance situations (e.g., interacting with acquaintances and strangers, evaluations from professionals), which may persuade an individual to attempt to present themselves as perfect to prevent rejection or avoid negative judgement (Berenson et al., 2009; Cox et al., 2002). This perceived need to be perfect may also lead to negative coping strategies, such as avoidance of verbal disclosures of any personal attributes that may be perceived as negative. Research has demonstrated that perfectionists with these social evaluation concerns tend to experience anxiety (Flett et al., 1994). While both RS and fear of negative evaluation are associated with social anxiety, these constructs are distinct in their origin and the general fears that drive the associated behaviors (Berenson et al., 2009; Carleton et al., 2006).

RS and perfectionism research has demonstrated characteristics and outcomes of maladaptive coping and negative mental health problems associated with response to rejection or perceived failure (Egan et al., 2011; Gao et al., 2017). Maladaptive perfectionism and RS are both associated with social attributions and neurotic tendencies. For instance, maladaptive perfectionism is believed to function as a defensive motivational system that creates intense reactions to perceived imperfections and externalizes inner conflicts as socially imposed expectations (e.g., socially prescribed perfectionism) (Flett et al., 2005; Hewitt et al., 1991). RS concerns are specifically similar to outcomes of maladaptive perfectionism dimensions, concern over mistakes, and socially prescribed perfectionism, two dimensions often linked to psychological distress and depression in various populations including adolescents, students, and psychiatric patients (Cox et al., 2002; Flett et al., 2005; Hewitt et al., 1991). As described above, Flett et al. (2014) suggested that the combination of RS and socially prescribed

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perfectionism (included in maladaptive evaluative concerns perfectionism facet), can be a risk factor for depressive symptoms and possibly other psychological outcomes (Flett et al., 2014).The early childhood experience of rejection or criticism appears to create a psychological disposition to maladaptive defense styles and maladaptive coping in adulthood linked to psychological distress (Downey & Feldman, 1996; Flett et al., 2005). Examining the connections between RS and perfectionism and their unique associations with other constructs of interest in this study may beneficially expand the research of these important factors.

As mentioned earlier, another construct of interest alluded to previously, fear of negative evaluation, was also conceptualized as a defensive motivational style associated with distress from social evaluation. Similarly to RS and maladaptive dimensions of perfectionism, fear of negative evaluation, is discussed in detail in the next section (Frost et al., 1990).

Fear of Negative Evaluation

Fear of Negative Evaluation (FNE) has been conceptualized as the fear, apprehension, or concern of being judged negatively by others and as a result experiencing distress (Carleton et al., 2006). FNE has been identified as a feature of social anxiety where an individual may be sensitive to general evaluation from others, but in this case the fear is of undesirable negative evaluations (Clark & Wells, 1995; Hofmann, 2007; Weeks et al., 2005). FNE is a risk factor for social anxiety associated with the development and increase of anxiety related disorders and psychopathology (Haikal & Hong, 2010). For example, Heimberg et al. (2010), described a cognitive-behavioral model of social anxiety in which heightened fear of negative evaluation in social situations, where one may be evaluated, increases symptoms of social anxiety. Similar to perfectionism, FNE is also associated with setting high standards, but in this

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case the high standards are set to reduce the risk of a negative evaluation (Yap et al., 2016). Perfectionism involves setting high standards and expectations for the self but maladaptive perfectionism, similar to FNE, is often associated with excessive concerns and the belief that others may have set high expectations for them (Yap et al., 2016). Flett et al. (1996; 2012) studies demonstrated a positive association between a maladaptive perfectionism domain (socially prescribed perfectionism) and FNE among early adolescents and young adults (i.e., students), respectively (Flett et al., 1996). Consistent with Heimberg et al.'s (2010) cognitive behavioral model of social anxiety, the maintaining factors of social anxiety involved the excessive and anticipated fear of evaluation and the belief that others have set expectations of them. In this social anxiety model, maladaptive perfectionism could exacerbate this process and lead to FNE and a range of psychological problems (Yap et al., 2016). Consistent with these findings, Juster et al. (1996) found a strong association between FNE and maladaptive domains of perfectionism, *concern over mistakes* and *doubt about actions*. As would be expected, maladaptive domains of perfectionism (e.g., concern over mistakes or doubt about actions) have also been found to be associated with a range of psychological problems, including social anxiety (Frost et al., 2010). Similarly, Jain and Sudhir (2010) reported that in individuals with social anxiety, perfectionism and FNE were significantly and positively associated. Research studies on on-clinical and clinical populations revealed that individuals with social anxiety have significantly higher levels of maladaptive perfectionism compared to those with lower levels of social anxiety (DiBartolo et al., 2008; Saboonchi & Lundh, 1997; Shumaker & Rodebaugh, 2009). These findings suggest a possible link between FNE and maladaptive perfectionism in that they both can be associated with development, maintenance, or production of symptoms associated with social anxiety.

For reasons stated above, this study assessed separately the association between RS, FNE, and adaptive and maladaptive facets of perfectionism. Consequently, this analysis may demonstrate the expected positive relationships linking maladaptive facets of perfectionism with FNE and RS, and the negative relationships between adaptive facets of perfectionism and FNE and RS. As the literature outlines, the maladaptive facet of perfectionism (also known as maladaptive evaluative concerns perfectionism) is often associated with the development and maintenance of psychopathology (Egan et al., 2011) while adaptive facets of perfectionism (also known as positive striving perfectionism), may be negatively associated with these constructs. Therefore, this study examined the associations among positive striving and maladaptive evaluative concerns perfectionism and hope, curiosity, and quiet ego.

It was believed that the ultimate conclusions from the present study might increase understanding of how positive striving and maladaptive evaluative concerns might be related to one another and to the previously described positive psychology constructs and maladaptive constructs, RS and FNE. The goal was for this research to be useful in further elucidating constructs like hope, curiosity, or quiet ego, and possibly inform future research to examine if these constructs causally contribute positively or negatively to the levels of positive striving perfectionism and maladaptive evaluative concerns perfectionism. Additionally, the current research was believed to be worth conducting because adaptive coping strategies and interventions to impact hope (e.g., developing goals, seeking social support, problem solving, humor; Kwon, 2000; Snyder, 2002), curiosity (e.g., tolerance of anxiety; Denneson et al., 2017; Kashdan et al., 2013), or quiet ego (e.g., balanced self-identity and growth; Wayment et al., 2016; Wayment & Bauer, 2018) may be encouraged and perhaps used to modulate the levels of

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perfectionism towards reducing undesirable outcomes and improving overall mental health.

Summary and Purpose of the Present Study

Perfectionism has been considered a transdiagnostic process, risk factor, and maintaining mechanism for psychopathology (Egan et al., 2011). Various research studies mentioned above have demonstrated the relationships among positive striving perfectionism and positive affect, conscientiousness, adaptive coping, achievement, motivation, positive growth, self-efficacy, and higher self-esteem (Klibert et al., 2005; Mills & Blankstein, 2000; Rice & Lapsley, 2001; Rice & Dellwo, 2002; Stoeber & Otto, 2006; Stoeber, 2018a). On the other hand, maladaptive evaluative concerns perfectionism has been associated with more negative contributions including maladjustment, lower life satisfaction, higher psychological distress, procrastination, and treatment disengagement (Ashby et al., 2006; Ashby et al., 2012; Bieling et al., 2004a; Bieling et al., 2004b; Suh et al., 2017). However, other potentially important relationships between the facets of perfectionism and indicators of positive or maladaptive functioning have yet to be examined.

The purpose of the study was to examine additional correlates of positive striving and maladaptive evaluative concerns facets of perfectionism in a non-clinical student population. Of greatest interest, the study examined how positive striving and maladaptive evaluative concerns facets of perfectionism might be uniquely related to positive psychological constructs, such as hope, curiosity, and quiet ego. The positive factors of interest are constructs that at average to high levels are often associated with healthy social outcomes, including adaptive behaviors, self-compassion, positive reappraisal, personal growth, learning, interdependence, and well-being (Kashdan et al., 2013; Shorey et al., 2007; Wayment et al., 2015). The study also examined how

maladaptive evaluative concerns and positive striving might be associated with maladaptive psychological constructs, specifically rejection sensitivity and fear of negative evaluation. Understanding the types of associations among these positive and negative constructs and positive striving and maladaptive evaluative concerns may provide insight into potential benefits of focusing on these variables to improve mood and reduce negative effects of perfectionistic tendencies.

Research Question

Does maladaptive evaluative concerns perfectionism correlate differently with hope, curiosity, quiet ego, rejection sensitivity (RS), and fear of negative evaluation (FNE) than positive striving perfectionism?

Hypotheses

1. Positive striving perfectionism will negatively relate with RS, and FNE; maladaptive evaluative concerns will positively relate with RS and FNE.

2. Positive striving perfectionism will positively relate with levels of hope, curiosity, and quiet ego; maladaptive evaluative concerns perfectionism will negatively relate with levels of hope, curiosity, and quiet ego.

CHAPTER III:

METHOD

Research Design and Procedure

The study design involved participants' completion of a 30-minute set of online questionnaires at one time point. The online questionnaire was completed through the University of Houston-Clear Lake Online Research Participation System. This system directed students to click on a link to Qualtrics online survey interface software, where they were presented with an informed consent form and a choice of whether to participate. All language used in the consent form was at the sixth-grade reading level, as assessed by Microsoft Word. Participants were informed of confidentiality, risks, and research benefits. The risk section of the study stated that participation was completely voluntary. All participants provided informed consent and were informed that they could withdraw from the study at any time without repercussions. Participants were also informed that their data would be de-identified, which may have reduced discomfort of answering personal questions. Additionally, participants were informed that no diagnostic information or specific recommendations about mental health services would be provided, due to the lack of comprehensive clinical assessment. The research benefits included obtaining course credit. Those who consented to participate in the study were asked to complete a series of questions or statements from measures and questionnaires that were uploaded onto Qualtrics. At the end of the online session, participants were provided a debriefing with a broad description of the research, thanked for participating, and invited to contact study staff with any questions. The main survey did not require the participants to enter their name and was, therefore, anonymous.

Research Participants

Participants were recruited from the student population at the University of Houston-Clear Lake (UHCL). The study was approved by the Committee for Protection of Human Subjects (CPHS) at UHCL. The study was advertised to the student population ranging from 18-65 years of age, through the College of Human Sciences and Humanities and the College of Business UHCL Online Research Participation System. All participants needed to be at least 18 years old ($M = 25.87$, $SD = 7.29$) to participate. All interested participants were permitted to participate regardless of gender, race, ethnicity, or any demographic criteria. The study was open for participation and reflected the population that enrolls in courses where participation in the UHCL research pool is required or offered as extra credit. A total of 310 non-clinical participants completed the study questionnaires, and of those 289 were eligible for further analyses. Eligible participants needed to have completed study measures, not have outlying responses on analyzed variables, and have consistent responses on validity items. Descriptive statistics of this non-clinical student population are presented in Table 1 and include age, sex, education, household income, ethnicity, and race.

Table 1
Descriptive Statistics of Participants' Demographic Information

Demographics	N (%)
Age	289 (*M* = 25.87, *SD* = 7.29)
Sex	289
Female	235 (81.3)
Male	53 (18.3)
Preferred not to answer	1 (0.3)
Education	289
High school diploma or equivalent	22 (7.6)
Some College	78 (27)
Bachelor's or Associate Degree	175 (60.6)
M.A./M.S.	11 (3.8)
M.D./J.D./PhD	1(0.3)
Preferred not to answer	2 (0.7)
Household Income	289
Below $20,000	44 (15.2)
$20,000-35,000	42 (14.5)
$35,000-50,000	36 (12.5)
$50,000-75,000	34 (11.8)
$75,000-100,000	34 (11.8)
$100,000-125,000	26 (9.0)
Above $125,000	22 (7.6)
Preferred not to answer	51 (17.6)
Ethnicity	289
Hispanic or Latino	122 (42.2)
Non-Hispanic or Non-Latino	165 (57.1)
Preferred not to answer	2 (0.7)

Race[a]	289
White	196 (67.8)
Asian	33 (11.4)
Black or African American	32 (11.1)
American Indian or Alaskan Native	14 (4.8)
Native Hawaiian or Other Pacific Islander	1 (0.3)
Preferred not to answer	32 (11.1)

Note: [a] study participants could select more than one race.

Measures/Instruments

Demographic Information. Participants were asked to provide their age, sex, race, ethnicity, socioeconomic status, education, and religion. These data were collected to examine demographic characteristics of the sample and their possible effects (see **Appendix C** for demographic questionnaire).

Brief Frost Multidimensional Perfectionism Scale (Brief FMPS; Cox et al., 2002). A 22-item measure (Brief FMPS; Cox et al., 2002) was adapted from the original 35 item Frost Multidimensional Perfectionism Scale (Frost et al., 1990). The Brief FMPS measures possible origins of perfectionism using a 5-point Likert scale ranging from 1, "strongly disagree" to 5, "strongly agree." The original FMPS assesses the following six subscales: Concern Over Mistakes (CM), Organization (O), Personal Standards (PS), Parental Expectations (PE), Parental Criticism (PC), and Doubts about Action (DA). The Brief FMPS consists of five subscales: Concern Over Mistakes (e.g., "if I fail at work/school, I am a failure as a person"), Organization (e.g., "I am an organized person"), Doubts about Action (e.g., "I usually have doubts about the simple everyday things I do"), Personal Standards (e.g., "I expect higher performance of my daily tasks than most people"), and Parental Expectations and Parental Criticism were combined to create Parental Perceptions (PP; e.g., "I never felt like I could meet my parents'

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standards"). Research indicates the FMPS and the Brief FMPS subscales are highly correlated, and construct validity is not compromised in the brief version of the scale (Cox et al., 2002). The Brief FMPS is considered a reliable and valid measure of perfectionism in both the student and clinical sample (Cox et al., 2002). In the present sample, the Cronbach alpha values for the Brief FMPS subscales ranged from 0.73 to 0.89 and were all in the acceptable and good range. See Table 2 below for alpha values, means, and standard deviations of the Brief FMPS subscales.

Hewitt-Flett Multidimensional Perfectionism Scale-Short Form (HFMPS-SF; Hewitt et al., 2008). The HFMPS-SF is 15-item short form adapted from the original 45-item scale HFMPS (Hewitt & Flett, 1991). The HFMPS-SF (Hewitt et al., 2008) measures three dimensions of perfectionism, self-oriented perfectionism (SOP), which reflects a tendency to be overly perfectionistic with oneself (e.g., "One of my goals is to be perfect in everything I do"). The dimension of other-oriented perfectionism (OOP), reflect a tendency to expect perfection from other people (e.g., "If I ask someone to do something, I expected it to be done flawlessly"). Socially prescribed perfectionism (SPP), measure of a person's beliefs regarding others' expectations of him or her (e.g., the better I do, the better I am expected to do"). The HFMPS-SF subscales strongly correlate with the original HFMPS subscales, $r = .91$ for SOP, $r = .81$ for OOP, and $r = .90$ for SPP (Hewitt et al., 2008). Stoeber (2018b) demonstrated that the HFMPS-SF by Hewitt et al., (2008) replicated significant correlations with personality characteristics and psychopathology just like the original HFMPS. The HFMPS-SF is a reliable and valid measure of perfectionism in both a student and clinical sample that captures all three dimensions of perfectionism (Enns & Cox, 2002; Hewitt & Flett, 2004; Stoeber, 2018b). In the present sample, the Cronbach alpha values for the HFMPS-SF subscales ranged from 0.79 to 0.91 and were all in the acceptable to excellent range. See Table 2

below for alpha values, means, and standard deviations of each HFMPS-SF subscale.

Curiosity and Exploration Inventory (CEI; Kashdan et al., 2004). The CEI is a 7-item scale measure of trait curiosity focusing on the role of curiosity in fostering personal-growth (Kashdan et al., 2004). The CEI measures a global curiosity trait and the two dimensions of curiosity, interest in exploration and levels of absorption. Four items measure exploration, which involve seeking novelty and challenges (e.g., "Everywhere I go, I am out looking for new things or experience") and three items measure absorption, which involves full engagement in specific activities (e.g., "When I am actively interested in something, it takes a great deal to interrupt me") (Kashdan et al., 2004; see **Appendix D** for CEI measure). Items are rated on a 7-point Likert scale, from 1 "strongly disagree," to 7 "strongly agree." The CEI has been shown to exhibit good internal reliability for research measures, Cronbach's αs ranging from .63 to .74 for CEI-Exploration, from .66 to .73 for CEI-Absorption, and from .72 to .80 for CEI-Total. The CEI-Total and subscales show temporal stability, and construct specificity (Kashdan et al., 2004). In this study, the total score of the CEI was used to measure curiosity. In the present sample, the Cronbach alpha value for the CEI total score was 0.76 and in the acceptable range. See Table 2 below for alpha values, means, and standard deviations for the CEI total score.

  Hope Scale (Snyder et al., 1991). The Hope Scale (Snyder et al., 1991) is a 12-item scale of hope, as a positive motivational state based on Snyder's cognitive model of hope. The Hope Scale uses two separate subscales to measure pathways and agency, both constructs believed to facilitate the required determination and ability to plan how to meet goals. This measure contains four items that measure one subscale, pathways thinking (e.g., "I can think of many ways to get out of a jam."), four items that measure the second subscale, agency thinking (e.g., "I meet the goals that I set for myself"), and

four items that are fillers (see **Appendix E** for Hope Scale). The instructions were modified to state the following: "Read each item carefully. Using the scale below, please select the option that best describes you." The Hope Scale demonstrates good test-retest reliability and high internal consistency for both subscales, pathways, and agency (Snyder et al., 2002). In the present sample, the Cronbach alpha value for the Hope Scale total score was 0.80 and in the good range. See Table 2 below for alpha values, means, and standard deviations of the Hope scale total score.

Quiet Ego Scale (QES; Wayment et al., 2015). The QES is a 14-item self-report measure of a compassionate self-identity. The QES is made up of four factors, detached awareness, inclusive identity, perspective taking, and growth. The scale has fourteen items rated on a 5-point scale (1 is strongly disagree, and 5 strongly agree) (see **Appendix F** for QES). Higher scores indicate greater quiet ego characteristics. Question items include, "I have the sense that I have developed a lot as a person over time." The following instructions were included: "For each item, please answer using the scales below each statement." The psychometric properties of internal reliability appeared adequate for each subscale, detached awareness (α=.76), inclusive identity (α=.66), perspective taking (α=.68), and growth (α=.78) (Wayment et al., 2015). In the present sample, the Cronbach alpha value for the QES total score was 0.76 and in the acceptable range. See Table 2 below for alpha values, means, and standard deviations of the QES total score.

Brief Fear of Negative Evaluation Scale II (BFNE-II; Carleton et al., 2006). The Brief Fear of Negative Evaluation Revised (BFNE-II; Carleton et al., 2006) is a 12-item scale regarding negative affective experiences related to the prospect of others' critical scrutiny. The BFNE-II contains 12 five-point Likert scale items ranging from 0 to 4, from "not at all characteristic of me," to "extremely characteristic of me" (see

Appendix G for BFNE-II). The BFNE-II includes the following instructions: "Please

choose the answer choice that best corresponds to how much you identify with each

item." The BFNE-II was developed from the original Fear of Negative Evaluation (FNE)

scale (Watson & Friend, 1969) and the Brief FNE (Leary, 1983), but this version follows

the revisions suggested by Taylor (1993), of rewording negatively worded items (e.g.,

"other people's opinions of me do not bother me") to be straightforward (e.g., "I am

concerned about other people's opinions of me"). The original BFNE scale version had

eight straightforwardly worded items and four were negatively worded items, while this

revised BFNE-II version contained all straightforwardly worded items. The BFNE-II has

demonstrated high internal consistency ($\alpha = .95$) (Carleton et al., 2006). Example items

include, "I am afraid that others will not approve of me," and "If I know someone is

judging me, it tends to bother me." In the present sample, the Cronbach alpha value for

the BFNE-II total was 0.96 and in the excellent range. See Table 2 below for alpha

values, means, and standard deviations of the BFNE-II.

        Rejection Sensitivity Questionnaire, Adults (A-RSQ; Berenson et al., 2009).

The Rejection Sensitivity Questionnaire for Adults (A-RSQ; Berenson et al., 2009) is a 9-

item questionnaire adapted from the Rejection Sensitivity Questionnaire (Downey &

Feldman, 1996) to assess rejection sensitivity, the disposition to anxiously expect

rejection. A-RSQ questionnaire items include questions regarding hypothetical

interpersonal situations involving interactions where rejection may be possible, such as,

"You ask your parents or another family member for a loan to help you through a

difficult financial time," with scale options ranging from 1-6, "very unconcerned" to

"very concerned." The measure includes two follow up questions inquiring about levels

of concern or anxiety, and expectations (see **Appendix H** for A-RSQ). The A-RSQ has

acceptable internal consistency ($\alpha=0.89$) and interrater reliability (k =0.91) and is a valid

measure of rejection sensitivity. The instructions were: "The following items describe situations in which people sometimes ask things of others. For each item, imagine that you are in the situation, and then answer the questions that follow it." The word "Situation," was added before each item. In the present sample, the Cronbach alpha value for the A-RSQ total score was 0.77 and in the acceptable range. See Table 2 below for alpha values, means, and standard deviations of the A-RSQ.

Table 2

Sample Means, Standard Deviations, and Cronbach's Alphas of the Study Scales and Subscales

Scale/Subscale	*M*	*SD*	Cronbach's α	Items
Positive Striving Perfectionism Composite	-.02	2.90	.89	19
Maladaptive Evaluative Concerns Perfectionism Composite	-.00	3.20	.91	18
Self-oriented Perfectionism Subscale Total Score			.91	5
Other-oriented Perfectionism Subscale Total Score			.79	5
Socially Prescribed Perfectionism Subscale Total Score			.82	5
Concern Over Mistakes Subscale Total Score			.88	5
Personal Standards Subscale Total Score			.79	5
Parental Perceptions Subscale Total Score			.83	5
Doubt About Actions Subscale Total Score			.73	3
Organization Subscale Total Score			.89	4
Hope Scale Total Score	25.16	3.21	.80	8
Curiosity and Exploration Inventory Total Score	34.95	6.64	.76	7
Quiet Ego Scale Total Score	52.12	6.55	.76	14
Brief Fear of Negative Evaluation Total Score	22.60	13.24	.96	12
Rejection Sensitivity Total Score	9.27	4.29	.77	9

Data Processing and Planned Analyses

Data Screening and Cleaning Process

The researchers examined and screened the data to conduct statistical analysis and test all hypotheses utilizing SPSS version 27 (IBM Corp. Released 2020. IBM SPSS Statistics for Windows, Version 27.0. Armonk, NY: IBM Corp). First, the data was screened to ensure the variables were coded correctly and analyzed for any missing data, impossible values, and/or outliers. All the response options, "I prefer not to answer," were converted into missing values (i.e., an insignificant value for the measure) for each scale, except the demographics measure. In the end, a total of 12 cases were removed from the original dataset reducing the total participant cases to 298. A total of eight incomplete cases were removed. Four of those eight cases were removed because participants selected "I prefer not to answer" for the perfectionism measures, which created missing items. Also, the validity items (e.g., "I attend UHCL," "I do not attend UHCL") were evaluated to assess for attentive responding and consistency. Any inconsistent validity items (e.g., responding "yes," to "I attend UHCL," and "true," to "I do not attend UHCL.") were coded as invalid responding, and this controlled for unreliable responding throughout the questionnaire (see **Appendix I** for a list of all the validity and additional response items included in each questionnaire). If a participant obtained invalid responses for four sets of validity items out of six sets, they met criteria for exclusion from the study. A new column was created in the database to quantify and sum the number of invalid set of items, and a total of five cases were excluded from the analysis. Ultimately, a total of 289 cases were classified as valid to include in the analyses.

Before conducting analyses, the measures of perfectionism, curiosity and exploration, hope, quiet ego, fear of negative evaluation, and rejection sensitivity were

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scored. Cases in which participants selected "I prefer not to answer" for certain question items within a measure were invalidated and therefore not scored or included in the analyses. This led to several participants being excluded from the analyses and an uneven total number of cases among variables of interest.

Preparing Perfectionism Measure Data and Other Variables of Interest for Analyses

Positive striving and maladaptive evaluative concerns facet scores were generated from the brief measures of the FMPS (Cox et al., 2002) and HFMPS-SF (Hewitt et al., 2008) in accordance with the Bieling et al. (2004a) two-factor model procedure previously described. Thus, the HFMPS-SF and the brief FMPS subscale scores were transformed into z-scores to convert the data set mean to zero with a standard deviation of one. Then, to create a measure of *positive striving perfectionism* facet the following z-scores were combined: *self-oriented perfectionism, other-oriented perfectionism, personal standards, and organization*. Lastly, the measure of *maladaptive evaluative concerns perfectionism* consisted of a combination of the following z-scores: *socially prescribed perfectionism, concern over mistakes, parental perceptions, and doubt about actions* (Bieling et al., 2004a; Cox et al., 2002; Hewitt et al., 2008). In the present sample, the Cronbach's alpha value for the positive striving perfectionism composite score was 0.89, in the good range, and the maladaptive evaluative concerns perfectionism composite score was 0.91, in the excellent range. See Table 2 below for alpha values, means, and standard deviations of these composite scores.

Analyses

The analytic plan for this study consisted of a hierarchical linear regression (HLR) with supplemental correlational analysis of bivariate relationships among all variables of interest. Thus, an exploratory bivariate correlation analysis was conducted among positive striving, maladaptive evaluative concerns, hope, curiosity, quiet ego, rejection

sensitivity, and fear of negative evaluation. The results of this correlational analysis, along with relevant literature findings, were used to help interpret and contextualize findings from the focal hierarchical linear regression analysis. Lastly, supplemental analyses were conducted to assess for additional relationships between demographic variables of interest and the facets of perfectionism. This exploratory analysis is included in the results section below.

Hierarchical linear regression analyses to predict positive striving and maladaptive evaluative concerns

Hierarchical linear regression (HLR) analyses were conducted to help identify which variables most strongly predicted and accounted for variance in positive striving and maladaptive evaluative concerns perfectionism facets. One regression analysis was conducted to examine a prediction model of positive striving. A second regression analysis was conducted to examine a prediction model of maladaptive evaluative concerns.

HLR to predict positive striving perfectionism. For the first HLR model, the shared and unique variability among hope, curiosity, quiet ego, fear of negative evaluation, rejection sensitivity was analyzed. As noted earlier, studies with clinical and non-clinical samples reported the associations between the adaptive facet of perfectionism and positive psychological functioning (e.g., Stoeber & Otto, 2006). Therefore, to examine relationships between this study's positive psychology factors and positive striving without the influence of other factors in step one, hope, curiosity, and quiet ego were entered as predictors and positive striving were entered as the outcome variable. In step two, fear of negative evaluation and rejection sensitivity were entered as the predictors. These predictors were expected to correlate to a lesser extent than the positive psychology predictors with positive striving but including fear of negative

evaluation and rejection sensitivity would serve as a way to account for their variance. This would enable the analysis to identify the associations between positive psychology predictors and positive striving after controlling for fear of negative evaluation and rejection sensitivity.

      HLR to predict maladaptive evaluative concerns perfectionism. Similarly, a second HLR model was conducted to predict maladaptive evaluative concerns. Therefore, the shared and unique variance among hope, curiosity, quiet ego, fear of negative evaluation, and rejection sensitivity was analyzed. Studies have demonstrated that, in clinical and non-clinical populations, the maladaptive facet of perfectionism significantly and positively correlates with measures of psychopathology, specifically social anxiety (e.g., Antony et al., 1998; Rosser et al., 2003; Saboonchi et al., 1999). Therefore, to examine relationships between this study's psychopathology-related factors (fear of negative evaluation and rejection sensitivity) and maladaptive evaluative concerns, without the influence of other factors, in step one, fear of negative evaluation and rejection sensitivity were entered as predictors, and maladaptive evaluative concerns was entered as the outcome variable. In step two, hope, curiosity, and quiet ego were included as independent predictors. The research between the maladaptive facet of perfectionism and various maladaptive constructs and psychopathology have been studied extensively, but as mentioned above, little is known about how positive psychology factors might be associated with maladaptive evaluative concerns perfectionism. These predictors were expected to correlate to a lesser extent with maladaptive evaluative concerns than the psychopathology predictors, but it was thought that including hope, curiosity, and quiet ego would help account for greater overall variance in maladaptive evaluative concerns perfectionism. This method enabled the analysis to identify the associations between

psychopathology predictors and maladaptive evaluative concerns after controlling for positive psychology factors.

Power Analysis

A power analysis was conducted (G*Power version 3.1.9.2; Faul et al., 2009) to calculate the required sample size for the regression analyses to test the two hypotheses. A Bonferroni correction (Armstrong, 2014; Bland & Altman, 1995) (α/number of hypotheses (2)) was utilized to control the experiment-wise error rate of testing two hypotheses with a total of two individual regression analyses. Therefore, the alpha level of significance was adjusted, and a conservative alpha level of $p \leq 0.025$ was considered more appropriate given the number of correlation coefficients estimated.

A power analysis was conducted for two separate linear multiple regression analyses (i.e., F test, linear multiple regression: fixed model, R^2 deviation from zero) with five predictors of interest (i.e., hope, curiosity, quiet ego, rejection sensitivity, and fear of negative evaluation) and two separate outcome variables of interest (i.e., positive striving and maladaptive evaluative concerns perfectionism). Then an *a priori* analysis was selected with the following parameters: a medium effect size ($f^2 = 0.15$), adjusted α error probability = 0.025, and Power (1-β error probability) ranging from 0.80 to 0.95. A sample size ranging from 107 to 156 participants would be required to observe a medium effect of $f^2 = 0.15$, at a type I error rate of 2.5% (i.e., based on adjusted critical value resulting from the Bonferroni correction (.05/2 hypotheses)), and type II error rate of 5-20% with a power ranging from 0.80 to 0.95. Therefore, a sample size ranging from 107 to 156 or more participants would be an appropriate number to test the two hypotheses and detect a medium effect size.

Evaluation of Data Characteristics Relevant to Analyses

Per the power analysis described above, an adequate amount of data was collected (e.g., $N \geq 156$). The data were assessed for normality and linearity to ensure the assumptions for statistical analysis and significance testing (adjusted *p*-value 0.025) were met. The data were analyzed using descriptive statistics (i.e., mean, standard deviation, skewness, kurtosis), scatterplots, P-P plots, box plots and frequency histogram charts.

First, the total scores of the predictor variables (hope, curiosity, quiet ego, fear of negative evaluation, rejection sensitivity) and the composite scores of the outcome variables (positive striving perfectionism and maladaptive evaluative perfectionism) were all evaluated for normality, linearity, and homoscedasticity. The plot of standardized residuals against standardized predicted values for each predictor and outcome variable showed the data points of the selected predictors were randomly and evenly dispersed throughout the plot. These patterns indicated that the assumptions of linearity and homoscedasticity had been met for all predictor and outcome variables. To test the normality of the residuals, a histogram, and a normal probability plot (P-P plot) were selected. The distribution of the positive striving perfectionism data appeared normal, with the exception of three outliers, which were 2.5 standard deviations below and above the mean. The histogram was approximately bell-shaped and symmetrical. The P-P plot showed deviations from normality, and in this case the data appeared to show some deviations along the diagonal to indicate potential skewness, possibly due to the scores 2.5 standard deviations above and below the mean. However, because this dataset was considered to have a sufficiently large sample size relative to the power analysis, the deviation in skewness and kurtosis were not a significant concern for the analysis. Consequently, the distribution of the maladaptive evaluative concerns data was normal, with the exception of one extreme outlier 3 standard deviations below the mean. The

histogram was symmetrical and approximately bell-shaped. The P-P plot did not show deviations from normality, and in this case the data appeared exactly along the diagonal, which indicated a normal distribution and suggested the residuals were also normally distributed. However, to assess for possible statistical complications created by the outliers in a hierarchical regression analyses, the data were analyzed with and without the four outliers to assess for improvements in the normality and distribution of the data. In conclusion, to normalize and improve the distribution of the data and maintain the integrity of the data based on statistical recommendations these four outliers were removed (Ratcliff, 1993; Tabachnick & Fidell, 2007). After removing the four outliers, relevant variables of interest ($N = 294$) were found to be normally distributed and demonstrated linearity to meet criteria for a linear model statistical analysis. Pairwise deletion was used to handle any missing data for the analyses.

CHAPTER IV:

RESULTS

Primary Study Hypotheses

It was hypothesized that positive striving perfectionism would negatively relate with rejection sensitivity and fear of negative evaluation, while maladaptive evaluative concerns perfectionism would positively relate with rejection sensitivity and fear of negative evaluation. It was also hypothesized that positive striving perfectionism would positively relate with levels of hope, curiosity, and quiet ego, while maladaptive evaluative concerns perfectionism would negatively relate with levels of hope, curiosity, and quiet ego.

Exploratory Bivariate Correlation Analysis

A bivariate correlation analysis was conducted to examine the relationship among variables of interest, the predictor variables—hope, curiosity, quiet ego, fear of negative evaluation, and rejection sensitivity—and the outcome variables—positive striving, and maladaptive evaluative concerns perfectionism. As noted previously, this analysis was also conducted to provide further context when interpreting relationships examined within the primary hierarchical regression analyses. The results from the correlational analysis demonstrated various significant positive and negative correlations between the predictor and outcome variables. See Table 3 below for descriptive statistics and exploratory bivariate correlation results.

Positive striving perfectionism. The results of the bivariate correlation analysis showed that positive striving perfectionism positively correlated with maladaptive evaluative concerns perfectionism (r (272) = 0.45, $p < .001$), hope (r (258) = 0.34, $p < .001$), curiosity (r (274) = 0.48, $p < .001$), quiet ego (r (268) = 0.22, $p < .001$), and fear of negative evaluation (r (272) = 0.176, $p = .004$). The positive striving perfectionism

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hypothesis was partly supported by the correlational findings, since positive striving perfectionism significantly positively correlated with hope, curiosity, and quiet ego. However, positive striving perfectionism also significantly positively correlated with fear of negative evaluation when it was expected to negatively correlate with this factor.

Maladaptive evaluative concerns. The results of the bivariate correlation analysis also indicated that maladaptive evaluative concerns perfectionism positively correlated with rejection sensitivity (r (282) = 0.41, p < .001), and fear of negative evaluation (r (279) = 0.48, p < .001), as was expected. But maladaptive evaluative concerns also showed a small but statistically significant correlation with curiosity (r (281) = 0.22, p < .001). Maladaptive evaluative concerns also significantly negatively correlated with hope (r (262) = -0.20, p = .001) and quiet ego (r (274) = -.22, p < .001). The maladaptive evaluative concerns perfectionism hypothesis was partly supported by the correlational findings, because maladaptive evaluative concerns perfectionism positively correlated with fear of negative evaluation and rejection sensitivity. Also, maladaptive evaluative concern's perfectionism negatively correlated with hope and quiet ego but positively correlated with curiosity. See Table 3 below for descriptive statistics and additional results of the exploratory bivariate correlation.

Table 3

Descriptive Statistics and Exploratory Bivariate Correlation of All Variables

	Variable	*n*	*M*	*SD*	1	2	3	4	5	6	7
1.	Positive Striving	277	0.02	2.86	--						
2.	Maladaptive Evaluative Concerns	284	-0.00	3.17	.45**	--					
3.	Hope	267	25.22	3.12	.34**	-.20 **	--				
4.	Curiosity	288	34.94	6.58	.48**	.22**	.37**	--			
5.	Quiet Ego	279	52.23	6.31	.22**	-.22**	.36**	.35**	--		
6.	Rejection Sensitivity	289	9.24	4.28	.07	.41**	-.28**	-.09	-.29**	--	
7.	Fear of Negative Evaluation	285	22.52	13.23	.18**	.48**	-.23**	.10	-.08	.27**	--

** $p < 0.001$.

Hierarchical Linear Regression Analysis to Predict Positive Striving and Maladaptive Evaluative Concerns Perfectionism

Two separate hierarchical linear regression (HLR) analyses were conducted to help identify which variables most strongly predicted and accounted for the unique and shared variance in positive striving and maladaptive evaluative concerns perfectionism.

Results of the HLR to predict positive striving perfectionism. The full model was successful in predicting positive striving perfectionism. At step 1, the R^2 value was 0.262, indicating that the predictors of hope, curiosity, and quiet ego accounted for 26.2% of the variability in the outcome variable of positive striving perfectionism, $R^2 = .26$, F (3, 256) = 30.34, $p < .001$. At step 2, rejection sensitivity and fear of negative evaluation were included, and the R^2 value increased to 0.314, indicating that the more comprehensive model accounted for 31.4% of the variance in positive striving

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perfectionism. Therefore, the levels of rejection sensitivity and fear of negative evaluation accounted for an additional 5.2%, $R^2 = .31$, $F(2, 254) = 9.64$, $p < .001$. The Durbin-Watson, a measure of autocorrelation in the residuals, showed value of 2.13, which is close to 2 and less than 3, indicating there are no concerns of autocorrelation in the residuals (Field, 2009). The ANOVA for model 1, ($F(3, 256) = 30.34$, $p < .001$), with hope, curiosity, and quiet ego as predictors, and model 2 ($F(5, 254) = 23.29$, $p < .001$), with fear of negative evaluation, and rejection sensitivity as additional predictors, indicated both models significantly improved the ability to predict the outcome variable compared to not fitting the model.

Predicting positive striving perfectionism. The standardized coefficients (β) represent the relationship between positive striving perfectionism and each predictor. In the first step of the model, hope ($\beta = 0.19$; $t(256) = 3.18$, $p = .002$), and curiosity ($\beta = 0.41$; $t(256) = 6.80$, $p < 0.001$), significantly predicted positive striving perfectionism, and also explained a significant proportion of variance in positive striving scores $R^2 = .26$, $F(3, 256) = 30.34$, $p < .001$. In the second step of the model, hope ($\beta = 0.27$; $t(254) = 4.45$, $p < .001$) and curiosity ($\beta = 0.36$; $t(254) = 6.03$, $p < 0.001$) continued to significantly predict positive striving perfectionism. However, fear of negative evaluation ($\beta = 0.16$; $t(254) = 2.93$, $p = 0.004$) and rejection sensitivity ($\beta = 0.14$; $t(254) = 2.54$, $p = 0.012$) also significantly predicted positive striving perfectionism in this student sample, when accounting for hope, curiosity, and quiet ego. Fear of negative evaluation and rejection sensitivity also explained a significant proportion of variance in positive striving scores, $\Delta R^2 = .052$, $F(2, 254) = 9.638$, $p < .001$. These results aligned with findings from the bivariate correlation demonstrating positive striving perfectionism significantly and positively correlated with hope ($r(258) = 0.34$, $p < .001$), curiosity ($r(275) = 0.48$, $p < .001$), and fear of negative evaluation ($r(274) = 0.18$, $p = .004$). Although hope and

curiosity significantly and positively correlated (r (265) = 0.37, $p < .001$), this regression analyses demonstrated they each uniquely predicted positive striving perfectionism scores. Results of the hierarchical linear regression to predict positive striving perfectionism are presented in Table 4.

Table 4
Hierarchical Linear Regression to Predict Outcome Variable Positive Striving Perfectionism

Step	Predictors	Unstandardized Coefficients		Standardized Coefficients		R^2	F	F p-value	ΔR^2	ΔF	ΔF p-value
		B	SE	β	p-value						
1						.262	30.34	<.001	.262	33.34	<.001
	Hope	.18	.06	.19	.002						
	Curiosity	.18	.03	.40	<.001						
	Quiet Ego	.00	.03	.01	.900						
2						.314	23.29	<.001	.052	9.63	<.001
	Hope	.25	.06	.27	<.001						
	Curiosity	.16	.03	.36	<.001						
	Quiet Ego	.02	.03	.05	.392						
	Fear of Negative Evaluation	.04	.01	.16	.004						
	Rejection Sensitivity	.10	.04	.15	.012						

Results of the HLR to predict maladaptive evaluative concerns perfectionism. The full model was successful in predicting maladaptive evaluative concerns perfectionism. For the first model, the R^2 value was 0.313, indicating the predictors of rejection sensitivity and fear of negative evaluation both accounted for 31.3% of the variability in the outcome variable, maladaptive evaluative concerns perfectionism, $R^2 = .31$, F (2, 259) = 58.91, $p < .001$. However, when hope, curiosity, and quiet ego were also included in step 2, the R^2 value increased to 0.396, indicating the full

model accounted for 39.6% of the variance in maladaptive evaluative concerns perfectionism. Therefore, the levels of hope, curiosity, and quiet ego accounted for an additional 8.4%, $R^2 = .396$, $F (3, 256) = 11.84$, $p < .001$. The Durbin-Watson value was 1.88, which was close to 2 and less than 3, indicating there are no concerns of autocorrelation in the residuals (Field, 2009). The ANOVA for model 1, ($F (2, 259) = 58.91$, $p < .001$), with fear of negative evaluation and rejection sensitivity as predictors, and model 2 ($F (5, 256) = 33.63$, $p < .001$), with hope, curiosity, and quiet ego as predictors, indicated both models significantly improved the ability to predict the outcome variable compared to not fitting the model.

Predicting maladaptive evaluative concerns. The standardized coefficient (β) demonstrated the relationship between maladaptive evaluative concerns perfectionism and each predictor. In the first model, fear of negative evaluation (β = 0.39; $t (259) = 7.315$, $p < 0.001$) and rejection sensitivity (β = 0.31; $t (256) = 5.72$, $p < .001$) significantly predicted maladaptive evaluative concerns perfectionism, and also explained a significant proportion of variance in maladaptive evaluative concerns scores, $R^2 = .31$, $F (2, 259) = 58.91$, $p < .001$. In the second model, fear of negative evaluation (β = 0.34; $t (256) = 6.40$, $p < 0.001$) and rejection sensitivity (β = 0.27; $t (256) = 4.98$, $p < .001$) continued to significantly predict maladaptive evaluative concerns perfectionism. However, curiosity (β = 0.31; $t (256) = 5.55$, $p < 0.001$) and quiet ego (β = -0.19; $t (256) = -3.44$, $p = 0.001$) also significantly predicted maladaptive evaluative concerns perfectionism, when accounting for the variance of fear of negative evaluation and rejection sensitivity in this student sample. Curiosity and quiet ego scores also explained a significant proportion of variance in maladaptive evaluative concern perfectionism scores, $\Delta R^2 = .084$, $F (3, 256) = 11.84$, $p < .001$. These results also aligned with findings from the bivariate correlation analysis, which demonstrated that maladaptive evaluative

concerns perfectionism positively correlated with rejection sensitivity (r (282) = 0.41, $p <$ .001), and fear of negative evaluation (r (279) = 0.48, $p <$ .001), as was expected, but also positively correlated with curiosity (r (281) = 0.22, $p <$ .001). In the second model, as was expected based on the correlational findings, curiosity positively predicted maladaptive evaluative concerns perfectionism, when also accounting for all other variables in the model. Maladaptive evaluative concerns also negatively correlated with quiet ego (r (274) = -22, $p <$ .001) and in this model quiet ego negatively predicted levels of maladaptive evaluative concerns. Although hope positively correlated with curiosity (r (265) = 0.37, $p <$ .001), quiet ego (r (260) = 0.36, $p <$ .001), and negatively correlated with fear of negative evaluation (r (264) = -0.23, $p <$ .001), and rejection sensitivity (r (265) = -0.28, $p <$ .001), it was not a significant predictor in this model. Results of the hierarchical linear regression to predict maladaptive evaluative concerns perfectionism are presented in Table 5.

Table 5

Hierarchical Linear Regression to Predict the Outcome Variable Maladaptive Evaluative Concerns Perfectionism

Step	Predictors	Unstandardized Coefficients		Standardized Coefficients		R^2	F	F p-value	ΔR^2	ΔF	ΔF p-value
		B	*SE*	β	*p-value*						
1						.313	58.91	<.001	.313	58.91	<.001
	Fear of Negative Evaluation	.09	.01	.39	<.001						
	Rejection Sensitivity	.23	.04	.31	<.001						
2						.396	30.63	<.001	.084	11.84	<.001
	Fear of Negative Evaluation	.08	.01	.34	<.001						
	Rejection Sensitivity	.20	.04	.27	<.001						
	Hope	-.10	.06	-.10	.050						
	Curiosity	.15	.03	.31	<.001						
	Quiet Ego	-.10	.03	-.19	<.001						

Supplemental Analysis

Exploratory Analyses to Examine Relationships Between Demographic Variables and Facets of Perfectionism

In addition to previously reviewed hypothesis-driven analyses, exploratory analyses were conducted to examine facets of perfectionism in relation to the demographic variables of age, sex, race, and religion. The literature on perfectionism indicated that factors like sex and age may be associated with the levels of perfectionism (Stoeber & Stoeber, 2009). There was also interest in examining how facets of perfectionism might be related to socioeconomic levels and educational status. Regarding sex differences and perfectionism, this sample only had 53 males and had significantly more females, therefore, the findings in this study need to be regarded with caution.

Bivariate correlation of facets of perfectionism and age. An exploratory bivariate correlation was conducted to examine the association between facets of perfectionism and age. The results indicated a small significant negative correlation between maladaptive evaluative concerns perfectionism and age (r (275) = -.18, p = 0.002). These findings indicate that the levels of maladaptive evaluative concerns decreased with age in this sample. Positive striving perfectionism and age did not correlate significantly. Results of the correlation of facets of perfectionism and age are presented in Table 6.

Table 6
Exploratory Bivariate Correlation of Facets of Perfectionism and Age

Variables	n	M	SD	1	2	3
1. Positive Striving	268	.07	2.84	--		
2. Maladaptive Evaluative Concerns	275	-.08	3.12	.45**	--	
3. Age	280	25.97	7.32	-.01	-.18*	--

*p < 0.05. ** p < 0.001.

One-way analysis of variance (one-way ANOVA) of facets of perfectionism and demographic factors of interest. Three separate one-way ANOVAs were conducted to compare mean differences of each facet of perfectionism based on sex, race, and religion. Based on linear model statistics the data were graphed to assess for any bias. The homogeneity of variance was examined using the Levene's test for each analysis to test the assumption that the spread of outcome scores were roughly equal at different points for the predictor variable. The difference between scores and the median were selected because it was reported to be less biased by possible outliers (Davis & Davis, 2015). Since the sample sizes were not equal, the Levene statistic was required to indicate the population variances were equal among these groups. The Levene's test statistic for sex, race, and religion indicated population variances were equal for both facets of

perfectionism. The Levene's test statistics for sex were the following: positive striving perfectionism F (1,274) = 1.43, p = .23, and maladaptive evaluative concerns, F (1, 281) = .985, p = .32. The Levene's test statistics for race were: positive striving perfectionism F (6,270) = .602, p = .73, and maladaptive evaluative concerns, F (6, 277) = .053, p = .10. The Levene statistics for religion was the following: for positive striving perfectionism F (7,268) = 1.12, p = .35, and maladaptive evaluative concerns, F (7, 275) = 1.68, p = .11.

One-way ANOVA for facets of perfectionism and sex. A one-way ANOVA was conducted to test whether group means differed in positive striving perfectionism based on sex. Results did not indicate a significant between-group difference, F (1, 274) = 0.83, p = .36, η^2 =.003, d = 0.15. Hence, levels of positive striving perfectionism did not appear to vary based on sex. Next, the group means of maladaptive evaluative concerns perfectionism were compared based on sex. Again, results did not indicate a significant between-group difference, F (1, 281) = 2.53, p = .11, η^2 = .009, d = 0.25. Thus, maladaptive evaluative concerns appeared not to vary significantly based on sex. Examining group differences between levels of maladaptive evaluative concerns perfectionism between females and males showed a small effect size (d = 0.25). Although this sample was made up of majority female students, the variance in the facets of perfectionism did not appear to be driven substantially by sex. Results of the one-way ANOVA of facets of perfectionism based on sex are presented in Table 7.

One-way ANOVA for facets of perfectionism and race. A one-way ANOVA was conducted to test whether group means differed in positive striving perfectionism based on race. The results indicated a non-significant between-group difference, F (6, 270) = 1.59, p = .15, η^2 = .03. Hence, levels of positive striving perfectionism did not appear to vary based on race. Subsequently, the group means of maladaptive evaluative concerns perfectionism based on race were compared, and the results did not indicate a

significant between-group difference, $F(6, 277) = .95$, $p = .46$, $\eta^2 = .02$. This category had 6 races to select and an "I prefer not to answer" option. To examine group differences in facets of perfectionism within this category, effect sizes were calculated for each race with the highest number of participants. The majority race represented in this research was White (including Non-Hispanic or Non-Latinx, Hispanic or Latinx). White and the second largest group in the race category, Asian, were compared for differences in levels of maladaptive evaluative concerns perfectionism and showed a small effect size ($d = -0.33$). However, levels of maladaptive evaluative concerns perfectionism did not vary based on race. Results of the one-way ANOVA of facets of perfectionism based on race are presented in Table 7.

One-way ANOVA for facets of perfectionism and religion. A one-way ANOVA was conducted to test whether group means differed in positive striving perfectionism based on religion. The results did not indicate significant between-group differences, $F(8, 268) = 1.28$, $p = .25$, $\eta^2 = .04$. Hence, levels of positive striving perfectionism did not appear to vary based on religion in the omnibus ANOVA. Subsequently, the group means of maladaptive evaluative concerns perfectionism were compared based on religion, and the results did not indicate significant between-group differences, $F(8, 275) = .79$, $p = .61$, $\eta^2 = .02$. The religion category had 6 religions to select and 3 additional options (e.g., other, none). To examine group differences in facets of perfectionism within the category effect sizes were calculated for categories with the highest number of participants. The difference between Christianity and the third largest group in the religion category, "none," showed a small effect size ($d = 0.24$). However, levels of maladaptive evaluative concerns perfectionism did not vary based on religion. Results of the one-way ANOVA of facets of perfectionism based on religion are presented in Table 7.

Table 7

Means and One-Way ANOVA in Positive Striving and Maladaptive Evaluative Concerns Perfectionism and Sex, Race, and Religion.

Variables	Positive Striving						Maladaptive Evaluative Concerns					
	n	*M*	*SD*	*F*	*p-*values	*η²* (Cohen's d)	*n*	*M*	*SD*	*F*	*p-*values	*η²* (Cohen's d)
Sex				0.83 (1, 274)	0.36	.003				2.53 (1, 281)	0.11	.009
Female	226	-.04	2.91				231	-.14	3.20			
Male	50	.37	2.59			(-0.15)	52	.63	3.03			(-0.25)
Total	276	.04	2.86				283	-.00	3.18			
Race				1.59 (6, 270)	0.15	.03				.95 (6, 277)	0.46	.02
American Indian or Alaskan Native	9	-.10	3.24				8	-1.34	3.04			
Asian	24	-.06	2.65			(0.01)	24	.98	3.18			(-0.33)
Black or African American	23	.33	2.42			(-0.14)	23	-.54	3.31			(0.15)
White	178	-.04	2.87				183	-.06	3.11			
Biracial	10	1.99	2.78				12	-.54	3.12			
Multiracial	3	2.71	2.31				3	1.33	4.18			
Preferred not to answer	30	-.63	3.00				31	.34	3.39			
Total	277	.02	2.86				284	-.01	3.17			
Religion				1.28 (8, 268)	.25	.04				0.79 (8, 275)	.61	.02
Catholicism	57	.22	2.66			(-0.01)	61	-.04	2.66			(-0.08)
Christianity	110	.20	3.08				112	-.28	3.08			
Hinduism	2	.73	2.56				2	-2.73	2.55			
Muslim	4	1.34	1.61				4	.61	1.61			
Judaism	1	4.58					1	1.51				
Buddhism	3	-2.89	1.56				3	2.60	1.56			
Other	12	.36	2.15				12	1.06	2.15			
Do not wish to provide religion affiliation	13	.25	2.61				14	.00	2.61			
None	75	-.51	2.82			(0.24)	75	.18	2.82			(-0.14)
Total	277	.02	2.86				284	-.01	2.86			

Linear regression analyses to assess two separate relationships between levels of facets of perfectionism, education, and income. There was also interest in examining how facets of perfectionism may be related to socioeconomic and educational status. Four separate linear regression analyses were conducted to examine the relationship between facets of perfectionism and demographic variables, education, and income. The predictor or independent variables were income (e.g., below $20,000, $20,000-35,000, etc.) and education (e.g., high school diploma, some college, bachelors, masters, etc.) and outcome variables were positive striving perfectionism and maladaptive evaluative concerns perfectionism, separately.

In order to conduct a linear regression analysis with ordinal and ranked variables, the income and education variable mean values were calculated and new variables were created (VariableName_MeanCentered = variable value - variable M). To ensure the means were calculated correctly, the means of the new variables were assessed to equal 0, and that the standard deviations were the same as the original standard deviations for income and education. Results of means and standard deviations are shown in Table 8.

Table 8
Descriptive Statistics of Income and Education

Predictor Variables	n	M	SD
Income	287	3.67	2.12
Income_MeanCentered	287	.00	2.12
Education	238	3.62	.699
Education_MeanCentered	238	.00	.699

The new variables for both education (Education_MeanCentered) and income (Income_MeanCentered) were added to separate linear regressions as the independent variables with the perfectionism facets as the dependent variable. The models with

income and education as predictors all failed to significantly predict each facet of perfectionism. Table 9 through Table 12 show the results of the four regression analyses conducted to assess income level and education level predictability of positive striving perfectionism and maladaptive evaluative concerns perfectionism.

Linear regression for facets of perfectionism based on income.

Table 9
Linear Regression of Income Predicting Outcome Variable Positive Striving
Perfectionism

Predictor	Unstandardized Coefficients		Standardized Coefficients		R^2	R^2 change	F	*p-value*
	B	*SE*	β	*p-value*				
Income	.096	.092	.069	.298	.005	.005	1.088	.298

Table 10
Linear Regression of Income Predicting Outcome Variable Maladaptive Evaluative
Concerns Perfectionism

Predictor	Unstandardized Coefficients		Standardized Coefficients		R^2	R^2 change	F	*p-value*
	B	*SE*	β	*p-value*				
Income	-.041	.100	-.027	.684	.001	.001	.166	.684

Linear regression for facets of perfectionism based on education.

Table 11
Linear Regression of Education Predicting Outcome Variable Positive Striving
Perfectionism

Predictor	Unstandardized Coefficients		Standardized Coefficients		R^2	R^2 change	F	*p-value*
	B	*SE*	β	*p-value*				
Education	.373	.248	.090	.134	.008	.008	2.260	.134

Table 12
Linear Regression of Education Predicting Outcome Variable Maladaptive Evaluative
Concerns Perfectionism

Predictor	Unstandardized Coefficients		Standardized Coefficients		R^2	R^2 change	F	*p-value*
	B	*SE*	β	*p-value*				
Education	-.190	.273	-.042	.485	.002	.002	.488	.485

CHAPTER V:

DISCUSSION

Purpose of the Study

This study attempted to distinguish perfectionism as a healthy pursuit of excellence and achievement from the clinically oriented perfectionism associated with distress and impairment. This was established by examining relationships among factors often considered adaptive, such as hope, curiosity and quiet ego, and factors often associated with psychopathology, such as fear of negative evaluation and rejection sensitivity. In this study, these constructs were measured in a non-clinical sample of majority female (81.3%), White Non-Hispanic or Non-Latino and White Hispanic or Latino university students. Bivariate relationships among factors of interest were first examined, and then hierarchical linear regression (HLR) analyses were used to identify which variables would most strongly relate to and account for variance in positive striving and maladaptive evaluative concerns perfectionism facets, while controlling for other factors of interest.

In the current study, perfectionism was classified as a personality trait and multidimensional disposition, meaning that facets of perfectionism can vary in degree from low to high (Frost et al., 1990; Hewitt & Flett, 1991; Rice et al, 1998). One of the facets of perfectionism, positive striving, has been associated with characteristics of high standards, persistence, and conscientiousness, characteristics that are typically considered adaptive (Bieling et al., 2004a; Cox et al., 2002; Frost et al., 2003). The other facet of perfectionism, maladaptive evaluative concerns, has been associated with setting standards for achievement or performance that are unrealistically high and as a consequence, no effort is ever perceived as quite good enough (Bieling et al., 2004a; Cox et al., 2002; Frost et al., 1993). This study found a medium positive correlation between

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positive striving and maladaptive evaluative concerns facets, similar to the reported findings by Bieling et al (2004a). Thus, though this study sought to differentiate these two facets of perfectionism, it is important to first acknowledge that, in their current operationalization, they are not completely independent of one another and may be interrelated. These findings demonstrate the importance of evaluating both facets of perfectionism as dimensional and interrelated.

Perfectionism research in clinical and non-clinical populations has observed maladaptive perfectionism in people experiencing comorbid psychiatric conditions (e.g., anxiety and mood disorder; Bieling et al., 2004b; Shafran et al., 2016). Perfectionism has been considered a risk factor for psychopathology and a possible maintaining factor (i.e., avoidance, setting unattainable goals) for those engaging in psychological treatment (e.g., exposure treatment) (Egan et al., 2011). Researchers have also observed that in comparison to maladaptive perfectionism, adaptive perfectionism tends to be found in the gifted student population (Parker, 2000; Rice et al., 2006) and those with higher life satisfaction and higher self-esteem (Stoeber & Otto, 2006; Stoeber & Rambow, 2007). This suggests that those with superior adjustment abilities may pursue achievement and set high standards in adaptive-perfectionistic ways. These observations have led to interest in the influence of psychological constructs involved in achievement, well-being and psychopathology and the facets of perfectionism.

In the current study, the aim was to test whether positive striving perfectionism would negatively relate with rejection sensitivity and fear of negative evaluation, while maladaptive evaluative concerns perfectionism would positively relate with rejection sensitivity and fear of negative evaluation. Another hypothesis was created to test whether positive striving perfectionism would positively relate with levels of hope, curiosity, and quiet ego, while maladaptive evaluative concerns perfectionism would

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negatively relate with levels of hope, curiosity, and quiet ego. The results from this study partially supported the two hypotheses and appear consistent with findings from previous research (e.g., Bieling et al., 2004a). This study also introduced new findings demonstrating the relationship between facets of perfectionism and construct like quiet ego and curiosity, which have not been studied before.

Bivariate Relationships with Perfectionism Facets

Positive Psychology Factors

Hope was one of the positive psychology factors that had been under-examined in the context of multidimensional perfectionism. Hope in this study was based on hope theory, involving an increase in motivation and willingness to achieve goals and also problem solve to reach valued goals (Snyder, 1991). In this study, a non-clinical sample of university students showed that levels of positive striving perfectionism positively associated with hope, while levels of maladaptive evaluative concerns perfectionism negatively associated with hope, consistent with previous research (e.g., Ashby et al., 2011; Mathew et al. 2014). These findings are correlational and only suggest the strength of relationships among variables of interest. Therefore, any causal inference or directionality may not be assumed. However, speculatively, these research findings suggest the plausibility that hope could function as a buffer for people with positive striving perfectionism, reducing experiences with negative aspects of maladaptive evaluative concerns perfectionism.

Curiosity was conceptualized as a special form of information-seeking that is internally motivated (Loewenstein, 1994). In this study, curiosity was based on the information gap theory (Loewenstein, 1994), which suggested that a gap in knowledge increases levels of curiosity and leads a person to seek knowledge to fill the gap. There was limited research linking curiosity with the two facets of perfectionism. However,

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previous correlational research demonstrated the role of curiosity in other factors related to positive psychology and psychopathology related factors (e.g., positive growth, self-esteem, appetitive striving, mindful attention) (e.g., Frederickson, 1998; Kashdan et al., 2004, 2011; Macaskill & Denovan, 2014; Robitschek, 1998). In this study, the bivariate correlation analysis demonstrated a significant medium positive relationship between curiosity and positive striving perfectionism, as well as a significant small positive relationship with maladaptive evaluative concerns perfectionism. Additionally, curiosity had a significant small-to-medium positive relationship with hope and quiet ego, but curiosity did not significantly relate with fear of negative evaluation or rejection sensitivity. The stronger correlation between curiosity and positive striving perfectionism was consistent with the literature suggesting that a function of curiosity is fostering a desire and approach toward striving (Kashdan et al., 2004). Curiosity was also reported to foster behaviors to access new stimuli, gather information, and address uncertainty (Kidd & Hayden, 2015).

Quiet ego was conceptualized as a balanced focus towards the interest of the self and development for growth to approach life in a more compassionate way, therefore facilitating balance and growth (Bauer & Wayment, 2008). In this study, there was interest in contributing to the literature to increase understanding of the relationship between quiet ego and positive striving and maladaptive evaluative concerns perfectionism. The results demonstrated that quiet ego had a significant small positive relationship with positive striving perfectionism, and a significant small negative relationship with maladaptive evaluative concerns perfectionism. These results added support to the idea that the characteristics of the quiet ego, such as inclusive identity, perspective taking, detached awareness, and growth-mindedness may be associated with these two facets of perfectionism (Bauer & Bonnano, 2001; Hewitt et al., 2003; Wayment

et al., 2015). For instance, growth-mindedness and detached awareness were conceptualized as factors that contribute to adaptive and positive coping in challenging moments, and also foster engagement in the moment without judgment or expectation. These factors could contribute experiences with which people with any level of perfectionism may struggle to demonstrate in moments of challenge (Wayment & Bauer, 2018). In this study, there was a small-to-medium positive relationship between quiet ego and hope, and a small-to-medium relationship with curiosity. Although quiet ego did not strongly relate with fear of negative evaluation, it did have a significant small negative relationship with rejection sensitivity. This negative relationship between quiet ego and rejection sensitivity aligns with literature suggesting that individuals more sensitive to rejection may be more likely to struggle with healthy coping and positive growth. Therefore, instead of adaptively coping, they may engage in self-protective behaviors to avoid possible negative judgment, which may also prevent them from developing an interdependent and compassionate identity (Berenson et al., 2009; Downey & Feldman, 1996; Wayment et al., 2015).

Psychopathology-Related Factors

Fear of negative evaluation (FNE) was one of the psychopathology related factors included in the analysis to help better understand other personality dispositions as they relate to positive striving and maladaptive evaluative concerns perfectionism. FNE was conceptualized as the fear or apprehension or concern of being negatively judged by others, which could result in distress (Carleton et al., 2006). FNE has also been considered a feature of social anxiety (Heimberg et al., 2010).

Maladaptive perfectionism has been implicated in the development and maintenance of symptoms associated with social anxiety. There is research linking fear of negative evaluation and perfectionism, demonstrating that higher levels of maladaptive

perfectionism are typically associated with higher levels of FNE, and social anxiety (Juster et al., 1996; Yap et al., 2016). In this study, FNE demonstrated a small positive significant relationship with positive striving and a significant medium positive relationship with maladaptive evaluative concerns perfectionism. Having both facets of perfectionism associate positively with FNE aligned with literature indicating that both facets may be interrelated to an extent. However, as expected, FNE had a stronger medium correlation with the maladaptive facet of perfectionism. FNE also demonstrated a small negative relationship with hope, which aligned well with the literature. Hope was described as a motivating force that leads to willingness to learn and change during challenging experiences (Snyder, 2002), while FNE was associated with symptoms and maintenance of social anxiety (Frost et al., 2010; Heimberg et al., 2010; Shorey et al., 2002).

Rejection sensitivity (RS) was the other psychopathology related factor examined in this study. It was defined as a personality disposition of experiencing heightened distress and anxiety from perceived, actual, or expected rejection (Downey & Feldman, 1996; Mehrabian, 1970). RS has often been associated with avoidant behaviors, doubts, and insecurities about making a positive impression on others (Berenson et al., 2009; Cox et al., 2002). In this study, a bivariate correlation analysis demonstrated a significant medium positive relationship between RS and maladaptive evaluative concerns perfectionism, which aligned well with the literature (Flett et al., 2014; Hewitt et al., 2008). RS appeared to be similar to perfectionistic tendencies of engaging in self-protective responses and defensive coping strategies to diminish the probability of rejection, judgment, or chance of failure (e.g., Berenson et al., 2009; Cox et al., 2002). In this study, RS also demonstrated a small negative relationship with hope and quiet ego, and a small positive relationship with fear of negative evaluation. The negative

associations with positive psychology constructs were notable, and they appeared to be consistent with the literature, which suggests that hope may encourage someone towards growth and challenges (Snyder, 2002). Meanwhile, rejection sensitivity may increase negative attention biases and, therefore, may also increase preventative and protective behaviors to avoid unwanted outcomes (Downey & Feldman, 1996; Flett et al., 2005; Hewitt et al., 1991). The negative association between quiet ego and RS was unique and has not been previously found in the literature. However, this association may also be consistent with relevant literature given both constructs involved some focus on interpersonal characteristics (Bauer & Bonnano, 2001; Downey & Feldman, 1996; Hewitt et al., 2003). The quiet ego construct has been focused on adaptive self-awareness of one's values and goals in relation to others, the environment, and the world (Wayment et al., 2015), while individuals with RS may engage in more defensive coping to diminish judgment and may have limited awareness in these areas that are important to establishing positive interpersonal relationships (Downey & Feldman, 1996; Downey et al., 2004; Romero-Canyas et al., 2010).

Reliable Factors Accounting for Perfectionism Facets

The hierarchical regression analyses complemented the previously reviewed bivariate correlation analyses. It helped identify constructs that were most reliably associated with positive striving and maladaptive evaluative concerns perfectionism.

Positive Striving

Positive striving perfectionism demonstrated positive relationships with hope and curiosity. These results were expected, since hope has been associated with the pursuit of achievement (Snyder, 1991), and curiosity has been associated with information seeking that is internally motivated (Loewenstein, 1994). Both of these attributes align well with common goals of positive striving perfectionists. It was valuable to explore the strength

of the predictors, such as hope, curiosity, and quiet ego, while accounting for psychopathology related factors like FNE and RS, which also contributed to the overall model in predicting positive striving. The literature suggests that maladaptive aspects of positive striving still remain despite its more adaptive characteristics. Consistent with this idea, in the current study, positive striving showed a positive relationship with FNE and RS when accounting for positive psychology factors (Bieling et al., 2004a; Cox et al., 2002). However, despite the inclusion of FNE and RS in the model, curiosity and hope showed stronger relationships with positive striving perfectionism. Quiet ego was not associated with positive striving perfectionism in the full regression model, contrary to the bivariate correlation analysis showing a small positive relationship. Thus, although quiet ego could benefit perfectionists with its focus on development, growth, and mindfulness, the current results suggest its association with positive striving may not explain variance over and above levels of hope and curiosity. It is possible that hope and curiosity may have unique aspects that drive their stronger relationship with positive striving perfectionism. There was still a high percentage of variance that was left unaccounted for; however, this study demonstrates the value of including various factors to better understand these facets of perfectionism.

In terms of expectations of the relationships between positive striving perfectionism and factors of interest, it was expected that there would be positive associations between positive psychology factors, which were confirmed (e.g., hope, curiosity). However, there were no significant negative correlations with psychopathology related factors, FNE and RS. Unexpectedly, there were small positive correlations linking FNE and RS with positive striving perfectionism and, as alluded to previously, this was consistent with previous perfectionism research. The literature suggested those with perfectionism need to set high standards, be regarded positively, and

the effort to achieve goals can be driven by this fear of failure or negative evaluation, even for the positive striving perfectionism or adaptive facet (Beiling et al., 2004a; Cox et al., 2002; Frost et al., 1993; Stoeber, 2018a).

Maladaptive Evaluative Concerns

The hierarchical linear regression analyses revealed that FNE and RS were each independently and positively associated with maladaptive evaluative concerns perfectionism. When also accounting for positive psychology factors, FNE and RS continued to be positively associated with maladaptive evaluative concerns, and quiet ego was negatively associated with maladaptive evaluative concerns. Somewhat unexpectedly, curiosity was significantly positively associated with maladaptive evaluative concerns. However, as was discussed in the literature review, curiosity has been linked with various factors associated with positive psychology and psychopathology. On the one hand, high levels of curiosity have been linked with responding nondefensively to stimuli that threaten one's worldview (Kashdan et al., 2009). On the other hand, an under-expression of curiosity may be a symptom of depression, while an over-expression of curiosity may be a symptom of ADHD (Kidd & Hayden, 2015). Because curiosity in this study correlated positively to both facets of perfectionism in this cross-sectional design study, a useful focus for future research would be examine the directionality of these relationships. Lastly the fact that the positive psychology factors of curiosity and the quiet ego accounted for 8.4% of the variance in maladaptive evaluative concerns perfectionism suggested their inclusion in the full prediction model was worthwhile.

The role of curiosity in positive striving perfectionism could be further explained by its conceptual linkage with appetitive striving, or the objective of trying to attain or accomplish—a healthier pursuit of excellence (Kashdan et al., 2004). Research also

showed that the combination of mindful attention with high levels of curiosity appeared to be a protective factor for individuals with anxiety related to maladaptive perfectionistic tendencies (Bishop et al., 2004; Kashdan et al., 2009; Niemiec et al., 2010). This mindful attention might also be found through the balanced self-identity that can be developed through self-compassion and the practice of listening to the needs and desires of the self and others (Bauer & Wayment, 2008; Kashdan et al., 2011). This conceptualization of the quiet ego and link to mindful attention may help explain the negative relationship found in this study between quiet ego and maladaptive evaluative concerns perfectionism (Bishop et al., 2004). The development of a more compassionate self-identity may encourage mindfulness or detached awareness and may increase positive affect, and personal growth along with other positive outcomes (Wayment et al., 2015). Maladaptive evaluative concerns perfectionism characteristics may influence barriers to growth, which may include psychological inflexibility and maladaptive cognitions. These barriers thwart agency and are often associated with limitations in curiosity (Robitschek, 1998).

As expected, in this study, hope related positively with all positive psychology factors and negatively with all psychopathology-related factors. Hope and curiosity had a small significant positive relationship indicating they are two different constructs. Quiet ego and hope however, had a significant medium positive relationship. These associations would be important to further explore in future research, to identify what about the quiet ego or its characteristics may be driving the negative association with maladaptive evaluative concerns perfectionism.

Exploratory Analysis around Demographic Characteristics

In this study, there was interest in examining whether facets of perfectionism might vary based on various demographic characteristics (i.e., age, sex, race, income, education, and religion). Analyses indicated that age had a small significant negative

relationship with maladaptive evaluative concerns perfectionism, suggesting that maladaptive evaluative concerns perfectionism may decrease with age or that there could be age cohort effects. However, although maladaptive evaluative concerns perfectionism and positive striving perfectionism demonstrated a medium positive relationship, age did not significantly relate with positive striving perfectionism. This indicated the maladaptive facet of perfectionism had a unique relationship with age. Prior studies have reported a small positive relationship between age and perfectionistic tendencies in children (Stoeber & Stoeber, 2009) and a decline in perfectionism scores in adulthood based on the FMPS (Chang, 2000). It could be that parental expectations or factors often associated with the developmental course of perfectionism may be decreasing with age and there is more sense of autonomy, maturity, or fewer imposed demands (Chang, 2000). On the other hand, a meta-analysis by Curran and Hill (2019) examining levels of perfectionism using Hewitt and Flett's (1991) MPS in a diverse group of college students (American, Canadian, and British) from 1989 to 2016 demonstrated that perfectionism increased with age. This collection of findings, along with the current study results suggest different relationships between age and perfectionism based on sample characteristics, a question that could be further explored in future research.

Conversely, there were no significant differences in levels of positive striving or maladaptive evaluative concerns perfectionism based on sex, race, or religion. These non-significant findings are nonetheless contextualized in relevant literature. Regarding the possible role of sex in perfectionism, the literature has often focused on perfectionism and females when discussing related psychopathology such as eating disorders (e.g., Greenberg & Shoen, 2008; Stanford & Lemberg, 2012). However, there has been interest in examining perfectionism among both male and female populations after recognizing the domains of perfectionism and outcomes of psychopathology can affect both sexes

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equally (e.g., Davis et al., 2005; Olivardia et al., 2004). Future studies with larger samples of male students would be beneficial to examine relationships among facets of perfectionism and variables of interest, particularly given some findings reviewed below where the relationship might be moderated by a third variable, such as socioeconomic status.

This study also examined how income level and education level might relate to facets of perfectionism. The results indicated no significant effect of income or education related to facets of perfectionism. Although useful to examine, it appeared income and education did not associate significantly to perfectionism in this study's sample. In previous studies, socioeconomic status (SES) has been associated with higher levels of perfectionism in girls with high SES (Luthar & Barkin, 2012), and this appears to create vulnerabilities for life dissatisfaction, internalizing and externalizing symptoms when compared to boys with high SES and children with lower SES (Lyman & Luthar, 2014). In terms of demographic variables of interest, these exploratory analyses offered a glimpse into potential areas of future research focus.

Considerations of Theories to Examine along with Perfectionism

Multidimensional models of perfectionism have been developed through conceptualization of perfectionism as a personality trait (Frost et al., 1990; Hewitt & Flett, 1991). These models have been developed to also help inform possible origins of perfectionism considering distinct traits and possible mechanisms. However, in the future researchers could consider other theoretical models about the self, or ways to conceptualize the sense of self and perfectionism, with theories such as cultural self-construal associated with how self-presentation goals are pursued for goal attainment (Markus & Kitayama, 1991). According to various researchers there are forms of self-construal's that coexist in memory and are independent or interdependently linked to

different judgments, processes, and behaviors that are considered adaptive to a certain extent (Markus & Kitayama, 1991; Stapel & Koomen, 2001; Taylor & Brown, 1988; van Baaren et al., 2003). Independent self-construal has been described as having a strong sense of autonomy, self-sufficiency, and uniqueness from others (Markus & Kitayama, 1991). Interdependent self-construal has been described as having connection and peace while maintaining self-respect and conforming to social norms (Kim & Markus, 1999; Markus & Kitayama, 1991). Researchers have suggested that these two self-construals can become active through context, language, and cognitive processes that influence judgment and behavior (Lalwani & Shavitt, 2009). Based on these definitions it would be valuable to examine their relationship with perfectionism, which may be self- or socially prescribed and implicated in achievement, self-evaluation, and pursuit of lofty standards (Frost et al., 1990) along with the quiet ego, a positive psychology construct associated with the self and others that influences personal growth (Wayment et al., 2015). Some researchers have found that self-construals, if independent or interdependent, functioned as filters influencing people's values, goals, and opinions of a situation (Gardner et al., 1999). The association between self-construals, self-presentation, and goal setting in the context of perfectionism may be a useful area to study. Self-presentation or social desirability, depending on its purpose, can result in various outcomes associated with demonstrating a more desirable self-concept, managing others' opinions about them, and engaging in impression management (Martin et al., 2000).

Other models of self to examine would be the self-discrepancy theory, involving different self-presentations that generate different outcomes based on the actual self, ideal self, and ought self (Higgins, 1998). Self-discrepancy theory was suspected to account for the relationship between self-evaluation and various emotional states (Higgins, 1987; Mason et al, 2019). Self-discrepancy theory has been examined in the context of

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psychopathology such as depression and anxiety (Kring & Bachorowski, 1999). Changes in self-discrepancy have been associated with changes in depression and anxiety as well as movement toward the actual self and reduction in high expectations and valued based living (Watson et al., 2014). Other psychopathology has also been implicated in the study of self-discrepancy including personality disorders, eating disorders and suicidal ideation (Cornette et al., 2009; Mason et al., 2016; Parker et al., 2006). Therefore, utilizing models such as self-construal, which influences values, or self-discrepancy theory, which has been found to be associated with various psychopathology, could help increase understanding of the function of goal setting and social desirability also found in perfectionism. Specifically, examining these concepts as they relate to positive psychology, psychopathology related factors, and the facets of perfectionism would be a worthwhile approach.

Limitations

The findings from this study are important but there are study limitations. Because this study design is cross-sectional in nature, inferences regarding temporal precedence cannot be made from this study and directionality in these relationships cannot be assumed. Additionally, all the constructs of interest were assessed via self-report. Although measures were taken to verify the reliability of these responses (e.g., incorporating additional test items to examine attentive responding, screening data for normality) there is no guarantee the responses are valid.

In terms of generalizability, these students self-selected to participate in this research study to obtain course credit for psychology courses and that may have created an incentive to participate in this particular online study. Also, the sample consists of majority White female psychology undergraduate and graduate students and only a few males. Therefore, the study findings may be mostly generalizable to other female student

samples. However, despite these limitations there was diversity in terms of age, race, ethnicity, and religion. This allowed researchers to examine levels of perfectionism based on a few demographic variables of interest. In this study, the student's ethnicity and race ranged from majority, White, non-Hispanic or Latino and Hispanic and Latino, Black, and Asian and the religions represented included Christianity, Catholicism, and some students selected "none." Expanding access of this study to the non-clinical general population may provide more data to assess variability in terms of the study sample, their levels of perfectionism and other variables of interest.

Another limitation resulted from the fact that the data used in this study were examined to meet criteria for analysis and to maximize all available data it was all included despite obtaining an uneven number of cases per analyses. In the future, a listwise approach could be used to conduct the analyses to ensure an even number of cases per groups and to standardize results across analyses. The uneven number of cases resulted from the participants answering questions using the option, "I prefer not to answer," as a response for a full measure of perfectionism or for the other measures of interest. Although adding this response option created the problems of missing data, the rationale of adding this response option to the original measures was to provide participants an option to select a response rather than skipping question items altogether or making haphazard responding unidentifiable. There is a possibility the participants did not answer these questions at random, however, there may also be other reasons why a participant would select "I prefer not to answer," such as not understanding the questions, feeling uncertain of how to respond desirably, or believing it did not apply to them. There may be several reasons for someone selecting this answer option and it is unclear why they selected it for this study.

This study focused on examining full scale scores of multicomponent constructs, such as hope (i.e., pathway, agency), curiosity (i.e., absorption, exploration), and quiet ego (i.e., four components). The findings of this study demonstrated hope and curiosity were each associated positively or negatively with both facets of perfectionism. Future studies examining the variables that make up the construct of hope and curiosity may provide specific information regarding the relationship between components of hope or curiosity and the facets of perfectionism. Examining those unique relationships may help identify more specific influences that contributed to the variance in perfectionism for this student population. Additionally, exploring the four components of quiet ego to assess their unique contributions to the facets of perfectionism might also be useful since this study demonstrated quiet ego uniquely negatively predicted maladaptive evaluative concerns perfectionism and that would add new information to the quiet ego and perfectionism literature. Further, the quiet ego components differ from other highly studied constructs, such as self-compassion which has demonstrated benefits (e.g., non-judgmental understanding, self-kindness) (Neff, 2003). However, there is limited research outlining relationships of increased self-awareness, self-evaluation, and self-enhancement of the quiet ego that may contribute to adaptive coping in difficult situations especially in those with perfectionistic tendencies (Wayment et al., 2015).

Future Research

Despite the limitations, the present study and its findings have important implications for understanding the facets of perfectionism and the relationships among the studied positive psychology factors and psychopathology related factors. Future studies could further investigate the reliability and directionality of both expected and unexpected associations found in the current study to help explain what might be driving these associations. Such studies could also consider the conceptualization of the quiet ego

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as a treatment approach and process to create balance and growth in an individual. Wayment and colleagues (2015) have examined the benefits of promoting quiet ego, including positive characteristics such as increased self-awareness, self-compassion, and an interdependent compassionate identity, which all contribute to balance and growth (Bauer & Wayment, 2008). Future intervention studies could examine whether increasing quiet ego could help individuals mitigate negative outcomes from perfectionistic tendencies.

Similarly, research could expand beyond the current sample population to examine facets of perfectionism in clinical populations, including gold standard diagnostic measures. This next step could greatly contribute to perfectionism research by providing scores on measures that demonstrate the variability in levels of perfectionism based on current psychopathology, rather than on constructs suspected to contribute to psychopathology, such as RS and FNE.

Lastly, future experimental studies on perfectionism and variables of interest could include tasks or rejection paradigms to increase common perfectionistic responses to challenge, perceived failure, or perceived rejection. Adding tasks or paradigms to this study design may contribute to a better understanding of various processes that occur as people engage in challenging tasks. Such approaches could examine different levels of analyses and might be potentially more reliable to use along with self-reported data.

REFERENCES

Adkins, K. K., & Parker, W. (1996). Perfectionism and suicidal preoccupation. *Journal of Personality, 64*(2), 529–543. https://doi.org/10.1111/j.1467-6494.1996.tb00520.x

Antony, M. M., Purdon, C. L., Huta, V., & Swinson, R. P. (1998). Dimensions of perfectionism across the anxiety disorders. *Behaviour Research and Therapy,* 36, 1143–1154.

Armstrong, R. A. (2014). When to use the Bonferroni correction. *Ophthalmic and Physiological Optics, 34*(5), 502–508. https://doi.org/10.1111/opo.12131

Ashby, J., Dickinson, W., Gnilka, P., & Noble, C. (2011). Hope as a mediator and moderator of multidimensional perfectionism and depression in middle school students. *Journal of Counseling & Development, 89(*2), 131–139. https://doi.org/10.1002/j.1556-6678.2011.tb00070.x

Ashby, J. S., Noble, C. L., & Gnilka, P. B. (2012). Multidimensional perfectionism, depression, and satisfaction with life: Differences among perfectionists and tests of a stress-mediation model. *Journal of College Counseling, 15*(2), 130–143. https://doi.org/10.1002/j.2161-1882.2012.00011.x

Ashby, J. S., Rice, K. G., & Martin, J. L. (2006). Perfectionism, shame, and depressive symptoms. *Journal of Counseling & Development, 84*(2), 148–156. https://doi.org/10.1002/j.1556-6678.2006.tb00390.x

Baraldi, A. N., & Enders, C. K. (2010). An introduction to modern missing data analyses. *Journal of School Psychology, 48*(1), 5–37. https://doi.org/10.1016/j.jsp.2009.10.001

Bauer, J. J., & Bonanno, G. A. (2001). Doing and being well (for the most part): Adaptive patterns of narrative self-evaluation during bereavement. *Journal of Personality,* 69, 451–482.

Bauer, J. J., & Wayment, H. A. (2008). The psychology of the quiet ego. In H. A. Wayment & J. J. Bauer (Eds.), Transcending self-interest: Psychological explorations of the quiet ego (pp. 7–19). Washington, DC: American Psychological Association.

Berenson, K. R., Gyurak, A., Ayduk, Ö., Downey, G., Garner, M. J., Mogg, K., Bradley, B. P., & Pine, D. S. (2009). Rejection sensitivity and disruption of attention by social threat cues. *Journal of Research in Personality, 43*(6), 1064–1072. https://doi.org/10.1016/j.jrp.2009.07.007

Berlyne, D. E. (1954). A theory of human curiosity. *British Journal of Psychology,* 45, 180–191.Bieling, P. J., Israeli, A. L., & Antony, M. M. (2004a). Is perfectionism good, bad, or both? Examining models of the perfectionism construct. *Personality and Individual Differences, 36*(6), 1373–1385. https://doi.org/10.1016/S0191-8869(03)00235-6

Bieling, P. J., Summerfeldt, L. J., Israeli, A. L., & Antony, M. M. (2004b). Perfectionism as an explanatory construct in comorbidity of axis I disorders. *Journal of Psychopathology and Behavioral Assessment, 26*(3), 193–201. https://doi.org/10.1023/B:JOBA.0000022112.27186.98

Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J., Segal., Z.

V., Abbey, S., Speca, M., Velting, D., & Devins, G. (2004). Mindfulness: A proposed operational definition. *Clinical psychology: Science and practice, 11*(3), 230-241.

Bland, J. M., & Altman, D. G. (1995). Statistics notes: Multiple significance tests: the Bonferroni method. *BMJ, 310*(6973), 170–170. https://doi.org/10.1136/bmj.310.6973.170

Blankstein, K. R., & Dunkley, D. M. (2002). Evaluative concerns, self-critical, and personal standards perfectionism: A structural equation modeling strategy. In G. L. Flett & P. L. Hewitt (Eds.), Perfectionism: Theory, research, and treatment (p. 285–315). American Psychological Association. https://doi.org/10.1037/10458-012

Carleton, R. N., McCreary, D. R., Norton, P. J., & Asmundson, G. J. (2006). Brief fear of negative evaluation scale-revised. *Depression and Anxiety, 23*(5), 297–303. https://doi.org/10.1002/da.20142

Chang, E. C. (2000). Perfectionism as a predictor of positive and negative psychological outcomes: Examining a mediation model in younger and older adults. *Journal of Counseling Psychology,* 47, 18–26.

Clark, D. M., & Wells, A. (1995). A cognitive model of social phobia. In R. G. Heimberg, M. R. Liebowitz, D. A. Hope, & F. R. Schneier (Eds.), Social phobia: Diagnosis, assessment, and treatment (p. 69–93). The Guilford Press.

Cornette, M. M., Strauman, T. J., Abramson, L. Y., & Busch, A. M. (2009). Self-discrepancy and suicidal ideation. *Cognition and Emotion*, 23, 504–527.

http://dx.doi.org/10.1080/02699930802012005

Cox, B. J., Enns, M. W., & Clara, I. P. (2002). The multidimensional structure of
    perfectionism in clinically distressed and college student samples. *Psychological
    Assessment, 14(*3), 365–373.

Curran, T., & Hill, A. P. (2019). Perfectionism is increasing over time: A meta-analysis
    of birth cohort differences from 1989 to 2016. *Psychological Bulletin, 145*(4),
    410–429. https://doi.org/10.1037/bul0000138

Davis, C., Karvinen, K., & McCreary, D. R. (2005). Personality correlates of a drive for
    muscularity in young men. *Personality and Individual Differences,* 39, 349–359.
    http://dx.doi.org/10.1016/j.paid.2005.01.013

DiBartolo, P. M., Li, C. Y., & Frost, R. O. (2008). How do the dimensions of
    perfectionism relate to mental health? *Cognitive Therapy and Research, 32*(3),
    401-417.

Denneson, L. M., Smolenski, D. J., Bush, N. E., & Dobscha, S. K. (2017). Curiosity
    improves coping efficacy and reduces suicidal ideation severity among military
    veterans at risk for suicide. *Psychiatry Research,* 249, 125–131.
    https://doi.org/10.1016/j.psychres.2017.01.018

Downey, G., Khouri, H., & Feldman, S. (1997). Early interpersonal trauma and
    interpersonal adjustment: The mediational role of rejection sensitivity. In D.
    Cicchetti & S. Toth (Eds.), Rochester Symposium in Developmental
    Psychopathology, Volume VIII: The effects of trauma on the developmental
    process (pp.85–114). Rochester, NY: University of Rochester Press.

Downey, G., & Feldman, S. I. (1996). Implications of rejection sensitivity for intimate
    relationships. *Journal of Personality and Social Psychology, 70*(6), 1327–1343.

Downey, G., Freitas, A. L., Michaelis, B., & Khouri, H. (1998). The self-fulfilling

prophecy in close relationships: Rejection sensitivity and rejection by romantic partners. *Journal of Personality and Social Psychology,* 75, 545–560.

Downey, G., Mougios, V., Ayduk, O., London, B. E., & Shoda, Y. (2004). Rejection sensitivity and the defensive motivational system: Insights from the startle response to rejection cues. *Psychological Science*, *15*(10), 668-673.

Dunkley, D. M., Zuroff, D. C., & Blankstein, K. R. (2003). Self-critical perfectionism and daily affect: Dispositional and situational influences on stress and coping. *Journal of Personality and Social Psychology, 84*(1), 234–252. https://doi.org/10.1037/0022-3514.84.1.234

Egan, S. J., Wade, T. D., & Shafran, R. (2011). Perfectionism as a transdiagnostic process: a clinical review. *Clinical Psychology Review, 31*(2), 203–212. https://doi.org/10.1016/j.cpr.2010.04.009

Egan, S. J., Wade, T. D., Shafran, R., & Antony, M. M. (2014). Cognitive-behavioral treatment of perfectionism. The Guilford Press.

Emmons, R. A. (1986). Personal strivings: An approach to personality and subjective well-being. *Journal of Personality and Social Psychology, 51*(5), 1058–1068. https://doi.org/10.1037/0022-3514.51.5.1058

Enders, C.K. (2010). Applied missing data analysis. New York: The Guilford Press.
    Enns, M. W., & Cox, B. J. (1999). Perfectionism and depression symptom severity in major depressive disorder. *Behaviour Research and Therapy, 37*(8), 783–794. https://doi.org/10.1016/s0005-7967(98)00188-0

Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G*Power 3.1: tests for correlation and regression analyses. *Behavior Research Methods, 41*(4), 1149–1160. https://doi.org/10.3758/BRM.41.4.1149

Flett, G. L., Besser, A., & Hewitt, P. L. (2005). Perfectionism, ego defense styles, and

depression: A comparison of self-reports versus informant ratings. *Journal of Personality, 73*(5), 1355–1396. https://doi.org/10.1111/j.1467-6494.2005.00352.x

Flett, G. L., Besser, A., & Hewitt, P. L. (2014). Perfectionism and interpersonal orientations in depression: an analysis of validation seeking and rejection sensitivity in a community sample of young adults. *Psychiatry, 77*(1), 67–85. https://doi.org/10.1521/psyc.2014.77.1.67

Flett, G. L., Endler, N. S., Tassone, C., & Hewitt, P. L. (1994). Perfectionism and components of state and trait anxiety. *Current Psychology, 13*(4), 326–350. https://doi.org/10.1007/BF02686891

Flett, G. L., & Hewitt, P. L. (2002). Perfectionism and maladjustment: An overview of theoretical, definitional, and treatment issues. In G. L. Flett & P. L. Hewitt (Eds.), Perfectionism: Theory, research, and treatment (p. 5–31). American Psychological Association. https://doi.org/10.1037/10458-001

Flett, G. L., Hewitt, P. L., & De Rosa, T. (1996). Dimensions of perfectionism, psychosocial adjustment, and social skills. *Personality and Individual Differences,* 20, 143-50

Flett, G. L., Stainton, M., Hewitt, P. L., Sherry, S. B., & Lay, C. (2012). Procrastination automatic thoughts as a personality construct: An analysis of the Procrastinatory Cognitions Inventory. *Journal of Rational-Emotive & Cognitive-Behavior Therapy, 30*(4), 223–236. https://doi.org/10.1007/s10942-012-0150-z

Fredrickson, B. L. (1998). What good are positive emotions?. *Review of general psychology, 2*(3), 300-319.

Frost, R. O., Heimberg, R. G., Holt, C. S., Mattia, J. I., & Neubauer, A. L. (1993). A comparison of two measures of perfectionism. *Personality and Individual Differences, 14*(1), 119–126. https://doi.org/10.1016/0191-8869(93)90181-2

Frost, R. O., Marten, P., Lahart, C., & Rosenblate, R. (1990). The dimensions of

perfectionism. *Cognitive Therapy and Research, 14*(5), 449–468.

https://doi.org/10.1007/BF01172967

Gao, S., Assink, M., Cipriani, A., & Lin, K. (2017). Associations between rejection

sensitivity and mental health outcomes: A meta-analytic review. *Clinical

Psychology Review*, 57, 59-74.

Gardner, W. L., Gabriel, S., & Lee, A. Y. (1999). "I" value freedom, but "we" value

relationships: Self-construal priming mirrors cultural differences in judgment.

Psychological Science, 10, 321–326.

Greenberg, S. T., & Schoen, E. G. (2008). Males and eating disorders: Gender-based

therapy for eating disorder recovery. Professional Psychology: *Research and

Practice, 39*(4), 464–471. https://doi.org/10.1037/0735-7028.39.4.464

Haikal, M., & Hong, R. Y. (2010). The effects of social evaluation and looming threat on

self-attentional biases and social anxiety. *Journal of Anxiety Disorders, 24*(3),

345–352. https://doi.org/10.1016/j.janxdis.2010.01.007

Hamachek, D. E. (1978). Psychodynamics of normal and neurotic perfectionism.

Psychology: A Journal of Human Behavior, 15(1), 27–33.

Heimberg, R. G., Brozovich, F. A., & Rapee, R. M. (2010). A cognitive behavioral model

of social anxiety disorder. In Social Anxiety (pp. 395–422). Elsevier.

https://doi.org/10.1016/B978-0-12-375096-9.00015-8

Helgeson, V. S., & Fritz, H. L. (1998). A theory of unmitigated communion. *Personality

and Social Psychology Review,* 2, 173–183.

Hewitt, P. L., & Flett, G. L. (1991). Perfectionism in the self and social contexts:

Conceptualization, assessment, and association with psychopathology. *Journal of Personality and Social Psychology*, *60*(3), 456–470. https://doi.org/10.1037/0022-3514.60.3.456

Hewitt, P. L., Flett, G. L., Sherry, S. B., Habke, M., Parkin, M., Lam, R. W., McMurtry, B., Ediger, E., Fairlie, P., & Stein, M. B. (2003). The interpersonal expression of perfection: Perfectionistic self-presentation and psychological distress. *Journal of Personality and Social Psychology, 84*(6), 1303–1325. https://doi.org/10.1037/0022-3514.84.6.1303

Hewitt, P. L., Flett, G. L., Turnbull-Donovan, W., & Mikail, S. F. (1991). The multidimensional perfectionism Scale: reliability, validity, and psychometric properties in psychiatric samples. *Psychological Assessment: A Journal of Consulting and Clinical Psychology, 3*(3), 464–468. https://doi.org/10.1037/1040-3590.3.3.464

Hewitt, P. L., Habke, A. M., Lee-Baggley, D. L., Sherry, S. B., & Flett, G. L. (2008). The impact of perfectionistic self-presentation on the cognitive, affective, and physiological experience of a clinical interview. *Psychiatry: Interpersonal and Biological Processes, 71*(2), 93–122. https://doi.org/10.1521/psyc.2008.71.2.93

Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review, 94*, 319–340. http://dx.doi.org/10.1037/0033- 295X.94.3.319

Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. In M. P. Zanna (Ed.), Advances in experimental social psychology (pp. 1–46). New York, NY: Academic Press Inc. http://dx.doi.org/10.1016/S0065-2601(08)60381-0

Hill, R., Huelsman, T., Furr, R., Kibler, J., Vicente, B., & Kennedy, C. (2004). A new

measure of perfectionism: The perfectionism inventory. *Journal of Personality Assessment, 82*, 80-91. 10.1207/s15327752jpa8201_13

Hofmann S. G. (2007). Cognitive factors that maintain social anxiety disorder: a comprehensive model and its treatment implications. *Cognitive Behaviour Therapy, 36*(4), 193–209. https://doi.org/10.1080/16506070701421313

Horney, K. (1937). The neurotic personality of our time. W. W. Norton & Co.

Jain, M. & Sudhir, P. (2010). Dimensions of perfectionism and perfectionistic self-presentation in social phobia*. Asian Journal of Psychiatry*, 3. 216-21. 10.1016/j.ajp.2010.08.006.

Juster, H., Heimberg, R., Frost, R., Holt, C., Mattia, J. & Faccenda, K. (1996). Social phobia and perfectionism. *Personality and Individual Differences,* 21, 403-410. 10.1016/0191-8869(96)00075-X.

Kang, M. J., Hsu, M., Krajbich, I. M., Loewenstein, G., McClure, S. M., Wang, J. T., & Camerer, C. F. (2009). The wick in the candle of learning: Epistemic curiosity activates reward circuitry and enhances memory. *Psychological Science, 20*(8), 963–973. https://doi.org/10.1111/j.1467-9280.2009.02402.x

Kashdan, T. B., Rose, P., & Fincham, F. D. (2004). Curiosity and exploration: facilitating positive subjective experiences and personal growth opportunities. *Journal of Personality Assessment, 82*(3), 291–305. https://doi.org/10.1207/s15327752jpa8203_05

Kashdan, T., Afram, A., Brown, K., Birnbeck, M., & Drvoshanov, M. (2011). Curiosity enhances the role of mindfulness in reducing defensive responses to existential threat. *Personality and Individual Differences, 50,* 1227-1232. 10.1016/j.paid.2011.02.015.

Kashdan, T. B., Sherman, R. A., Yarbro, J., & Funder, D. C. (2013). How are curious

people viewed and how do they behave in social situations? From the perspectives of self, friends, parents, and unacquainted observers: Curious people in social situations. *Journal of Personality*, *81*(2), 142–154. https://doi.org/10.1111/j.1467-6494.2012.00796.x

Kegan, R. (1982). The evolving self: Problem and process in human development. Cambridge, MA: Harvard University Press.

Kidd, C., & Hayden, B. Y. (2015). The psychology and neuroscience of curiosity. *Neuron*, *88*(3), 449–460. https://doi.org/10.1016/j.neuron.2015.09.010

Kim, H., & Markus, H. R. (1999). Deviance or uniqueness, harmony or conformity? A cultural analysis. *Journal of Personality and Social Psychology*, 77, 785–800.

Klibert, J., Langhinrichsen-Rohling, J., & Saito, M. (2005). Adaptive and maladaptive aspects of self-oriented versus socially prescribed perfectionism. *Journal of College Student Development. 46,* 141-156. 10.1353/csd.2005.0017.

Krapp, A. (1999). Interest, motivation and learning: An educational-psychological perspective. *European Journal of Psychology of Education, 14*(1), 23–40. https://doi.org/10.1007/BF03173109

Kring, A. M., & Bachorowski, J. A. (1999). Emotions and psychopathology. *Cognition and Emotion,* 13, 575–599. http://dx.doi.org/10.1080/ 026999399379195

Kwon P. (2000). Hope and dysphoria: the moderating role of defense mechanisms. *Journal of Personality, 68*(2):199–223.

Lalwani, A., & Shavitt, S. (2009). The "me" I claim to be: Cultural self-construal elicits self-presentational goal pursuit. *Journal of Personality and Social Psychology*, *97*(1), 88–102. https://doi.org/10.1037/a0014100

Leary, M. R. (1983). A brief version of the fear of negative evaluation scale. *Personality*

and Social Psychology Bulletin, 9(3), 371–375.
https://doi.org/10.1177/0146167283093007

Leary, M. R., Tate, E. B., Adams, C. E., Allen, A. B., & Hancock, J. (2007). Self-compassion and reactions to unpleasant self-relevant events: The implications of treating oneself kindly. *Journal of Personality and Social Psychology,* 92, 887–904.

Levinson, C. A., Rodebaugh, T. L., White, E. K., Menatti, A. R., Weeks, J. W., Iacovino, J. M., & Warren, C. S. (2013). Social appearance anxiety, perfectionism, and fear of negative evaluation. Distinct or shared risk factors for social anxiety and eating disorders? *Appetite*, 67, 125–133. https://doi.org/10.1016/j.appet.2013.04.002

Litman, J. A. (2005). Curiosity and the pleasures of learning: Wanting and liking new information. *Cognition and Emotion, 19*(6), 793–814.
https://doi.org/10.1080/02699930541000101

Loevinger, J. (1976). Ego development. San Francisco: Jossey-Bass.

Loewenstein, G. (1994). The psychology of curiosity: A review and reinterpretation. *Psychological Bulletin, 116*(1), 75–98. https://doi.org/10.1037/0033-2909.116.1.75

Luthar, S. S., & Barkin, S. H. (2012). Are affluent youth truly "at risk"? Vulnerability and resilience across three diverse samples. *Development and psychopathology, 24*(2), 429–449. https://doi.org/10.1017/S0954579412000089

Lyman, E., & Luthar, S. (2014). Further evidence on the "costs of privilege": perfectionism in high-achieving youth at socioeconomic extremes. *Psychology in the Schools*, *51*(9), 913–930. https://doi.org/10.1002/pits.21791

Macaskill, A., & Denovan, A. (2014) Assessing psychological health: the contribution of psychological strengths. *British Journal of Guidance & Counselling, 42(*3), 320-

337, DOI: 10.1080/03069885.2014.898739

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*(2), 224–253. https://doi.org/10.1037/0033-295X.98.2.224

Martin, K. A., Leary, M. R., & Rejeski, W. J. (2000). Self-presentational concerns in older adults: Implications for health and well-being. *Basic and Applied Social Psychology,* 22, 169–179.

Mason, T. B., Pearson, C. M., Lavender, J. M., Wonderlich, S. A., Crosby, R. D., Erickson, A. L., Mitchell, J. E., Crow, S. J., Smith, T. L., Klein, M. H., & Peterson, C. B. (2016). Examining the role of self-discrepancy and self-directed style in bulimia nervosa. *Psychiatry Research,* 244, 294 –299. http://dx.doi.org/10.1016/j.psychres.2016.07 .056

Mason, T., Smith, K., Engwall, A., Lass, A., Mead, M., Sorby, M., Bjorlie, K., Strauman, T., & Wonderlich, S. (2019). Self-discrepancy theory as a transdiagnostic framework: A meta-analysis of self-discrepancy and psychopathology. *Psychological Bulletin*, *145*(4), 372–389. https://doi.org/10.1037/bul0000186

Mathew, J., Dunning, C., Coats, C., & Whelan, T. (2014). The mediating influence of hope on multidimensional perfectionism and depression. *Personality and Individual Differences, 70*, 66–71. 10.1016/j.paid.2014.06.008.

Mehrabian, A. (1970). A semantic space for nonverbal behavior. *Journal of Consulting and Clinical Psychology, 35*(2), 248–257. https://doi.org/10.1037/h0030083

Mills, J., & Blankstein, K. R. (2000). Perfectionism, intrinsic vs extrinsic motivation, and motivated strategies for learning: A multidimensional analysis of university students. *Personality and Individual Differences, 29(*6), 1191–1204.

https://doi.org/10.1016/S0191-8869(00)00003-9

Montoya, R. M., & Pittinsky, T. L. (2011). When increased group identification leads to outgroup liking and cooperation: The role of trust. *Journal of Social Psychology*, 151, 784–806.

Moroz, M., & Dunkley, D. M. (2019). Self-critical perfectionism, experiential avoidance, and depressive and anxious symptoms over two years: A three-wave longitudinal study. *Behaviour Research and Therapy*, 112, 18–27. https://doi.org/10.1016/j.brat.2018.11.006

Neff, K. D. (2003). Self-Compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self and Identity, 2(*2), 85–101. https://doi.org/10.1080/15298860309032

Noble, C. L., Ashby, J. S., & Gnilka, P. B. (2014). Multidimensional perfectionism, coping, and depression: Differential prediction of depression symptoms by perfectionism type. *Journal of College Counseling, 17*(1), 80–94. https://doi.org/10.1002/j.2161-1882.2014.00049.x

Olivardia, R., Pope, H., Borowiecki, J., & Cohane, G. (2004). Biceps and body image: The relationship between muscularity and self-esteem, depression, and eating disorder symptoms. *Psychology of Men and Masculinity*, 5, 112-120.

Ociskova, M., Prasko, J., Kamaradova, D., Grambal, A., Kasalova, P., Sigmundova, Z., Latalova, K., & Vrbova, K. (2015). Coping strategies, hope, and treatment efficacy in pharmacoresistant inpatients with neurotic spectrum disorders. *Neuropsychiatric Disease and Treatment*, 11, 1191–1201. https://doi.org/10.2147/NDT.S80325

Parker, A. G., Boldero, J. M., & Bell, R. C. (2006). Borderline personality disorder

features: The role of self-discrepancies and self-complexity. *Psychology and Psychotherapy: Theory, Research and Practice,* 79, 309–321. http://dx.doi.org/10.1348/147608305X70072

Piaget, J. (1970). Piaget's theory. In P. Mussen (Ed.), Carmichael's manual of child psychology (pp.703–732). New York: John Wiley.

Rhéaume, J., Freeston, M. H., Ladouceur, R., Bouchard, C., Gallant, L., Talbot, F., & Vallières, A. (2000). Functional and dysfunctional perfectionists: are they different on compulsive-like behaviors? *Behaviour Research and Therapy, 38*(2), 119–128. https://doi.org/10.1016/s0005-7967(98)00203-4

Rice, K. G., Ashby, J. S., & Slaney, R. B. (1998). Self-esteem as a mediator between perfectionism and depression: A structural equations analysis. *Journal of Counseling Psychology, 45*(3), 304–314. https://doi.org/10.1037/0022-0167.45.3.304

Rice, K. G., & Ashby, J. S. (2007). An efficient method for classifying perfectionists. *Journal of Counseling Psychology, 54*(1), 72–85. https://doi.org/10.1037/0022-0167.54.1.72

Rice, K. G., & Lapsley, D. K. (2001). Perfectionism, coping, and emotional adjustment. *Journal of College Student Development, 42*(2), 157–168.

Rice, K. G., & Dellwo, J. P. (2002). Perfectionism and self-development: Implications for college adjustment. *Journal of Counseling & Development, 80*(2), 188–196. https://doi.org/10.1002/j.1556-6678.2002.tb00182.x

Robitschek, C. (1998). Personal growth initiative: The construct and its measure. *Measurement and Evaluation in Counseling and Development,* 30, 183–198.

Romero-Canyas, R., Downey, G., Berenson, K., Ayduk, O., & Kang, N. J. (2010).

Rejection sensitivity and the rejection-hostility link in romantic relationships. *Journal of Personality, 78*(1), 119–148. https://doi.org/10.1111/j.1467-6494.2009.00611.x

Rosser, S., Issakidis, C. & Peters, L. Perfectionism and social phobia: Relationship between the constructs and impact on cognitive behavior therapy. *Cognitive Therapy and Research,* 27, 143–151 (2003). https://doi.org/10.1023/A:1023505108426

Ryff C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well- being. *Journal of Personality and Social Psychology*, 57, 1069–1081.

Saboonchi, F., & Lundh, L.-G. (1997). Perfectionism, self-consciousness and anxiety. *Personality and Individual Differences, 22*(6), 921–928. https://doi.org/10.1016/S0191-8869(96)00274-7

Saboonchi, F., Lundh, L., & Ost, L. (1999) Perfectionism and self-consciousness in social phobia and panic disorder with agoraphobia. *Behaviour Research and Therapy*, *37*, 799–808.

Schafer, J.L., & Graham, J.W. (2002). Missing data: our view of the state of the art. *Psychological Methods, 7*(2), 147-77.

Schlenker, B. R., & Leary, M. R. (1982). Social anxiety and self-presentation: a conceptualization and model. *Psychological Bulletin, 92*(3), 641–669. https://doi.org/10.1037/0033-2909.92.3.641

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 55*(1), 5–14. https://doi.org/10.1037/0003-066X.55.1.5

Shafran, R., & Mansell, W. (2001). Perfectionism and psychopathology: A review of

research and treatment. *Clinical Psychology Review, 21*(6), 879–906.

https://doi.org/10.1016/S0272-7358(00)00072-6

Shafran, R., Coughtrey, A., & Kothari, R. (2016). New frontiers in the treatment of

perfectionism. *International Journal of Cognitive Therapy, 9*(2), 156–170.

https://doi.org/10.1521/ijct.2016.9.2.156

Sharma, M., & Garg, D. (2016). Personal growth as a correlate of gratitude, hope and

curiosity among college students. *Indian Journal of Positive Psychology, 7*(2),

201-205. doi:10.15614/ijpp/2016/v7i2/122100

Shorey, H., Little, T., Snyder, C., Kluck, B., & Robitschek, C. (2007). Hope and personal

growth initiative: A comparison of positive, future-oriented constructs.

Personality and Individual Differences, 43, 1917-1926.

10.1016/j.paid.2007.06.011.

Shorey, H., Snyder, C., Rand, K., & Hockemeyer, J. (2002). Somewhere over the

rainbow: Hope theory weathers its first decade. *Psychological Inquiry, 13,* 322-

331. 10.1207/S15327965PLI1304_03.

Shumaker, E. A., & Rodebaugh, T. L. (2009). Perfectionism and social anxiety:

Rethinking the role of high standards. *Journal of Behavior Therapy and

Experimental Psychiatry, 40*(3), 423–433.

https://doi.org/10.1016/j.jbtep.2009.04.002

Silvia, P. J., & Kashdan, T. B. (2009). Interesting things and curious people: Exploration

and engagement as transient states and enduring strengths. *Social and Personality

Psychology Compass, 3*(5), 785–797. https://doi.org/10.1111/j.1751-

9004.2009.00210.x

Slade, P. D., & Owens, R. G. (1998). A dual process model of perfectionism based on

reinforcement theory. *Behavior Modification*, *22*(3), 372–390.

https://doi.org/10.1177/01454455980223010

Slaney, R. B., & Ashby, J. S. (1996). Perfectionists: Study of a criterion group. *Journal of Counseling & Development, 74*(4), 393–398. https://doi.org/10.1002/j.1556-6676.1996.tb01885.x

Snyder, C. R. (2002). Hope theory: Rainbows of the mind. *Psychological Inquiry, 13*, 249–275.

Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., Yoshinobu, L., Gibb, J., Langelle, C., & Harney, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology, 60*(4), 570–585. https://doi.org/10.1037/0022-3514.60.4.570

Snyder, C. R., Shorey, H. S., Cheavens, J., Pulvers, K. M., Adams, V. H. III, & Wiklund, C. (2002). Hope and academic success in college. *Journal of Educational Psychology, 94*(4), 820–826. https://doi.org/10.1037/0022-0663.94.4.820

Stanford, S. C., & Lemberg, R. (2012). Measuring eating disorders in men: development of the eating disorder assessment for men (EDAM). *Eating disorders, 20*(5), 427–436. https://doi.org/10.1080/10640266.2012.715522

Stapel, D. A., & Koomen, W. (2001). I, we, and the effects of others on me: How self-construal level moderates social comparison effects. *Journal of Personality and Social Psychology*, 80, 766–781.

Stoeber, J., & Otto, K. (2006). Positive conceptions of perfectionism: approaches, evidence, challenges. *Personality and Social Psychology Review, 10*(4), 295–319. https://doi.org/10.1207/s15327957pspr1004_2

Stoeber, J., Harris, R.A., & Moon, P. (2007). Perfectionism and the experience of pride,

shame, and guilt: Comparing healthy perfectionists, unhealthy perfectionists, and non-perfectionists. *Personality and Individual Differences*, *43*, 131-141.

Stoeber, J., & Rambow, A. (2007). Perfectionism in adolescent school students: Relations with motivation, achievement, and well-being. *Personality and Individual Differences, 42*(7), 1379-1389.

Stoeber, J., & Stoeber, F. (2009). Domains of perfectionism: Prevalence and relationships with perfectionism, gender, age, and satisfaction with life. *Personality and Individual Differences*, *46*(4), 530–535. https://doi.org/10.1016/j.paid.2008.12.006

Stoeber, J. (2018a). The psychology of perfectionism: Critical issues, open questions, and future directions. In J. Stoeber (Ed.), The psychology of perfectionism: Theory, research, applications (pp. 333-352). London: Routledge.

Stoeber, J. (2018b). Comparing two short forms of the Hewitt–Flett multidimensional perfectionism scale. *Assessment, 25(*5), 578–588. https://doi.org/10.1177/1073191116659740

Stumpf, H., & Parker, W. D. (2000). A hierarchical structural analysis of perfectionism and its relation to other personality characteristics. *Personality and Individual Differences, 28*(5), 837–852. https://doi.org/10.1016/S0191-8869(99)00141-5

Suh, H., Gnilka, P. B., & Rice, K. G. (2017). Perfectionism and well-being: A positive psychology framework. *Personality and Individual Differences, 111*, 25–30. https://doi.org/10.1016/j.paid.2017.01.041

Taylor S. (1993). The structure of fundamental fears. *Journal of Behavior Therapy and Experimental Psychiatry, 24*(4), 289–299. https://doi.org/10.1016/0005-7916(93)90053-y

Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological

perspective on mental health. *Psychological Bulletin*, 103, 193–210.

Terry-Short, L. A., Glynn Owens, R., Slade, P. D., & Dewey, M. E. (1995). Positive and

negative perfectionism. *Personality and Individual Differences, 18*(5), 663–668.

https://doi.org/10.1016/0191-8869(94)00192-U

van Baaren, R. B., Maddux, W. W., Chartrand, T. L., de Bouter, C., & van Knippenberg,

A. (2003). It takes two to mimic: Behavioral consequences of self-construal's.

Journal of Personality and Social Psychology, 84, 1093–1102.

Watson, N., Bryan, B. C., & Thrash, T. M. (2014). Change in self- discrepancy, anxiety,

and depression in individual therapy. *Psychotherapy: Theory, Research, &*

Practice, 51, 525–534. http://dx.doi.org/10 .1037/a0035242

Watson, D., & Friend, R. (1969). Measurement of social-evaluative anxiety. *Journal of*

Consulting and Clinical Psychology, 33(4), 448–457.

https://doi.org/10.1037/h002780633:448–457.

Wayment, H. A., Bauer, J. J., & Sylaska, K. (2015). The quiet ego scale: Measuring the

compassionate self-identity. *Journal of Happiness Studies: An Interdisciplinary*

Forum on Subjective Well-Being, 16(4), 999–1033.

https://doi.org/10.1007/s10902-014-9546-z

Wayment, H. A., & Bauer, J. (2008). Transcending self-interest: Psychological

explorations of the quiet ego. Washington, DC: American Psychological

Association.

Wayment, H. A., & Bauer, J. J. (2018). The quiet ego: Motives for self-other balance and

growth in relation to well-being. *Journal of Happiness Studies: An*

Interdisciplinary Forum on Subjective Well-Being, 19(3), 881–896.

https://doi.org/10.1007/s10902-017-9848-z

Wayment, H. A., West, T. N., & Craddock, E. B. (2016). Compassionate values as a

resource during the transition to college: Quiet ego, compassionate goals, and self-compassion. *Journal of the First-Year Experience & Students in Transition, 28*(2), 22.

Wayment, H. A., Wiist, B., Sullivan, B., & Warren, M. (2011). Doing and being: The relationship of mindfulness and mindfulness meditation to Buddhist's psychological and physical health. *Journal of Happiness Studies,* 12, 575–589.

Weeks, J. W., Heimberg, R. G., Fresco, D. M., Hart, T. A., Turk, C. L., Schneier, F. R., & Liebowitz, M. R. (2005). Empirical validation and psychometric evaluation of the brief fear of negative evaluation scale in patients with social anxiety disorder. *Psychological assessment, 17*(2), 179–190. https://doi.org/10.1037/1040-3590.17.2.179

Yap, K., Gibbs, A. L., Francis, A. J., & Schuster, S. E. (2016). Testing the bivalent fear of evaluation model of social anxiety: The relationship between fear of positive evaluation, social anxiety, and perfectionism. *Cognitive Behaviour Therapy, 45*(2), 136–149. https://doi.org/10.1080/16506073.2015.1125941

HEWITT-FLETT MULTIDIMENSIONAL PERFECTIONISM SCALE – SHORT

FORM (HFMPS-SF)

Hewitt et al., (2008)

INSTRUCTIONS: Listed below are a number of statements concerning personal characteristics and traits. Read each item and decide whether you agree or disagree & to what extent.

		Disagree						Agree
1.	One of my goals is to be perfect in everything I do	1	2	3	4	5	6	7
2.	Everything that others do must be of top-notch quality	1	2	3	4	5	6	7
3.	The better I do, the better I am expected to do	1	2	3	4	5	6	7
4.	I strive to be as perfect as I can be	1	2	3	4	5	6	7
5.	It is very important that I am perfect in everything I attempt	1	2	3	4	5	6	7
6.	I have high expectations for the people who are important to me	1	2	3	4	5	6	7
7.	I demand nothing less than perfection of myself	1	2	3	4	5	6	7
8.	I can't be bothered with people who won't strive to better themselves	1	2	3	4	5	6	7
9.	Success means that I must work even harder to please others	1	2	3	4	5	6	7
10.	If I ask someone to do something, I expect it to be done flawlessly	1	2	3	4	5	6	7
11.	I cannot stand to see people close to me make mistakes	1	2	3	4	5	6	7
12.	I must work to my full potential at all times	1	2	3	4	5	6	7
13.	My family expects me to be perfect	1	2	3	4	5	6	7
14.	People expect nothing less than perfection from me	1	2	3	4	5	6	7
15.	People expect more from me than I am capable of giving	1	2	3	4	5	6	7

APPENDIX B:

BRIEF FROST MULTIDIMENSIONAL PERFECTIONISM SCALE (BRIEF FMPS)

Cox et al., (2002)

Instructions: Please answer the following questions in relation to how much they apply to you. Do not spend too much time on any one question.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3. As a child, I was punished for doing things less than perfect.	1	2	3	4	5
6. It is important to me that I be thoroughly competent in everything I do.	1	2	3	4	5
7. I am a neat person.	1	2	3	4	5
9. If I fail at work/school, I am a failure as a person.	1	2	3	4	5
12. I set higher goals than most people.	1	2	3	4	5
13. If someone does a task at work/school better than I, then I feel like I failed the whole task.	1	2	3	4	5
14. If I fail partly, it is as bad as being a complete failure.	1	2	3	4	5
17. Even when I do something very carefully, I often feel that it is not quite right.	1	2	3	4	5
19. I have extremely high goals.	1	2	3	4	5
20. My parents have expected excellence from me.	1	2	3	4	5
22. I never felt like I could meet my parents' expectations.	1	2	3	4	5
23. If I do not do as well as other people, it means I am an inferior human being.	1	2	3	4	5
24. Other people seem to accept lower standards from themselves than I do.	1	2	3	4	5
25. If I do not do well all the time, people will not respect me.	1	2	3	4	5
26. My parents have always had higher expectations for my future than I have.	1	2	3	4	5
27. I try to be a neat person.	1	2	3	4	5
28. I usually have doubts about the simple everyday things I do.	1	2	3	4	5
29. Neatness is very important to me.	1	2	3	4	5
30. I expect higher performance in my daily tasks than most people.	1	2	3	4	5
31. I am an organized person.	1	2	3	4	5
32. I tend to get behind in my work because I repeat things over and over.	1	2	3	4	5
34. The fewer mistakes I make, the more people will like me.	1	2	3	4	5
35. I never felt like I could meet my parents' standards.	1	2	3	4	5

DEMOGRAPHIC INFORMATION QUESTIONNAIRE

In order to help us analyze the data we're collecting today; we need additional demographic information from you.

Age: _____

Sex:
- ☐ Female
- ☐ Male
- ☐ I prefer not to answer

Native language: _____

Education:
- ☐ Some high school
- ☐ High school diploma or equivalent
- ☐ Some college
- ☐ Bachelor's or associate degree
- ☐ M.A./M.S.
- ☐ M.D./J.D./PhD
- ☐ Other _____
- ☐ I prefer not to answer

Undergraduate/Graduate Major: _____

Year in Program (1st, 2nd, 3rd, etc.) _____

Household Income:
- ☐ below $20,000
- ☐ $20,000-35,000
- ☐ $35,000-50,000
- ☐ $50,000-75,000
- ☐ $75,000-100,000
- ☐ $100,000-125,000
- ☐ Above $125,000
- ☐ I prefer not to answer

Relationship Status:
- ☐ Single/never married
- ☐ Not married, but in a long-term relationship

☐ Married
☐ Separated
☐ Divorced
☐ Widowed
☐ I prefer not to answer

Do you have children?
☐ Yes
☐ No
☐ I prefer not to answer

If you have children, please describe the age and gender of each child:

Religious Affiliation:
☐ Catholicism
☐ Christianity
☐ Buddhism
☐ Hinduism
☐ Muslim
☐ Judaism
☐ Other
☐ None
☐ Check here if you do not wish to provide religious affiliation

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ETHNICITY

1. Do you consider yourself to be Hispanic or Latino? (see definition below) Select one. Hispanic or Latino: A person of Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin, regardless of race. The term "Spanish origin" can be used in addition to "Hispanic or Latino."
☐ YES
☐ NO
☐ I prefer not to answer

RACE

2. What race do you consider yourself to be? Select one or more of the following:
☐ **American Indian or Alaskan native**. A person having origins in any of the original peoples of North, Central or South America, and who maintains tribal affiliation or community attachment.
☐ **Asian**. A person having origins in any of the original peoples of the far East, Southeast Asia, or the Indian subcontinent, including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand and Vietnam (note: Individuals from the Philippine Islands have been recorded as Pacific islanders in previous data collection strategies)

☐ **Black or African American**. A person having origins in any of the racial groups of Africa. Terms such as "Haitian" or "Negro" can be used in addition to "Black" or "African American."

☐ **Native Hawaiian or other Pacific islander**. A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

☐ **White**. A person having origins in any of the original peoples of Europe, the Middle east, or North Africa.

☐ I prefer not to answer

CURIOSITY AND EXPLORATION INVENTORY (CEI)

Kashdan et al., (2004)

Using the scale shown below, please respond to each of the following statements according to how you would usually describe yourself. There are no right or wrong answers.

1	2	3	4	5	6	7
Strongly Disagree	**Disagree**	**Disagree Somewhat**	**Neither Agree nor Disagree**	**Agree Somewhat**	**Agree**	**Strongly Agree**

1. I would describe myself as someone who actively seeks as much information as I can in a new situation.

2. When I am participating in an activity, I tend to get so involved that I lose track of time.

3. I frequently find myself looking for new opportunities to grow as a person (e.g., information, people, resources).

4. I am not the type of person who probes deeply into new situations or things.

5. When I am actively interested in something, it takes a great deal to interrupt me.

6. My friends would describe me as someone who is "extremely intense" when in the middle of doing something.

7. Everywhere I go, I am out looking for new things or experiences.

Scoring:
Item 4 is reverse scored.
Items 1, 3, 4, and 7 make up the Exploration subscale.
Items 2, 5, 6, make up the Absorption subscale.

HOPE SCALE

Snyder et al., (1991)

Directions: Read each item carefully. Using the scale shown below, please enter the number that best describes you.

1 = definitely false
2 = mostly false
3 = mostly true
4 = definitely true

1. I can think of many ways to get out of a jam.

2. I energetically pursue my goals.

3. I feel tired most of the time.

4. There are lot of ways around a problem.

5. I am easily downed in an argument.

6. I can think of many ways to get the things in life that are most important to me.

7. I worry about my health.

8. Even when others get discouraged, I know I can find a way to solve a problem.

9. My past experiences have prepared me well for my future.

10. I've been pretty successful in life.

11. I usually find myself worrying about something.

12. I meet the goals that I set for myself.

QUIET EGO SCALE (QES)

Wayment et al., (2015)

Instructions: For each item, please answer using the scale below each statement.

1	2	3	4	5
Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**

1. I think it is important to have new experiences that challenge how you think about yourself and the world

2. I find myself doing things without paying much attention

3. I feel a connection to all living things

4. Before criticizing somebody, I try to imagine how I would feel if I were in their place

5. For me, life has been a continuous process of learning, changing, and growth

6. I do jobs or tasks automatically, without being aware of what I'm doing

7. I feel a connection with strangers

8. When I'm upset at someone, I usually try to put myself in his or her shoes for a while

9. I have the sense that I have developed a lot as a person over time

10. I rush through activities without being really attentive to them

11. I sometimes find it difficult to see things from another person's point of view

12. I feel a connection to people of other races

13. I try to look at everybody's side of a disagreement before I make a decision

14. When I think about it, I have really improved much as a person over the years.

BRIEF FEAR OF NEGATIVE EVALUATION – II (BFNE-II)

Carleton et al., (2006)

	Not at all characteristic of me	Slightly characteristic of me	Moderately characteristic of me	Very characteristic of me	Extremely characteristic of me
1. I worry about what other people will think of me even when I know it doesn't make any difference.	0	1	2	3	4
2. It bothers me when people form an unfavourable impression of me.	0	1	2	3	4
3. I am frequently afraid of other people noticing my shortcomings.	0	1	2	3	4
4. I worry about what kind of impression I make on people.	0	1	2	3	4
5. I am afraid that others will not approve of me.	0	1	2	3	4
6. I am afraid that other people will find fault with me.	0	1	2	3	4
7. I am concerned about other people's opinions of me.	0	1	2	3	4
8. When I am talking to someone, I worry about what they may be thinking about me.	0	1	2	3	4
9. I am usually worried about what kind of impression I make.	0	1	2	3	4
10. If I know someone is judging me, it tends to bother me.	0	1	2	3	4
11. Sometimes I think I am too concerned with what other people think of me.	0	1	2	3	4
12. I often worry that I will say or do wrong things.	0	1	2	3	4

REJECTION SENSITIVITY QUESTIONNAIRE, ADULT VERSION (A-RSQ)

Berenson et al., 2009

The items below describe situations in which people sometimes ask things of others. For each item, imagine that you are in the situation, and then answer the questions that follow it.						
1. You ask your parents or another family member for a loan to help you through a difficult financial time.						
How concerned or anxious would you be over whether or not your family would want to help you?	Very Unconcerned				Very Concerned	
	1	2	3	4	5	6
I would expect that they would agree to help as much as they can.	Very Unlikely				Very Likely	
	1	2	3	4	5	6
2. You approach a close friend to talk after doing or saying something that seriously upset him/her.						
How concerned or anxious would you be over whether or not your friend would want to talk with you?	Very Unconcerned				Very Concerned	
	1	2	3	4	5	6
I would expect that he/she would want to talk with me to try to work things out.	Very Unlikely				Very Likely	
	1	2	3	4	5	6
3. You bring up the issue of sexual protection with your significant other and tell him/her how important you think it is.						
How concerned or anxious would you be over his/her reaction?	Very Unconcerned				Very Concerned	
	1	2	3	4	5	6
I would expect that he/she would be willing to discuss our possible options without getting defensive.	Very Unlikely				Very Likely	
	1	2	3	4	5	6
4. You ask your supervisor for help with a problem you have been having at work.						
How concerned or anxious would you be over whether or not the person would want to help you?	Very Unconcerned				Very Concerned	
	1	2	3	4	5	6
I would expect that he/she would want to try to help me out.	Very Unlikely				Very Likely	
	1	2	3	4	5	6

5. After a bitter argument, you call or approach your significant other because you want to make up.						
How concerned or anxious would you be over whether or not your significant other would want to make up with you?	Very Unconcerned					Very Concerned
	1	2	3	4	5	6
I would expect that he/she would be at least as eager to make up as I would be.	Very Unlikely					Very Likely
	1	2	3	4	5	6

6. You ask your parents or other family members to come to an occasion important to you.						
How concerned or anxious would you be over whether or not they would want to come?	Very Unconcerned					Very Concerned
	1	2	3	4	5	6
I would expect that they would want to come.	Very Unlikely					Very Likely
	1	2	3	4	5	6

7. At a party, you notice someone on the other side of the room that you'd like to get to know, and you approach him or her to try to start a conversation.						
How concerned or anxious would you be over whether or not the person would want to talk with you?	Very Unconcerned					Very Concerned
	1	2	3	4	5	6
I would expect that he/she would want to talk with me.	Very Unlikely					Very Likely
	1	2	3	4	5	6

8. Lately you've been noticing some distance between yourself and your significant other, and you ask him/her if there is something wrong.						
How concerned or anxious would you be over whether or not he/she still loves you and wants to be with you?	Very Unconcerned					Very Concerned
	1	2	3	4	5	6
I would expect that he/she will show sincere love and commitment to our relationship no matter what else may be going on.	Very Unlikely					Very Likely
	1	2	3	4	5	6

9. You call a friend when there is something on your mind that you feel you really need to talk about.						
How concerned or anxious would you be over whether or not your friend would want to listen?	Very Unconcerned					Very Concerned
	1	2	3	4	5	6
I would expect that he/she would listen and support me.	Very Unlikely					Very Likely
	1	2	3	4	5	6

APPENDIX I:

VALIDITY AND RESPONSE ITEMS INCLUDED IN THE MEASURES

FMPS-Brief: All items will have a 6th scale option, "I prefer not to answer." A validity item, "I attend UHCL" (yes/no) will be included.

HFMPS-SF: All items will include an 8th scale option, "I prefer not to answer." Validity items will include, "I do not attend UHCL, (yes/no) (please list other institution) _____ *(text box will be included)"* and "I have a pet" (yes/no).

CEI: All items will have an 8th scale option, "I prefer not to answer."

Hope Scale: All items will include a 5th scale option, "I prefer not to answer." A validity item, "I do not have a pet" (yes/no), will be included

Quiet Ego Scale: All items will include a 6th scale option, "I prefer not to answer." Validity items will include, "I do not have a car," (yes/no) and "For this question, please select, "Disagree."

BFNE-II: All items will include a 6th scale option, "I prefer not to answer." Validity items will include, "I wear glasses" (yes/no), and "I never wear glasses" (yes/no).