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SPLITTING AS A CHARACTERISTIC OF PERFECTIONISM

By

David Brian Derr

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ABSTRACT

SPLITTING AS A CHARACTERISTIC OF PERFECTIONISM

By

David B. Derr

Dichotomous thinking has long been associated with perfectionism without empirical support. Splitting and dichotomous thinking are related constructs that are believed to influence perfectionists cognitive and affective processes. The purpose of the current study was to explore the relationship between perfectionism and splitting. 264 male and female university students completed a six part survey including the Almost Perfect Scale – Revised (APS-R), the Penn State Worry Scale (PSWS), the Center of Epidemiologic Studies – Depression scale (CES-D), and three versions of the Adjective Check List (ACL). Participants completed ACLs describing their true, ideal, and projected self-perceptions. Raw scores from each version of the ACL were converted into standard scores and combined to create 8 personality scales. Splitting was estimated as the sum of the eight scale scores consisting of the absolute difference of the scores between (1.) the True-Self and Ideal-Self resulting in the dependent variable “Internal Conflict Splitting” and (2.) the True-Self and the Projected-Self yielding the dependent variable “Attribution Splitting.” Higher scores indicated a greater tendency to split. A correlation matrix was created to test for a significant relationship between APS-R Discrepancy (maladaptive perfectionism [MP]), APS-R High Standards (adaptive perfectionism [AP]), and the two forms of

splitting. A one way ANOVA, Tukey comparison, and KWANOVA were used to detect order effects from six instrument combinations.

The results indicate that MP is significantly associated with internal conflict splitting, attribution splitting, anxiety, depression, and High Standards. AP is significantly negatively related to internal conflict splitting and Discrepancy, and positively associated with anxiety. Anxiety and depression significantly mediate MP and internal conflict splitting, whereas only anxiety significantly mediates MP and attribution splitting. Results of an exploratory analysis between APS-R High Standards and the splitting types yielded a suppressor variable effect with anxiety on AP and internal conflict splitting

The findings provide empirical support for the use of dichotomous thinking by maladaptive perfectionists. The mediation effects of anxiety and depression generally support historical research of perfectionism. An interesting finding is the inverse relationship between adaptive perfectionism and internal conflict splitting. The suppressor effect of anxiety on High Standards in relation to internal conflict splitting was also a surprise. This study highlighted the effect of anxiety on MP and AP and may suggest a greater focus on the affective aspects of perfectionism for enhancing the effectiveness of treatment of perfectionism.

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DEDICATION

This work is dedicated to my parents. To my mother, who instilled in me a constant interest in learning all things new, and to my father, for passing along his passion for creating. I would also would like to dedicate this dissertation to perfectionists everywhere, who struggle to live a rich and full life without the ever-present fear of failure.

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CHAPTER 1

"Have no fear of perfection. You'll never reach it."

~Salvador Felipe Jacinto Dali~

"If a man should happen to reach perfection in this world, he would have to die immediately to enjoy himself."

~Josh Billings~

"Striving to better, oft we mar what's well."

~William Shakespeare ~

Introduction

Perfectionism is a pervasive construct that has been blamed and heralded for its effect on the world. There can be no question however, of its more negative aspects. In studies from 1982 to the present, perfectionism has been implicated in a wide range of psychological disturbances including eating disorders (Axtell & Newlon, 1993; Brouwers & Wiggum, 1993; Fairburn, Shafran & Cooper, 1999; Slade, 1982), suicide and suicidal ideation (Hamilton & Schweitzer, 2000; Hewitt, Newton, Flett & Callender, 1997; Hewitt, Flett & Weber, 1994), social phobia (Antony, Purdon, & Swinson, 1998), anxiety (Alden, Bieling, & Wallace, 1994; Blatt, 1995; Blatt, Quinlin, Pilkonis, & Shea, 1995; Flett, Hewitt, & Dyck, 1989; Hill, McIntire, & Bacharach, 1997; Lynd-Stevenson & Hearne, 1999), worry (Juster, Heimberg, Frost, Holt, Mattia, & Faccenda, 1996, Kawamura, Hunt, Frost, & DiBartolo, 2001; Stöber & Joorman, 2001) and obsessive-compulsive disorder (Broday, 1988; Frost, Steketee, Cohn, & Griess, 1994; Rheuma, Freeston, Dugas, Letarte & Ladouceur, 1995). Perfectionism

has been associated with depression (Blatt, 1995; Blatt et al., 1995; Hill et al., 1997; Lynd-Stevenson & Hearne, 1999), personality types such as Type A behavior (Flett, Hewitt, Blankstein & Dynin, 1994), and personality disorders such as obsessive compulsive personality disorder (Shafram & Mansell, 2001).

Perfectionism has been associated with procrastination, clinical symptoms of psychopathology (Hill, Zrull, & Turlington, 1997), low self-esteem (Rice, Ashby, & Slaney, 1998), and insomnia (Parker, 1997). Perfectionism has also been implicated in a number of somatic diagnoses including migraine headaches (Blatt, 1995; Brewerton & George, 1993), erectile dysfunction (Qualand, 1980), Munchausen syndrome, irritable bowel syndrome, abdominal pain in children, dysmorphophobia, and ulcerative colitis (Pacht, 1984). More recent studies have found that perfectionism plays a role in burnout of competitive tennis players (Gould, Udry, Tuffy & Loehr, 1996), fatigue in career mothers (Michelson & Burns, 1998), weariness in night shift workers (Magnusson, Nias, & White, 1996), and increased severity of head pain in children and adolescents identified with chronic headaches (Kowal & Pritchard, 1990).

Perfectionism has traditionally been labeled with a variety of attributes. Hamachek (1978) described the “neurotic” and “normal” dimensions of perfectionism. Perfectionism has been differentiated into “positive” and “negative” qualities (Slade & Owens, 1998) or “passive” and “active” (Lynd-Stevenson & Hearne, 1999). Other researchers have delineated perfectionistic tendencies into “adaptive” benefits and “maladaptive” deficits (Slaney, Ashby, & Trippi, 1995; Rice & Dellwo, 2002).

In their attempts to further explore and refine their understanding of maladaptive perfectionism, researchers have created a construct labeled "Discrepancy" defined as "...the perception that one consistently fails to meet the high standards one has set for oneself" (Slaney, Rice, & Ashby, 2002, p. 69). Slaney et al. found that discrepancy is positively associated with negative psychological states including depression, anxiety, and distress. Positive psychological states including achievement and self-esteem appear to be negatively correlated with discrepancy.

Incongruity of internalized standards has also been the focus of research in the area of self-discrepancy theory. Higgins (1987) and Higgins, Tykocinsky, and Vookles (1990) propose that people are comprised of evaluative psychic systems bounded by standards. Individuals evaluate themselves according to self-imposed standards (e.g., evaluating a perception of self against an idealized concept of self) or the introjected standards of others (e.g., evaluating a perceived self-concept against the injunctive evaluations of significant others). Several empirical studies appear to support the correlation between discrepant self-standards and emotional distress (Hankin, Roberts, & Gotlib, 1997; Higgins, Klein, & Strauman, 1985; Scott & O'Hara, 1993; Strauman, 1989).

Discrepancy, as defined by Slaney et. al. (2001), appears to empirically support the proposition by researchers and theorists that perfectionists may strive to attain unattainable goals prompted by high personal standards. It is thought that these unattainable goals manifest themselves as "shouldisms" in

perfectionists' psyche, creating a pattern of divided or dichotomous thinking. For example, perfectionists may earn a better than average score on an exam yet feel disappointed for not having achieved their goal of earning a superior score. These individuals tend to focus on what they "should" have earned and the resulting disappointment at not having met their own high standards. The larger the perceived gap or discrepancy created between actual achievement and idealized goal, the greater the likelihood of internalized conflict.

Literature on self-discrepancy and perfectionism suggests that the greater the difference between how individuals actually view themselves versus their imagined ideal selves, the greater the propensity for emotional distress. Self-discrepancy theory examines emotional ambiguity created by differences in the perception of actual versus ideal selves. A study by Hankin et al. (1997) linked the construct of perfectionism as described by Hewitt and Flett (1991a, 1991b) with self-discrepancy theory. Adolescents in the study were assessed on three dimensions of perfectionism: self-oriented perfectionism (SOP) defined as an internal locus of high standards and motivation, socially prescribed perfectionism (SPP) involving an external locus of high standards and expectations for oneself, and other-oriented perfectionism (OOP) concerning unreasonable expectations and high standards directed toward significant relationships. The researchers concluded that excessive internalized standards are associated with emotional distress. Specifically, the study revealed that individuals with SOP and actual/ideal discrepancies were uniquely prone to depressive symptoms. Adolescents with SOP and actual/other discrepancies were given to symptoms of

anxiety. Participants with SPP were more likely to experience general emotional distress than either anxiety or depression exclusively. These findings have also been empirically supported in studies by Scott and O'Hara (1993) and Strauman (1989). It is a thesis of this study that maladaptive perfectionism is associated with negative emotions including anxiety and depression and discrepant states of self-perception.

Splitting is a form of dichotomous thinking in which an individual identifies with one thought over another. Patterns of preferential splitting are seen as a root of psychological difficulty. Individuals with perfectionistic tendencies may favor the self-depreciating "shoulds" created by expectations of high standards of performance rather than finding satisfaction in simply doing well. The literature on splitting indicates that individuals may utilize a defense mechanism of splitting and dichotomous thinking in order to avoid, alleviate, and/or reduce emotional distress created by discrepant views of self. Given this theoretical foundation, investigation into the nature of splitting and its role in perpetuating dichotomous thinking in perfectionists might offer further understanding into the mechanisms that sustain perfectionism. Insight into these mechanisms may provide greater understanding into psychotherapeutic interventions that may be administered to diminish the effects of maladaptive perfectionism. It is therefore posited that splitting is a psychological mechanism that is engaged when maladaptive perfectionists experience dysphoria resulting from incongruent states of self-perception.

Gestalt therapy is a psychotherapeutic orientation in which dichotomous

thinking and splitting are targeted as roots of pathology as well as vehicles for change. Perls, Hefferline, and Goodman (1951, 1994) recognized the natural creation of polarities within the individual as the inevitable process of differentiation and Gestalt formation and destruction (the cycle of awareness and satiation of needs). Without the smooth capitulation of the change process, differentiation does not occur and rigid polarities may form. It is thought that splitting has its origins in early development. Children are aware that they are highly dependent upon their parents for primary needs of love and affection. Some children may view their parental bond as fragile and the world as unsafe. In order to survive, these children may feel that they must control themselves in order to manipulate their environment. They may feel that an expression of anger toward a parent may endanger their ability to obtain continued emotional support. These children may decide to control and suppress their feelings in favor of obtaining continued parental love and support. Dichotomous thinking or splitting is the resulting intrapsychic mechanism that enables individuals to override their emotions with rationalizations that are perceived necessary for survival. Splitting may also have the effect of organizing feelings into polarities, such as "all good" or "all bad". This may enable the child to associate "all good" feelings with their parents while diminishing "all bad" feelings that may cause anger and threaten the child/parent bond. If the child feels that suppressing their feelings is successful in getting what they require, they will continue to split as the need arises. As the child matures, these polarities become patterns of behavior that are reinforcing, thereby robbing the individual of the energy and resources

needed to engage in the demands and possibilities of the present (Fagan & Shepherd, 1970).

Gestalt therapy offers a perspective in which both ends of a polar system are accepted and preference of either is deemed appropriate in certain situations. For example, Gestalt therapy views constructs such as love and hate as valid emotions and appropriate in specific contexts. Healthy individuals are seen as those who are able to integrate their experiences into a wide continuum of polarities. Gestalt therapy offers a therapeutic approach in which to honor and reify splits as a natural phenomenon rather than eradicate them as is the goal of more cognitively oriented therapies. A further advantage of the Gestalt therapy philosophy of change is that it provides the practitioner with “experiments” or activities that are specifically designed to ameliorate the adverse effects of splitting.

A “two-chair” experiment is a therapeutic activity in which an individual is instructed to role-play a polarity by enacting the two parts using two chairs facing each other. Role-playing one of the ends of a polarity, the individual is instructed to have a conversation with the opposite pole, as if it were actually in the facing chair. The client is prompted to move back and forth between the roles as the conversation develops. By encouraging the client to more fully experience the oppositional poles, the opportunity for the individual to become more aware of how the poles interact and struggle against each other increases. Catharsis may occur when the individual is able to recognize how both poles may benefit the client, depending upon the context and situation in which the polarity is engaged.

It should be noted however, that Gestalt therapists believe that each person experiences themselves and their environment in a way that is uniquely different from others. Therefore, a Gestalt experiment that may be effective with one individual may have no usefulness with another individual.

In total, Gestalt therapy may provide an appropriate theoretical ground from which to better understand splitting mechanisms that drive perfectionism as well as offer specific therapeutic methods for improving its maladaptive qualities.

Problem Statement

Most empirical research on perfectionism has focused on distilling cognitive aspects that define the nature and dimensionality of the construct. Perfectionism has been linked to three cognitive qualities of overgeneralization, overly moralistic self-evaluation, and dichotomous thinking (Sorotzkin, 1985). To date, no empirical investigation has validated these attributes. The literature suggests that dichotomous thinking (splitting) is an especially important characteristic to investigate. This construct is seen as a key mechanism to pathology in many psychotherapeutic approaches. Empirical validation of a correlation between perfectionism and dichotomous thinking may add to current attempts to define the construct by increasing theoretical understanding of the maladaptive mechanisms underlying perfectionism.

Purpose

The primary purpose of this study is to investigate the proposition by many theorists and practitioners that individuals identified as “maladaptive” perfectionists frequently engage in a deleterious pattern of dichotomous thinking

or splitting. If it can be shown that perfectionists have a tendency to dichotomize or split their view of themselves (e.g. "I am inferior (or average) and should perform at a higher level."), and that splitting is a consistent cognitive/affective pattern, then it follows that interventions aimed at integrating these splits could potentially ameliorate poor self-concept, increase self-esteem, lower stress and improve performance. Improvements in these areas of the psyche may serve to reduce the harmful consequences of perfectionistic splitting.

A further purpose of this study is to investigate the underlying processes by which maladaptive perfectionism and splitting are related. Past studies have suggested a relationship between maladaptive perfectionism, affect, and splitting. This study will explore the thesis that affect mediates maladaptive perfectionism and splitting.

By virtue of its principal emphasis on phenomenological fields, polarities, and their influence on cognitive/affective linkages, Gestalt therapy offers a theoretical foundation that appears especially appropriate from which to examine and understand the nature of dichotomous thinking and splitting. Identifying and explicating the polarities of perfectionists may serve to illuminate underlying intrapsychic schemes affecting these individuals' ability to self-regulate affect and cognition as well as determine ways in which to activate effective coping mechanisms. Gestalt therapy provides a virtual elixir of theory and theory-derived techniques from which to understand and treat splitting, and therefore splitting associated with maladaptive perfectionism.

CHAPTER 2

A Review of Related Literature

This review first examines perfectionism as defined by typological, theoretical, and characterological aspects. Three distortions of thinking that plague perfectionists are explored, with a particular focus on dichotomous thinking. Dichotomous thinking and a related construct, splitting, are described and defined. The relevance of self-discrepancy theory is examined in relation to perfectionism and splitting. Instruments used in assessing splitting are reviewed with a particular focus on the Adjective Check List (ACL). Splitting and its theoretical relevance to perfectionism are described. Gestalt therapy and its functional explanation of how splitting occurs within organismic fields is illustrated. The role of polarities and the intrapsychic organization and dynamics of Perls' "Topdog" and "Underdog" system of a split phenomenological field are explored. A linkage is made between the Gestalt explanation of splitting and its influence on the perfectionist's drive to maintain validation and to find external support for a fragile self-concept. Finally, it is proposed that an attribution split appears to have particular relevance explaining the maladaptive functioning of perfectionists.

Dimensions and Types of Perfectionism

Prior to early 1970, perfectionism has largely been defined by characteristics found in anecdotal stories, case studies, and linkages to traditional theory. Some of the more commonly cited characteristics of perfectionists include being tenaciously driven by high standards (Burns, 1980;

Burns & Beck, 1978; Halgin & Leahy, 1989; Hamachek, 1978; Hollander, 1978; Mahoney & Arnoff, 1979; Pacht, 1984), excessive standards accompanied by overly critical self-judgement (Frost, Marten, Lahart, & Rosenblate, 1990), a fear of loss of external support (Burns, 1980; Hamachek, 1978), a heightened sense of shame and guilt (Hamachek, 1978, Sorotzkin, 1985), a need to hide or otherwise avert attention from mistakes (Hamachek, 1978), self-depreciating behaviors (Hamachek, 1978), and excessive precision, orderliness, and organization (Frost et al., 1990, Hollander, 1978). Burns (1980) also included impaired health, intense sensitivity to the judgments of others, difficulty in determining the difference between adequate effort versus overindulgence, and a view that others are more capable of managing life affairs. Several cognitive implications are also posited including all or nothing thinking (Beck, 1976; Burns, 1980; Burns & Beck, 1978; Halgin & Leahy, 1989; Mahoney & Arnoff, 1979), a tendency to overgeneralize setbacks into never-ending failures (Beck 1976; Burns, 1980; Burns & Beck, 1978), and a rigid adherence to moral imperatives (Beck, 1976; Burns 1980; Mahoney & Arnoff, 1979; Weisinger & Lobsenz, 1981).

Because it is has been correlated with so many psychological disturbances, perfectionism's nature and characteristics appear somewhat ambiguous and difficult to define. Hollender (1978) defined perfectionism as a mode of behavior in which individuals demand a higher standard of performance than is required in a given situation. Early definitions of perfectionism also focused on an unremitting drive to achieve unattainable goals (Burns, 1980; Halgin & Leahy, 1989). More recent definitions have stressed the pursuit of high

standards accompanied by unrelenting self-criticism (Frost & Marten, 1990; Hill, Zull, & Turlington, 1997). Hamachek (1978) differentiated perfectionism into "normal" and "neurotic." Normal perfectionism is viewed as a healthy aspect of individuals who find pleasure in the task of pursuing excellence and are not negatively affected by its outcome. The self-esteem of normal perfectionists is minimally affected when they do not live up to their expectations. Hamacheck views normal perfectionism as a desirable and nonpathological component of a self-actualizing tendency. In contrast, the neurotic perfectionist seeks to avoid failure at all costs. The primary way in which this is accomplished is by maintaining unrealistic and unattainable standards. High standards serve to reinforce self-defeating cycles of perceived poor performance that lead to low self-esteem and are exacerbated by each new challenge. The neurotic perfectionist is typically externally driven to live up to the real or perceived standards of others. Burns (1980) described this type of perfectionism as a striving to accomplish impossible goals. Neurotic perfectionism has also been viewed as a destructive force that entrenches individuals in the destructive pursuit of unrealizable goals leading to maladjustment and pathology (Pacht, 1984).

In recent years, attention has been given to defining and measuring the construct of perfectionism. Burns made an initial attempt at operationalizing perfectionism with the Burns Perfectionism Scale (1980), which primarily measures the degree to which perfectionists measure their performance against stringent standards. Two self-report measures attempt to capture the

multidimensional qualities of perfectionism. The Multidimensional Perfectionism Scale (Frost et al., 1990) focuses on six factors attributed to perfectionism: concern over mistakes, doubts about actions, setting excessively high standards, the perception of inordinately high parental expectations, the perception of extreme parental criticism, and a high preference for order and organization. The Multidimensional Perfectionism Scale (Hewitt & Flett, 1991a) defines perfectionism into three facets: *other-oriented* in which the perfectionist demands that others meet distorted standards of perfectionism; *self-oriented* in which unrealistic standards of perfectionism are self-imposed; and *socially prescribed* in which the perfectionist assumes that others maintain exaggerated expectations that must be attained in order to win approval and acceptance. Shafran and Mansell (2001) have noted that the two multidimensional scales are similar, but not entirely alike. The personal standards scale (Frost et al., 1990) is most closely similar to the self-oriented subscale. The concern over mistakes, parental expectations, and parental criticism subscales of the Frost measure are similar to socially prescribed perfectionism. Criticisms of these scales include the subjectivity of self-reporting used by the instruments to assess perfectionism, the retrospective versus state measure of perfectionism, and the inclusion of dimensions that are related to perfectionism but not characteristic of the more classical qualities of perfectionism (Shafran and Mansell, 2001). These authors suggest that the Frost et al. (1990) subscales of personal standards and concern over mistakes combined with the Hewitt & Flett (1991) self-oriented perfectionism

subscale are closer to traditional definitions of perfectionism than other subscales.

A more recent instrument devised in identifying perfectionism is the Almost Perfect Scale (APS; Slaney & Johnson, 1992). The APS and its subscales have been used in subsequent research to extend its application and toward refining the construct of perfectionism. One apparent outcome of these studies was the substantiation of the construct into negative and positive qualities characterized as either “adaptive” or “maladaptive” (Slaney et al., 1999). Studies using the APS have also supported the dimensional constructs of perfectionism defined by Hamachek (1978) as “normal” and “neurotic” (Slaney, Suddarth, Rice, Ashby, & Mobley, 1998). Research findings clearly link the holding of high standards and a sense of orderliness with perfectionism. Neither of these qualities either alone or together however, appears directly problematic for the majority of perfectionists.

Research using the APS led to the development of the Almost Perfect Scale-Revised (APS-R; Slaney, Rice, Mobley, Rippi, & Ashby, 2001). The authors of the instrument explored the negative or maladaptive effects of perfectionism and added a new subscale labeled “Discrepancy.” Discrepancy is defined as “...the perception that one consistently fails to meet the high standards one has set for oneself” (Slaney et al., 2002, p. 69). Current studies with the APS-R appear to validate the effects of this concept on measures of negative psychological states such as depression, anxiety, and distress. Discrepancy also appears to be negatively correlated with achievement and self-

esteem. Although these studies offer implications for use in clinical practice, no specific adaptation of the findings has as yet been integrated into existing psychotherapeutic frameworks for use in reducing or eliminating the maladaptive effects of perfectionism.

Other researchers have conducted studies affirming the dualistic and multidimensional qualities of perfectionism. More recently, Slade and Owens (1998) differentiated perfectionism into positive and negative forms of cognitions and behaviors based on learning theory. Positive perfectionism entails the achievement of high-level goals to obtain positive reinforcement and consequences. Fear of failure or negative reinforcement drives negative perfectionism, defined as striving to achieve high-level goals in an effort to avoid unpleasant or negative consequences. This dual process model of perfectionism is based on Skinner's view of behavioral conditioning from which the authors derive therapeutic implications for treatment.

It should be noted that in the remainder of this review, the use of the word "perfectionism" is a shortened use of the term "maladaptive perfectionism" as defined above.

Perfectionism, Anxiety, and Depression

Perfectionism has been linked to anxiety (Alden et al., 1994; Flett et al., 1989) and depression (Blatt, 1995; Blatt et al., 1995; Hill et al., 1997; Lynd-Stevenson & Hearne, 1999). Maladaptive perfectionism has been empirically linked to trait anxiety in non-clinical samples (Flett, Hewitt, Endler, & Tassone, 1995) and psychiatric populations (Antony, Purdon, Huta, & Swinson, 1998).

After controlling for depression, maladaptive perfectionism has been significantly associated with social anxiety, trait anxiety, and worry (Juster, Heimberg, Frost, Holt, Mattia, & Faccenda, 1996, Kawamura, Hunt, Frost, & DiBartolo, 2001; Stöber & Joorman, 2001). Social anxiety has been linked to perfectionism in clinical (Blankstein, Flett, Hewitt, & Eng, 1993; Hewitt & Flett, 1991) and non-clinical (Antony et al., 1998; Juster, et al., 1996) samples. Obsessive-compulsive disorder has also been identified with elevated levels of perfectionism in clinical samples (Antony et al., 1998; Frost & Steketee, 1997) and non-clinical samples (Frost et al., 1990). Perfectionism appears to be related to the cognitive, but not somatic factors related to anxiety (Enns & Cox, 1999; Juster et al., 1996; Kawamura et al., 2001, Stöber & Joorman, 2001).

A collection of studies has explored finer distinctions between perfectionism, anxiety, and depression. In a study by Kawamura et al. (2001), maladaptive perfectionism was found to be linked to anxiety after controlling for depression. Depression was positively related to perfectionism after controlling for anxiety, but to a lesser degree than the anxiety/perfectionism relationship. Further, depression was found to have a significantly greater correlation with maladaptive than adaptive perfectionism. Norman, Davies, Nicholson, Cortese and Malla (1998) found similar results in their exploration of maladaptive evaluation concerns and positive striving.

Worry and depression are significantly related to perfectionism. Stöber and Joorman (2001) found that worry exhibited a substantial relationship with procrastination and perfectionism. Their study indicates that worry and

depression are strongly related to concern for mistakes and doubts about one's actions. However, perfectionistic excessive standards are not related to worry. The authors suggest that high-worriers may not possess excessively high standards as compared to low-worriers and may even lower their standards while under duress. The researchers also found that while there is extensive overlap and significant relationships between worry, anxiety, and depression, worry was found to be a significant component of both anxiety and depression. Further, the study found that perfectionism is more related to how much individuals worry versus how they feel about their worrying.

Several studies offer evidence that certain dimensions of perfectionism are differentially related to perfectionism. Socially prescribed perfectionists appear more maladaptive in nature than self-oriented perfectionists (Einstein, Lovibond, & Gaston, 2000; Flett, Hewitt, Blankstein, & Gray, 1998; Frost, Heimberg, Holt, Mattia, & Nebauer, 1993; Norton, Buhr, Cox, Norton, & Walker, 2000). For example, these studies also indicate that anxiety and depression appear to be significantly correlated with socially prescribed perfectionism but not self-oriented perfectionism. In a study of passive versus active perfectionism and depression, passive perfectionists were significantly more likely than their active counterparts to become depressed (Lynd-Stevenson & Hearne, 1999). Passive perfectionism was thought to contain a feature of hopelessness that increases susceptibility to depression. Additionally, perfectionism was found to represent a vulnerability factor increasing the chance of depression during times of stress.

A study of evaluative concerns and personal standards perfectionism found that hassles, avoidant coping, and perceived social support mediate evaluative concerns perfectionism (ECP) and distress (Dunkley, Blankstein, Halsall, Williams & Winkworth, 2000). In fact, these factors accounted for nearly 100% of the relationship between ECP and distress. The researchers also discovered that these perfectionists self-generate stress as well as engage defensive and dysfunctional ways of coping resulting in increased stress. This finding is consistent with Flett, Hewitt, and colleagues (Flett, Hewitt, & DeRosa, 1996; Flett, Hewitt, Blankstein, Solnk, & Van Brunshot, 1996) who found that socially prescribed perfectionists react to stressful situations with hopelessness and helplessness as evidenced by the use of defense mechanisms such as splitting and denial. Dunkley et al. (2000) suggest that evaluative concerns perfectionists may have lower self-efficacy resulting from an inability to adequately cope with stressful situations or to the satisfaction of others.

Discrepancy Theory and Perfectionism

Self-discrepancy theory is a social psychological model that purports that anxiety and depression result from discrepancies in the self-concept. Higgins (1987) argues that the self consists of three domains that interact to influence individuals' emotional experience: the *actual self* is comprised of attributes that a person perceives they actually possess; the *ideal self* consists of attributes an individual wishes to possess; and the *ought self* embodies characteristics that an individual feels obligated to possess. According to self-discrepancy theory, individuals evaluate their actual selves from the standpoint of either their ideal

and/or ought selves. Additionally, it is believed that individuals may also evaluate themselves from the perspective of significant others such as parents or spouses. A primary hypothesis of discrepancy theory states that "...the greater the magnitude and accessibility of a particular type of self-discrepancy possessed by an individual (e.g., between the actual and ideal and/or ought selves), the more the individual will suffer the kind of discomfort associated with that type of self discrepancy" (Higgins, 1987, pp. 335-336). Empirical investigation revealed that persons who experience discrepancies between their actual and ideal selves are vulnerable to depression, whereas individuals experiencing discrepancies between their actual and ought selves are more prone to symptoms of anxiety (Scott & O'Hara, 1993; Strauman, 1989).

Hankin, Roberts, and Gotlib (1997) drew upon self-discrepancy theory and Hewitt and Flett's (1991a, 1991b) multidimensional model of perfectionism in an effort to explore the relationship between self-standards and emotional distress in adolescents. Hankin et al. conceptually related self-oriented perfectionism with actual/ideal self discrepancies in that both require the individual to create and adhere to self-standards. Socially-prescribed perfectionism was associated with actual/ought discrepancies in that the individual creates self-standards based on the real or perceived perceptions of others. Findings of the study support the notion that excessive self-standards are associated with certain forms of emotional distress in adolescents. After controlling for anxious symptoms, self-oriented perfectionism and actual/ideal discrepancies were associated with depressive symptoms. This finding was contradicted in a study by Einstein et al.,

(2000). The authors suggest that self-oriented perfectionists may anticipate meeting their own high standards, thereby eliminating distress outcomes.

Alternately, actual/ought discrepancies were found to be related to anxious symptoms after controlling for depression indicators. It was found that socially-prescribed perfectionism was correlated with general emotional distress (not specifically to depression or anxiety). Einstein et al. (2000) produced similar results. Hankin et al. delineate clear conceptual differences between a multidimensional model of perfectionism and self-discrepancy. For example, although self-discrepancy theory examines emotional agitation created by differences in the perception of selves, perfectionism focuses on the magnitude of individuals' self-standards, regardless of their perceived ability to attain these standards.

Similarly, the APS-R identifies individuals' frustration of achieving unattainable self-standards (labeled "Discrepancy") as a defining feature of perfectionism. Self-discrepancy theory appears to encompass broader dimensions of self that extend beyond the personality characteristics of self-standards. These dimensions embrace the intensity, quality, and contextual variability of emotional distress associated with discrepancy in self-concept (Higgins, Klien, & Strauman, 1985).

Cognitive Implications of Perfectionism

From a cognitive behavioral perspective, perfectionists are viewed as having three distortions of thinking that threaten their ability to function effectively (Burns, 1980; Moore & Barrow, 1986; Sorotzkin, 1985). *Overly moralistic self-*

evaluation is a mechanism by which perfectionists compare themselves to a world of absolutes. Black-or-white, wrong-or-right, all-or-nothing thinking characterizes this distortion of thought. Perfectionists are prone to the tyranny of what Karen Horney (1937) describes as “should” systems in which every disappointment and failure is personalized. Instead of viewing failure with compassion, the perfectionist harshly criticizes himself/herself and perpetuates a cycle of self-blame and hatred.

Overgeneralization is a common mental distortion occurring when perfectionists make dogmatic conclusions about their inability to perform based on a single incident. Failing to meet a desired goal often predisposes perfectionists into thinking that the negative event will infinitely perpetuate itself. Similar to the tendency to be overly moral in their behavior, perfectionists tend to embed themselves in a pit of shouldisms that restrict their ability to find self-satisfaction and limit a system of unrealistic demands on the self.

Finally, *dichotomous thinking* limits the worldview of the perfectionist by imposing a judgment system that polarizes events into absolutes. Corsini and Wedding (1989, p. 592) define dichotomous thinking as “Categorizing experiences or people in black-and-white or extreme terms only (e.g., all good vs. all bad) with no middle ground.” Perfectionists view their efforts as all-or-nothing, black-or-white, good-or-bad, wrong-or-right. When combined with critical moralistic self-evaluation, dichotomous thinking contrives to rob perfectionists of their ability to self-regulate a worldview that encourages patterns of thinking that Burns describes as “...naive and self-defeating” (p. 38). Mahoney and Arnoff

(1979) and Barrow and Moore (1983) describe a “saint or sinner” syndrome in which perfectionists are thwarted in their efforts to achieve personal goals by a psyche that is prone to harsh judgments. When perfectionists attempt to desist from cigarette smoking, they make rigid internalized rules of conduct – either they smoke or do not smoke. This is the period of sainthood founded upon and bounded by a moralistic judgment that perfectionists are good if they discontinue smoking and bad if they resume. If perfectionistic smokers lapse in their goal and smoke a cigarette, sainthood ends and a period of “sin” follows, characterized by guilt and self-deprecation (Burns, 1980). Thus, the highly judgmental distortions of the perfectionist become reinforced by the ensuing feelings of low self-esteem and deflated self-worth. The perfectionist can be viewed as an individual stuck on a merry-go-round of intrapsychic conflict which becomes ever more difficult to exit with every revolution.

Splitting

Related to dichotomous thinking is “splitting.” Splitting is a term that has created much semantic confusion in describing structural and functional states. In a review of the history of the term, Pruyser (1975) indicated that the numerous meanings attributed to splitting have served to make the term holographic in nature. He advocates that the term be abandoned in favor of less confusing descriptors. Marmar and Horowitz (1986) attempted to elucidate the complex and contradictory ways in which the term has been used to describe the etiology of personality disorders. Splitting has been described as a metapsychological construct used to describe clients with dissociative disorders, schizophrenia and

schizoid disorders, narcissistic and most commonly borderline personality disorders.

In his work with therapeutic process of change, Greenberg (1979) defined a split as "...a verbal performance pattern in which a client reports a division of the self-process into two partial aspects of the self or tendencies" (p. 317). He has identified three types of splits in his work. The Conflict Split is characterized as a division of two parts of the self in opposition and experienced as a struggle between the conflicting polarities. Greenberg, Rice, and Elliot (1993) state that a "linguistic juxtaposition indicator" (p. 188) (e.g. but, yet, if/why) serves to differentiate opposing "I" states. Greenberg and Sarkissian (1984) posit that the client generally experiences "...a conflict between standards and values on the one hand, and organismic emotional reactions and needs or wants on the other" (Greenberg et al., 1993, p. 188). When this inner dialogue is processed, Greenberg states that these conflicts result in an intrapsychic struggle between "shoulds" and "wants." For example, a perfectionist might intone, "I should have achieved an A on the test, but I just didn't study hard enough."

The Subject/Object split occurs when one part of the self (the subject, I) does something to the other part of the self (object). The person typically expresses frustration with a behavior in which they are engaged. "I am critical of myself" or "I tend to edit my paper as I write," are examples.

Greenberg et al. (1993) also posit a form of splitting that appears similar to Hewitt and Flett's "socially prescribed" perfectionism and particularly relevant to maladaptive perfectionism. An attribution split occurs when the individual

experiences a split "...as though it were originating in someone else" (p. 189). It may indicate projected injunctions and judgments of others that are in conflict with personal desires and wants. For example, a young woman expressing an interest in marrying her boyfriend may state, "My mother thinks that I should get a college education so I won't have to be entirely dependent on my spouse for financial support." While this projection may indeed be an accurate assumption of parental concern, it actually reflects a conflict between personal desires and the anticipated judgments of others. Individuals who engage in this style of splitting attribute criticism and coercive efforts that deny personal desires to be caused by the injunctions of others. From a developmental perspective, this type of split is seen as originating from a person's manifestation of negative evaluations or expectations of parents, teachers, or significant others. In the process of accepting external judgments about themselves, individuals become self-critical and self-pressuring and continue to expect this from others.

Theories of Splitting

Breuer and Freud (1893) were the first to reference the term in describing a "splitting of conscience" in which to illustrate dichotomous states of personality or consciousness exhibited in hysterical patients. Freud initially expressed splitting as the result of repressed and unconscious memories that denied synthesis. Splitting was viewed as a psychic mechanism that enabled individuals to avoid "...intolerable mental conditions" caused by contradictory interpretations of the world. Freud (1916) later discussed the dualistic nature of a splitting ego, "The disavowal is always supplemented by an acknowledgment; two

contradictory and independent attitudes always arise and result in the situation of there being a splitting of the ego," (pg. 204). The splitting ego was described as a psychic division allowing the ego to sustain two mutually contradictory psychic configurations. From this perspective, Freud posited that splitting was closely associated with dissociation resulting in amnesia of core memories and their associated affect.

Mahler (1968, 1971) observed that children who have unsatisfactory relationships with their mothers in the first two years of life have a propensity for splitting. She suggested that the child's realization that he/she is not omnipotent combined with a mother who is emotionally unavailable serves to create a hostile dependence on the mother. The splitting serves as a defense mechanism by which the child may attempt to reconcile conflicting feelings about the world and thereby protect a fragile and developing good self-image against an inadequate and bad maternal introject. Good and bad mother images are given internal separation and the child's aggression is turned inward against the self. Mahler believes that the splitting mechanism becomes the basis for responding habitually to stress with negative mood swings, as well as for the relentless pursuit of perfection in self and/or others (Marmar & Horowitz, 1986).

Kernberg's (1975) metapsychological analysis of splitting is recognized as the seminal work in object relations for understanding the phenomenon in borderline personalities. According to Kernberg, splitting results from the normal developmental process of infants as they attempt to manage and order chaotic and overwhelming environmental stimuli. Contradictory feelings of self and

objects are categorized within the ego as either good or bad. For example, an infant may segregate conflicting feelings aroused by good and bad experiences of its mother in order to protect a fragile ego. Splitting acts as a protective measure that enables the organizing ego and superego to avoid anxiety that might otherwise fragment the development of a cohesive psychic structure. St. Clair (1986) describes early splitting as, "...the maturational inability to synthesize incompatible experiences into a whole," (p. 10). Splitting arms the ego with a defensive tool that separates unwanted aspects of the self or organizes threatening objects into more manageable aspects (Grotstein, 1981). In adulthood, the same defense that allowed the infant to manage contradictory feelings may become a pathological system of splitting used to avoid painful ambivalence. "This defensive division of the ego, in which what was at first a simple defect in integration is then used actively for other purposes, is in essence the mechanism of splitting" (Kernberg, 1975, p. 25).

For the purpose of this study, I will use the following definition of splitting (from Corsini & Wedding, 1989, p. 599): "A situation in which a person splits off part of self as a polar opposite. When aware of one pole, the person is oblivious to the other. For example, an individual may split into competent and incompetent selves and vacillate between these roles. A split is one form of a dichotomy."

To further elaborate on the defining characteristics of splitting, Corsini and Wedding define a dichotomy as "A split in which the field is experienced as comprising competing and unrelated forces that cannot be meaningfully

integrated into a whole” (p. 592). The term “field” originated from Gestalt psychology and refers to an organized perceptual domain in which fragments of a perceptual whole are interconnected and immediately responsive to each other. No individual part is unaffected by activity elsewhere in the field. For example, an emotional malady such as stress may also influence chronic back pain. Conversely, a back injury may promote agitation or worry.

Elements of Splitting

Marmor and Horowitz (1986) conclude that the work of object relations theorists Kernberg (1975), Lichtenberg and Slapp (1973), Volkan (1976), Horowitz (1977), and Grotstein (1981) most clearly represents a unified construct of splitting, especially in relation to understanding borderline populations. The following tenants are central to this collective conceptualization of splitting:

1. Mental representations of self and others are separated into part rather than whole images.
2. Objects are viewed as either all good or all bad rather than possessing both attributes simultaneously.
3. Highly affective and emotional feeling states that are in opposition are kept separate.
4. Individuals who exhibit splitting behaviors are unable to access memories of previous positive feelings toward a frustrating object which might otherwise mitigate their reaction to frustration.

(Elements of splitting continued)

5. Individuals with a tendency to split their affect may overreact to situations that engage emotional arousal due to an inability to integrate mixed experiences over time.
6. The inability of the individual to firmly repress or deny the felt ambivalence of contradictory states forces the individual to identify with only one side of the ambivalence at a time. This selective identification of ambivalent states severely limits the capacity of the individual to realistically integrate experience.

In summary, the theoretical frame used to describe splitting influences its defining features as a construct. The literature posits that splitting is characterized as an intrapsychic defense utilized by emotionally vulnerable individuals in anticipation of the consequences of negative affect. Splitting is a psychic mechanism by which individuals divert emotionally agitating experiences between the ego and superego, it protects a fragile self-concept, and enables persons to manage conflicting and contradictory perceptions of self or injunctions of others. As described previously, recent research in self-discrepancy theory buttresses the notion that incongruities between self-concept and ideal and/or ought perspective of self generate emotional distress. Splitting would appear to be a logical defense used to avert emotional distress created by discrepancies of self-concept. Individuals who carry highly incongruent perceptions of their actual versus ideal selves, such as perfectionists, may be prone to splitting in an effort to manage intrapsychic disturbance. Measurement of discrepancy between self-

concept and ideal and/or ought self therefore, may provide evidence and an estimate of the extent of splitting utilized by perfectionists.

Measurement of Splitting

Empirical literature indicates the development of two instruments that measure individuals capacity to split. The Splitting Index (SI: Gould, Prentice, & Ainslie, 1996) and the Splitting Scale (SPS: Gerson, 1984) were based on an object-relations conceptualization of splitting. Test items of both instruments appear to focus primarily on measuring the lability of affect and the identification of pathology such as borderline and narcissistic personality disorders, dimensions of splitting which are not the focus of this study. Furthermore, the psychometric properties of the instruments (i.e. reliability coefficients) have raised serious concerns about their utility in research.

Fortunately, more psychometrically sound measures are available to measure splitting that are more aligned with the conceptual framework used in the current study. As discussed, measures of disparity between varying perceptions of self-concept may also provide an indication of splitting. It is argued that instruments with the capacity to measure disparities in self-concept, such as perceived self and ideal self, would give substantive support for identifying the splitting mechanism. The Adjective Check List is a widely used standardized assessment of personal saliency and employed in a number of studies to explore self/ideal-self congruence. The instrument is comprised of a constellation of adjectives that are delineated into 37 scales. The ACL produces a personality profile detailing the self-concept of respondents. Initial factor analysis of the

scales revealed intercorrelations that grouped the 37 scales into six factors. The factor descriptions in order of loadings include Potency, Assertiveness, Sociability, Individuality, Dissatisfaction, and Constriction. Individuals ranking high in the Dissatisfaction factor are identified as anxious, introspective, and self-critical...characteristics common to maladaptive perfectionists. More recent item analysis of the ACL yielded five unipolar personality dimensions including Aggressive/Dominant, Neurotic, Conscientious, Detached/Introverted, and Surgent/Extraverted (Strack & Lorr, 1990). Recent studies indicate that the ACL correlates highly with the NEO Five Factor Inventory of personality types (FormyDuval, Deborah, Williams, Patterson, & Fogle, 1995; Piedmont, McCrae, & Costa, 1991).

Several studies have focused on the use of the ACL to distinguish between self and ideal-self (e.g. Gough, Fioravanti & Lazzari, 1979, 1983; Gough, Lazzari & Fioravanti, 1978; Graves & Shearer, 1971; Lazzari & Gough, 1980; Small & Battis, 1978). The literature appears to provide very good empirical support concerning the ACL's ability to discriminate between subjects' description of their "real" selves versus their "ideal" selves. .

Of particular relevance is a study by Gough et al. (1983). The authors found that subjects with large self/ideal-self discrepancies tended to be anxiety-prone, riddled with self-doubt, and lacking in interpersonal skills. Subjects with minimal discrepancy were characterized as confident, having good coping ability, and socially balanced. Discrepancy between the real and ideal-self ACL profiles was derived from summing the absolute differences between each pair of

standard scores. The results of the study were based on the assessment of 1,484 subjects on all 37 scales of the instrument and the authors discovered eight scales yielding nearly the same discrepancy values as the index for the overall instrument. Four scales exhibiting subject scores with higher ideal-self scores than real-self scores as described in *The Adjective Check List Manual* (1983) include Self-Confidence, Ideal Self, Creative Personality, and Adult. Four scales in which all self scores were higher than ideal-self scores include Succorance, Unfavorable, Abasement, and Adapted Child. (See Table 1 in Chapter 3 for scale descriptions.)

As indicated by the authors (Gough et al. 1983), "An abbreviated index, based on just eight scales had correlations .90, .90, .86, and .81, respectively, with the total index over all 37 scales in samples of American men and women and Italian men and women" (p. 1219). Additionally, the abbreviated index and total index of discrepancy yielded nearly identical results when contrasted with the non-ACL test scores and ratings of observers. It would appear that assessment of discrepancy in self-concept (splitting) could be efficiently measured by the abbreviated ACL with nearly the equal effectiveness of the 37 scales of the ACL.

Perfectionism and Splitting

Many writers site dichotomous thinking as a dominant cognitive style of perfectionists (Burns, 1980; Halgin & Leahy 1989; Hamachek, 1978; Moore & Barrow, 1986; Pacht, 1984; Sorotzkin, 1985). When perfectionists engage in destructive tendencies and behaviors, the polarization of opposing parts creates

an internal conflict most often in which an overly active system of unconscious self-commands is required to alleviate the conflict. In order to cope with the conflicted demands of the self, the individual forms an alliance with one part of the self and suppresses the needs and feelings of the other part. The primary quality of the cognitive style is all-or-nothing thinking. A "B" letter grade is unacceptable to perfectionistic students who feel that they must earn an "A." These cognitive commands are expressed as a series of "shoulds" such as "I should be better person, I should not get angry, I should have done it differently, I should have know better, I should have worked harder" (Pacht, 1984, p. 387). These "shouldisms" are indicative of individuals who experience a disparity between intended goals and goals that are actually achieved.

Psychotherapy of Splits

Splits are therapeutically managed in a variety of methods depending on the orientation of the therapist. In Rational Emotive Behavior Therapy (R.E.B.T.), splits are labeled as inappropriate thinking and an attempt is made by the therapist to challenge and subjugate splits through a focus on cognition. The goal of psychoanalysis is to locate the original source of the splitting pattern and eliminate its influence upon a client's personality through increased awareness and reconciliation of past activating events.

Gestalt therapy offers a perspective in which splits are viewed as disturbances in a healthy functioning phenomenological field. Dichotomous thinking creates an intrapsychic structure in which the mind is divided into an assortment of competing forces or independent parts. Organismic self-regulation,

a state that is considered vital to the ability of the mind to integrate paradoxical truths and embrace diversity, is severely restricted. The therapeutic goal is to increase the present awareness of the split into its polarities allowing for integration of the differences leading toward a balanced organismic field. Polarities are viewed as opposites that complement or explicate each other (Corsini & Wedding, 1989). Gestalt therapy views polarities of an organismic field similar to the poles of an electrical field in which both negative and positive poles comprise the entire field in opposition. The establishment of psychic poles creates an internal continuum from which individuals can evaluate, categorize, and make sense of their experiences of the world. Additionally, polarization furnishes people with a structure from which to distill and refine complex phenomenon into discrete and predictable parts. This intrapsychic structure provides a rapid and easy system from which to interpret experiences and respond appropriately. While this structure may be experienced as safe, it may also produce rigid dichotomous constructs that limit awareness and constrict a person's ability to integrate new and challenging experiences. For example, an individual may feel safe in their ability to predict experience, but the consequence of holding to rigid dichotomies may result in intellectualizing that limits a person's ability to appreciate new experiences that may promote growth and maturation.

In Gestalt therapy, fear is seen as the primary motivating force behind an individual's attempt to control various aspects of the environment or self. By creating rigid polarizations, individuals enact a two-value system that enables them to generate simplified constructs and labels. These adopted labels are used

to give meaning to new experiences as if they represented the original experiences from which they were created to categorize. In the process, a person obtains an obscured sense of control and power built upon labels that convey a false perception of their actual range of experience. Individuals who believe that all things fall neatly into specific categories exemplify a reliance on labels and use of them for control. When experiences fail to fit neatly into established categories, the safety of the rigidified labels is threatened resulting in dissociation and extreme anxiety and angst. Individuals with a two-value system may cling ever tighter to their labels in an effort to ward off future threats of dissociation and reduce the potential for anxiety (Korb, Gorell, & Van De Reit, 1989).

Gestalt Therapy and the Origins of Splitting

Gestalt therapists believe that children accept ideals and behavior without scrutiny (known as introjections). As a result, children indoctrinate themselves with societal values and beliefs that may be in conflict with their own wants and needs. The outcome is an internalized morality largely shaped by an externally demanding environment rather than a healthy and balanced morality that integrates compatibility between internal drives and external demands. Guilt and/or shame typically result when individuals defer to their wants rather than the “shoulds” imposed by the environment.

Gestalt Therapy and the Mechanics of Splitting

Theoretical literature may indicate that perfectionists exert a tremendous amount of energy in maintaining the split between personal “wants” and societal

"shoulds," specifically in the direction of following societal percepts (Burns, 1980; Pacht, 1984; Sorotzkin, 1985). They continually seek out ways in which to maintain or improve an imagined ideal self-concept. Perls (1969) stated, "Many people dedicate their lives to actualize a concept of what they should be like, rather than to actualize themselves...This is again the curse of the ideal. The curse that you should not be what you are" (p. 19). An example of one way in which this actualizing process occurs is characteristic of dieters. These individuals often become demoralized by environmentally imposed injunctions about maintaining socially accepted levels of body images as opposed to accepting want or craving to enjoy food or appear overweight. An inability to live up to perceived internalized societal standards becomes an overwhelming affirmation of personal inadequacy rather than a disappointment or annoyance. The result is often a circular system of attempts and failures to cease socially inappropriate and/or medically harmful behavior, sabotaged by internal wants and preferences.

The perfectionist on the other hand, will perhaps be successful more often in his/her attempts to achieve a selected goal. However, the success of an achievement is at best fleeting and momentary to the hypercritical perfectionist who is forever striving to achieve an ideal concept of self; an unattainable ideal that is a socially prescribed mirage of the perfect person. Perfectionists are driven by a need to maintain high personal standards in their efforts to preserve ongoing validation from others. Failure to uphold superior performance in nearly any capacity of living threatens the fragile self-concept of the perfectionist. It is

imperative that perfectionists adhere to what they perceive as the upper limits of valued performance and behavior. These limits are reinforced by internal “shoulds” dictating acceptable levels of performance. However, due to an overidentification with generalized societal values, perfectionists rarely find satisfaction with their achievements. They must always look to the next task to receive validation. The perfectionist constantly seeks to embrace an unattainable level of validation and therefore, acceptance.

Greenberg et al. (1993) describe this internal conflict in terms of conflicting schemes. One polarity is based on emotional schemes representing biologically adaptive emotions and needs. The opposing polarity consists of negative self-judgments and introjected standards founded upon social measures that impose themselves upon the individual as “shouldisms.” Conflict is created when internal or external cues activate the opposing schemes. Typically, these oppositional schemes create incompatible thoughts, feelings, or behaviors against desires with either or both extending beyond the individual's awareness.

Gestalt therapists believe that “shouldisms” sabotage healthy functioning. Shouldisms represent the self-coercive statements of socially introjected standards or negative self-evaluations that condemn, coerce, or criticize the emotional aspect of the self, similar to Hewitt and Flett's (1991a) “self-oriented” and “socially-prescribed” perfectionism. This conflict has been classically portrayed by Perls' metaphor of “topdog vs. underdog.” Korb et al. (1989) describe the topdog as “...the demander of perfection, the manifestation of a set of introjected ‘shoulds’ and ‘shouldn'ts’” (p. 63). The underdog is characterized as

the victim aspect of the psyche that protects its desires and interests by resisting the topdog through hostility, passive-aggression, obsessiveness, and compulsiveness. Perfectionists may overidentify with the coercive and cajoling demands of the perfectionistic topdog in an effort to maintain a sense of internal control over their emotions. The underdog may comply with the commands of the dominant topdog, but at a cost. This “split” in preference of the topdog serves to increase the resistance of the underdog. Feelings of validation and satisfaction are lost, replaced by anxiety, depression, and angst. These feelings may assert themselves through internalized anger, obsessive thoughts, or compulsive pursuits to fulfill an emotional gap created by wants and needs that are highly conflicted and polarized. Perfectionists must fill this emotional gap by constantly looking to others to provide validation of personal adequacy. It was for this reason that Perls believed in a paradoxical theory of change. The more people push to become what they are not (i.e., consort with their topdog) the more resistance is established against intended change (as influenced by the resistant underdog) and therefore the more they thwart their ability to achieve intended change.

“Shouldisms” may also portray enacted introjected standards as exemplified by attribution splits. An individual may internalize real or perceived evaluations of others that create the belief that they are contemptuous or disgusting and therefore weak or inferior. Shame and embarrassment are the hallmarks of all individuals who view themselves as inferior. Interestingly, shame is often self-perpetuating and founded upon faulty projections in others that are

maintained by internalized splits of self-contempt and disgust. "The ashamed state can be seen as the attribution of disgust/contempt to others or as imagining being contemptible/disgusting in the eyes of the other" (Greenberg et al., 1993, p. 191). Perfectionists may be particularly susceptible to this form of splitting. In their attempts to validate their self-worth in the eyes of others, they may be prone to overcompensating their performance on tasks, especially tasks that are under the scrutiny of others. Additionally, the perfectionist who attempts to plug the dike of his/her shame by overachievement may create even greater internalized shame and anger by feeling embarrassed that they are compelled to seek external validation. This type of perfectionist may find himself/herself in a dilemma: how can a person be perfect if they are dependent upon the validation of others? Pirot (1986) describes a pattern of irrational thinking in which perfectionists focus on themselves to compensate for feelings of inferiority. This drive for validation may push perfectionists to unwarranted educational accomplishments such as the attainment of multiple degrees (which may have no functional relationship) or unprecedented vocational achievements such as rapid corporate advancement.

Summary of Gestalt Therapy Theory on Perfectionism and Splitting

Gestalt theory appears to provide theoretical support for the belief that perfectionism is linked to intrapsychic splitting and dichotomous thinking. Gestalt therapists believe that children are conditioned from birth to accept the introjections of societal values and beliefs that create an internalized morality that may favor perceived external demands over internal desires. Internal conflict

results from the incompatibility of competing demands on the psyche. It is believed that individuals are prone to “splitting” these oppositional demands into a two-system intrapsychic structure. New experiences that challenge the psyche are divided into preconstructed categories or polarities that enable individuals to understand and give meaning to new phenomenological experience. These categories or labels bring order and control to external experiences that create confusion and threaten intrapsychic stability. Psychologically healthy individuals are able to use the two-system structure to draw a balance between their internal drives and external demands. Individuals with fragile self-concepts, such as perfectionists, may find an overreliance on the splitting mechanism. The foundation for splitting appears to be the discrepancy between an individual's perceived sense of self and idealized self-image. The greater the disparity between these two images, the greater the propensity to split. Splitting allows these individuals to reduce the extreme anxiety producing effects of dissociation that results when internalized labels are threatened.

Perfectionists may respond to intrapsychic threats by overidentifying with one polarity. Greenberg et al. (1993) describe this polarity as a scheme comprised of negative self-judgments and introjected standards. Perls described “shouldisms” that form the demands of the “topdog” or internal critic in contrast to the “underdog” the emotional “victim” side of the polarity. These internalized demands may manifest themselves as exceptional drives for achievement in the perfectionist. In order to avoid dissociation and divert anxiety, the topdog asserts itself via self-coercive statements and demands in an effort to demean and

criticize the underdog. This serves to give the individual a false sense of control over their emotions. Subverting feelings of anxiety and depression enhances the resistance of the emotionally bound underdog who retaliates via internalized hostility, obsessiveness, compulsiveness, or passive-aggression. In perfectionists, the underdog may submit to the demands of the topdog, but at the price of a continual need for external validation as the individual alienates the emotional validation that the underdog is capable of providing.

A form of splitting particularly relevant to perfectionism is the attribution split characterized by an inability of individuals to differentiate negative self-evaluations and expectations of the self from their anticipation of others negative evaluations and expectations. A typical indicator of this type of split is when clients report that they are unable to fulfill a desire because of the disapproval of others (Greenberg et al., 1993). This type of split appears relevant to perfectionism such that perfectionists may be driven toward achievement behaviors in an effort to validate the injunctions of others.

Currently, no empirical research exists supporting the previous arguments. Although a number of articles give theoretical support for the link between perfectionism, dichotomous thinking, and splitting, none provide quantitative or qualitative data clearly elucidating these relationships.

Research Questions

1. Are dichotomous thinking and splitting characteristic of maladaptive perfectionists? The literature supports the thesis that dichotomous thinking and splitting are associated with maladaptive perfectionism. The literature

also indicates that “shouldisms” are characteristic of both maladaptive perfectionism and splitting. Thus, maladaptive perfectionists would likely be characterized by a significant disparity between their “True” or actual image of themselves and an idealized image (defined by Greenberg [1993] as an “Internal Conflict Splitting” style) as compared to adaptive or non-perfectionists.

2. Do maladaptive perfectionists appear to introject the external injunctions of others? A key characteristic of attribution splitting is an individual's achievement behavior that is motivated by the need to find validation through the concordance of others' perceived opinions of the individual and their situation. By capturing the extent to which individuals introject the judgments and injunctions of others, a split between the True-Self and Introjected-Self may be elucidated. The literature supports the notion that maladaptive perfectionists may utilize an attribution splitting defense to gain acceptance, favor, and possibly admiration from others.
3. Does affect mediate the degree of splitting experienced by maladaptive perfectionists? Baron and Kenny (1986) state that “...a given variable may be said to function as a mediator to the extent that it accounts for the relation between the predictor and the criterion” (p. 1176). Anxiety and depression have been linked to perfectionism and splitting. Theories on splitting would seem to support the mediator role of affect between perfectionism and splitting. Individuals with high degrees of maladaptive perfectionism may be more susceptible to intense feelings of anxiety and depression, prompting

equal levels of splitting in order to compensate or reduce the perceived impact of negative affect. Said differently, splitting is expected to diminish in individuals with maladaptive perfectionism when affect is controlled.

Hypotheses

Primary Hypothesis

Based on the foregoing theoretical assertions, the following hypothesis was proposed for the present study: More maladaptive aspects of perfectionism were expected to be significantly and positively associated with splitting/discrepancies. The discrepancy among maladaptive perfectionists was thought to indicate particular styles of splitting.

Secondary Hypotheses

Affect was thought to mediate the perfectionism - splitting relationship:

1. It was posited that depression mediates perfectionism - internal conflict splitting relationships as indicated by a positive correlation between depression (CES-D) and splitting (ACL) measures. It was believed that depression serves as a mediator between maladaptive perfectionism and internal conflict splitting (discrepancy between actual and ideal self-concepts). For example, the more maladaptive characteristics a perfectionist has, the more vulnerable the individual is to experiencing depression. Internal conflict splitting is viewed as an internal mechanism or defense that is an outcome of increased depression. As depression increases, internal conflict splitting will increase.

2. It was also believed that anxiety mediates perfectionism - attribution splitting relationships as indicated by a positive correlation between anxiety (PSWQ) and splitting (ACL) measures. In the same way that depression mediates internal conflict splitting, it was believed that anxiety serves as a mediator between maladaptive perfectionism and attribution splitting (discrepancy between actual and projected self-concepts). For example, the greater degree to which individuals have maladaptive perfectionism, the more vulnerable the individual is to experiencing anxiety. Attribution splitting was viewed as an internal mechanism or defense that is an outcome of increased anxiety. Increases in anxiety result in responsive increases in attribution splitting.

CHAPTER 3

Methodology

The purpose of this study was to explore the relationship between perfectionism and splitting. This chapter details the description of participants, instruments, procedures, and analysis.

Participants

The sample included 263 students in which the majority of students were drawn from the University of Oregon. . There were 91 men and 172 women with a mean age of 22 years, ranging in age from 18 to 51, and a mean self-reported GPA of 3.10 (SD = 0.5). Most of the sample was undergraduates and included 53 freshmen, 60 sophomores, 82 juniors, 51 seniors and 9 fifth year students. No information regarding race or ethnicity was obtained. This sample, according to Cohen (1992), is large enough to detect a medium effect size to be used in a multiple regression with an alpha of .05.

Participants for the study were recruited by two separate methods. First, 40% of the participants were recruited via advertising and direct contact. The other 60% of the participants were solicited from Greek Life organizations as a component of special outreach presentations on behalf of the University Counseling Center at the University of Oregon. Each Greek Life organization received credit toward activity requirements required by the university for their participation. All respondents were entered into a drawing for a cash prize.

Instruments

Almost Perfect Scale-Revised (APS-R, Slaney et al., 2001). This 23-item self-report measure assesses “adaptive” and “maladaptive” qualities of perfectionism via three personality characteristics. These traits, High Standards (e.g., “I try to do my best at everything I do.”), Order (e.g., “I am an orderly person.”), and Discrepancy (e.g., “I’m hardly ever satisfied with my performance.”), comprise the three subscales of the instrument. The Discrepancy Scale measures maladaptive qualities of the construct. For each item, respondents are required to complete a Likert scale self-rating ranging from 1 “strongly disagree” through 7 “strongly agree.”

According to Slaney et al. (2001), The High Standards subscale (7-items) has an internal consistency (Cronbach’s alpha coefficient) of .85. Order (4 items) is reported to have an internal consistency of .86. The Discrepancy subscale (12-items) has an internal consistency of .92. A confirmatory factor analysis indicated moderate correlations between Standards and Order ($r = .42$), and negligible r ’s between Standards and Discrepancy ($r = -.12$), and between Order and Discrepancy ($r = -.03$).

Ashby and Rice (in press) found further evidence of the convergent and discriminant validity of the APS-R. The results of a confirmatory factor analysis conducted on a study of the APS-R and Dysfunctional Attitudes Scale (DAS: Weissman (1979) revealed a significant correlation ($r = .61$) between the APS-R Discrepancy Scale and the DAS Perfectionism subscale. Correlations between the DAS Perfectionism and APS-R High Standards subscale ($r = .09$) and Order

subscale ($r = .08$) were found not significant. Further confirmatory factor analysis offered evidence that self-esteem and High Standards were significantly and positively related ($r = .25$). Discrepancy and DAS Perfectionism, on the other hand, were found to be significant negative predictors of self-esteem (r 's = $-.31$ and $-.41$, respectively). Ashby and Rice concluded that factors associated with maladaptive perfectionism are closely linked with low-self esteem whereas High Standards appears related to the adaptive qualities of perfectionism. The significant associations found in this study indicate that each factor of perfectionism accounts for a unique variation in self-esteem after controlling for the effects of other predictors.

The Adjective Check List (ACL, Gough, H. & Heilbrun, A., 1983). The Adjective Check List is a self-report personality inventory comprised of 300 familiar adjectives and adjectival phrases used to elicit personal attributes. Respondents are asked to identify all adjectives that they feel are self-descriptive. Participants marking fewer than 10 items or more than 250 were rejected from the study as suggested by the ACL Manual. Analysis of the items yields 37 standard scales. Scale scores on the ACL may be used to gain an overall personality profile of subjects, or provide more specific detail by examining individual scales or their combinations. Each scale is comprised of indicative (favorable attribute) and contraindicative (unfavorable attribute) items. Scale scores are the result of the sum of indicative and contraindicative items converted into standard scores and are differentiated by gender and total number of adjectives checked.

The overall reliability for the ACL is good as reported by Gough and Heilburn (1983). The median alpha coefficients for 591 males were .76 with a range of .56 to .95. The median alpha coefficient for 588 females was .75 ranging from a low of .53 to a high of .94. Test-retest correlations for the instrument yield a median of .65 for male subjects and .77 for female college students over a six-month period.

The overall robust quality of the internal consistency and validity of the ACL is supported by the discovery of an abbreviated version of the instrument. In their study of the implications of ideal-self congruence, Gough et al. (1983) administered the ACL to 490 American men, 216 American women, 600 Italian men, and 178 Italian women. Congruence between scores on self and ideal-self portraits was assessed by summing the absolute differences between each pair of standard scores on the 37 scales yielding an index of congruence (labeled D-T). To increase the efficiency of measurement, the investigators discovered a subset of eight scales possessing nearly equal overall validity as the full 37-scale instrument. Scales were selected on the basis of the four highest and lowest mean scores for all scales from the sample. The scales with the highest means included: Self-Confidence (34-items), Ideal Self (46-items), Creative Personality (30-items), and Adult (22-items). The scales with the lowest mean scores included: Succorance (32-items), Unfavorable (75-items), Abasement (47-items), and Adapted Child (44-items). (See Table 1 for a more detailed description of each scale.)

Table 1

Adjective Check List (Abbreviated) Description

Self-Confidence	High-scorers are initiators, confident in their ability to achieve goals. Low-scorers have difficulty in mobilizing their resources and taking action and are viewed as shy, inhibited, and withdrawn.
Ideal Self	High-scorers appear to be characterized by interpersonal effectiveness and narcissistic ego inflation. Low-scorers typically exhibit poor morale, feel defeated by life, find goal-setting difficult, are kind, modest and considerate.
Creative Personality	High-scorers typically are venturesome, aesthetically reactive, clever, and quick to respond. Low-scorers are more subdued, less expressive, more conservative, and less inclined to take action in complex or ill-defined situations.
Adult	High-scorers are characterized as productive, work centered, reliable, ambitious, lacking in spontaneity, jollity, and the ability to enjoy respite and tranquility. High-scorers are also uncomfortable expressing affection, love, and tenderness. Low-scorers are viewed as more relaxed and responsive but less effective in coping with work demands.
Succorance	High-scorers feel inadequate in coping with stress and crisis, avoid confrontation, and tend to retreat into fantasy. They view others as stronger, more effective, and their support is solicited. Low-scorers are independent, relatively unbothered by self self-doubt and equivocation, and effective in setting and attaining goals.
Unfavorable	High-scorers are characterized as disbelieving, pessimistic about the future, changeable, headstrong, and quick to take offense. The good fortune of others is seen as undeserved, unearned, and unfair. Low scorers are more dependable, more tactful, less judgmental, and less easily offended.

(Table 1 continued)

Abasement	High-scorers ask for little submit to the wishes and demands of others, and avoid conflict at all costs. Their interpersonal world is viewed with worry and foreboding, and others are seen as stronger, more effective, and more deserving. Low-scorers are assertively self-confident and respond quickly; they insist on obtaining what they judge to be their just rewards.
Adapted Child	High-scorers lack independence, feel unsure about coping with the demands of adult life, fear and avoid direct confrontation, and are easily disorganized by stress and trauma. Low-scorers are autonomous and effective, but inconsiderate. Personal feelings are suppressed and others' feelings are ignored. Low-scorers strive for power, success, and tangible accomplishments.

The sum of the absolute differences of the eight scales is a measure of congruence labeled D-1. The correlation between D-T and D-1 among the four samples was $r = .90$ for American men, $r = .90$ for American women, $r = .86$ for Italian men, and $r = .81$ for Italian women. Alpha coefficients for inter-item reliability were .83 and .86 (American men and women, respectively) and .82 and .83 (Italian men and women, respectively). The sample means and standard deviations for the American and Italian samples on the abbreviated index were significantly different from each other.

As further evidence of concurrent and discriminant validity, Gough et al., (1983) found significant correlations between the ACL, the California Psychological Inventory (CPI), and the Minnesota Multiphasic Personality Inventory (MMPI). The CPI is a metric of healthy self and personality while the

MMPI is an indicator of pathology. As expected, the congruence indexes (D-1 and D-T) negatively correlated with the majority of the CPI scales due to the unfavorable or negative implications of differences between the self and ideal-self. Positive correlations were obtained for the majority of correlations between D-1 and the MMPI. As expected, participants with elevated levels of scores on the D-1 (greater differences between self-views) exhibited higher levels of anxiety, self-doubt, and social withdrawal.

The authors of the ACL admit that scoring of the instruments' 37 scales can be arduous, and when scored without the aid of a computer-scoring program, the probability of errors increases. Similar to the procedure followed in the Gough et al. study (1983), the abbreviated eight-scale version of the ACL, which closely approximates the implications of the full measure, was used to increase the efficiency and accuracy of scoring. It was also decided that a composite score of the eight scales would be used to represent a global tally of participants' propensity to split. This was done in order to minimize the potential complicating effects of examining and interpreting eight different aspects of personality within and between each study participant.

Center for Epidemiologic Studies Depression Scale (CES-D, Radloff, L.S., 1977). The CES-D was originally intended as a measure of depression. More recent findings provide evidence that the instrument should be used as a broader indicator of distress (Blaney, 1986; Hesselbrock, Hesselbrock, Tennen, Meyer, & Workman, 1983; Santor & Coyne, 1997). More specifically, Devins and Orme (1985) suggest that CES-D scores should be interpreted as indicators of distress

that accompany depression rather than a definitive gauge of clinical depression. This instrument was selected over others because it focuses on symptomatology rather than diagnostic criteria. The components include depressed mood, feelings of guilt and worthlessness, feelings of helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance. The instrument includes 20 items scored on a four-point scale. The twenty items are summed and higher scores indicate greater depression. The standard cutoff score used as a baseline for detecting depressive symptoms is 16 or higher (Breslau, 1985; Husaini, Neff, Harrington, Hughe, & Stone, 1980; Radloff, 1977; Weissman, Sholomskas, Pottenger, Prusoff, & Locke, 1977). Confirmatory and exploratory factor analyses have supported single factor and second-order factor models for the instrument (Radloff, 1977; Sheehan, Fifiield, Reisine, & Tennen, 1995). The CES-D appears to have strong internal consistency (Cronbach's coefficient alpha = .90) for the general population (Breslau, 1985; Corcoran & Fischer, 1987; Radloff, 1977). The instrument also demonstrates a strong relationship ($r = .87$) with the Beck Depression Inventory (Santor, Zuroff, Ramsay, Cervantes, & Palacios, 1995).

Penn State Worry Questionnaire (PSWQ, Meyer, T. J., Miller, M. L., Metzger, R. L., & Borkovec, T. D., 1990). The Penn State Worry Questionnaire is a 16 item instrument measuring the tendency, intensity, and general nature of individuals to worry. It is a measure of pathological worry in which both the degree of worry and the intrusiveness of worry are reported by respondents (Stober & Joormann, 2001). Respondents are required to rate their perception of concern (worry)

regarding statements for each item on a scale from 1 ("very typical of me") to 5 ("not at all typical of me"). Scores are summed for the 16 items. Higher scores indicate higher degrees of worry. While no official cutoff score has been determined as an indicator of anxiety, 47.65 ($SD = 12.99$) was found as an estimate of anxiety in a large college sample (Molina & Borkovic, 1994).

In their initial development of the instrument, Meyer et al. (1990) found that the PSWQ is a reliable and valid measure of worry. Internal consistency from initial use of the instrument was reported as high ($\alpha = .94$). College samples also support high internal consistency (.92 in Davey, 1993; .91, .88, .91 in Ladouceur, Freeston, Dumont, Letarte, Rheaume, Thibodeau & Gagnon (1992); and .94, .95, and .91 in Meyer et al., 1990). Test-retest reliability also appears stable across varying periods of time. Four week interval testing using the PSWQ yielded an $r = .86$ (Ladouceur et. al, 1992) while a multi-week study found a range of correlations from a low of $r = .74$ (4 week) to a high of $r = .92$ (8-10 week) (Meyer et al., 1990). The PSWQ demonstrates strong concurrent validity and correlates well with the State Trait Anxiety Inventory (.64 [trait] and .49 [state]), the Cognitive Somatic Anxiety Questionnaire (.69), Self-Handicapping Scale (.33) and others.

Procedure

The primary source of participants was drawn from students attending the University of Oregon. The questionnaires were administered individually and in several groups ranging from 20 to 80 participants. Several data collection sessions were advertised via flyers and word of mouth communication. Students

were offered prizes and to have their name entered into a grand prize drawing for a cash reward for their participation. Each participant completed a written informed-consent form, a brief demographic questionnaire, and a packet of self-report questionnaires that included the APS - R, CES-D, PSWQ, and three different versions of the ACL. In order to determine possible order effects caused by the sequence in which the assessments were distributed, participants received one of six surveys in which the order of the instruments was varied. Participants took 30 to 50 minutes to complete the assessment battery. When possible, the surveys were reviewed upon completion to make certain participants had finished all assessments as instructed. At the completion of the data collection process, a participant's name was randomly drawn and awarded the cash grand prize.

Administration

Participants completed three ACL's. In one version of the ACL, participants were instructed to complete the instrument as is typically required (labeled "True Self" [TS]). In a separate ACL administration, participants were asked to complete the assessment as they would ideally like to see themselves (labeled "Ideal Self" [IS]). In yet a different administration, respondents were asked to complete the form as to how they imagine a significant caretaker (e.g., mother, father, grandparent, or other) might characterize them (labeled "Projected Self" [PS]).

Analysis

Splitting scores were obtained in the following manner: participants completed each of the three versions of the ACL, (b) each of the eight scales is comprised of a pre-selected combination of adjectives, and a raw score for each scale is obtained by counting the number of adjectives selected for each particular scale, (c) conversion of the raw to standard scores is determined by subgroups defined by the gender of the participant and the total number of adjectives selected for each scale, (d) the standard scores for the eight scales for each version of the ACL are summed to yield a composite number that represents a splitting index for the participant on each dimension of self-concept (i.e. actual, ideal, and projected), (e) composite scores for the three self-concepts were compared (actual versus ideal and actual versus projected), (f) the absolute difference between the comparisons represents the numerical representation of internal conflict splitting (actual versus ideal) and attribution splitting (actual versus projected).

It should be noted that directionality of splitting was not considered as a part of this study because it is not known which self-concept is used as a point of reference. For example, it is not known whether a person uses his/her actual self-perception as a reference for creating an ideal self-perception, or visa versa. Therefore, it was felt that an absolute value of splitting variance between self-concepts offered a more global representation of an individual's propensity to split.

In order to examine the relationships between the dependent variables and participant demographic variables, the means of the splitting variables were compared across gender, class, age, gpa, and credits. A correlation matrix was also used to examine associations between the dependent variables and independent measures of discrepancy, standards, anxiety, and depression. To answer the primary hypothesis (maladaptive perfectionism is associated with splitting), a correlation matrix was created to test for a significant relationship between APS Discrepancy (a measure of maladaptive perfectionism) and the dependent variables.

To detect possible order effects, six surveys were distributed, each with a different sequence of assessments. For example, one survey included assessments in the following order: APS-R, ACL (Actual), CES-D, ACL (Ideal), PSWQ, ACL (Projected). Another survey included assessments presented in the following order: CES-D, ACL (Ideal), PSWQ, ACL (Projected), APS-R, ACL (Actual). Surveys were randomly distributed to participants. A one way ANOVA was conducted on the dependent variables (Internal Conflict and Attribution Splits) to determine if any of the six orderings influenced the responses of participants. A Tukey comparison was used to examine between group variations.

Because order effects were discovered to influence the pattern of answers on the ACL scores and as a consequence, the dependent variables, order effects were held constant in the correlational operations in order to eliminate their bias on this analysis. This was accomplished by creating five dummy variables from

the six types of surveys distributed using the sixth order (PIA order) as a reference value for the other five orders. The dummy variables were partialled out of the correlational analysis to control for order effect.

Mediator Analysis

Kenny (2001) describes mediator variables as having an intervening effect between predictor and outcome variables. Mediators are mechanisms that serve to more fully explain variable relationships. These variables play an intermediary role in a chain reaction process in which a predictor variable influences a mediator variable, which in turn influences an outcome variable (Holmbeck, 1997). Holmbeck states that four criteria must be in order to validate the existence of a mediator variable: "(1.) the predictor must be significantly correlated with the hypothesized mediator, (2.) the predictor must be significantly associated with the dependent measure, (3.) the mediator must be significantly related to the dependent variable, (4.) the impact of the predictor on the dependent measure must be less after controlling for the mediator," (p. 602).

To answer the second hypothesis (affect mediates perfectionism and splitting), three multiple regression analyses were conducted for each independent, mediator, and dependent variable combination. In the first regression, the association between perfectionism and depression/anxiety is examined. In previous studies, depression and anxiety have been implicated as affective characteristics of perfectionists and are identified as mediator variables in this study. In the second regression, the association between perfectionism and splitting is examined. In the final regression, perfectionism and

depression/anxiety are used as predictors of splitting. If a true mediation effect exists, the association between perfectionism and splitting is less when depression/anxiety is present. The degree to which depression/anxiety reduces the association between perfectionism and splitting is an indicator of the potency of affect on splitting. As in the correlational analysis, order effects were used as independent variables in each regression to control for order effect. All significance tests were performed with an alpha value of .05 with the anticipation of medium effect sizes.

CHAPTER 4

Results

This chapter details the results of the study. A preliminary analysis provides descriptive information regarding the four assessments used in the analysis. The procedure used to detect assessment order effects is described along with the results of this assessment. Finally, the major analyses are presented.

Preliminary Analyses

Instrument ranges, means, standard deviations, and reliability estimates are summarized in Table 2. Mean scores on the APS-R were 20.39 on Order, 40.68 for High Standards, and 44.56 for Discrepancy. These results are comparable to other university samples using the APS-R. Reliability of the three subscales for the APS-R ranged from .86 to .94.

The mean number of adjectives endorsed by participants on the ACL was highest for ideal-self ($M = 91.92$, $SD = 35.18$) followed by true-self ($M = 83.67$, $SD = 39.13$). The standard deviation for all categories was similar with a low of 33.80 (projected-self) to a high of 39.18 (actual self). An item analysis of the ideal self-concept measure indicates that a minimum of 200 (76%) or more of the participants endorsed 28 popular items. This is in contrast to the actual and projected measures in which participants selected two popular items. Sixteen participants were dropped from the study due to incomplete surveys or not meeting the cut-off for ACL validity requirements.

Participants generally appeared to worry at a similar level to the general

population with a mean of 50.66 ($SD = 15.07$). In their comparison study of anxious and nonanxious groups, Molina and Borkovic (1994) reported a mean of 47.65 ($SD = 12.99$) for the general population of their sample comprised largely of college students. Depression for the study population appeared equal to the typical cutoff score of 16 (Breslau, 1985; Husaini et al., 1980; Radloff, 1977; Weissman et al., 1977). Fifty six percent of the sample scored at or below the cut-off score of 16. Twenty five percent of the sample scored within in the 16 to 26 range (one standard deviation above the mean) or in the mild depressive area. Twelve percent of the sample scored in the 26 to 36 range (two standard deviations above the mean) classified as moderately depressed. Approximately four percent of the sample exhibited high depression scoring above 36. These higher scores have the effect of raising the overall sample mean.

Table 2

Descriptive Statistics

MEASURE	Scale Range – Possible	Scale Range – Actual	<i>M</i>	<i>SD</i>	α
<u>Perfectionism</u> (Almost Perfect Scale –Revised)					
Order	4-28	4-28	20.38	5.50	.88
Standards	7-49	11-49	40.68	7.00	.86
Discrepancy	12-84	13-84	44.56	16.76	.94
<u>Self-Concept</u> (Adjective Check List)					
ACL (TRUE SELF)	10-250	13-236	83.67	39.13	
ACL (Ideal Self)	10-250	13-224	91.92	35.18	
ACL (Projected Self)	10-250	12-213	77.01	35.80	
<u>Worry</u> (Penn State Worry Questionnaire)					
PSWQ	16-80	16-80	50.66	15.07	.94
<u>Depression</u> (Center for Epidemiologic Studies – Depression Scale)					
CES – D	0-60	0-51	15.99	10.09	.89

Table 3 exhibits a comparison of means and standard deviations between the men and women in the current study and as reported in the ACL manual (1983). Means and standard deviations are reported for the “true self” only because no previous studies have recorded these statistics for the measurement of ideal or projected self-concepts. A t-test comparing genders of the current study to the normative sample indicated significant differences between the male samples $t(2, 5498) = 3.17, p < .001$, and between the female samples $t(2, 4424) = 3.93, p < .001$. The effect sizes of the samples were .33 for males and .31 for females. Given the wide demographic variability between the samples, heterogeneity of variance was assumed in conducting the t-test. See Table 3 for comparison of gender means and standard deviations.

Table 3

Adjective Checklist True Self Comparison With Normative Population

ACL MEASURE OF SELF- CONCEPT	MALES		MALES		FEMALES		FEMALES	
	<u>(STUDY)</u>		<u>(MANUAL)</u>		<u>(STUDY)</u>		<u>(MANUAL)</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
ACL (True Self)	78.90	43.55	93.40	36.36	86.17	36.50	97.37	34.64

Table 4 exhibits the relationship between age, grade point average (GPA), and the number of academic credits (Credits) claimed by participants in the term in which they completed the survey. The table also displays correlations between these variables, the perfectionism variables (Order, High Standards, and Discrepancy), depression, anxiety, and the splitting variables. Age and GPA were significantly associated with Credits. High Standards was significantly related to

GPA.

Table 4

Correlation of Age, GPA, and Credits with Study Variables

	AGE	GPA	CREDITS
AGE	-	.12	-.13*
GPA	-	-	.13*
CREDITS	-	-	-
ORDER	.05	.01	.06
HIGH STANDARDS	-.02	.21**	.07
DISCREPACY	.06	.05	-.02
DEPRESSION	.04	.00	.03
ANXIETY	.08	.11	.12
INTERNAL CONFLICT SPLITTING	-.00	.08	.03
ATTRIBUTION SPLITTING	.08	.04	.04

* $p < 0.05$, ** $p < 0.01$

Table 5 is a comparison of gender means and standard deviations with study variables. T-tests indicate that levels of anxiety were significantly different between men and women.

Table 5

Gender Means and Standard Deviations on Study Variables

	<u>MEN</u>		<u>WOMEN</u>		<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
ORDER	20.19	4.88	20.49	5.83	.44
HIGH STANDARDS	40.17	7.43	40.95	6.78	.83
DISCREPANCY	42.32	16.01	45.73	17.08	1.60
DEPRESSION	14.01	9.03	16.98	10.50	2.38
ANXIETY	45.07	13.28	53.59	15.16	4.68*
INTERNAL CONFLICT SPLITTING	70.53	46.68	87.60	55.64	2.63
ATTRIBUTION SPLITTING	67.50	46.20	71.83	39.05	.76

* $t > 3.291$ at $p = .000$, $df = 262$

Table 6 compares class level means and standard deviations with each of the variables in the study. Anxiety was the only variable found to be significantly different between class levels of participants. Participants past their fourth year in undergraduate education and graduate students represented less than six percent of the total sample and were not included in the tab

Table 6

Comparison of Class Level with Study Variables

	<u>FRESH.</u>		<u>SOPH.</u>		<u>JUNIOR</u>		<u>SENIOR</u>		<i>F</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
ORDER	20.00	5.19	19.98	6.06	20.92	5.24	20.24	6.11	.53
HIGH STANDARDS	39.08	8.08	40.92	6.69	41.46	6.20	40.92	6.20	.84
DISCREPANCY	45.25	15.01	47.14	14.80	45.27	19.79	42.84	14.90	1.55
DEPRESSION	15.55	8.79	15.75	8.63	17.27	11.47	15.86	10.69	.73
ANXIETY	47.38	13.98	51.51	13.81	51.44	16.01	54.98	14.87	3.43*
INTERNAL CONFLICT SPLITTING	73.42	54.02	88.41	53.47	88.21	55.81	82.57	52.42	1.14
ATTRIBUTION SPLITTING	62.47	37.85	71.20	43.80	77.07	45.07	70.06	39.41	1.26

* $p < .005$, $df = 262$

Order Effect

In an attempt to detect order effects, each participant was given one of six different surveys, each with a different order of assessments. The ordering of assessments should not be confused with the variable measure of Order, a subscale associated with the Almost Perfect Scale-Revised. A Tukey HSD and Kruskal-Wallis H test were used to examine the influence of test order on participants. The findings of the Tukey HSD revealed no significant differences between groups for the internal conflict variable. The order analysis showed a significant order effect for the attribution splitting results. The API order group showed significantly higher than the PIA and IPA in the attribution splitting scores. Table 7 describes the means, standard deviations between the

dependent variables and the associated order groups.

Table 7

Means of Six Combinations of ACL Assessments Distributed to Participants

SEQUENCE <u>ORDER</u>	INTERNAL			
	CONFLICT		ATTRIBUTION	
	<u>SPLITTING</u>		<u>SPLITTING</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
AIP	6.25	4.90	5.90	4.96
IPA	5.00	4.41	4.12 _a	4.38
PAI	5.30	4.42	4.46	4.25
IAP	4.51	4.21	4.32	4.10
API	4.77	3.90	7.02	5.37
PIA	4.63	4.05	3.93 _a	3.35

Note: A = Actual, I = Ideal, P = Projected;

_a denotes significantly lower means than 7.02; ** $p < .001$.

In order to further examine the influence of assessment order on participants' responses, a Kruskal-Wallis H test (KWANOVA) was used to analyze survey order and participant response independence. The KWANOVA detects differences in location and is the nonparametric equivalent of ANOVA. The KWANOVA results indicate that a significant order effect was detected in the attribution splitting variable, $F(5,256) = 3.32$, $\chi^2 = 13.89$, $p < .001$, but not the internal conflict variable, $F(5,256) = 1.03$, $\chi^2 = 5.27$, $p > .01$.

Analysis

Primary hypothesis: Maladaptive perfectionism is significantly and positively associated with splitting tendencies.

Previous studies have made use of cluster analysis as a method for identifying maladaptive perfectionists (i.e., Parker, 1997; Rice & Mirzadeh, 2000). However, in the current study, the results of this procedure did not converge on an interpretable solution of maladaptive, adaptive, and non-perfectionist clusters. It was decided to pursue an approach using continuous variables allowing the researcher to study the dimensional characteristics of perfectionism rather than a cluster focus.

The Discrepancy and High Standards subscales were significantly correlated ($r = .23, p < .000$). Using an analytic technique created by Blatt et al. (1996), residualized versions of discrepancy and high standards were created in order to remove shared variance between the variables. Blatt et al. described the new variables as “pure” because the influence of one variable on the other was effectively removed, retaining a cleaner measure of each subscale. In the current study, controlling for High Standards created a pure measure of Discrepancy, while a pure measure of High Standards was generated by partialling out the effects of Discrepancy. Pure Discrepancy and pure High Standards each correlated .97 with their respective original subscale. Pure measures of Discrepancy (maladaptive perfectionism) and High Standards (adaptive perfectionism) were used in all study analyses. A positive and significant association between Discrepancy and both internal conflict and

attribution splitting supported the first hypothesis. Also of interest in Table 5 are significant negative correlations between High Standards and internal conflict splitting, and between High Standards and Discrepancy. High Standards was positively and significantly associated with anxiety. Depression was significantly and positively associated with anxiety in addition to internal conflict splitting, attribution splitting, and discrepancy. Anxiety was significantly linked to all the other variables. The results of the correlations between the dependent and independent variables are detailed in Table 8.

Table 8

Correlation Matrix of Perfectionism, Splitting, and Distress Variables

	INTERNAL CONFLICT SPLIT.	ATTRIB. SPLIT.	HIGH STAND.	DISCR.	DEPR.	ANX.
INTERNAL CONFLICT SPLITTING	--	.53**	-.19*	.45**	.51**	.37**
ATtribution SPLITTING		--	-.01	.30**	.38**	.25**
HIGH STANDARDS			--	-.27**	-.09	.16*
DISCREPANCY				--	.56**	.52**
DEPRESSION					--	.56**

Note: * $p < .01$, ** $p < .001$. Order effect controlled for in analysis. Residualized values of Discrepancy and High Standards were used in the analysis.

Secondary hypothesis: Depression and anxiety mediate the maladaptive perfectionism/splitting association.

As outlined by Holmbeck (1997), three regressions were completed for each model: (Step 1) anxiety and depression were regressed on Discrepancy, (Step 2) internal or attribution splitting were regressed on Discrepancy and

(Step 3) internal conflict and attribution splitting were regressed on both anxiety and depression. Differences in the standardized beta coefficients were compared across regressions. The mediation effect was determined by a decrease in the beta coefficient between the independent and dependent variables when either anxiety or depression was included in the analysis. Order effects and gender were controlled in each regression.

Internal Conflict Splitting

In Step 1, Discrepancy and anxiety were significantly associated, $R^2 = .36$, $F(7, 254) = 20.43$, $p < .001$ as were Discrepancy and depression, $R^2 = .33$, $F(7, 251) = 17.67$, $p < .001$. In Step 2, Discrepancy and internal conflict splitting were significantly associated after controlling for order effects, $R^2 = .24$, $F(7, 254) = 12.78$, $p < .001$.

In Step 3, Discrepancy and depression (and anxiety) combined to account for significant variation in splitting. Upon comparing the standardized beta values between Step 1 and Step 3 of the analysis, it was discovered that both anxiety and depression satisfied the required criteria as mediators (the standardized beta value between Discrepancy and internal conflict splitting was reduced with the addition of anxiety [$\Delta\beta = .11$] and depression [$\Delta\beta = .22$]). Anxiety appears to significantly mediate Discrepancy and internal conflict splitting. Nevertheless, when mediated by anxiety, Discrepancy and internal conflict splitting were remained significantly associated, $R^2 = .28$, $F(8, 253) = 12.53$, $p < .001$. Depression also seems to significantly mediate Discrepancy and internal conflict splitting. When mediated by depression, Discrepancy and internal conflict

splitting remained significantly associated, $R^2 = .36$, $F(8, 250) = 17.27$, $p < .000$.

The standardized beta results for each step of the analyses are summarized in Table 9. All standardized betas were significant at $p < .001$.

Table 9

Mediation effect of anxiety and depression on maladaptive perfectionism
(Discrepancy): Internal Conflict Splitting

	CRITERION	PREDICTOR	UNSTANDARDIZED		STANDARDIZED	
			COEFFICIENTS		COEFFICIENTS	
			β	SE _B	β	<i>t</i>
Step 1	Anxiety	Discrepancy	7.46	.76	.49**	9.80
Step 2	Internal Conflict Splitting	Discrepancy	22.91	2.90	.45**	7.90
Step 3	Internal Conflict Splitting	Discrepancy	17.88	3.35	.34**	5.33
	Internal Conflict Splitting	Anxiety	.67	.24	.19*	2.86
Step 1	Depression	Discrepancy	5.63	.53	.56**	10.70
Step 2	Internal Conflict Splitting	Discrepancy	22.91	2.90	.45**	7.90
Step 3	Internal Conflict Splitting	Discrepancy	12.17	3.31	.23**	3.68
	Internal Conflict Splitting	Depression	1.97	.33	.37**	6.00

* $p < .01$, ** $p < .001$, $df = 262$

Attribution Splitting

In Step 1, Discrepancy and anxiety were significantly associated, $R^2 = .36$, $F(7, 254) = 20.43$, $p < .001$, as were Discrepancy and depression, $R^2 = .33$, $F(7, 251) = 17.67$, $p < .001$. In Step 2, Discrepancy and attribution splitting were significantly associated after controlling for order effects, $R^2 = .11$, $F(7, 254) = 4.26$, $p < .001$.

In Step 3, Discrepancy and anxiety (but not depression) combined to account for significant variation in splitting. A comparison of the standardized beta values between Step 1 and Step 3 of the analysis offered evidence that anxiety satisfied the required criteria as a mediator (the standardized beta value between Discrepancy and attribution splitting was reduced with the addition of anxiety [$\Delta\beta = .07$]). Anxiety appears to significantly mediate Discrepancy and attribution splitting. When mediated by anxiety, Discrepancy and attribution splitting remained significantly associated, $R^2 = .17$, $F(8, 250) = 6.30$, $p < .000$. The standardized beta results for each step of the analyses are summarized in Table 10. All standardized betas were significant at $p < .001$.

Table 10

Mediation effect of anxiety and depression on maladaptive perfectionism (Discrepancy): Attribution Splitting

	CRITERION	PREDICTOR	UNSTANDARDIZED		STANDARDIZED	
			COEFFICIENTS		COEFFICIENTS	
			β	SE _B	β	<i>t</i>
Step 1	Anxiety	Discrepancy	7.46	.76	.49**	9.80
Step 2	Attribution Splitting	Discrepancy	8.43	1.71	.30**	4.94
Step 3	Attribution Splitting	Discrepancy	6.63	2.00	.23**	3.32
	Attribution Splitting	Anxiety	.24	.14	.13	1.72
Step 1	Depression	Discrepancy	5.63	.53	.56**	10.70
Step 2	Attribution Splitting	Discrepancy	8.43	1.71	.30**	4.94
Step 3	Attribution Splitting	Discrepancy	3.72	2.01	.13	1.85
	Attribution Splitting	Depression	.86	.20	.30**	4.30

** $p < .001$, $df = 262$

Sobel Test of Mediation

A Sobel test (1982) was performed as a test of mediator significance. The Goodman (I) (1960) version of this test calculates the critical ratio as a test of whether the indirect effect of maladaptive perfectionism on splitting via the mediator is significantly greater than zero. This test provides a sample-based estimate versus the more conservative approximation of the Sobel. As Baron and Kenny (1986) suggest, the Goodman (I) was selected because it does not make

the assumption that the product of the standard errors is insignificant. The Goodman (I) test indicates that the mediation effect created by the addition of either anxiety or depression to discrepancy is significant for both types of splitting. Unstandardized beta coefficients and standard errors were used to calculate all Goodman (I) test statistics.

The Goodman (I) test indicates that the effect between Discrepancy (maladaptive perfectionism) and internal conflict was significantly mediated by anxiety ($G(I) = 4.67, p = .000$) and depression ($G(I) = 3.47, p = .001$). The effect between Discrepancy and attribution splitting was also significantly mediated by anxiety ($G(I) = 3.13, p = .002$), but not depression ($G(I) = 1.81, p = .07$).

Exploratory Analysis

If maladaptive perfectionism embraces the negative aspects of perfectionism, then it stands to reason that adaptive perfectionism encompasses its more beneficial (opposite) qualities. It was reasoned that if maladaptive perfectionists utilized splitting mechanisms, that adaptive perfectionists would either use splitting in a more productive way or not at all. If it could be found that adaptive perfectionists react differently or oppositely to splitting than their maladaptive counterparts, then these findings may provide further insight into the maladaptive perfectionism/ splitting dynamic. Therefore, High Standards, a defining quality of adaptive perfectionism, was examined for its association with splitting. As with maladaptive perfectionism and splitting, a series of steps was used to examine multiple regression outcomes in this analysis. Order of the ACL sequence was once again controlled in each regression.

Step 1 analyses indicated that High Standards was significantly associated with anxiety, $R^2 = .14$, $F(7, 254) = 6.01$, $p < .000$. High Standards was not associated with depression, $R^2 = .03$, $F(7, 251) = 1.25$, $p < .278$. Because of the lack of significant findings between High Standards, depression, and attribution splitting, these variables were not examined further in this study.

In Step 2, High Standards was significantly associated with internal conflict, $R^2 = .12$, $F(7, 254) = 4.61$, $p < .000$. High Standards was not associated with attribution splitting, $R^2 = .02$, $F(7, 254) = .71$, $p < .663$. Due to a lack of significant effects between High Standards and attribution splitting, no further analyses were conducted on these variables.

In Step 3, anxiety was found to be significantly associated with High Standards and internal conflict splitting, $R^2 = .26$, $F(8, 253) = 11.33$, $p < .000$. An examination of the standardized beta coefficients between Step One and Step Three for each of the variable combinations revealed that only anxiety met the required criteria for mediation (the standardized beta value between High Standards and internal conflict splitting was reduced with the addition of anxiety [$\Delta\beta = -.06$]). The Goodman (I) Test for significance indicates that High Standards and anxiety were significantly associated with internal conflict splitting ($G(I) = 2.25$, $p = .023$). The standardized beta results for each step of the analyses are summarized in Table 11. All standardized betas were significant at $p < .001$.

Table 11

Mediation effect of anxiety and depression on adaptive perfectionism (High Standards): Internal Conflict Splitting

	CRITERION	PREDICTOR	UNSTANDARDIZED		STANDARDIZED	
			COEFFICIENTS		COEFFICIENTS	
			β	SE _B	β	<i>t</i>
Step 1	Anxiety	High Standards	2.32	.89	.15*	2.63
Step 2	Internal Conflict Splitting	High Standards	-9.98	3.18	-.19*	3.14
Step 3	Internal Conflict Splitting	High Standards	-13.42	2.94	-.25**	-4.56
	Internal Conflict Splitting	Anxiety	1.48	.21	.42**	7.20
Step 1	Depression	High Standards	-.96	.63	-.10	-1.52
Step 2	Internal Conflict Splitting	High Standards	-9.98	3.18	-.19*	-3.14
Step 3	Internal Conflict Splitting	High Standards	-7.34	2.78	-.14*	-2.64
	Internal Conflict Splitting	Depression	1.97	.33	.37**	6.00

* $p < .01$, ** $p < .001$, $df = 262$

Interestingly, the standardized beta value between High Standards and internal conflict splitting is negative and significant, suggesting an inverse relationship between these two variables. Anxiety appears to augment this relationship. The negative and significant association between High Standards and internal conflict splitting contraindicate mediation, in which a reduction in a

positive relationship between the independent and dependent variable is expected. An indirect effects model may further explain these findings.

Summary of Findings

The results of this analysis provide evidence that maladaptive perfectionism is significantly associated with splitting. Internal conflict and attribution splitting are related to maladaptive perfectionism. Anxiety and depression significantly mediate the maladaptive perfectionism/splitting relationship. The results of the exploratory analysis provide further information regarding the dynamics of perfectionism/splitting associations. High Standards appear to be significantly and inversely related to splitting. Anxiety is an intervening variable that appears to significantly enhance the inverse relationship between High Standards and internal conflict splitting. Mediators are variables that help to explain the influence of predictors on outcomes. Because anxiety decreases High Standards association with internal conflict splitting, it is not considered a mediator. It would appear that when adaptive perfectionists become anxious, their ability to set and perhaps achieve high personal standards might be a factor, reducing their preference for internal conflict splitting. These findings will be discussed in greater detail in Chapter 5.

CHAPTER 5

Discussion

Summary of Results

The primary purpose of this study was to find empirical evidence supporting theoretical and anecdotal propositions that perfectionists utilize a psychological splitting mechanism. The main hypotheses predicted that maladaptive perfectionists would exhibit splitting, exhibited as incongruity in self-concept. Splitting styles were conceptualized as "Internal Conflict Splitting" (actual versus ideal self-concept) or "Attribution Splitting" (actual versus projected self-concept). A secondary thesis of the study was that anxiety and/or depression are mitigating factors that mediate maladaptive perfectionism and splitting. Specifically, it was posited that depression mediates perfectionism and internal conflict splitting whereas anxiety mediates perfectionism and attribution splitting. An exploratory analysis examined the association between adaptive perfectionism (defined as high standards) and both types of splitting as well as the roles of anxiety and depression in this relationship.

The study provided evidence that maladaptive perfectionism is significantly correlated with both internal conflict and attribution splitting. Anxiety and depression appear to be significantly related to maladaptive perfectionism. Anxiety proved to significantly mediate the effects of maladaptive perfectionism on both internal conflict and attribution splitting. Depression, however, only appears to mediate maladaptive perfectionism and internal conflict splitting. The Goodman (I) tests provided empirical validation for these findings.

It was discovered that adaptive perfectionism was inversely associated with internal conflict splitting and not attribution splitting. Further, anxiety was found to increase the inverse relationship between adaptive perfectionism and internal conflict splitting. Depression was not identified as a mediator of adaptive perfectionism and either form of splitting.

Explanation for Findings

Maladaptive Perfectionism and Splitting

A defining feature of maladaptive perfectionism is a concern over failing to meet self-defined goals or standards or the perceived expectations of others. This would suggest that individuals with maladaptive perfectionism are sensitive to gaps between what they hope to accomplish and what they actually achieve. Splitting, as defined by this study, is the recognition of gaps in self-concept, and therefore an indication of an intrapsychic tendency to polarize differences in self-concept. In order to eliminate a highly anxiety provoking disparity between real and ideal self-concept, it is the thesis of this study that maladaptive perfectionists react by dichotomizing their thinking. Perfectionists believe that there is only one right outcome and one way to achieve that outcome. Anything less than perfectionism is considered a failure. Perfectionist behavior serves to control events. The findings of this study appear to support the assumption that maladaptive perfectionists are sensitive to a divided self-concept. In other words, the more affected a person is by maladaptive perfectionism, the greater the likelihood that they will split their thinking. In order to reconcile these differences, maladaptive perfectionists may engage a splitting mechanism in which the gap is

effectively eliminated in order to maintain equilibrium of self-concept. Qualities of maladaptive perfectionism such as fear of failure, self-doubt, relational problems, and anxiety, appear to activate splitting.

A further finding of the study is the relationship of maladaptive perfectionism to different forms of splitting. The results indicate that maladaptive perfectionists are prone to internal conflict and attribution splitting. Internal conflict splitting is operationally defined as the magnitude of differences between the actual and ideal selves. In addition, Gestalt Therapy further distinguishes internal conflict splitting as the difference between internalized standards and values versus emotional reactions, needs and wants. The findings of the study support the notion that the drive to achieve an ideal self-image may be driven by fear and doubt. Maladaptive perfectionists also appear to attribute their drive to excel to others' expectations. This type of splitting is defined operationally as the difference between the actual and projected selves and theoretically as the difference between the accepted injunctions and perceived standards of others in conflict with personal desires and wants. This finding would explain eating disordered individuals, for example, who strive to conform to a model of perfection that is perceived as a demand of the individual by others. The crucial factor in motivating this type of thinking is the belief that a person is not acceptable to others unless they are able to meet the perceived requirements of others.

Anxiety and Depression as Mediators

The study indicates that anxiety and depression play mediating roles in the perfectionism/splitting relationship. Emotions play a key role between perfectionism and splitting. Anxiety is associated with both types of splitting, while depression appears to mediate only internal conflict splitting. The significant role of negative emotions supports the idea that maladaptive perfectionists are sensitive and reactive to gaps or experiences that challenge the way in which they perceive themselves. These same individuals appear vigilant regarding how others view and value them as well. Anxiety and depression are significant affective agents that serve to enhance perfectionism/splitting dynamics. Said another way, if these agents are removed, the relationship between maladaptive perfectionism and splitting is less potent.

When maladaptive perfectionists seek to achieve a lofty goal, anxiety and/or depression result from an insecure ego and fragile self-esteem. Splitting may be engaged as an avoidant coping mechanism in order to reduce distress and feelings of vulnerability and shame. For example, maladaptive perfectionists may experience stress resulting from a fear of failing to meet an expected standard of performance (their own or the perceived expectations of others). The source of this fear may result in a perceived threat to a fragile sense of pride and the way in which maladaptive perfectionists view themselves. This threat may create an imbalance between the actual versus ideal self-image. In order to reduce distress, the perfectionist utilizes increasing degrees of splitting to cope with the emotional disorientation created by the perceived gap in self-concept.

The resulting “black or white” view of the world serves to eliminate the indecipherable and threatening “gray” of incongruent self-concepts. An internal state of limbo created by different and possibly conflicting self-concepts may challenge an individual’s beliefs about themselves and understanding of others. Contradictory information leads to feelings of confusion and doubt about one’s beliefs and perceptions. Splitting enables maladaptive perfectionists with the ability to simplify their thinking. This process helps to reduce feelings of fear and confusion. By channeling their thoughts through a “black and white” filter, perfectionists are able to regain an internal sense of stability and equilibrium thereby reducing confusion and self-doubt.

Adaptive Perfectionism and Splitting

In contrast to maladaptive perfectionism, adaptive perfectionism appears to have the opposite effect on splitting. Interestingly, the results indicate that adaptive perfectionism (as defined by the presence of high standards) is negatively related to internal conflict splitting. The literal interpretation of this finding indicates that individuals who maintain high standards are less likely to split. It should be noted that the influence of maladaptive perfectionistic characteristics were removed from the APS-R variable of High Standards in the analysis. Fear of failure, self-doubt, and other negative attributes of perfectionism were extracted from the High Standards variable. Therefore, it may be concluded that high standards in and of themselves are not necessarily detrimental to perfectionists. In fact, high standards may be a factor of resilience that helps to

prevent high achievers from splitting. It could be that a side benefit of being an adaptive perfectionist is better mental health.

Additionally, the study found that when anxiety is removed from the perfectionism/splitting relationship, perfectionism is even less related to internal conflict splitting. Conger (1974) defined a suppressor variable as one that increases the predictive validity of another variable (or set of variables) by its inclusion in a regression equation. Classic suppressor variables carry no significant relationship with criterion variables and serve to "clean" irrelevant variance from predictor variables, subsequently improving the predictive power of the predictor. In this study, anxiety has a significant relationship with internal conflict splitting, and further "purifies" High Standards after partialling out Discrepancy effects, improving its predictive power with splitting. Since there is an inverse relationship between adaptive perfectionism (High Standards) and internal conflict splitting, anxiety increases the polarity of this relationship (i.e. adaptive perfectionism becomes more negatively correlated with splitting). This association exists despite anxiety's significant correlation with internal conflict splitting.

The result of this finding suggests that the presence of anxiety in adaptive perfectionists may impede their ability to resist splitting behavior. In other words, anxiety may create a vulnerability factor for adaptive perfectionists. It could be that adaptive perfectionists establish lofty goals with less fear of failure than maladaptive perfectionists, allowing them to experience greater purpose in their efforts and a reduced need to split. Perhaps these individuals feel that they have

more reasonable expectations of themselves than do their maladaptive counterparts. Adaptive perfectionists may also feel less threatened, wounded, or perhaps shamed, when they do not achieve their goals, allowing for more effective maintenance of a polarized self-concept. Not only do maladaptive perfectionists have difficulty appreciating their accomplishments, but also they may ascribe a different meaning to their achievements than do adaptive perfectionists.

Non-Significant Variables

Several non-significant associations were discovered. Depression does not appear to mediate maladaptive perfectionism and attribution splitting, despite being individually associated with these variables. This finding suggests that maladaptive perfectionists are more prone to experience anxiety than depression when they internalize others' expectations of their performance. These results support previous research regarding anxiety's stronger link to perfectionism than depression (Kawamura, et al., 2001; Norman et al. 1998).

Depression was not correlated with high standards (adaptive perfectionism) or attribution splitting. It was negatively associated with internal conflict splitting. These findings suggest that depression has a less potent relationship with adaptive perfectionism than anxiety. And although anxiety was found to negatively mediate adaptive perfectionism and internal conflict splitting, it did not mediate this type of perfectionism and attribution splitting. These findings suggest that affect does not play a significant mediating or suppressing role between adaptive perfectionism and attribution splitting.

Comparison to Previous Studies

Currently, no study has been found that specifically duplicates the focus or method of the current research on splitting and perfectionism. However, several studies are similar to portions of the current study.

The current study supports earlier research linking perfectionism with anxiety and depression (Alden et al., 1994; Blatt, 1995; Blatt et al., 1995; Flett et al., 1989; Hill et al., 1997; Lynd-Stevenson & Hearne, 1999). As in previous studies, maladaptive perfectionism was associated with worry in the current study (Juster et al., 1996, Kawamura et al., 2001; Stöber & Joorman, 2001). Kawamura, et al. (2001) discovered that depression was not as strongly associated with perfectionism than anxiety, a finding supported by the current research. Alternately, the findings of Stöber and Joorman (2001) that worry was not related to high standards, was not supported by the current research. However, it should be noted that the characteristics of Discrepancy were partialled out from Standards for the purpose of creating a more “pure” version of the Standards variable for analysis. Worry, and similar characteristics, may have been removed from the Standards variable as a result.

Studies into perfectionism indicate that individuals prone to negative emotional states such as depression, anxiety, and anguish are also likely to carry discrepant self-images. Likewise, achievement, self-esteem and other positive psychological states are negatively correlated with Discrepancy (Hewitt & Flett, 1991a, 1991b; Slaney, et al., 1998). Past research into self-discrepancy purports that depression is related to actual/ideal discrepancy while anxiety is related to

actual/ought (in which the ought-self is identified as “projected” in the current study) self-image (Hankin et al., 1997; Higgins et al., 1985; Scott & O’Hara, 1993; Strauman, 1989). The emotional/self-image relationships of these studies are in contrast to a study by the authors of the Adjective Check List in which participants were generally found to be more anxious when their actual and ideal self-concepts are incongruent (Gough et al., 1983). The findings of the current study appear to support the Gough et al. findings. The differences between the findings may be attributed, at least in part, to how the researchers operationalized differences in self-concept.

One difference between the current and previous research was the method for determining differences in self-concept. In the other studies, self-discrepancy was typically measured by requiring participants to create lists of descriptive adjectives associated with each self-concept (actual/ideal/ought) and then comparing the similarities and differences of the lists rather than responding to a predetermined list of adjectives (The Selves Questionnaire, Higgins et. al., 1985). Measures of depression and anxiety were correlated with these self-generated lists in order to examine various discrepancies. The researchers felt that the use of an adjective checklist of adjectives would constrain the spontaneity of participants’ ability to maximize the likelihood that the listed attributes would be important to the respondent. A limitation of this methodology as compared to the current study is the lack of generalizability of these studies. By offering participants a controlled list of descriptors, all respondents are accessing their splitting capacity from closely defined adjectival parameters. An

added benefit of adjective checklists is that they allow for cross-group comparisons, which past studies do not.

Another difference between the current study and a related study (Hankin et al., 1997) is the difference of perfectionism measures. The Hankin et al. study utilized the Multidimensional Perfectionism Scale (MPS: Hewitt et al., 1991) as a means of measuring perfectionism. The scales of the MPS measure three different types of orientation to perfectionism (self, other, and socially prescribed). The Almost Perfect Scale focuses on the character qualities of order, standards, and a person's tendency to self-deprecate. In other words, the MPS largely differentiates perfectionists by their perceived locus of control (external versus internal) while the APS-R offers the facility to categorize perfectionists into good or bad groupings. While the actual and ideal selves of the multidimensional scales are metrics similar to those used in the current study, the ought scale focuses on an individual's sense of obligation to others' injunctions rather than the projection itself – the metric used in this research. The Hankin et al. study attempted to explore the role of excessive standards in depression and anxiety during adolescence in contrast to the current study attempted to delineate among “good” and “bad” qualities of perfectionism and how these qualities affect or are affected by emotionality and splitting. The incongruent findings among the current and past studies may be conceptual differences between how perfectionism is operationalized.

An additional complication that appears consistent with both the past and current research may be the attempt to integrate two similar but different theories

of perfectionism (as defined by the MPS and APS) with self-discrepancy. Both theories made use of measures of self-standards, but did not necessarily target the same constructs. Self-discrepancy theory posits that differences between self-concepts will result in emotional distress. Perfectionism, as defined by the APS-R, suggests levels of distress resulting from unmet standards, but not necessarily as the result of incongruent self-concepts, a feature of the Multidimensional Perfectionism Scale. The differences of findings between past and current studies in this area suggest that there may be significant differences between these theories that should be explored more fully. For example, findings of the current study provide evidence that distress is a by-product of maladaptive perfectionism that may lead to splitting (perceived differences in self-concept). It may be useful to explore the affect of maladaptive perfectionists before and after an episode in which they have made an unsuccessful attempt at attaining a goal. A study of this kind may elucidate the dynamics of splitting and self-concept further.

Implications

This study has shed light on the relationship between perfectionism, affect, and splitting. Additionally, this paper is helpful in identifying differences between maladaptive versus adaptive perfectionists. A product of this study was a clearer understanding of how these variables interact, leading to useful clues in creating interventions that may alleviate the deleterious effects of maladaptive perfectionism. For example, it will be important for practitioners to recognize the connection between adverse perfectionism and splitting, and the role of affect in

mediating these two characteristics. The results of this study may offer mental health practitioners clues in assisting maladaptive perfectionists to recognize how maladaptive traits may trigger a system of splitting. And further, that these traits may be enhanced by anxiety and/or depression, depending upon the splitting style of the perfectionist. Anxiety, for example, appears to be a negative element common to both maladaptive and adaptive perfectionists. It was discovered that anxiety plays a role in mediating maladaptive perfectionism and splitting as well as suppressing adaptive perfectionism and internal conflict splitting. It may be useful for clinicians to educate clients in methods of stress relief and problem solving that could reduce the adverse effects of anxiety. Depression was discovered to be a somewhat less potent mediator of perfectionism and splitting. Practitioners and researchers may find more value in attending to the level of anxiety that clients or study participants are experiencing and give less attention to depressive affect.

Additionally, it may be useful for practitioners to help their perfectionistic clients explore their cognitive styles. Clinicians attempting to ameliorate the ill effects of perfectionism may find it useful to conduct a thorough exploration of the maladaptive behaviors resulting from perfectionist/splitting dynamics. It would be helpful to know whether an all-or-nothing thinking style is a common occurrence for the client. The frequency of dichotomous thinking may reveal the extent to which a client utilizes a splitting mechanism to support and maintain a perfectionist pattern. Clinical interventions aimed at increasing awareness and appreciation of conflicting internal polarities may effect a reduction in

perfectionism. Gestalt Therapy offers a therapeutic framework in which polarities may be explored, thereby reducing maladaptive patterns of splitting that plague perfectionists. For example, if perfectionists could be taught to recognize patterns of self-recrimination when they fail to meet their goals, they may learn how to better cope with disappointment, thereby averting future maladaptive habits of perfectionism. A therapeutic experiment in which the perfectionist is encouraged to verbalize their thoughts immediately following a failed attempt to achieve a goal may elucidate internal messages that reinforce behavioral patterns that support and maintain cycles of shame and blame. Exploring the connection between dichotomous thinking and the meaning perfectionists give to the pursuit of their goals, accomplishments, and failures may enlighten the practitioner regarding the perfectionism/splitting relationship.

A further implication is to assessment considerations. Given the results of this study and the important mediating roles of affect, it seems important that levels of anxiety and depression should be assessed when using perfectionism instruments. Practitioners and researchers may omit a crucial determinant of the adverse effects of perfectionism affecting respondents if anxiety and depression are not assessed when detecting perfectionism. When used in combination with the APS-R, for example, an anxiety survey could provide information as to the current extent of maladaptive perfectionism experienced by the respondent. The assessment of anxiety may also prove useful to adaptive perfectionists who may be thwarted in their ability to achieve their goals by a high level of distress.

As indicated earlier by Pruyser (1975), splitting is a difficult concept to clearly define. The current study examined splitting as a difference between self-concepts. The study provides evidence that splitting is associated with perfectionism, anxiety, and depression. It appears to be positively related to maladaptive perfectionism and negatively associated with adaptive perfectionism. These findings appear to support the theoretical context in which splitting was defined for this study. However, as noted in the literature review, the underlying mechanisms and process by which splitting operates is dependent upon the theoretical framework in which splitting is defined. In the current study, Gestalt Therapy is used to explain how and why splitting and perfectionism are related. Empirical evidence resulting from this study offers support for the conceptualization of Gestalt polarities and the process of splitting. Consideration of other theoretical frameworks may offer further insight that may add to understanding the nature of splitting and more accurate ways in which it may be operationalized for future research.

Theoretical Implications to Maladaptive Perfectionism

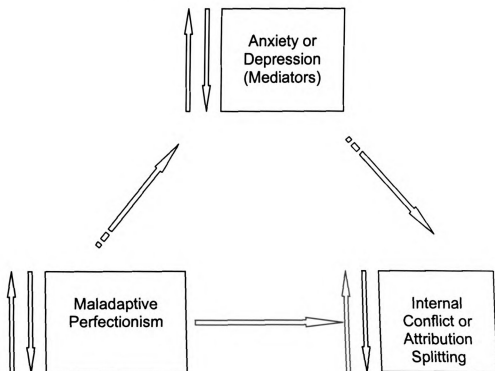
The current study provides support that maladaptive perfectionists are at risk of distress. These individuals may have character qualities that make them more vulnerable to psychological ambiguity, distress, and the resulting dysfunctional uses of mental mechanisms and defenses than other groups. Because of their inability to tolerate cognitive dissonance, it is theorized that maladaptive perfectionists tend to polarize their thinking to reduce distress resulting from incongruent self-concepts. Gestalt Theory suggests that

maladaptive perfectionists will intellectually gravitate toward one pole over another in order to eliminate differences in self-concept. Because maladaptive perfectionists fear failure and the resulting feelings of inadequacy, it seems plausible that these individuals would habitually gravitate toward an ideal self-image. Maladaptive perfectionists are constantly running from the threat of a divided self-concept and in pursuit of an ideal that can never be realized, leaving these individuals forever fettered to personal dissatisfaction.

According to Greenberg (1993), internal conflict arises out of a difference between internalized standards and values versus organismic emotional reactions and needs or wants which are in opposition. Attribution splitting occurs when a person's wants/desires are in conflict with the projected injunctions and judgments of others. In accepting judgments about themselves, these individuals become self-critical and self-pressuring. Because of maladaptive perfectionists' tendency to form rigid categories of experience, it is likely that these individuals have a greater likelihood to experience extremes in self-concept. Maladaptive perfectionists most likely have a strong reaction (both in degrees of affect and splitting) to shifts in self-concepts. As described in terms of Gestalt Therapy, the maladaptive perfectionist selects the top-dog, a self-concept that is sensitive to socially defined values. This is at the expense of the individual's own emotional needs and wants. The splitting process serves to partition thought, thereby reducing the anxiety/depression that would otherwise result from experiences that conflict with established perceptions of self-concept. Figure 1 illustrates the relationships between discrepancy, internal conflict splitting, and emotion.

Figure 1

The relationship between discrepancy, splitting, and emotion



The findings of the study support this theoretical postulate. Across all attributes of maladaptive perfectionism, as anxiety and depression increase, splitting increases between actual/ideal or actual/projected self-images. Similarly, as anxiety and depression decrease, discrepancy decreases between the self-images.

From a Gestalt Therapy perspective, this study is valuable because it supports the use of gestalt interventions that could help to diminish splitting, reduce anxiety, and perhaps even reduce maladaptive perfectionism. For example, maladaptive perfectionists may be educated to recognize the emotional effect of a discrepant self-image and to understand the internal mechanism of

splitting influencing their feelings and behavior. A gestalt therapist might encourage a maladaptive perfectionist to increase their awareness of their polarizing through the use of an intervention, called an “experiment” in gestalt terminology. The use of an experiment, such as a two-chair technique, might serve to integrate the highly developed polarities of perfectionists. By opening a dialogue between the split polarities, increased awareness and insight into the internal process of splitting may be identified. Once this process is identified, it would enable perfectionists to observe their own pattern of splitting, and then make more constructive choices regarding their thoughts and behaviors than previously available. This intervention would hopefully reduce perfectionists’ typical reaction to failure, thereby reducing anxiety and gaps in self-image, and perhaps even maladaptive perfectionism itself.

Study Limitations

An attempt was made in the study to capture a broad cross-section of university students with varying class associations, cultural diversity, and gender. The demographic data collected from the respondents did not require race or ethnic identification. The majority of sampling was conducted at the University of Oregon, which reports an ethnic population comprised of 13.1% non-White/Hispanic students. It is assumed that a portion of this ethnic audience is reflected in the sample. Class affiliation in the undergraduate sample was relatively evenly distributed. Graduate students and undergraduates in their fifth year of study represented 6% of the sample.

A factor that may have unduly influenced the results of the study was the gender sampling in which females outnumbered males by a margin of two to one. Women were shown to have a slightly greater propensity to split than men. This difference may have had the effect of influencing the splitting comparisons, creating a larger splitting effect than would be found in a more gender-balanced population.

Data collection procedures were carefully followed throughout the study. However, several collections were made in large group settings of fraternity and sorority organizations in which the presence of student peers may have unduly influenced the responses of the participants. Peer pressure may have especially impacted groups of young males in fraternity settings in which denial is a common characteristic of male members. When possible, attempts were made to separate the participants so as to reduce the temptation to interact with fellow respondents.

A difficulty in conducting a survey that requires respondents to complete several instruments is the possibility of order effects. In order to evaluate and provide a measure of control for this issue, six possible arrangements of instrument were randomly distributed to respondents. Order effect was found to confound the responses of a portion of the sample. A potential problem associated with the distribution of differing orders of instruments is in participants' ability to gauge different self-concepts. Self-images are typically based on an individual's actual perception of self. Ideal and projected self-concepts are examined against the context of an individuals' actual self-concept. Those

participants who were not directed to evaluate their actual self-concept before the other self-concepts may have been at a disadvantage in accurately explicating the characteristics of their ideal and projected self-concepts.

A methodological concern was the manner in which the Adjective Check List was used as a measure of splitting. The current study followed a method of exploring differences between self-concepts as developed by the authors of the ACL (Gough et al., 1983). However, unlike the 1983 study, a composite score of the eight scales was used as a global representation of splitting propensity rather than an examination of each of the eight scales individually. Also, no distinction was made as to the positive or negative nature of personality as represented by each scale as it may relate to splitting. The choice of limiting the methodology in this manner was a deliberate attempt to focus more on the extent of splitting and its association to perfectionism rather than investigating the complexities of the relationships between perfectionism and personality. Consideration of the personality factors affecting or influencing the relationship between perfectionism and splitting may offer greater detail into the mechanics behind this association.

Issues Regarding Internal Validity

No distinction has been made regarding causation between the independent and dependent variables. Given the nature of this descriptive study, it is not fully known whether perfectionism, anxiety, and/or depression cause or influence splitting or visa versa. Despite the discovery of a relationship in which anxiety and depression serve to mediate perfectionism and splitting, it is difficult to determine whether reverse or reciprocal causation affected the study. For

example, it is not known whether perfectionism results from individuals with the propensity to split.

As discussed earlier, it was discovered that perfectionism is a significant characteristic of splitting. However, other factors may significantly influence perfectionistic, emotional, or splitting behavior of the sample. Some of these factors may include intelligence, emotional sensitivity, age and/or developmental life-stage influence, hardiness, degree of optimistic or pessimistic outlook, emotional tolerance, and temperament.

Issues Regarding External Validity

Although the study draws from a relatively large university student population, the ethnic balance of the University of Oregon may be not be representative of similarly sized universities, thereby limiting the generalizability of the research against more diversified populations. Cultural dynamics that may be unique to the northwestern United States, Oregon, and the University of Oregon may also limit generalizability. The large number of female respondents may have influenced the results of this study, possibly compromising its generalizability to university student populations.

A second area of concern is the operationalization of splitting. Although a sound theoretical case was presented linking self-concept discrepancy with splitting, the use of a measure that captures gaps in self-image may not have adequately represented more traditional definitions of splitting as outlined by earlier in this study by Marmar and Horowitz (1986). It could be that self-concept discrepancy is not an indication of a person's preference for one polar identity

over another. Although this study supports the proposition that affect and self-discrepancy are related, splitting may not be influenced by root emotions but by habitually formed cognitions or physiological factors not measured in this research.

Statistical Problems

The first attempt to analyze the Almost Perfect Scale was through a cluster analysis process, a procedure commonly used to define groups of maladaptive, adaptive, and non-perfectionists. This analysis did not yield three groups that were clearly definable and was therefore abandoned. However, cluster techniques may often present difficulties in identifying meaningful groupings of psychological characteristics. It was decided that a correlation analysis would be used to explicate significant relationships among the variables and maintained for an examination of the APS continuous variables consistent with the other measures. The decision to view the data in this manner enabled the researcher to examine the dimensions of perfectionism rather than categorizing the sample by specific characteristics. This method of defining perfectionism as either continuous or categorical variables however, remains in debate.

Future Directions

This study attempted to quantitatively link perfectionism with dichotomous thinking, a characteristic identified by researchers as a distortion of thinking utilized by perfectionists. Examination of other cognitive distortions attributed to

perfectionists, such as overly moralistic self-evaluation and overgeneralization, may also provide valuable insight into the minds of perfectionists.

An opportunity exists to utilize the breadth of personality scales of the Adjective Check List. The current study derived scores of self-discrepancy from a composite of eight scales of the Adjective Check List. An additional investigation could include a composite of all 37 ACL scales to attain the self-concept discrepancy values for internal conflict and attribution splitting. This analysis would extend help in more accurately identifying discrepancies between self-concepts.

One of the challenges of the study was in attempting to capture the essence of the splitting mechanism through self-discrepancy. It may be informative to repeat the study adding an additional measure of splitting (e.g. The Splitting Index [Gould et al., 1996] or Splitting Scale [Gerson, 1984]). The focus of these scales is on the lability of affect and may provide added insight into splitting behavior in perfectionists.

Stress is a factor that has been associated with perfectionism (Chang, 2000; Chang & Rand, 2000). The researchers found that stress fully mediates the influence of perfectionism on positive outcomes, while only partially mediating perfectionism on negative outcomes, such as worry and negative affect. Similarly, Dunkley et al. (2000) found that hassles, avoidant coping, and lack of perceived social support mediate evaluative concerns perfectionism and distress. In order to capture the influence of stress (as measured by anxiety and depression) on perfectionists across a specific time period, it may be useful to

repeat the current study at different time frames during a university semester with the same participants. Because it is believed that maladaptive perfectionists are influenced by external validation, it may prove informative to measure this factor in relation to self-image variables. A study of this nature may serve to more clearly define the relationship between self-image, splitting, and perfectionism.

Self-reporting of perfectionism and splitting behavior lack observable verification. It may prove useful to find participants who have been clinically identified with perfectionism and splitting behaviors to repeat this study so as to confirm or dispute the findings of the current research.

Given the findings regarding adaptive perfectionism and splitting, it may be useful to assess high performers on the basis of their propensity to split. A study of this nature would serve to further validate the finding that high standards, absent of their maladaptive qualities, are beneficial. Athletes, for example, may possess expect high standards of performance from themselves, but may not exhibit splitting.

Finally, the development of clinical interventions in which to reduce splitting, anxiety, depression and maladaptive perfectionism may be created and explored as a result of this study. Gestalt Therapy appears to provide a framework from which interventions may be effectively created.

Summary

It was the intent of this study to advance perfectionism research. This study has sought to further define perfectionism and its relationship with other variables. Specifically, the study has provided evidence supporting the

interaction of bad perfectionism with self-concept discrepancy defined as splitting. Further, this research has explored the relationships of perfectionism with anxiety and depression, their internal dynamics, and subsequent effect on the psyche. Hopefully, insight gained from this study will assist future researchers as they continue to define and refine our understanding of perfectionism.

Anne Lamott (1995) nicely summarized how perfectionists may constrict their lives: "I think perfectionism is based on the obsessive belief that if you run carefully enough, hitting each stepping-stone just right, you won't have to die. The truth is that you will die anyway and that a lot of people who aren't even looking at their feet are going to do a whole lot better than you, and have a lot more fun while they're doing it." (p. 28).

APPENDIX
Research Instruments

Appendix

Almost Perfect Scale – Revised

The following items are designed to measure certain attitudes people have toward themselves, their performance, and toward others. It is important that your answers be true and accurate for you. In the space next to the statement, please enter a number from "1" (strongly agree) to "7" (strongly disagree) to describe your degree of agreement with each item.

STRONGLY AGREE 1	AGREE 2	SLIGHTLY AGREE 3	NEUTRAL 4	SLIGHTLY DISAGREE 5	DISAGREE 6	STRONGLY DISAGREE 7
------------------------	------------	------------------------	--------------	---------------------------	---------------	---------------------------

- ___ 1. I have high standards for my performance at work or at school.
- ___ 2. I am an orderly person.
- ___ 3. I often feel frustrated because I can't meet my goals.
- ___ 4. Neatness is important to me.
- ___ 5. If you don't expect much out of yourself you will never succeed.
- ___ 6. My best just never seems to be good enough for me.
- ___ 7. I think things should be put away in their place.
- ___ 8. I have high expectations for myself.
- ___ 9. I rarely live up to my high standards.
- ___ 10. I like to always be organized and disciplined.
- ___ 11. Doing my best never seems to be enough.
- ___ 12. I set very high standards for myself.
- ___ 13. I am never satisfied with my accomplishments.
- ___ 14. I expect the best from myself.
- ___ 15. I often worry about not measuring up to my own expectations.
- ___ 16. My performance rarely measures up to my standards.
- ___ 17. I am not satisfied even when I know I have done my best.
- ___ 18. I am seldom able to meet my own high standards for performance.
- ___ 19. I try to do my best at everything I do.
- ___ 20. I am hardly ever satisfied with my performance.
- ___ 21. I hardly ever feel that what I've done is good enough.
- ___ 22. I have a strong need to strive for excellence.
- ___ 23. I often feel disappointment after completing a task because I know I could have done better.
- ___ 24. Using the scale above, please rate the degree to which you agree that you are perfectionistic.

Center for Epidemiologic Study – Depression

Using the scale below, circle the number which best describes how often you felt or behaved this way –
DURING THE PAST WEEK.

1. = Rarely or none of the time (less than 1 day)
2. = Some or a little of the time (1-2 days)
3. = Occasionally or a moderate amount of time (3-4 days)
4. = Most or all of the time (5-7 days)

During the past week:		Rarely or none of the time	Some or a little of the time	Occasionally or a moderate amount of the time	Most or all of the time
1.	I was bothered by things that usually don't bother me.....	1	2	3	4
2.	I did not feel like eating: my appetite was poor.....	1	2	3	4
3.	I did not feel that I could not shake off the blues even with help from my family and friends.....	1	2	3	4
4.	I felt that I was just as good as other people.....	1	2	3	4
5.	I had trouble keeping my mind on what I was doing.....	1	2	3	4
6.	I felt depressed.....	1	2	3	4
7.	I felt that everything I did was an effort.....	1	2	3	4
8.	I felt hopeful about the future.....	1	2	3	4
9.	I thought my life had been a failure.....	1	2	3	4
10.	I felt fearful.....	1	2	3	4
11.	My sleep was restless.....	1	2	3	4
12.	I was happy.....	1	2	3	4
13.	I talked less than usual.....	1	2	3	4
14.	I felt lonely.....	1	2	3	4
15.	People were unfriendly.....	1	2	3	4
16.	I enjoyed life.....	1	2	3	4
17.	I had crying spells.....	1	2	3	4
18.	I felt sad.....	1	2	3	4
19.	I felt that people disliked me.....	1	2	3	4
20.	I could not get "going".....	1	2	3	4

Penn State Worry Scale

Please read the following statements and decide how closely each relates to you. In the space next to the statement, enter a number from "1" (very typical of me) to "5" (not at all typical of me).

Very typical of me				Not typical at all of me
1	2	3	4	5

- ___ 1. If I do not have enough time to do everything, I do not worry about it.
- ___ 2. My worries overwhelm me.
- ___ 3. I do not tend to worry about things.
- ___ 4. Many situations make me worry.
- ___ 5. I know I should not worry about things, but I just cannot help it.
- ___ 6. When I am under pressure I worry a lot.
- ___ 7. I am always worrying about something.
- ___ 8. I find it easy to dismiss worrisome thoughts.
- ___ 9. As soon as I finish one task, I start to worry about everything else I have to do.
- ___ 10. I never worry about anything.
- ___ 11. When there is nothing more I can do about a concern, I do not worry about it any more.
- ___ 12. I have been a worrier all my life.
- ___ 13. I notice that I have been worrying about things.
- ___ 14. Once I start worrying, I cannot stop.
- ___ 15. I worry all the time.
- ___ 16. I worry about projects until they are all done.

The Adjective Check List

DIRECTIONS: This assessment contains a list of adjectives. Please read them quickly and put an x on the space beside each one you would consider to be self-descriptive. Do not worry about duplications, contradictions, and so forth. Work quickly and do not spend too much time on any one adjective. Try to be frank, and check those adjectives which describe you as you really are, not as you would like to be.

- | | | |
|--|---|--|
| 1. <input type="checkbox"/> Absent-minded | 21. <input type="checkbox"/> Bitter | 41. <input type="checkbox"/> Confident |
| 2. <input type="checkbox"/> Active | 22. <input type="checkbox"/> Blustery | 42. <input type="checkbox"/> Confused |
| 3. <input type="checkbox"/> Adaptable | 23. <input type="checkbox"/> Boastful | 43. <input type="checkbox"/> Conscientious |
| 4. <input type="checkbox"/> Adventurous | 24. <input type="checkbox"/> Bossy | 44. <input type="checkbox"/> Conservative |
| 5. <input type="checkbox"/> Affected | 25. <input type="checkbox"/> Calm | 45. <input type="checkbox"/> Considerate |
| 6. <input type="checkbox"/> Affectionate | 26. <input type="checkbox"/> Capable | 46. <input type="checkbox"/> Contented |
| 7. <input type="checkbox"/> Aggressive | 27. <input type="checkbox"/> Careless | 47. <input type="checkbox"/> Conventional |
| 8. <input type="checkbox"/> Alert | 28. <input type="checkbox"/> Cautious | 48. <input type="checkbox"/> Cool |
| 9. <input type="checkbox"/> Aloof | 29. <input type="checkbox"/> Changeable | 49. <input type="checkbox"/> Cooperative |
| 10. <input type="checkbox"/> Ambitious | 30. <input type="checkbox"/> Charming | 50. <input type="checkbox"/> Courageous |
| 11. <input type="checkbox"/> Anxious | 31. <input type="checkbox"/> Cheerful | 51. <input type="checkbox"/> Cowardly |
| 12. <input type="checkbox"/> Apathetic | 32. <input type="checkbox"/> Civilized | 52. <input type="checkbox"/> Cruel |
| 13. <input type="checkbox"/> Appreciative | 33. <input type="checkbox"/> Clear-thinking | 53. <input type="checkbox"/> Curious |
| 14. <input type="checkbox"/> Argumentative | 34. <input type="checkbox"/> Clever | 54. <input type="checkbox"/> Cynical |
| 15. <input type="checkbox"/> Arrogant | 35. <input type="checkbox"/> Course | 55. <input type="checkbox"/> Daring |
| 16. <input type="checkbox"/> Artistic | 36. <input type="checkbox"/> Cold | 56. <input type="checkbox"/> Deceitful |
| 17. <input type="checkbox"/> Assertive | 37. <input type="checkbox"/> Commonplace | 57. <input type="checkbox"/> Defensive |
| 18. <input type="checkbox"/> Attractive | 38. <input type="checkbox"/> Complaining | 58. <input type="checkbox"/> Deliberate |
| 19. <input type="checkbox"/> Autocratic | 39. <input type="checkbox"/> Complicated | 59. <input type="checkbox"/> Demanding |
| 20. <input type="checkbox"/> Awkward | 40. <input type="checkbox"/> Conceited | 60. <input type="checkbox"/> Dependable |

61.	___	Dependent	81.	___	Evasive	101.	___	Gloomy
62.	___	Despondent	82.	___	Excitable	102.	___	Good-looking
63.	___	Determined	83.	___	Fair-minded	103.	___	Good-natured
64.	___	Dignified	84.	___	Fault-finding	104.	___	Greedy
65.	___	Discreet	85.	___	Fearful	105.	___	Handsome
66.	___	Disorderly	86.	___	Feminine	106.	___	Hard-headed
67.	___	Dissatisfied	87.	___	Fickle	107.	___	Hard-hearted
68.	___	Distractible	88.	___	Flirtatious	108.	___	Hasty
69.	___	Distrustful	89.	___	Foolish	109.	___	Headstrong
70.	___	Dominant	90.	___	Forceful	110.	___	Healthy
71.	___	Dreamy	91.	___	Foresighted	111.	___	Helpful
72.	___	Dull	92.	___	Forgetful	112.	___	High-strung
73.	___	Easy-going	93.	___	Forgiving	113.	___	Honest
74.	___	Effeminate	94.	___	Formal	114.	___	Hostile
75.	___	Efficient	95.	___	Frank	115.	___	Humorous
76.	___	Egotistical	96.	___	Friendly	116.	___	Hurried
77.	___	Emotional	97.	___	Frivolous	117.	___	Idealistic
78.	___	Energetic	98.	___	Fussy	118.	___	Imaginative
79.	___	Enterprising	99.	___	Generous	119.	___	Immature
80.	___	Enthusiastic	100.	___	Gentle	120.	___	Impatient

121.	___	Impulsive	141.	___	Lazy	161.	___	Obnoxious
122.	___	Independent	142.	___	Leisurely	162.	___	Opinionated
123.	___	Indifferent	143.	___	Logical	163.	___	Opportunistic
124.	___	Individualistic	144.	___	Loud	164.	___	Optimistic
125.	___	Industrious	145.	___	Loyal	165.	___	Organized
126.	___	Infantile	146.	___	Mannerly	166.	___	Original
127.	___	Informal	147.	___	Masculine	167.	___	Outgoing
128.	___	Ingenious	148.	___	Mature	168.	___	Outspoken
129.	___	Inhibited	149.	___	Meek	169.	___	Painstaking
130.	___	Initiative	150.	___	Methodical	170.	___	Patient
131.	___	Insightful	151.	___	Mild	171.	___	Peaceable
132.	___	Intelligent	152.	___	Mischievous	172.	___	Peculiar
133.	___	Interests narrow	153.	___	Moderate	173.	___	Persevering
134.	___	Interests wide	154.	___	Modest	174.	___	Persistent
135.	___	Intolerant	155.	___	Moody	175.	___	Pessimistic
136.	___	Inventive	156.	___	Nagging	176.	___	Planful
137.	___	Irresponsible	157.	___	Natural	177.	___	Pleasant
138.	___	Irritable	158.	___	Nagging	178.	___	Pleasure- seeking
139.	___	Jolly	159.	___	Natural	179.	___	Poised
140.	___	Kind	160.	___	Nervous	180.	___	Polished

181.	___	Practical	201.	___	Reliable	221.	___	Sentimental
182.	___	Praising	202.	___	Resentful	222.	___	Serious
183.	___	Precise	203.	___	Reserved	223.	___	Severe
184.	___	Prejudiced	204.	___	Resourceful	224.	___	Sexy
185.	___	Preoccupied	205.	___	Responsible	225.	___	Shallow
186.	___	Progressive	206.	___	Restless	226.	___	Sharp-witted
187.	___	Prudish	207.	___	Retiring	227.	___	Shiftless
188.	___	Quarrelsome	208.	___	Rigid	228.	___	Show-off
189.	___	Queer	209.	___	Robust	229.	___	Shrewd
190.	___	Quick	210.	___	Rude	230.	___	Shy
191.	___	Quiet	211.	___	Sarcastic	231.	___	Silent
192.	___	Quitting	212.	___	Self-centered	232.	___	Simple
193.	___	Rational	213.	___	Self-confident	233.	___	Sincere
194.	___	Rattlebrained	214.	___	Self-controlled	234.	___	Slipshod
195.	___	Realistic	215.	___	Self-denying	235.	___	Slow
196.	___	Reasonable	216.	___	Self-pitying	236.	___	Sly
197.	___	Rebellious	217.	___	Self-punishing	237.	___	Smug
198.	___	Reckless	218.	___	Self-seeking	238.	___	Snobbish
199.	___	Reflective	219.	___	Selfish	239.	___	Sociable
200.	___	Relaxed	220.	___	Sensitive	240.	___	Soft-hearted

241. ___ Sophisticated	261. ___ Talkative	281. ___ Unfriendly
242. ___ Spendthrift	262. ___ Temperamental	282. ___ Uninhibited
243. ___ Spineless	263. ___ Tense	283. ___ Unintelligent
244. ___ Spontaneous	264. ___ Thankless	284. ___ Unkind
245. ___ Spunky	265. ___ Thorough	285. ___ Unrealistic
246. ___ Stable	266. ___ Thoughtful	286. ___ Unscrupulous
247. ___ Steady	267. ___ Thrifty	287. ___ Unselfish
248. ___ Stern	268. ___ Timid	288. ___ Unstable
249. ___ Stingy	269. ___ Tolerant	289. ___ Vindictive
250. ___ Stolid	270. ___ Touchy	290. ___ Versatile
251. ___ Strong	271. ___ Tough	291. ___ Warm
252. ___ Stubborn	272. ___ Trusting	292. ___ Wary
253. ___ Submissive	273. ___ Unaffected	293. ___ Weak
254. ___ Suggestible	274. ___ Unambitious	294. ___ Whiny
255. ___ Sulky	275. ___ Unassuming	295. ___ Wholesome
256. ___ Superstitious	276. ___ Unconventional	296. ___ Wise
257. ___ Suspicious	277. ___ Undependable	297. ___ Withdrawn
258. ___ Sympathetic	278. ___ Understanding	298. ___ Witty
259. ___ Tactful	279. ___ Unemotional	299. ___ Worrying
260. ___ Tactless	280. ___ Unexcitable	300. ___ Zany

REFERENCES

- Alden, L. E., Bieling, P. J., & Wallace, S. T. (1994). Perfectionism in an interpersonal context: A self-regulation analysis of dysphoria and social anxiety. *Cognitive Therapy and Research, 18*, 297-316.
- 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.
- Ashby, J., & Rice, K. (in press). Perfectionism, dysfunctional attitudes, and self-esteem: A structural equations analysis. *Journal of Counseling Development*.
- Axtell, A., & Newlon, B. J. (1993). An analysis of Adlerian life themes of Bulimic women. *Individual Psychology: Journal of Adlerian Theory, Research & Practice, 49*, 58-67.
- Baron, R. M., Kenny, David A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182.
- Barrow, J. C., & Moore, C. A. (1983). Group interventions with perfectionist thinking. *The Personnel and Guidance Journal, 61*, 612-615.
- Beck, A. R. (1976). *Cognitive therapy and the emotional disorders*. New York: International Universities Press.
- Blaney, P. (1986). Affect and memory: A review. *Psychological Bulletin, 99*, 229-246.
- Blankstein, K. R., Flett, G. L., Hewitt, P. L., & Eng. A. (1993). Dimensions of perfectionism and irrational fears: An examination with the Fear Survey Schedule. *Personality and Individual Differences, 15*, 323-328.
- Blatt, S. J. (1995). The destructiveness of perfectionism. *American Psychologist, 50*(12), 1003-1020.
- Blatt, S. J., Quinlan, D. M., Pilkonis, P., & Shea, T. (1995). The effects of need for approval and perfectionism on the brief treatment of depression. *Journal of Consulting and Clinical Psychology, 50*, 113-124.
- Breslau, N. (1985). Depressive symptoms, major depression, and generalized anxiety: A comparison on self-reports on CES-D and results from diagnostic interviews. *Psychiatry Research, 15*, 219-229.

- Breuer, J., & Freud, S. (1893-1895). Studies in hysteria. In J. Strachey (Ed.), *The complete psychological works of Sigmund Freud*. (Standard ed., Vol. 2,). London: Hogarth.
- Brewerton, T. D., & George, M. S. (1993). Is migraine related to eating disorders? *International Journal of Eating Disorders*, 14, 75-79.
- Broday, S. F. (1988). Perfectionism and Millon basic personality patterns. *Psychological Reports*, 63, 791-794.
- Brouwers, M., & Wiggum, C. D. (1993). Bulimia and perfectionism: Developing the courage to be imperfect. *Journal of Mental Health Counseling*, 15, 141-149.
- Burns, D. D. (1980). The perfectionist's script for self-defeat. *Psychology Today* (November), 34-52.
- Burns, D. D., & Beck, A. R. (1978). Cognitive behavior modification of mood disorders. In J. P. Foreyt & D. P. Rathjen (Eds.), *Cognitive Behavior Therapy: Research and Application* (pp. 109-134). New York: Plenum.
- Chang, E. C. (2000). Perfectionism as a predictor of positive and negative psychological outcomes: Examining a mediation model in older and younger adults. *Journal of Counseling Psychology*, 47, 18-26.
- Chang, E. C. & Rand, K. L. (2000). Perfectionism as a predictor of subsequent adjustment: Evidence for a specific diathesis-stress mechanism among college students. *Journal of Counseling Psychology*, 47, 129-137.
- Cohen, J. (1992). Quantitative methods in psychology. *Psychological Bulletin*, 112(1), 155-159.
- Conger, A. J. (1974). A revised definition of suppressor variables: A guide to their identification and interpretation. *Educational and Psychological Measurement*, 34, 35-46.
- Corcoran, K. & Fischer, J. (1987). *Measures for clinical practice: A source book*. New York: Free Press.
- Corsini, R. J., & Wedding, D. (1989). *Current psychotherapies*. (4rth ed. ed.). Itasca: F. E. Peacock Publishers, Inc.
- Davey, G. C., (1993). A comparison of three worry questionnaires. *Behaviour Research & Therapy*. 31 (1), 51-56.

- Devins, G. & Orme, C. (1985). The Center for Epidemiologic Studies depression scale. In D. J. Keyser & R. C. Sweetland (Eds.), *Test Critiques* (Vol. 2, pp. 144-160). Kansas City: Westport Publishers.
- Dunkley, D. M., Blankstien, K. R., Halsall, J., Williams, M., & Winkworth, G. (2000). The relation between perfectionism and distress: Hassles, coping, and perceived social support as mediators and moderators. *Journal of Counseling Psychology, 47*, 437-453.
- Einstein, D. A., Lovibond, P. F., & Gaston, J. E. (2000). Relationship between perfectionism and emotional symptoms in an adolescent sample. *Australian Journal of Psychology, 52*, 89-93.
- Enns, M. W. & Cox, B. J. (1999). Perfectionism and depression: Symptom severity in major depressive disorder. *Behaviour Research and Therapy, 37*, 783-794.
- Fagan, J., & Shepherd, I. L. (Eds.). (1970). *Gestalt therapy now: Theory, techniques, applications*. Palo Alto: Science & Behavior Books.
- Fairburn, C. G. (1997). Eating disorders. In D. M. Clark, & C. G. Fairburn (Eds.), *Science and practice of cognitive behaviour therapy*. Oxford University Press.
- Fairburn, C. G., Shafran, R., & Cooper, Z. (1999). A cognitive-behavioral theory of anorexia nervosa. *Behaviour Research and Therapy, 37*, 1-13.
- Flett, G. L., Hewitt, P. L., & DeRosa, T. (1996). Dimensions of perfectionism, psychological adjustment, and social skills. *Personality and Individual Differences, 20*, 143-150.
- Flett, G. L., Hewitt, P. L., Blankstein, K. R., & Dynin, C. B. (1994). Dimensions of perfectionism and Type A behaviour. *Personality and Individual Differences, 16*, 477-485.
- Flett, G. L., Hewitt, P. L., Blankstein, K. R., & Gray, L. (1998). Psychological distress and the frequency of perfectionistic thinking. *Journal of Personality and Social Psychology, 75*, 1363-1381.
- Flett, G. L., Hewitt, P. L., Edler, N. S., & Tassone, C. (1995). Perfectionism and components of state and trait anxiety. *Current Psychology: Developmental-Learning Personality-Social, 13*, 119-126.

- Flett, G. L., Hewitt, P. L., Blankstein, K. R., Solnik, M., & Van Brunschot, M. (1996). Perfectionism, social problem-solving ability, and psychological distress. *Journal of Rational-Emotive and Cognitive-Behaviour Therapy*, 14, 245-274.
- FormyDuval, D. L., Williams, J., Patterson, D. J., & Fogle, E. E. (1995). A "big five" scoring system for the item pool of the Adjective Check List. *Journal of Personality Assessment*, 65(1), 59-76.
- Freud, S. (1916). *Introductory lectures on psychoanalysis*. (Standard ed.). (Vol. 15). London: Hogarth.
- Frost, R. O., Marten, P., Holt, C. S., Mattia, J. I., & Neubauer, A. L. (1993). A comparison of two measures of perfectionism. *Personality and Individual Differences*, 14, 119-126.
- Frost, R. O., & Marten, P. A. (1990). Perfectionism and evaluative threat. *Cognitive Therapy and Research*, 14(6), 559-572.
- Frost, R. O., Marten, P., Lahart, C., & Rosenblate, R. (1990). The dimensions of perfectionism. *Cognitive Therapy and Research*, 14(5), 449-468.
- Frost, R. O. & Steketee, G. (1997). Perfectionism in obsessive-compulsive disorder. *Behaviour Research and Therapy*, 35, 683-692.
- Frost, R. O., Steketee, G., Cohn, L., & Griess, K. (1994). Personality traits in subclinical and non-obsessive-compulsive volunteers and their parents. *Behavior Research and Therapy*, 32, 47-56.
- Gerson, M. (1984). Splitting: The development of a measure. *Journal of Clinical Psychology*, 40, 157-162.
- Goodman, L.A. (1960). On the exact variance of products. *Journal of the American Statistical Association*, 55, 708-713.
- Gough, H. G., Fioravanti, M., & Lazzari, R. (1979). A cross-cultural unisex ideal self scale for the Adjective Check List. *Journal of Clinical Psychology*, 35 (2), 314-319.
- Gough, H. G., Fioravanti, M., & Lazzari, R. (1983). Some implications of self versus ideal-self congruence on the revised Adjective Check List. *Journal of Personality and Social Psychology*, 44(6), 1214-1220.
- Gough, H. G., & Heilbrun, A. B. (1983). *The Adjective Check List Manual*. (2nd ed.). Palo Alto: Consulting Psychologists Press.

- Gough, H. G., Lazzari, R., & Fioranvanti, M. (1978). Self versus ideal self: A comparison of five Adjective Check List indices. *Journal of Consulting and Clinical Psychology*, 46(5), 1085-1091.
- Gould, J. R., Prentice, N. M., & Ainslie, R. C. (1996). The Splitting Index: Construction of a scale measuring the defense mechanism of splitting. *Journal of Personality Assessment*, 66(2), 414-430.
- Gould, D., Udry, E., Tuffey, S., & Loehr, J. (1996). Burnout in competitive junior tennis players: A quantitative psychological assessment. *Sport Psychologist*, 10, 322-340.
- Graves, W. H., & Shearer, R. A. (1971). Use of the Adjective Check List to elicit description of self-ideal discrepancy. *Perceptual and Motor Skills*, 32(2), 781-782.
- Greenberg, L. S. (1979). Resolving splits: Use of the two chair technique. *Psychotherapy: Theory, Research and Practice*, 16(3), 316-324.
- Greenberg, L. S., Rice, L. N., & Elliott, R. (1993). *Facilitating emotional change: The moment by moment process*. New York: The Guilford Press.
- Greenberg, L. S., & Sarkissian, M. G. (1984). Evaluation of counselor training in Gestalt methods. *Counselor-Education-and-Supervision*, 23(4), 328-340.
- Grotstein, J. S. (1981). *Splitting and projective identification*. New York: Jason Aronson.
- Halgin, R. P., & Leahy, P. M. (1989). Understanding and treating perfectionistic college students. *Journal of Counseling Psychology*, 68, 222-225.
- Hamachek, D. E. (1978). Psychodynamics of normal and neurotic perfectionism. *Psychology*, 15, 27-33.
- Hamilton, T. K., & Schweitzer, R. D. (2000). The cost of being perfect: Perfectionism and suicide ideation in university students. *Australian and New Zealand Journal of Psychiatry*, 34, 829-835.
- Hankin, B. L., Roberts, J., & Gotlib, I. H. (1997). Elevated self-standards and emotional distress during adolescence: Emotional specificity and gender differences. *Cognitive Therapy and Research*, 21(6), 663-679.
- Hesselbrock, M., Hesselbrock, V., Tennen, H., Meyer, R., & Workman, K. (1983). Methodological considerations in the assessment of depression in alcoholics. *Journal of Consulting and Clinical Psychology*, 51, 399-405.

- Hewitt, P. L., & Flett, G. L. (1990). Perfectionism and depression: A multidimensional analysis. *Journal of Social Behavior and Personality*, 5, 423-438.
- Hewitt, P. L. & Flett, G. L. (1991a). Perfectionism in the self and social contexts: Conceptualization, assessment and association with psychopathology. *Journal of Personality and Social Psychology*, 60, 456-470.
- Hewitt, P. L. & Flett, G. L. (1991b). Dimensions of perfectionism in unipolar depression. *Journal of Abnormal Psychology*, 100, 98-101.
- Hewitt, P. L. & Flett, G. L. (1991c). The Multidimensional Perfectionism Scale: Reliability, validity, and psychometric properties in psychiatric samples. *Psychological Assessment*, 3, 464-468.
- Hewitt, P. L., Flett, G. L., & Weber, C. (1994). Dimensions of perfectionism and suicide ideation. *Cognitive Therapy and Research*, 18, 439-460.
- Hewitt, P. L., Newton, J., Flett, G. L., & Callander, L. (1997). Perfectionism and suicide ideation in adolescent psychiatric patients. *Journal of Abnormal Child Psychology*, 25, 95-101.
- Higgins, E. T., Klein, R., & Strauman, T. (1985). Self-concept discrepancy theory: A psychological model for distinguishing among different aspects of depression and anxiety. *Social Cognition*, 3, 51-76.
- Higgins, T. E. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review*, 94(3), 319-340.
- Hill, R. W., McIntire, K. & Bacharach, V. R. (1997). Perfectionism and the big five factors. *Journal of Social Behavior and Personality*, 12, 257-270.
- Hill, R. W., Zrull, M. C., & Turlington, S. (1997). Perfectionism and interpersonal problems. *Journal of Personality Assessment*, 69(1), 81-103.
- Hollander, M. H. (1978). Perfectionism: A neglected personality trait. *Journal of Clinical Psychiatry*, 39, 384.
- Holmbeck, G. H. (1997). Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: Examples from the child-clinical and pediatric psychology literatures. *Journal of Consulting and Clinical Psychology*, 65(4), 599-610.
- Horney, K. (1937). *The neurotic personality of our time*. New York: W. W. Norton and Company, Inc.

- Horowitz, M. J. (1977). Cognitive and interactive aspects of splitting. *American Journal of Psychiatry*, 135, 549-533.
- Husaini, B. A., Neff, J. A., Harrington, D., Hughe, P. & Stone, L. (1980). Depression in rural communities: Validating the CES-D scale. *Journal of Community Psychology*, 8, 20-27.
- Juster, H. R., Heimberg, R. G., Frost, R. O., Holt, C. S., Mattia, J. I., & Faccenda, K. (1996). Social phobia and perfectionism. *Personality and Individual Differences*, 21, 403-410.
- Kawamura, K. Y., Hunt, S. L., Frost, R. O., & DiBartolo, P. M. (2001). Perfectionism, anxiety, and depression: Are the relationships independent? *Cognitive Therapy and Research*, 25, 291-301.
- Kenny, D. A. (2001). *Mediation*, Retrieved December 1, 2001 from [<http://nw3.nai.net/~dakenny/mediate.htm>].
- Kernberg, O. (1975). *Borderline conditions and pathological narcissism*. New York: Jason Aronson.
- Korb, M. P., Gorrell, J., & Van De Riet, V. (1989). *Gestalt therapy: Practice and theory*. (2nd ed. ed.). New York: Pergamon Press.
- Kowal, A., & Pritchard, D. W. (1990). Psychological characteristics of children who suffer from headache: A research note. *Journal of Child Psychology and psychiatry and Allied Disciplines*, 31, 637-649.
- Lamott, A. (1994). *Bird by bird: Some instructions on writing and life*. New York: Pantheon Books.
- Lazzari, R., & Gough, H. G. (1980). Adjective Check List self and ideal self correlates of MMPI profiles classified according to the Meehl-Dahlstrom rules. *Journal of Clinical Psychology*, 36(4), 905-910.
- Lichtenberg, J., & Slap, J. (1973). Notes on the concept of splitting and the defense mechanism of splitting of representations. *Journal of the American Psychoanalytic Association*, 21, 772-787.
- Lynd-Stevenson, R. M., & Hearne, C. M. (1999). Perfectionism and depressive affect: The pros and cons of being a perfectionist. *Personality and Individual Differences*, 26, 549-562.
- Magnusson, A. E., Nias, D. K. B., & White, P. D. (1996). Is perfectionism associated with fatigue? *Journal of Psychosomatic Research*, 41, 377-383.

- Mahler, M. (1968). *On human symbiosis and the vicissitudes of individuation*. New York: International Universities Press.
- Mahler, M. (1971). A study of the separation-individuation process and its possible application to borderline phenomena in the psychoanalytic situation. *Psychoanalytic Study of the Child*, 10, 195-212.
- Mahoney, M. J., & Arnkoff, D. B. (1979). Self-management. In O. F. Pomerleau & J. P. Brady (Eds.), *Behavioral Medicine: Theory and Practice* (pp. 75-96). Baltimore: Williams and Wilkins.
- Marmar, C. R., & Horowitz, M. J. (1986). Phenomenological analysis of splitting. *Psychotherapy*, 23(1), 21-29.
- Meyer, T. J., Miller, M. L., Metzger, R. L. & Borkovec, T. D. (1990). Development and validation of the Penn State Worry Questionnaire. *Behaviour Research & Therapy*, 28 (6), 487-495.
- Mitchelson, J. K., & Burns, L. R. (1998). Career mothers and perfectionism: Stress at work and at home. *Personality and Individual Differences*, 25, 477-485.
- Molina, S. & Borkovec, T. J. (1994). The Penn State Worry Questionnaire: Psychometric properties and associated characteristics. In C. L. Graham & F. Tallis (Eds.), *Worrying: Perspectives on Theory, Assessment and Treatment* (pp.265-283). New York, NY: John Wiley & Sons.
- Moore, C. A., & Barrow, J. C. (1986). Perfectionistic thinking in university students: Implications for individual treatment. In J. E. Talley & W. J. K. Rockwell (Eds.), *Counseling and Psychotherapy with College Students* (pp. 100-112). New York: Praeger.
- Norman, R. M. G., Davies, F., Nicholson, I. R., Cortese, L., & Malla, A. K. (1998). The relationship of two aspects of perfectionism with symptoms in a psychiatric outpatient population. *Journal of Clinical and Social Psychology*, 17, 50-68.
- Norton, G. R., Buhr, K., Cox, B. J., Norton, P. J., & Walker, J. R. (2000). The role of depressive versus anxiety-related cognitive factors in social anxiety. *Personality and Individual Differences*, 28, 309-314.
- Pacht, A. R. (1984). Reflections on perfectionism. *American Psychologist*, 39(4), 386-390.

- Parker, W. D. (1997). An empirical typology of perfectionism in academically talented children. *American Educational Research Journal*, 34(3), 545-562.
- Perls, F. (1969). *Gestalt therapy verbatim*. Lafayette: Real People Press.
- Perls, F., Hefferline, R., & Goodman, P. (1951, 1994). *Gestalt therapy: Excitement and growth in the human personality*. (2nd ed.). Highland, NY: The Gestalt Journal Press, Inc.
- Piedmont, R. L., McCrae, R. R., & Costa, P. T. (1991). Adjective Check List scales and the five-factor model. *Journal of Personality and Social Psychology*, 60(4), 630-637.
- Pirot, M. (1986). The pathological thought and dynamics of the perfectionist. *Individual Psychology: Journal of Adlerian Theory, Research and Practice*, 42(1), 52-58.
- Pruyser, P. W. (1975). What splits in "splitting"? A scrutiny of the concept of splitting in psychoanalysis and psychiatry. *Bulletin of the Menninger Clinic*, 31(1), 1-46.
- Quadland, M. C. (1980). Private self-consciousness, attribution of responsibility, and perfectionistic thinking in secondary erectile dysfunction. *Journal of Sexual and Marital Therapy*, 6, 47-65.
- Radloff, J. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385-401.
- Rheaume, J., Freeston, M. H., Dugas, M. J., Letarte, H., & Ladouceur, R. (1995). Perfectionism, responsibility, and obsessive-compulsive symptoms. *Behaviour Research and Therapy*, 33, 785-794.
- Rice, K. G., Ashby, J. S., & Slaney, R. B. (1995). Self-esteem as a mediator between perfectionism and depression: A structural equations analysis. *Journal of Counseling Psychology*, 45, 304-314.
- Rice, K. G., & Dellwo, J. P. (2002). Perfectionism and self-development: Implications for college adjustment. *Journal of Counseling and Development*, 80, 188-196.
- Rice, K. G. & Mirzadeh, S. (2000). Perfectionism, attachment, and adjustment. *Journal of Counseling Psychology*, 47(2), 238-250.

- Santor, D., Zuroff, D., Ramsay, J., Cervantes, P. & Palacios, J. (1995). Examining scale discriminability in the BDI and CES-D as a function of depressive severity. *Psychological Assessment*, 7, 131-139.
- Santor, D., & Coyne, J. (1997). Shortening the CES-D to improve its ability to detect cases of depression. *American Psychologist*, 9(3), 233-243.
- Scott, L., & O'Hara, M. W. (1993). Self-discrepancies in clinically anxious and depressed university students. *Journal of Abnormal Psychology*, 102, 282-287.
- Shafran, R., & Mansell, W. (2001). Perfectionism and psychopathology: A review of research and treatment. *Clinical Psychology Review*, 21, 879-906.
- Sheehan, T., Fifiield, J., Reisine, S., & Tennen, H. (1995). The measurement structure of the Center for Epidemiologic Studies Depression Scale. *Journal of Personality Assessment*, 64, 507-521.
- Slade, P. D. (1982). Towards a functional analysis of anorexia nervosa and bulimia nervosa. *British Journal of Clinical Psychology*, 21, 167-179.
- Slade, P. D., & Owens, R. G. (1998). A dual process model of perfectionism based on reinforcement theory. *Behavior Modification*, 22(3), 372-390.
- Slaney, R., B., Rice, K., G., & Ashby, J., S. (2002). A programmatic approach to measuring perfectionism: The Almost Perfect Scales. In F. Flett and P. Hewitt (Eds.) *Perfectionism: Theory, Research, and Treatment*, (pp. 63-88), Washington DC, American Psychological Association.
- Slaney, R. B., Ashby, J. S., & Trippi, J. (1995). Perfectionism: Its measurement and career relevance. *Journal of Career Assessment*, 3, 279-297.
- Slaney, R. B., & Johnson, D. G. (1992). The Almost Perfect Scale. Unpublished manuscript, The Pennsylvania State University.
- Slaney, R. B., Rice, K.G., Mobley, M., Trippi, J., Ashby, J. S. (2001). The Revised Almost Perfect Scale. *Measurement & Evaluation in Counseling & Development*. 34(3), 130-145.
- Small, A. C., & Batlis, N. C. (1978). Factor structure of Adjective Check List under different instructional sets. *Psychological Reports*, 43(3 Pt 2), 1111-1114.

- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. In S. Leinhardt (Ed.) *Sociological Methodology*, 1982 (pp.290-312). Washington DC: American Sociologist Association.
- Sorotzkin, B. (1985). The quest for perfection: Avoiding guilt or avoiding shame? *Psychotherapy*, 22(Fall), 564-571.
- St. Clair, M. (1986). *Object relations and self psychology*. Monterey: Brooks/Cole Publishing Company.
- Stöber, J., & Joorman, J. (2001). Worry, procrastination, and perfectionism: Differentiating amount of worry, pathological worry, anxiety, and depression. *Cognitive Therapy Research*, 25, 49-60.
- Strack, S., & Lorr, M. (1990). Item factor structure of the Personality Adjective Check List. *Journal of Personality Assessment*, 55(1-2), 86-94.
- Strauman, T. J. (1989). Self-discrepancies in clinical depression and social phobia: Cognitive structures that underlie emotional disorders? *Journal of Abnormal Psychology*, 98, 5-14.
- Volken, V. D. (1976). *Primitive international object relations*. New York: International Universities Press.
- Weisinger, H., & Lobsenz, N. (1981). *Nobody's perfect*. New York: Warner Books.
- Weissman, A. N. (1979). The Dysfunctional Attitude Scale: A validation study. *Dissertation Abstracts*, 40(3-B), 1389-1390.
- Weissman, M. M., Sholomskas, D., Pottenger, M., Prusoff, B. A. & Locke, B. A. (1977). Assessing depressive symptoms in five psychiatric populations: A validation study. *American Journal of Epidemiology*, 106, 203-213.

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