SEARCHING FOR DEMORALIZATION IN THREE MEASURES OF PERSONALITY DISORDER: LINKING THE MMPI-2 RCd AND JBW 72 WITH MCMI-III, MOREY AND BEN-PORATH PERSONALITY DISORDER SCALES

A Dissertation by

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DEDICATION

To caffeine, my companion through the many long writing sessions and nearness of self-defeat.

To my friends, thank you for the laughter when it was hard to find the humor in life. Thank you

for pouring the glasses of wine when I was in need of a fruit serving. Thank you for being such

fierce individuals. No matter where our lives lead us, I find comfort in knowing that we are all

always supporting one another.

Most importantly, to my parents Gary and Melanie, who are remarkable, fearless, and

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unnoticed and I'm forever indebted to your willingness to walk along side me during this

sometimes-arduous journey. To the moon and back and what is yet to come.

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ABSTRACT

This study sought to determine if the construct of demoralization can be identified in three established measures of personality disorder, the Millon Clinical Multiaxial Inventory-III (MCMI-III, 2006), and personality disorder scales constructed by Morey, Waugh, and Blashfield (1985) and Somwaru and Porath (1995). It was well known that the original nine Clinical scales of the Minnesota Multiphasic Personality Inventory (MMPI, 1943) and Minnesota Multiphasic Personality Inventory-Second Edition (MMPI-2, 1989) were saturated with a general dimension of emotional distress, called the "First Factor" (Graham, 2012). The Minnesota Multiphasic Personality Inventory-Second Edition- Restructured Clinical Scales (MMPI-2-RC) represented a dramatic reorganization of the original basic Clinical scales with extensive efforts made to extract this first factor (called demoralization), and to construct a new scale (RCd, named Demoralization) to unambiguously assess this dimension. Yet, some have cited Johnson, Butcher and Waller's marker (JBW 72, 2006) as being a better measure of demoralization, given its wider breath and focus in symptomatology. Persons suffering from personality disorders often describe their experience as mirroring demoralization, and it is this relationship that this project attempted to examine. The purpose of this study was two-fold. The first step was to obtain a more comprehensive understanding of the psychometrics of JBW 72; the latter analyses searched for the presence of demoralization within various measures of personality disorder. Results from the research not only supported the existence of demoralization within various measures of personality, but also broadened our understanding of its multidimensionality, provided supporting evidence that RCd and JBW 72 are likely measuring different facets of demoralization, and point towards a number of clinical implications.

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LIST OF ABBREVIATIONS

APA   American Psychological Association

DSM-III   Diagnostic and Statistical Manual, 3rd Edition

DSM-IV-TR   Diagnostic and Statistical Manual, 4th Edition-Text Revision

JBW 72   Johnson, Butcher, and Waller Demoralization Scale (72 items)

MCMI-III   Millon Clinical Multiaxial Inventory-III

MMPI   Minnesota Multiphasic Personality Inventory

MMPI-2   Minnesota Multiphasic Personality Inventory-2

MMPI-2-RC   Minnesota Multiphasic Personality Inventory-2 Restructured Clinical

                                  Scales

RCd   Restructured Clinical Scale - Demoralization

VA   Veterans Administration

CHAPTER ONE

INTRODUCTION

The philosopher George Santayana advised in his book *The Life of Reason*, "Progress, far from consisting in change, depends on retentiveness…when experience is not retained…infancy is perpetual. Those who cannot remember the past are condemned to repeat it." (1905, p. 284). An understanding of our assessment history, the questions that have been asked and answered, the methodology used, and results that have been found, allows us to evade the same inaccuracies and appreciate the journey. The assessment of personality through questionnaire methodology has a deep-rooted history, tracing back to scientist and statistician Sir Francis Galton at the end of the 19th century and his lexical hypothesis (Goldberg, 1993). The lexical hypothesis is grounded on two postulates, the first being that the personality traits most prominent in an individual's life will become incorporated into their language. Second, the most fundamental descriptors are apt to be encoded as a single adjectival term or descriptor (Mondak, 2010). It would follow that the linguistic link between personality and language is imperative and functional, as humans recognize dissimilarities and generate means to communicate these differences (Mondak, 2010). Moreover, if said distinctions in characteristics were encapsulated in an individual's language, then the devise of suitable indicators of personality traits could be developed through adjectival marker rating (Mondak, 2010). As it would stand, Galton was one of the first to confer the dictionary for descriptive terminology related to personality within the lexicon, which was later refined by Allport and Odbert (1936) and Norman (1967).

The field of personality psychology has largely been involved in two divergent, yet connected undertakings, those being the study of individual difference dimensions and the scholarship of individuals as distinct, cohesive wholes (Lamiell, 1997; McAdams & West, 1997;

Murphy, 1932; Sanford, 1963). These two efforts have also been referred to as "analytic" versus "structural," "quantitative" versus "qualitative," or "nomothetic" versus "idiographic" (Allport, 1937; Lamiell, 1997; West, 1983; Windelband, 1904; Young, 1928). More generally, the psychometric approach to individual differences, especially those of intelligence, can be traced to the work of Gallon, Pearson, Cattell, Thorndike, and Terman (Winter & Barenbaum, 2008; Young, 1928), and their development of "mental test" to address social concerns related to immigration, war mobilization and military placement, labor unions and industrial prediction, and education performance (Danziger, 1990; Fernald, 1920; Parker, 1991; Pressy, 1921; Schaffer, 1991; Vernon, 1993).

The Woodworth Personal Data Sheet, also known as the Woodworth Psychoneurotic Inventory, was thought to be the first objective, self-report personality test grounded in the intelligence test model with "scores" on distinct test "items" being added to attain a total score (Winter & Barenbaum, 2008). Upon the United States entering World War I and the suggestion that certain cohorts of soldiers were liable to "shell shock" or "war neurosis," the American Psychological Association (APA) devised a committee to develop a test intended to measure "susceptibility to shock," a facet of emotional instability (Winter & Barenbaum, 2008). Woodworth reviewed case studies of neurotic soldiers and their symptomology and subsequently established a 116-item, yes/no questionnaire, intended to differentiate "normal" soldiers from the neurotics/shell-shocked (Woodworth, 1919, 1932).

At the opposing end of the spectrum, "whole-person" methodology and approach was subscribed to predominate within German psychology initially, but adopted by Allport (1923, p. 614); "More fundamental than differential psychology, by far, is the problem of the nature, the activity, and the unity of the total personality." Allport was largely influenced by German

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philosopher, William Stern, who argued in favor of a personalistic psychology in his book *General Psychology From the Personalistic Standpoint* (1938). Found at the core of Stern's theory lies the individual human, viewed as a psychophysically neutral *unitas multiplex*, or multifaceted whole; its goal being the systematic exploration for correctness and order in the vicissitudes of a person's experiences (Lamiell, 2014). Nevertheless, despite personality research burgeoning, Allport and Vernon (1930) remarked on the deficiency of theoretical development.

Spurred by the need for theoretical development, Raymond Cattell prefaced his work under the assertion that measurement is what scientific advancement is based upon (Cattell, 1946). Likewise, he argued that an ideal personality psychology practice would be grounded in objective, trait measures as paralleled in the field of ability assessment (Cattell, 1946). It was through his training and theoretical emphasis that Cattell meaningfully cultivated and expounded psychometric methodology via correlation, factor analysis, and various multivariate techniques (Winter & Barenbaum, 2008). As a consequence of the accessibility of immense data related to personality, Cattell (1946) utilized correlations and multivariate techniques for better interpretation; "…the most potent method of attacking the tangle is to work out correlation coefficients between the inconveniently multitudinous variables…seek some smaller number of…underlying variables know as factors" (p. 272). Accordingly, derived from the Allport and Odbert's (1936) list of 4,504 traits, Cattell's first examination of personality utilized peer ratings of 35 trait-word clusters (Cattell, 1945). These data were factor analyzed and rotated various ways, until an oblique rotation was settled upon, resulting in 12 factors referred to as "the established primary traits" (Cattell, 1945). Factor analysis persists as a commonly utilized statistical technique, though dissent continues regarding appropriate circumstances for its

utilization and methodology. For instance, Eysenck favored an orthogonal as opposed to oblique rotation, where orthogonal methods assume factors being analyzed are uncorrelated and oblique assumes the opposite. Eysenck's results yielded three "superfactors" or higher-order factors of Extraversion, Neuroticism, and Psychoticism (Eysenck & Eysenck, 1985). As computers became more readily available, factor analysis became a more feasible methodology, resulting in an abstract-level, trait-domain consensus of five orthogonally rotated factors or trait clusters known as the five-factor model or "Big Five": Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness (Costa & McCrae, 1992a; Costa & McCrae, 1992b; Goldberg, 1992; John, 1990; Wiggins, 1996).

Transitioning from a more historically oriented overview of personality and psychopathology, it would be of note to mention the most widely utilized psychological test within the United States and most countries internationally, which is the Minnesota Multiphasic Personality Inventory-2 (MMPI-2; Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989). A more thorough and detailed account of the MMPI's chronology, scale development and restructuring techniques will be discussed in subsequent sections, but of relevance is the designated use of this psychological assessment tool. During the 1930s and 1940s, around the time of the publication of the original MMPI (Hathaway & McKinley, 1943), the principal function of psychologists and psychiatrists was to ascribe appropriate psychodiagnostic labels. The creation of a self-administered, paper and pen, personality inventory vastly cut back on necessary allocation of clinical resources, as the MMPI presented a more efficient and reliable alternative to arrive at psychodiagnostic descriptions (Graham, 2012).

Prior to the MMPI, most personality inventories were developed using a logical keying approach, or selection and generation of test items based on face validity, with responses being

keyed according to subjective judgment regarding the attribute being measured (Graham, 2012). Following clinical and research data supporting the ease of falsification, misrepresentation, and inconsistency with observed behavior, a distinctive construction technique was applied to the MMPI (Graham, 2012). To overcome past shortcomings in how assessments were constructed, the authors of the MMPI chose to intentionally emphasize a new empirical keying approach. Empirical keying requires pragmatic determination and item-level analysis, ultimately yielding items that differentiated between persons' exemplifying clinical conditions of interest from those within an unimpaired population control group (Graham, 2012; Rogers et al., 2006). Although the novel methodology of criterion keying avoided a priori assumptions regarding the qualities of the psychiatric dimensions the authors intended to assess, it resulted in an overlap of items, causing them to be highly correlated. This technical error resulted in discriminant validity coefficients being less than optimum. Secondly, another unintended factor that also compromised discriminant validity was that all of the clinical subjects being utilized for scale development were psychiatric patients and, thus, assuredly share some common characteristics such as universal distress. It is not surprising that criterion keying and the presence of a suspected universal distress factor in the clinical norm group would lead to nonspecificity within the scales. It should be noted that although item and content overlap may be suitable from a construct level, it is ultimately a statistical limitation producing reduced discriminant validity and a failure to obtain its primary goal of differentiation among various forms of psychopathology.

Some of the first investigators to quantify the hypothesized non-specificity inherent to the MMPI, identified this construct the "general maladjustment or general malaise" (GM) scale (Block, 1956; Eichman, 1961, 1962; Welsh, 1956). Following an analysis of the 550 MMPI items, the GM dimension was identified as obscuring the Clinical scales; subsequent "pure"

scales were generated by extracting items that overlapped with the GM parent scale, along with

any additional scale in the MMPI. Correspondingly, initial factor analytic studies of the MMPI

scales have steadily recognized two factors, which Welsh labeled as anxiety and repression, and

respectively introduced in 1956 as Factor A and R (Greene, 2011). Factor A has been

conceptualized as a general personality factor labeled by Welsh (1965) as anxiety, Block (1965)

as a lack of ego resilience, and Tyler (1961) as general maladjustment. The first factor was

initially argued to be an artifact of the response bias characterized by social desirability (Edwards

& Diers, 1962) and the deviation hypothesis, or the propensity towards a specific response as

being the primary determinant of whether items are endorsed, irrespective of content and

personality features (Berg, 1955). Ultimately, the first factors structure was shown to be

unaffected by an individual's response bias when controlled for (Block, 1965). The

interpretation of Factor R or Repression has not been as debated as Factor A; and this scale has

been consistently defined by denial, suppression, or inhibition of mental and physical symptoms,

emotionality, interpersonal relationships, vocational or leisure interests, behaviors, violent

propensity, and social dominance (Greene, 2011).

As it pertains to the development of his Scale (Factor) A, Welsh utilized a population of

male Veteran Administration (VA) clients who obtained scores within the upper and lower 10

percent of a preliminary scale designed to assess for anxiety, or the first factor. The final version

of Welsh's scale was comprised of 39 items that were able to distinguish between high and low

scorers in two different VA samples (Greene, 2011; Welsh, 1956). Welsh's Factor A has been

found to correlate with a number of other non-K-corrected Clinical scales, including Scale 7

(Psychasthenia: .95); Scale 8 (Schizophrenia: .91) and the Correction Scale (K: -.79), as well as

sharing substantial item overlap with a number of Clinical scales (Greene, 2011). See Appendix

A with scale names and their respective descriptions. Welsh's scale item content assesses for issues in attention and concentration, pessimism, negative self-evaluation, hypersensitivity, ruminations, and dysphoria. High scoring individuals are inclined to present as apprehensive, emotionally bothered, lacking self-confidence, and tend to mirror situational stress that results in treatment motivation (Greene, 2011).

Later, Welsh (1956, 2000) broadened his analysis of his Scales A and R through profile configuration; otherwise, referred to as code typing, which includes the methodological use of clusters of scale elevations to aid in the interpretation of the Clinical scales, as MMPI scales have names and numbers. For example, many clients have an MMPI profile with clinically significant elevations on the Depression (scale 2) and Psychasthenia or Obsessive Compulsive (scale 7). The codetype for this cluster of elevations is 27/72. See Appendix B for an example of codetypes for better interpretation. In the place of individual scale interpretation, code typing affords a more holistic, integrated, and detailed description of the profile at hand (Graham, 2003, 2006).

As a consequence of Welsh's investigation of the code types of 250 MMPI profiles, it was discovered that the 2-7-8 scale cluster and/or elevations resulted in the most prominent anxious and depressive features. Welsh proposed preliminary psychiatric state descriptions reflecting the various code types, including: reactive depression, mania-depression, depression, and states of anxiety (1956, 2000). Further supporting Welsh's findings, Eichman (1961) labeled this first factor as "general maladjustment, anxiety, and/or complaint(s) factor". In congruence with Welsh's (1956, 2000) and Eichman's (1961) dilemmas in distinguishing varied presentations of anxiety and depression, Tellegen and Ben-Porath (2003) chose the term demoralization to denote the malaise/general maladjustment factor in their development of a later

edition to the MMPI. Their choice of the word demoralization was thought to derive from Frank's description of the term demoralize, meaning "to deprive a person of spirit, courage, to dishearten, bewilder, to throw a person into disorder or confusion" (1973, p. 316). Frank asserted that the term demoralization describes the state of mind of individuals who seek psychotherapy for any and all conditions.

Speaking more generally, because of the MMPI's construction methodology, its items are sensitive to general psychopathology but less so regarding the specifics, with symptoms such as anxiety, general maladjustment, problematic concentration, low level social alienation, and emotional distress exhibiting within different clinical disorders with various levels of severity and combination, thus unique to none in particular (Graham, 2012; Nichols, 2006). Further compounding issues with construct and item overlap is shared variance from a factor analytic viewpoint, as the first factor has been consistently acknowledged as the primary source of variation, thus compromising scale independence (Nichols, 2006). Despite this well-known flaw and assessment inadequacy within the MMPI-2 (Butcher et al., 1989), it wasn't until a later revision of the Restructured Clinical Scales (MMPI-2 RC Scales, Tellegen et al., 2003) isolated the first factor, extracted it from the Clinical scales, and created an entirely separate scale labeled "Demoralization" that this was addressed.

It is here that we find the confluence of contextual factors, demoralization, and personality assessment. Within the last few decades, there has been a greater emphasis on the context of personality, thought to be due to increased globalization. Both the level and outlet of personality expression is intensely swayed by situational and global contexts (e.g., age, family, socio-economic class, nationality, culture, sexual orientation and identity, and gender) (Winter & Barenbaum, 2008). Just as there are contextual variations and disparities in assessment

elevation, so too are there deviations in symptomatology presentation across individuals. As

would follow, many personality traits are dimensional in nature, presenting themselves in

numerous forms, diversely between individuals, and varyingly across the course of time.

Demoralization is no exception.

Characteristics of Demoralization

Demoralization, a distinct psychological state, has been described and categorized

through a number of lenses since its introduction as a term. As it presently stands,

demoralization is characterized by feelings of hopelessness, helplessness, subjective

incompetence, a sense of failure, and an inability to cope (Tecuta, Tomba, Grandi, & Fave,

2015). Frank (1961) was the first individual to propose the idea of demoralization, designated as

a cluster of related symptoms analogous to the "giving up-given in" complex. The "giving up-

given in" complex expounds upon the experience of intense feelings of subjective incompetence,

thoughts related to the failure of meeting the expectations of oneself and others, coupled with an

incapacity to cope and problem solve (Frank, 1961). An individual's inability to manage and

cope is alleged to stem from a sense of being inundated and overcome by their present

circumstance, exacerbated further by an inability to employ problem solving techniques and/or

performance on said tasks (Frank, 1961). As it relates to Frank's perspective on demoralization,

patients oftentimes are seeking psychotherapy upon exhaustion of their emotional resources and

ineffectiveness in applying coping mechanisms to mediate their distressing situation (Frank &

Frank, 1991). To better illuminate the scope of demoralization, Link and Dohrenwend (1980)

found the presence of demoralization within 25% of the United States general population, with

half of those demoralized individuals suffering to the level of clinical impairment.

Using Frank's (1961) hypothesis and descriptor of demoralization, de Figueiredo and Frank (1982) expanded upon the demoralization construct and emphasized its two central elements, personal distress and subjective incompetence, or one's "self-perceived incapacity to act at some minimal level according to some internalized standard in a specific stressful situation" (de Figueiredo & Frank, 1982, p. 353). A common manifestation of this is a consequence of past failures at effective problem solving, resulting in distress, trepidation, and symptoms mirroring anxiety, dysphoria, and discouragement (Clark & Kissane, 2002; de Figueiredo & Frank, 1982). It is postulated that distress and subjective incompetence may and often do exist autonomously of one another. Their co-occurrence coupled with the accompanying damaged self-esteem and perceived incompetence yields a demoralized individual (de Figueiredo & Frank, 1982).

Encouragingly, social bonds are proposed to mediate the development of demoralization. An individual's sense of inadequacy and incompetence negatively impact their internalized standards; yet can be ameliorated through sufficient social support. This is done so through enhanced social support ability to disconfirm an individual's negative cognitions about their selves that are tied to their self esteem (de Figueiredo & Frank, 1982). Along the same vein, Clarke and Kissane (2002) conceptualized demoralization as a "breakdown of coping," or the devices utilized to regulate an individual's perceived distress, often resulting in a spiraling of compounded dysregulation attributed to scanty social bonds, dysfunctional cognitions, and evasion of the concern at hand.

As a person's self-esteem and efficacy are so closely tied to one's psychological and physiological suffering, it would follow that demoralization often results in feelings of "loss of control" over one's symptomatology and prognosis, frequently found within medical populations

(Cassel, 1982). Additionally, comparable to Frank (1961), Schmale and Engel (1967) acknowledged demoralization as a psychological state, but more exclusively associated with illness. Still, symptomatology and presentation of demoralization were almost identical, characterized by helplessness or hopelessness, feelings of being at a loss or "at the end of one's rope," and a failure to cope, again named the "giving up-given in" complex (Tecuta, Tomba, Grandi, & Fava, 2015). Engel (1968) felt the quintessence of the "giving up-given in" complex resided in futile coping mechanisms, or a manner of psychological impotence instigated by prior approaches no longer successfully ameliorating an individual's current distressing circumstance.

Successively utilizing Schmale and Engel's (1967) depiction of the 'giving up-given in' complex and Frank's (1973) demoralization syndrome, Mangelli et al. (2005) endeavored to measure the demoralization construct and depressive symptomatology within a medical population of 807 individuals, using the Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition-Text Revised (DSM-IV-TR, 2000), Diagnostic Criteria for Psychosomatic Research (DCPR, Mangelli et al., 2005), and semi-structured interviews. The three criteria that DCPR employed for classification of demoralization, included:

1. A feeling state characterized by the patient's consciousness of having failed to meet his or her own expectations (or those of others) or being unable to cope with some pressing problem, the patient experiences feelings of helplessness, hopelessness, and giving up.

2. The feeling state should be prolonged and generalized for at least one month in duration.

3. The feeling state should closely antedate the manifestation of a medical disorder or exacerbate the symptoms.

Findings from the population of interest concluded that 30.4% were found to meet criteria to be considered demoralized; 16.7% met the clinical level of Major Depressive Disorder (MDD); while 43.7% of patients with MDD were not demoralized, and 69% of those characterized as demoralized did not meet criteria for MDD (Mangelli et al., 2005). Conclusions from this study validate the dimensionality of demoralization and highlight the vital demand for differentiation between depression and demoralization as well as the and polythetic nature of demoralization's presentation. Mental disorders are presently considered to be polythetic, implying that an individual must meet a certain designated number of symptom criteria, but not all criteria from a defined set (Krueger & Bezdjian, 2009). Subsequently, this also led to the introduction of demoralization in the 'Psychological Factors Affecting Medical Conditions' category of the DSM specifiers (Fava et al., 2007). Stemming from this addition to the DSM, Clarke and Kissane operationalized "existential distress" or demoralization within the medical context as a fearsome hopelessness, meaninglessness, lack of coping, and sense of "not knowing what to do" (2002, p. 736).

As it pertains to the differentiation of hopelessness and helplessness, Sweeney, Tinling, and Schmale (1970) offered their thoughts on the demarcation of these expressions. Helplessness is conveyed through feelings of being discarded or left out, with said loss of fulfillment being attributed to external factors that cannot be salvaged through self-intervention (Sweeney et al., 1970). Whereas, hopelessness was theorized as manifesting due to an individual criticizing him or herself for their loss, and powerlessness regarding the individual or any others to regain the losses suffered (Sweeney et al., 1970). Therefore, helplessness is described as a more active process due to its environmental orientation and the individual feeling no personal

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responsibility in the matter; while, hopelessness necessitates incompetent self-perception, accountability, and judgment of the feelings' existence as limitless (Sweeney et al., 1970).

Currently, a sense of subjective incompetence is oftentimes referred to as the "clinical hallmark" of demoralization, or the self-perceived failure and inability to execute action or display moods in congruence with the present situation, producing extensive ambiguity and reservations regarding the individual's future (Cockram, Doros, & de Figueiredo, 2010). Subjective incompetence occurs within the context of an individual experiencing a stressor that successively invalidates his or her conventions about him or herself and others, while leaving them feeling perplexed, ambiguous, faced with an impasse, and uncertain as to how to manage and navigate said predicament (Cockram et al., 2010). With that being said, subjective incompetence in isolation will not project an individual towards demoralization; rather, distress is a necessary counterpart (Cockram et al., 2010).

Demoralization and Depression

Although demoralization and depression possess selective similarities and paralleled presentations, there has been sufficient research to support the notion that these are in fact independent psychological states and distinct clinical occurrences. Much of the research to date that has attempted to demonstrate that demoralization is not simply a synonym of depression has been conducted in medical settings (Ben-Porath, personal communication, 2007). Not only has the research identified symptom and presentation differences between populations, but also that diagnoses of Major Depressive Disorder (MDD) and/or dysthymia do not always coincide with demoralization (Guidi et al. 2011, Rafanelli et al., 2010). These results have been found within a within a medical outpatient sample (Galeazzi et al., 2004); within a primary care context (Ferrari et al., 2008); patients receiving cardiac transplants (Grandi et al., 2001, 2011; Sirri et al., 2010);

patients with myocardial infarction, which is caused by irreversible necrosis of heart muscle secondary to prolonged blood restriction to tissue (Ottolini et al., 2005); patients with congestive heart failure (Rafanelli et al., 2009); patients with acute heart disease (Rafanelli et al., 2005); patients going through cardiac rehabilitation (Rafanelli et al., 2003); patients suffering from various endocrine conditions (Sonino et al., 2004, 2007); patients suffering from primary aldosteronism, a hormonal disorder that causes high blood pressure (Sonino, Fallo, & Fava, 2006; Sonino et al. 2011); hypertension (Sonino et al., 2011; Rafanelli et al., 2012); individuals with functional gastrointestinal disorders (Porcello et al., 2000), and dermatology and oncology patients (Picardi et al., 2005; Grassi et al., 2005) (Tecuta et al., 2015).

As it pertains to psychiatric populations, Klein and Davis (1969) distinguished demoralization as being linked to ubiquitous transformations in self-image, instead of a state of anhedonia frequently accompanying depression. While Klein et al. (1980) linked demoralization with unaffected consummatory pleasure, or enjoyment of an event in one's life; there is a decrease in anticipatory pleasure, or the capability to gain pleasure from the anticipation of an event. On the contrary, feelings of consummatory and anticipatory pleasure for depressed individuals are both undesirably effected.

Similarly, de Figueiredo (1993) has directed much of his research on the differentiation of demoralization from depression, especially MDD via phenomenological dissimilarities. More specifically, the differences are thought to arise from a propensity of low motivation towards action in demoralization due to subjective incompetence; whereas, in depression there is merely an immensely diminished magnitude in motivation (Cockram et al., 2009; de Figueiredo & Frank, 1982; de Figueiredo, 1993, 2013). If motivation were conceptualized as a vector, involving magnitude and direction, depression results in the loss of motivational magnitude but

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not direction, while demoralization employs the converse (Cockram, Doros, & de Figueiredo, 2010).

Clarke and Kissane (2002) as well as Rickelman (2002) designated the function and influence of stressors on the materialization of demoralization. As it pertains to objective stress, stressful life events, and negative life changes ensuing adverse events, Marchesi and Maggini (2007) found increased ratings of demoralization. Likewise, as an individual's stressors are perceived as surpassing his or her coping ability, demoralization is conveyed as being at a higher frequency than those without as many stressful features (Fava et al., 2010a; Porcelli et al., 2012; Tomba & Offidani, 2010). As the theory presently stands, perceived stress is the combination of distress and subjective incompetence; however, social support serves as a preventative factor that keeps these two factors independent and inhibits perceived stress from occurring (Cockram et al., 2010). Though distress and subjective incompetence may be experienced in isolation, when perceived stress is elevated and social support is lacking, distress and subjective incompetence are more likely to co-occur and set the stage for demoralization (de Figueiredo, 1993; de Figueiredo & Frank, 1982). Consequently, a demoralized individual will feel as though they are at a standstill when confronted with a stressor, unable to navigate, but having the motivation; while, the depressed individual possesses the knowledge but not the energy to initiate (Cockram et al., 2009; de Figueiredo, 1983, 1993; de Figueiredo & Frank, 1982).

Demoralization also prominently influences an individual's psychological well-being, which embodies numerous dimensions that are vital to a person's optimal functioning, including: positive appraisal of one's self, conviction in a meaningful and focused life, decent and valuable interpersonal relationships with other individuals, a feeling of recurrent progression and development within one's life space, mastery over one's situation, independence, and

determination (Ryff, 1989). When an individual is actively demoralized, meaningful

relationships, feelings of autonomy, mastery, self-acceptance, and purposefulness of life are all

significantly worse, in comparison to non-demoralized persons (Tecuta et al., 2015). Further

compounding these distresses are co-morbid cases of demoralization and depression, with these

individuals reporting more severe lower levels of positive functioning dimensions, which is not

the case with individuals suffering from exclusive depression (Grandi et al., 2011; Ryff et al.,

2006). As demoralization has been identified as an integral part of psychotherapy and

psychotherapeutic research (Clarke & Kissane, 2002), coupled with Frank's (1961) arguments

that a vast majority of clients benefit from psychotherapy's nonspecific features that impact

remoralization, it would follow that demoralization holds substantial weight in the clinical

assessment field and has often been identified as a potential source of nonspecificity within

assessment instruments (Tellegen, 1985).

MMPI-2 First Factor and Restructured Clinical Scale-Demoralization (RCd) Development

The development of the first MMPI (Hathaway & McKinley, 1940) was novel in its

"radical departure from preexisting personality questionnaires" scale formation (Dahlstrom,

Welsh, & Dahlstrom, 1972, p. 4). Rather than relying on questions with face validity, Hathaway

and McKinley (1940) utilized empirical scale construction and chose items based on their ability

to discriminate between criterion groups (Rogers, Sewell, Harrison, & Jordan, 2006). The

restructured MMPI, MMPI-2 (Butcher et al., 1989), restandardized existing norms, established a

superior and larger representative sample, yet preserved continuity through the validity and

Clinical scales remaining relatively unchanged (Greene, 2011).

As previously noted, the empirical methodology employed in the development of the

MMPI ensured Clinical scales that were heterogeneous in content but failed to maintain their

independence. Some degree of this can be attributed to item overlap, but correlations persisted even when overlapping items were removed (Dahlstrom & Welsh, 1960; Graham, 2012; Welsh 1956). Further compounding the validity concern were factor analytic studies that classified the foremost contributor to variance among the Clinical scales as being anxiety, general maladjustment, and emotional distress, otherwise known as the First Factor, Welsh's Anxiety Factor (A) or numerous other labels that have been used (Eichman, 1961; Millimet, 1970; Welsh, 1956, 2000). The presence of this factor is thought to be inherent to the test's development population. It is likely that hospitalized (clinical) individuals are undergoing emotional distress and despondency, hence their seeking treatment (Graham, 2012).

The MMPI-2 Restructured Clinical Scales (Tellegen et al., 2003) were engineered to ameliorate the longstanding concern of extensive overlap among scales (Nichols, 2006). Notably, the Clinical scales are syndromal in nature, encompassing the assortment of relevant emotional, thought, and behavioral factors that delineate what they are intended to measure (Graham, 2012). As such, the Clinical scales and DSM-IV function comparably. Differences in presentation are permitted in an effort to maintain intergroup homogeneity for the sake of diagnostic reliability, yet appropriate flexibility is maintained to account for realistic variations (Nichols, 2006).

The initial step in the restructuring and development of the RC scales was to generate an autonomous scale labeled "Demoralization" or RCd, by removing demoralization as much as possible from the Clinical scales and restructuring new Clinical scales with lower gradients of correlation and enhanced discriminate validity than the original parent scales (Graham, 2012). Demoralization, and the identification of such, has been branded as a relabeled version of Welsh's A (Tellegen et al., 2003). The framework for this endeavor was centered on Watson

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and Tellegen's (1985) model of demoralization, which abstracted demoralization as paralleling

the pleasant – unpleasant dimension of self-reported affect; refer to Figure 1 for an illustration of

such. Their theoretical model is graphically depicted as a circumplex of 2 orthogonally bipolar

dimensions labeled Positive Affect or Arousal (PA) and Negative Affect or Arousal (NA) with a

third mid-dimensional point entitled Pleasantness versus Unpleasantness (PU) (Tellegen,

Watson, & Clark, 1999a, b; Watson & Tellegen, 1985). As shown in the figure, the

Unpleasantness end of the PU spectrum resides midway between Low Positive and High

Negative Affect, often depicted as looking like anxiety with prominent mood symptoms such as

blue, grouchy, lonely, sad, sorry, and unhappy. It is along the hedonic dimensional pole that

Unpleasantness exists, thought to be where demoralization resides (Tellegen, 1985).
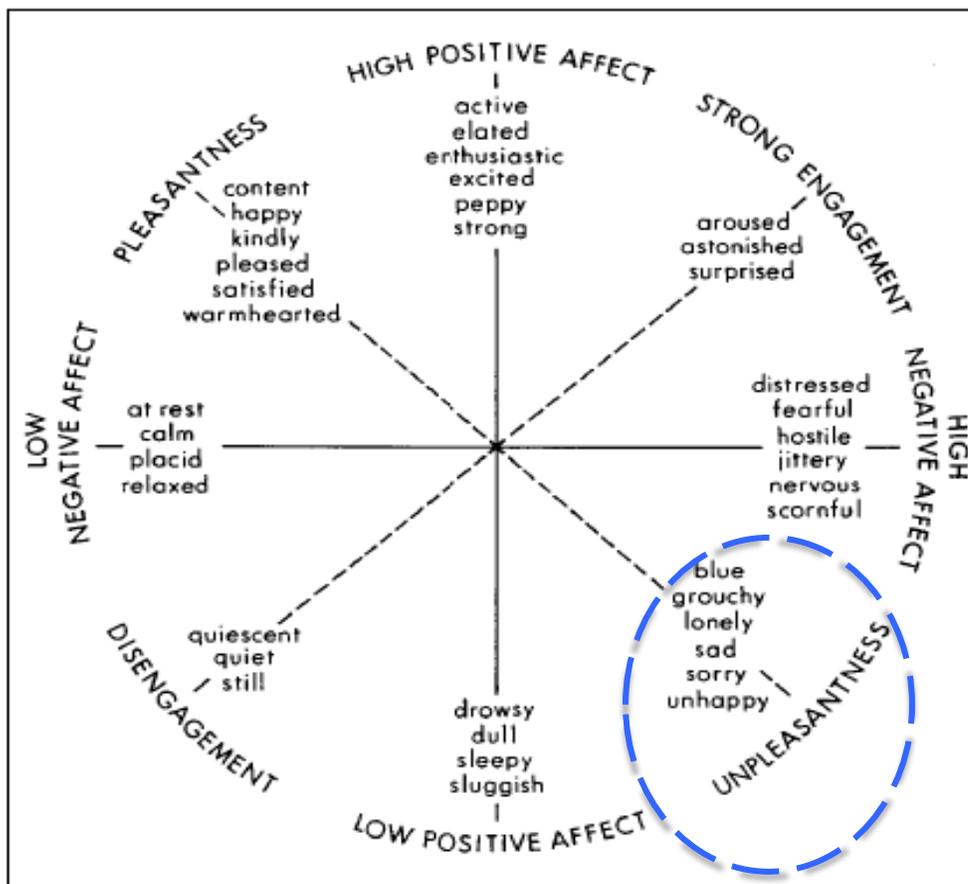
Fig. 1. Watson and Tellegen's (1985) structure of affect.

Tellegen et al. (2003) universalized a number of components from the Watson and Tellegen affect hypothesis, such as the PU dimension would be the underlying element of demoralization development; high NA was attributable to anxiety; low PA is thought to comprise depression; and, high correlations between shared anxiety and depression are thought to yield demoralization.

As would theoretically follow, MMPI Scale 2 (Depression) and Scale 7 (Psychasthenia-an older term for obsessive compulsiveness) were postulated as including relevant items in the assessment of demoralization. Through the use of four separate clinical samples, factor analyses revealed a set of items that demarcated what was believed to be the demoralization factor (Graham, 2012). Consequent to the factor analyses, demoralization items were scores in a provisional scale, used to distinguish supplementary demoralization indicators within the MMPI-2 item pool.

Thereafter, it was necessary to identify the essential components of the Clinical scales, with demoralization extracted from each. So as to achieve this goal, each of the scales was factor analyzed individually, abstracted and rotated in the most concise manner, yielding a clear demoralization factor (Graham, 2012). The restructuring process did not simply entail the creation of a demoralization factor, but also required the identification of items with high loadings on the core features of each clinical scale to serve as a "seed" scale for each of the new RC scales (Graham, 2012). To prevent the same mistakes made when the MMPI was first constructed, items were only selected if they obtained salient loadings on the feature scale, but did not correlate with the newly developed demoralization scale. Moreover, items chosen for inclusion in a given working seed scale had to have very low correlations with the other seed scales to maximize the discriminant validity of the new scales (Graham, 2012).

The resulting 12 seed scales were correlated with the remaining MMPI-2 items in four, distinct clinical samples with items being selected if they possessed convergent validity with the respective seed scale, and discriminate validity with regards to the remaining scales (Graham, 2012). Following their selection, items were removed if they did not significantly impact the scales internal consistency or fittingly correlate with theoretically applicable external criterion measures (Graham, 2012).

Validity of MMPI-2-Restructured Clinical Scales

High correlations have been found between the RC, Clinical, and Content scales largely as a consequence of the various disorders' overlapping nature and symptomatology. Even so, convergent and discriminant validity are thought to be more telling of the scales' validity and most research has supported the presence of such: "To date the published data concerning the validity of the RC scales have suggested that most scales have convergent validity equal to or greater than the corresponding Clinical scales and better discriminant validity than the Clinical scales" (Graham, 2012, p. 248). Tellegen et al. (2003) reported correlations between the RC scales and conceptually related external criterion measures for an outpatient mental health sample and two inpatient populations, both of which supported comparable convergent validity. Despite the RC scales correlating with some non-relevant measures, it was to a lesser degree than with conceptually similar measures. Enhanced discriminant validity was supported through higher correlations with therapist ratings of characteristics not conceptually related to applicable clinical symptomatology, as opposed to the correlations found with the new RC scales. Further supporting Tellegen et al.'s (2003) findings, Sellbom, Ben-Porath, and Graham (2004) replicated these conclusions within a university clinic sample. Forbey, Ben-Porath, Graham, and Black (2004) examined the external validity of the RC and Content scales within both an outpatient and

inpatient sample, finding high correlations between the RC scales and their Content scale counterparts, but greater discriminant validity for the RC Scales as opposed to the Content scales. Reproductions of these findings have been found in a multitude of populations and settings, including: outpatient mental health (Sellbom, Ben-Porath, & Graham, 2006**;** Sellbom, Graham, & Schenk, 2006; Simms, Cassilas, Clark, Watson, & Doebbeling, 2005; Wallace & Liljequist, 2005); inpatient psychiatric population (Arbisi, Sellbom, & Ben-Porath, 2008; Handel & Archer, 2008); college clinic centers (Forbey & Ben-Porath, 2008; Osberg, Haseley, & Kamas, 2008; Sellbom & Ben-Porath, 2005); and within a bariatric population (Wygant et al., 2007).

The RC scales have not gone without their critics, as Nichols (2006); Rogers, Sewell, Harrison, and Jordan (2006); and Butcher, Hamilton, Rouse, and Cumella (2006) have voiced reservations about the construction methodology. Most prominently, Nichols (2006) articulated his greatest concern was with the use of demoralization as the marker for first-factor variance, arguing that the scale was slanted too greatly towards that of depressive symptomatology and neglected the more anxious features. Moreover, Nichols (2006) reported concerns about RC scales "drifting", or unintentional movement and assessment of additional concepts due to item additions that were non-consistent with the Clinical scales. All of Nichols' (2006) apprehensions were addressed by Tellegen et al.'s (2006) response citing subsequent research that invalidated concerns of scale drifting, supplying data to support both anxious and depressive features within the measurement of demoralization, as well as conducted further analyses showing the RC scales' better predictive power over the Content scales.

Caldwell (2006**)** agreed with Nichols (2006) that there was a paradigm shift and redundancy between RC and Content scales, maintaining that first-factor variance need not be

removed from the Clinical scales as distress is an integral part of these disorder. Tellegen et al. (2006) responded in agreement, but felt that distress need only be measured once rather than represented throughout and limiting the MMPI's discriminant validity. Rogers et al. (2006) failed to replicate factor analyses utilized for RC construction by Tellegen et al. (2003) and did not believe Tellegen et al. (2003) had taken into account social desirability, resulting in liability towards non-credible reporting. Tellegen et al. (2006) indicated that Rogers et al. (2006) did not use the same factor loading criteria; and, as supported by Sellbom et al. (2005), RC, Clinical, and Content scales were each uniformly susceptible to over and underreporting as social desirability is an important component of psychopathology and need not be removed. Nevertheless, the technical advances provided by the MMPI-2-RC scales addressed many of the psychometric difficulties in the original scales. Only further research will help us determine if the methodological innovations will be scientifically and clinical beneficial.

Demoralization and JBW 72

Some have considered Welsh's A scale or "First Factor" marker to be obsolete given its development prior to computerized capacity for factor analyses of MMPI items within large samples (Nichols, 2006). In the 1980's, the computational capacity allowed for investigations of the full MMPI item pool with 1,000 plus subject samples (Johnson, Butcher, Null, & Johnson, 1984; Waller, 1999). Johnson et al. (1984) utilized a cross-validation design with an initial population of 5,506 and a replication sample of 5,632 inpatient and outpatients from the Missouri Department of Health, finding the first factor (JB1) was comprised of 87 items, 83 of which are currently in the MMPI-2 (Nichols, 2006). Waller's first factor was identified as consisting of 143 items, 135 of which are in the MMPI-2. Despite sample differences, the methodology used and correlational coefficients selected yielded 72 (87%) of the 83 MMPI-2 items that appears on

Johnson et al.'s first factor to be replicated within Waller's (Nichols, 2006). This empirically derived marker, known as JBW 72, has been hypothesized by Nichols to be a more solid measure of demoralization than RCd, which he believes has a depression bias.

Development and Validity of Morey's and Ben-Porath's Personality Disorder Scales

Morey, Waugh, and Blashfield (1985) and Somwaru and Ben-Porath (1995) developed independent scales for personality disorders from the MMPI item pool with the intention of their scales being compatible with the diagnostic criteria presented within the DSM-IV. Morey et al. (1985) chose items for distinct personality disorder scales through clinical expertise, by having skillful clinical psychologists familiar with the DSM-III distinguish items they felt represented the diagnostic criteria. Items were permitted to be selected for more than one scale, largely as a result of criterion overlap within personality disorders. Although this could be viewed as a methodologically unsound technique, research has supported the use of overlapping items (Hicklin & Widiger, 2000; McCann, 1991; Morey, Waugh, & Blashfield, 1985; Wise, 1996). Due to internal consistency analyses being completed "to sequentially filter items which did not demonstrate discriminative capacity for the scales defined by the clinicians", increased homogeneity was found throughout Morey et al.'s scales (Morey et al., 1985, p. 246). Final scale selection resulted in 164 items being utilized. When the MMPI-2 was published, Colligan, Morey, and Offord (1994) updated the original Morey scales to allow for item correspondence. A list of all items used in Morey's 10 MMPI-2 personality disorder scales is provided in Appendix C. Not only have these scales been widely accepted and augmented the field of personality research, they have also been correlated with established personality measures like the MCMI (Hicklin & Widiger, 2000; McCann, 1991; Morey & LeVine, 1988; Wise, 1996). All of the research and literature support Morey et al.'s MMPI and MMPI-2 scale development as

being efficacious with satisfactory convergent validity for most scales (Hicklin & Widiger, 2000).

Yossef Ben-Porath also used MMPI items in developing his non-copyrighted set of personality disorder scales. Ben-Porath shared scale items with Matthew Woolley for use in his dissertation at Wichita State University (Woolley, 2003). Ben-Porath developed a set of scales to measure DSM-IV (APA, 1994) Personality Disorders and these scales differed markedly from the MMPI-2 personality disorder sales developed by Morey (1985) and revised by Colligan, Morey, and Offord (1994). Though a degree of overlap exists between the Morey and Ben-Porath item sets for their respective personality disorder scales, significant variance in item selection exists notwithstanding similar selection procedures (Hicklin & Widiger, 2000). From a numerical standpoint, more than half of the items on Morey's and Ben-Porath's scales are unique from one another (Hicklin & Widiger, 2000). Hicklin and Widiger (2000) reported on the validity of Ben-Porath's personality scales, finding that they were comparable to Morey's and likely even more effective at measuring borderline, schizoid, and antisocial symptomatology. So as to assess for the convergent validity of both Morey's and Ben-Porath's scales, Hicklin and Widiger (2000) compared both to three separate self-report measures within a population of 82 outpatients. A listing of Ben-Porath's 10 scales is provided in Appendix D.

Theodore Millon's Biopsychosocial Theory and MCMI-III

Theodore Millon is one of the most prominent theorists in the area of personality and psychopathology. He attempted to base his theory on the older sciences of biology and physics and relied heavily on evolutionary biology. All of the many assessment instruments he developed were based on his theory. Millon's evolutionary theory (1994, 2006) postulates descriptors of personality taxonomy with personality prototypes consisting of subcomponents

that broaden the prototype depiction. The categorizations of personality disorders in accordance with Millon's theory are based on three polarities: Aims of Existence (pleasure-pain polarity), Modes of Adaptation (passive-active polarity), and Strategies of Replication (self-other polarity) (Choca, 2004). Personality prototypes could be exhibited as weak, neutral, or strong; being strong in a polarity suggests a heightened affinity towards a particular response style. Millon further utilized the three polarities to characterize his personality prototypes. For example, Avoidant personality is seen as high on the pain avoiding or life preservation polarity, emphasizing the avoidance of pain and risk at the expense of constricting their existence. Additionally, the Avoidant personality is high on the passive or accommodating mode of adaptation, meaning an inclination towards accepting aspects within the environment that cannot be changed (Choca, 2004).

Millon (2006) suggested that personality is rooted within two clinical domains, functional and structural. The functional domain is comprised of expressive behavior, interpersonal manner, cognitive style, and regulatory mechanisms (e.g., defense mechanisms). Whereas, the structural domain aspects contain self-image, object relations, morphologic organization (interior congruity and adeptness of the personality), and mood-temperament. In line with this inclusive propensity, Millon described personality prototypes as possessing both a dimensional and categorical organization with the dimensional aspect designating the strength of the categorically oriented personality disorder diagnosis, as diagnoses range from mild, structurally defective, structurally decompensated, to profound. See Figure 2 below for an illustration of such.

```
         MILD                  STRUCTURALLY           STRUCTURALLY        PROFOUND
                               DEFECTIVE              DECOMPENSATED      IMPAIRMENT

   ┌──────────────┐                                ┌──────────────┐
   │ Schizoid     │──────────┐  ┌──────────────┐   │ Decompensated│
   └──────────────┘          └─→│ Schizotypal  │──→│ Schizotypal  │──┐
   ┌──────────────┐             └──────────────┘   └──────────────┘  │     ┌───┐
   │ Avoidant     │                                                   └────→│ P │
   └──────────────┘                                                         │ S │
                                                                            │ Y │
   ┌──────────────┐                                                         │ C │
   │ Dependent    │                                ┌──────────────┐         │ H │
   └──────────────┘                                │ Decompensated│         │ O │
   ┌──────────────┐             ┌──────────────┐   │ Borderline   │──┐      │ T │
   │ Histrionic   │             │ Borderline   │──→└──────────────┘  └─────→│ I │
   └──────────────┘             └──────────────┘                            │ C │
                                                                            └───┘
   ┌──────────────┐
   │ Compulsive   │
   └──────────────┘
   ┌──────────────┐
   │ Negativistic │
   └──────────────┘

   ┌──────────────┐                                ┌──────────────┐
   │ Narcissistic │             ┌──────────────┐   │ Decompensated│
   └──────────────┘             │ Paranoid     │──→│ Paranoid     │──┐
   ┌──────────────┐             └──────────────┘   └──────────────┘
   │ Antisocial   │
   └──────────────┘
   ┌──────────────┐
   │ Sadistic     │
   └──────────────┘
```
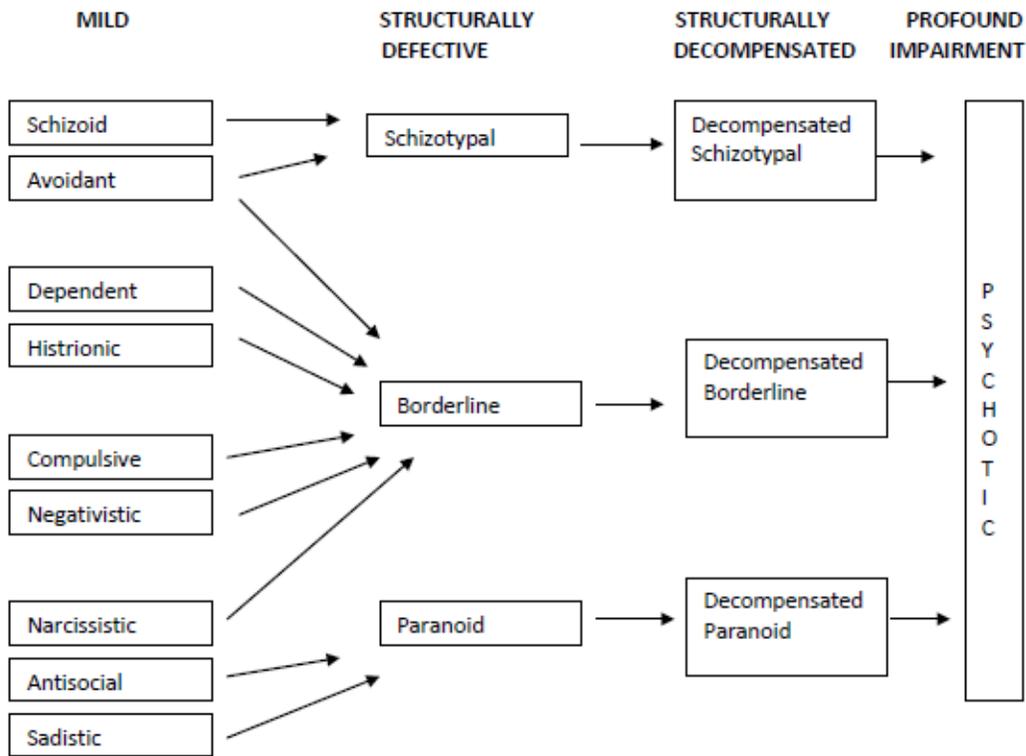
Figure 2: Millon's dimensional and categorical conceptualization of personality pathology

More recently and prior to his death, Millon conceptualized personality as falling along a continuum, intended to be utilized within the upcoming MCMI-IV. Millon (2011) considered 15 personality spectrum prototypes with three points of severity across a continuum, spanning from normal type, abnormal type, to clinical disorder. The three points of each spectrum are demonstrated below in Table 1.

Table 1: Personality Pattern Scales from Millon's (2011) Disorders of Personality 3rd Ed

	Personality Patterns		
Spectrum	**Normal Style**	**Abnormal Style**	**Clinical Disorder**
DADepn	Differential	Attached	*Dependent*
SPHistr	Sociable	Pleasuring	*Histrionic*
CENarc	Confident	Egotistic	*Narcissistic*
ADAntis	Aggrandizing	Devious	*Antisocial*
RCComp	Reliable	Constricted	*Compulsive*
DRNegat	Discontented	Resentful	*Negativistic*
AAMasoc	Abused	Aggrieved	*Masochistic*
ADSadis	Assertive	Denigrated	*Sadistic*
AASchd	Apathetic	Asocial	*Schizoid*
SRAvoid	Shy	Reticent	*Avoidant*
DFMelan	Dejected	Forlorn	*Melancholic*
EETurbu	Ebullient	Exuberant	*Turbulent*
ESSchizoph	Eccentric	Schizotypal	*Schizophrenia*
UBCycloph	Unstable	Borderline	*Cyclophrenic*
MMParaph	Mistrustful	Paranoid	*Paraphrenic*

Millon's original assessment instrument was the Millon Clinical Multiaxial Inventory

(MCMI, 1977), and later revised (MCMI-II) in 1983. Both versions were based on Millon's

impression of personality, which was a bio-social learning theory at the time and measured both

Axis I and Axis II disorders as both influence an individual's operational style. Since Axis I

syndromes are thought to accentuate personality styles, the measurement of both provided

therapeutically important information and were included (Millon et al., 2009). As a result of the

Diagnostic and Statistical Manual (4th ed., test rev.; DSM-IV-TR, 2000) being published after the

MCMI-II, the MCMI-III (2009) replaced 95 questions from the MCMI-II in order to reflect the

most currently utilized criteria and was modified to address theoretical and empirical concerns

(Millon et al., 2009).

The MCMI-III was then subjected to a threefold validation model that initially underwent

a theoretical-substantive stage. This was intended to evaluate items grounding in Millon's

theoretical outline. Next, the internal-structural stage assessed the internal validity and

consistency of items and scales that comprised the overall instrument. Lastly, criterion validity was gauged by convergent and discriminant validity measures (Millon et al., 2009). The final version of the MCMI-III consists of 14 personality pathology scales and 10 Clinical Syndrome and Severe Clinical Syndrome Scales. Personality Scales include: 1) Schizoid; 2A) Avoidant; 2B) Depressive; 3) Dependent; 4) Histrionic; 5) Narcissistic; 6A) Antisocial; 6B) Sadistic; 7) Compulsive; 8A) Negativistic; and 8B) Masochistic. The three additional pathological personality scales are S) Schizotypal, C) Borderline, and P) Paranoid. According to Millon, the severe personality pattern scales were differentiated from the basic personality disorders as a result of deficits in social competence and high incidence of psychotic episodes. As would follow, these individuals have a less integrated personality organization, are less effective in utilizing coping mechanisms, and more vulnerable to stressors.

Linking Demoralization to Personality Disorders

Despite the current diagnostic system continuing to strive towards enhanced reliability of psychiatric diagnosis, there continues to be shortcomings in the detailing of dysphoric states and their nature (Clarke & Kissane, 2002). Epidemiological studies have identified an assortment of theories attempting to explain emotional disturbances, one of which recognized a common distress syndrome that was termed "non-specific" and equated to Frank's concept of demoralization (Dohrenwend, Shrout, Egri, & Mendelsohn, 1980). This identified "non-specific" distress was hypothesized as being the bedrock of most mental disorders and "generally associated with affective distress but…not specific to any particular psychiatric disorder" (p. 1229).

Most perceive this "non-specific" construct as falling more in line with Frank's concept of demoralization and is a distinctly demarcated syndrome of existential distress that threatens

the integrity of the being (Clarke & Kissane, 2002). As it presently stands, very little literature has directly linked demoralization to personality disorders or psychiatric diagnoses, thus much has to be theoretically extrapolated. Frank (1974) spoke of this concept as "a frequent symptom of patients in psychotherapy-anxiety and depression-are direct expressions of demoralization" (p. 271), hence demoralization's value and necessity of integration into psychiatric taxonomies.

Cassell (1982) describes suffering, an integral part of demoralization, as "experienced by persons, not merely by bodies, and has its sources in challenges that threaten the intactness of the person as a complex social and psychological entity" (p. 639). Recent research has supported the notion of depression often seen in schizophrenia as involving the individual's perception of illness controllability and could more usefully be considered demoralization (Gruenberg, 1967). Additionally, Adamson and Schmale (1965) observed what Engel termed the "giving up" complex, comparable to demoralization, as occurring within a population suffering from acute psychiatric illnesses. Though the link between demoralization and personality disorders has little explicit voice in the research, the theoretical ties are more than apparent through semantic overlap. The unambiguous identification of this relationship is indispensable to the study of human suffering. Just as demoralization has been evidenced by dysphoric symptoms such as hopelessness and helplessness, its embodiment lies within the experience of the individual, one of an inability to cope, feelings of distress, and alienation from others and the world (Clarke & Kissane, 2002). Demoralization's scientific importance is entwined not only to the more classically identified Axis I symptomatology (i.e., anxiety and depression), but to the entire spectrum of psychological disorders.

Despite the lack of language overlap to explicitly encourage the theoretical link between these two constructs, there have been comparable semantics and notions that support the

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relationship between demoralization and personality disorders. More specifically, Millon (2004) has an entire chapter labeled "Depressive Personality Disorders: The Giving-Up Pattern," with citation given to Engle's (1967) helplessness-hopelessness model and terminology that largely reflect demoralization, including: "inescapably worried," "invariably expect the worst will happen," "give the gloomiest of interpretations about events, despairing that things will ever improve in the future," "defeatist and fatalistic attitude," "unable to help themselves and are unlikely to be helped by outside forces as well," and "unable to imagine or plan conditions that could make things better" (p. 768-770). Millon (2011) addresses a chapter called Dejected styles, forlorn types, and melancholic features, again mentioning the "giving up" complex association with personality. An overview of the MCMI-III manual (1994) supplies an overabundance of descriptors mirroring demoralization, such as: "disheartened outlook," "hopeless orientation to significant loss," "focusing on their worst feature," and "they actively and repetitively recall their past misfortunes and expect problematic outcomes from otherwise fortunate circumstances".

Padilla (2010) provides the first unambiguous evidence that many of the MCMI scales, thought to be the quintessential measure of personality disorders load on a factor also defined by RCd. Padilla found not only high correlations (r >.50) between RCd and most of Millon's MCMI-III scales, but also dual loading of demoralization on 2 factors out of a 4 factor solution, labeled demoralized affect and demoralized social incompetence. Given Padilla's results, her research will be used as the paradigm for my own research, in an attempt to complete an extended quasi-replication.

CHAPTER TWO

PURPOSE OF THE STUDY

The purpose of this study was to determine if the construct of demoralization could be identified within three measures of personality, which on a larger scope will expand upon the research of personality assessments saturation with what has been commonly called the "First Factor". This was achieved by exploring whether select MCMI-III scales and Morey and Ben-Porath's Personality Disorder Scales are influenced by the presence of demoralization. As previously discussed, the MMPI-2 RCd scale was developed to address demoralization within the Clinical scales and remove it so as to measure it independently. It would follow that due to demoralization's prevalence in the MMPI's Clinical scales and their empirical keying methodology, it is likely experienced by most mental health patients with an array of symptoms. A previous dissertation by Padilla (2010) found that several MCMI-III scales covaried robustly with the RCd, including Schizoid, Avoidant, and Depressed. JBW 72, a scale much older than the RCd was included as an additional measure of demoralization. Due to the lack of psychometric research on this scale, initial analyses were conducted to better understand what this scale is measuring, prior to drawing conclusions regarding its relationships with other more established personality disorder measures. As the MCMI-III, Morey, and Ben-Porath's Personality Disorder Scales utilized different items, content, and theoretical orientation, it was supposed that demoralization would show different correlational patterns between the various measures. Because of the frequent use of the MCMI-III and MMPI in clinical settings and pervasive existence of demoralization within a clinical population, identifying and acknowledging demoralization's impact on our present personality and psychopathy measures and its function among various mental disorders are of clinical and methodological importance.

Below were my tentative hypotheses:

1. As a result of the number of items comprising the JBW 72 scale, it was hypothesized that this scale would not only measure facets of anxiety and depression as purported but likely other related demoralization constructs, such as faulty self-esteem and damaged interpersonal relationships.

2. JBW 72 would covary similar to RCd with MCMI-III Scales, but to a higher degree with the more anxious personality disorders. This was hypothesized given critics' belief that RCd measures more depressive symptomatology and JBW is considered a more pure measure of demoralization, including both the depressive and anxious features.

3. Findings would replicate Padilla's correlational and factor analysis findings between RCd and MCMI-III "Internalizing" Scales polarity.

4. Findings would replicate Padilla's cross loading of RCd on a "demoralized affect" and "demoralized social functioning" with JBW 72 showing similar cross loading patterns.

CHAPTER THREE

METHODOLOGY

Participants

Participants in this study were obtained from the Midwestern portion of the United States and had been admitted to the University of Kansas School of Medicine-Wichita psychiatric inpatient unit. Patients were admitted between the dates of December 1996 and May 2004. Length of stay for the patients ranged from 1 to 28 days with the average stay being 7 days. Participants were selected to be a part of the study if they were required to complete personality testing to aid in treatment planning and the diagnostic decision-making processes. A full medical work-up was also conducted to rule out medical pathology. Subjects were not included if they did not successfully complete both personality inventories and/or if either of these were invalidated.

The study sample consisted of data obtained from 440 adult psychiatric inpatients. Of the participants, 52.5% were female and 47.5% male and the mean age was 34 years old. The mean years of education were 12.8 years. Ethnicity reported were as follows: 88.3% Caucasian, 6.1% African-American, 3% Native American, 1.6% Hispanic, .5% Asian, and .5% other. Principal diagnoses given included: 60% mood disorders, 8.3% schizophrenic and other psychotic disorders, 6.8% substance abuse disorder, 4.3% anxiety disorders, and 13.8% other. Furthermore, 49% of the patients were diagnosed with a comorbid personality disorder.

Diagnoses were based on DSM-IV and DSM-IV-TR criteria and made at discharge by a multidisciplinary treatment team led by a staff psychiatrist. Patients' histories, observations, progress notes, team member discussions, and findings from medical procedures were all used in the diagnostic process. This type of diagnostic procedure is in line with Kenrick and Funder's (1988) findings, which suggest that to accurately evaluate personality diagnoses the decision ought to be grounded within multiple data points and various behavioral observations.

Measures

  Minnesota Multiphasic Personality Inventory-2 (MMPI-2). The MMPI-2 (Butcher,

Dahlstrom, Graham, Tellgen, & Kaemmer, 2001) is a 567-item self-report inventory designed to

assess patterns of personality and psychopathology in adults. MMPI respondents are asked to make

true/false decisions as to whether each item applies to them. The MMPI-2 was scored using NCS

and Pearson Assessment's computerized scoring program Microtest-Q, which calculates Scale scores

reported as T-scores.

  RCd (Demoralization). The MMPI-2 RCd consists of 24 items derived from the RC Scale

development project (see Appendix E for items).

  Johnson, Butcher, and Waller 72 Items (JBW 72). The JBW 72 (Nichols, 2006) consists of 72

items that are empirically derived to measure demoralization.

  Millon Clinical Multiaxial Inventory-Third Edition (MCMI-III). The MCMI-III (Millon,

Millon, Davis, & Grossman, 2006) is a 175-item self-report inventory also devised to assess

patterns of personality and psychopathology in adults. Respondents are asked to make true/false

decisions as to whether each item applies to them. Scale scores are reported as Base Rate (BR)

scores, where BR scores take into consideration the base rate of the disorder being measured.

Millon was influential in the development of the DSM-III and observed the distribution of

disorders across populations. As a result of this involvement in the non-normal distribution of

psychopathology, Millon utilized base rates as a means of increasing the assessment measures'

sensitivity and specificity. Participants' MCMI-III profiles were scored using NCS and Pearson

Assessment's computerized scoring program Microtest-Q.

  Clinical Personality Patterns Scales. These scales measure Axis II pathological

personality characteristics.

  Severe Personality Pathology Scales. These scales measure more psychological

manifestations of personality pathology.

Morey (MMPI) Personality Disorder Scales. Morey, Waugh, and Blashfield (1985) applied 265 items of the original 567 items on the MMPI to generate 11 scales purported to measure the 11 personality disorders of the DSM-III. Colligan, Morey, and Offord (1994) updated the original Morey scales to allow for item correspondence with the MMPI-2. The scales include: Paranoid; Schizoid; Borderline; Compulsive; Passive-Aggressive; Narcissistic; Antisocial; Histrionic; Schizotypal; Dependent; and Avoidant. Reliability coefficients range from .675 (CPS) to .859 (AVD). A full description of the reliability coefficients is listed in Appendix F.

Ben-Porath (MMPI) Personality Disorder Scales. Somwaru and Porath (1995) utilized 292 items of the original 567 MMPI items to develop 10 scales that measured characteristics of the following personality disorders as defined by the DSM-IV-TR, which included: Paranoid (PAR), Schizoid (SZD), Borderline (BDL), Compulsive (CPS), Narcissistic (NAR), Antisocial (ANT), Histrionic (HST), Schizotypal (STY), Dependent (DEP), and Avoidant (AVD). Reliability coefficients range from .70 (ANT) to .93 (BDL). A full description of the reliability coefficients is listed in Appendix F.

Refer to Appendices G and H for de-identified sample profiles of the MMPI-2 and MCMI-III.

Procedure

All participants completed the MMPI-2 and MCMI-III during their inpatient hospital stay and a licensed psychologist or a psychology intern specified written and verbal instructions prior to testing. Testing was generally completed in one administration period. Each test was scored using Microtest-Q. In this study, only valid tests were included. Invalidity due to inconsistent item endorsement, under-reporting, or over-reporting of psychopathology lead to the patient

being excluded from this study (Arbisi & Ben-Porath, 1998; Ladd, 1998). Though scores on the F scale are often used to establish invalidity due to symptomatology exaggeration, inpatients with serious psychopathology often obtain high scores (Graham, 2003, 2006); consequently, no F cutoff was set. The L scale was designed to detect attempts to under report symptoms (Greene, 1991). In this study's sample, high L scale scores were rare (15 cases with L T scores >75) so, no cutoff was set. MMPI-2 profiles with VRIN raw scores ≥13, TRIN raw scores ≤5 or ≥13, Fp T scores >100, and Cannot Say raw scores ≥32, as well as MCMI-III profiles with 2 or more items endorsed on the scale V were excluded from analysis (Graham, 2003, 2006; Morgan, Schoenberg, Dorr, & Burke, 2002).

Analyses

The analyses were conducted in two steps, each with their own subsection analyses. The first step begun with the overlapping items from RCd and JBW 72 (16 items are shared) being removed from JBW, so as to not build in any additional correlation. An alpha coefficient of the remaining JBW scale (JBW 56) was analyzed to make sure it was sufficient. JBW 56 was factor analyzed to better understand what latent constructs this scale was measuring, before making inferences about its relationship to other personality scales. Lastly, an evaluation of the Pearson coefficients between RCd and JBW 56 were reviewed.

The second unit of analysis was conducted to explore the extent to which demoralization existed within each of the personality measures (Morey's, Ben-Porath's, and MCMI-III Scales). JBW 56 and RCd were correlated with each of the personality disorder scales. Two separate factor analyses were conducted because it awarded a cleaner overall solution. Simple structure and psychological meaningfulness were sought using Velicer's and Cattell's Scree Test to determine the number of factors to rotate. Subsequently, factors were extracted using principle

axis to seek the smallest number of factors, which accounted for the largest proportion of the variance (Gorsuch, 1983; Tabachnick & Fidell, 2001). As explained earlier, because of the scales themselves being correlated by design to some degree (as it pertains to symptomatology), oblique (promax) rotation was performed to find the most parsimonious solution. A weight cut off of 0.20 was set for factor loadings. Lastly, linear regressions were run with predictors being selected based on six of the highest correlational coefficients. There were a number of overlapping items between the two demoralization scales and Morey and Ben-Porath's Personality Disorder Scales. These items were extracted from JBW 72 and RCd in an attempt to minimize the inherent statistical overlap and relationship between the variables; internal consistency was preserved despite the abbreviated scale size.

CHAPTER FOUR

RESULTS

Within a broad sense, the results indicate and support the existence of demoralization within the various personality disorder scales. On a more granular level, the data back the conceptualization of demoralization as a multidimensional construct and may also provide confirmation that JBW 72 and RCd are tapping into different facets of demoralization's presentation.

Reliability

JBW 72 and RCd. For each of these scales, the internal consistency was assessed for in the parent scale with all items included and the abbreviated scale with all overlapping items removed. Internal consistency was evaluated by computing Cronbach's alpha. The scale with the highest internal consistency coefficient was the parent JBW 72 scale. The lowest coefficient was for the truncated RCd scale with only 8 items, as the overlapping 12 items between the scales were not included. The results of these analyses were not unexpected given the probability of higher internal consistency coefficients being correlated with scales with more items. In looking at all of the coefficients in their totality, each of the scales alpha coefficients were high, ranging from .95 to .87. Thus, even the shortened scales are reliably measuring a single construct. The results of the internal consistency analyses are summarized in Table 2.

Table 2

Reliability Analysis: Cronbach's Alpha Coefficient

Scale	Cronbach's Alpha
JBW 72	.95
JBW 56	.94
RCd (24 items)	.90
RCd (8 items)	.87

Strength of the Relationship.

Correlational coefficients were calculated using Pearson's Product Moment *r*. Principally, correlations between JBW 72 and RCd were computed and a "large" coefficient of .85 was found as denoted by Cohen and Hemphill (Cohen, 1988; Hemphill, 2003). The size of this correlation is foreseeable and unsurprising as a result of the two scales attempting to measure the same psychological construct and degree of overlapping items. The magnitude of the correlations between JBW 72, RCd, Morey, Ben-Porath, and the MCMI-III's Personality Disorder Scales ranged from "moderate" (.30) to "large" (>.50). Of the select personality disorder scales that were found to have "moderate" correlations with the various measures of demoralization (e.g. Antisocial, Histrionic, and Schizoid), it theoretically makes sense given the reduced likelihood for these individuals to experience demoralization. Overall, robust correlations were found between most personality disorder scales and measurements of demoralization, ranging from .54 to .88. Table 3 contains the correlation coefficients between JBW 72, RCd, and Morey and Ben-Porath's Personality Disorder Scales. Table 4 contains the correlation coefficients between JBW 72, RCd, and select MCMI-III Personality Disorder Scales.

Table 3

Correlational Coefficients of JBW 72, RCd, Morey, and Ben-Porath's Personality Disorder Scales

	JBW 72	RCd
Morey's Histrionic	-.42	-.54
Ben-Porath's Histrionic	-.48	-.58
Morey's Narcissistic	-.50	-.63
Ben-Porath's Narcissistic	-.68	-.81
Morey's Borderline	.63	.54
Ben-Porath's Borderline	.84	.84
Morey's Antisocial	.47	.39
Ben-Porath's Antisocial	.43	.33
Morey's Paranoid	.72	.59
Ben-Porath's Paranoid	.67	.58
Morey's Schizotypal	.77	.74
Ben-Porath's Schizotypal	.67	.57
Morey's Avoidant	.77	.81
Ben-Porath's Avoidant	.75	.77
Morey's Compulsive	-.79	-.63
Ben-Porath's Compulsive	-.88	-.75
Morey's Schizoid	.47	.57
Ben-Porath's Schizoid	.58	.68
Morey's Dependent	.78	.79
Ben-Porath's Dependent	.82	.82

Table 4

Correlational Coefficients of JBW 72, RCd, and MCMI-III Personality Disorder Scales

	JBW 72	RCd
MCMI-III Histrionic	-.60	-.66
MCMI-III Narcissistic	-.56	-.64
MCMI-III Borderline	.62	.64
MCMI-III Antisocial	.30	.33
MCMI-III Paranoid	.49	.42
MCMI-III Schizotypal	.62	.62
MCMI-III Avoidant	.60	.67
MCMI-III Compulsive	-.54	-.54
MCMI-III Schizoid	.47	.56
MCMI-III Dependent	.64	.64

Underlying Variables

Initially a principle axis factor analysis was calculated with JBW 72 and RCd at an item

level. Prior to assessing for the presence of demoralization within personality disorders, it was

critical to evaluate what latent constructs or psychological facets these two demoralization scales

were measuring. Subsequent to the demoralization factor analysis, Morey, Ben-Porath, and the

MCMI-III Personality Disorder Scales were factor analyzed with the JBW 72 and RCd scales.

The output for this analysis was statistically murky and psychologically unclear. Given that

Morey and Ben-Porath's measures are theoretically different and contain dissimilar items from

Millon's MCMI-III Scales, separate factor analyses were run to account for these differences.

The isolated output offered a cleaner and more sound solution.

JBW 72 and RCd items. A factor analysis with principle axis factoring was conducted on the following scales at the item level. After careful examination, the number of factors extracted was determined by Velicer's minimum average partial (MAP) test (2000) and Cattell's Scree Plot (Cattell, 1978). Consequent to extraction, the resulting factors were subjected to a promax (oblique) rotation, which permits for the approximation of factor correlations and is a sounder assumption than absolute independence linked with the varimax (orthogonal) rotation (Preacher & MacCallum, 2003).

Velicer's MAP test is judged to be superior to other procedures and characteristically yields optimal solutions (Wood et al., 1996; Zwick & Velicer, 1982, 1986). With the MAP test, the emphasis is on the relative amounts of common variance that remains within a correlation matrix following the extraction of increasing numbers of components (e.g. factors) (O'Connor, 2003). Statistically, components are retained as long as the variance within the correlation matrix is representative of common variance. Whereas, components are no longer retained when there is proportionally more unsystematic variance than systematic (O'Connor, 2003). Results of the MAP test further supported a five-factor solution and resulted in the best explanation in terms of simple structure and psychological meaningfulness. Rotations of three, four, and six factors either obscured the findings or lead to trivial loadings. Items were included if they loaded >.20 onto that factor.

The content of items that loaded onto Factor 1 reflect a "classic depression", containing statements about avolition, anhedonia, and gloominess. Factor 2 was defined as "somatic and cognitive complains" with items targeting neuromuscular concerns, concentration difficulties, and odd perceptual experiences. The content of the items that loaded on Factor 3 mirror "indecisiveness and passivity" with items addressing problems with decision-making and an

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inability to initiate tasks. Factor 4 was described as "reactive and irritable" with content

targeting the presence of rumination, brooding, impulsivity, and volatile behavior. Lastly, the

content of items that loaded onto Factor 5 appear to reflect "emotional sensitivity", with

statements assessing a heightened response style and moodiness. Appendix I contains the pattern

matrix for this factor analysis.

JBW 72, RCd, and Morey and Ben-Porath's Personality Disorder Scales. The analysis

strategy that was summarized in the former section was used in performing this factor analysis.

Again, a five-factor solution offered the most meaningful and parsimonious solution and was

supported by Velicer's MAP test and Cattell's Scree Plot. Appendix J contains the pattern

matrix for this factor analysis.

The scales that load onto Factor 1 seem to depict a "detached" personality style with

prominent loadings of Schizoid, Avoidant, and Schizotypal. Factor 2 was labeled "abandonment

fear" and was defined by significant loadings of Dependent, Borderline, and RCd accounting for

a large portion of this factor's variance. The scales that loaded onto Factor 3 appear to define

"rigidity" with meaningful loadings of Obsessive, Borderline, and JBW 72. There was a cross

loading of RCd and JBW 72 on factors 2 and 3, yet the corresponding demoralization scale was

chosen as defining a factor based on the higher of the two cross loading scores. Given the

borderline personality disorder's labile nature, a cross loading of the Borderline scale has been

consistently found throughout the research done by the WSU-KU research group collaboration.

Consequently, the split loading of this scale suggests a stable account of the amount of variance

within the Borderline scale. Interestingly, a single factor was not defined by measures of

demoralization. This could be supporting evidence of RCd being slanted more towards the

measurement of depressive symptomatology and JBW 72 including more anxious trait measures.

As the major markers of Factor 2 were comprised of a collection of depressive oriented scales (Dependent and RCd) and Factor 3 is likened to the more anxious scales (Obsessive and JBW 72), results corroborate the hypothesized PU dimension used by Tellegan and Watson (1985) and highlight the scales slanting towards distinct polarities of this construct. Factor 4 was labeled "paranoid thinking" as this factors prominent loading was Paranoid. Lastly, Factor 5 was labeled "antisocial" given the significant loading of Antisocial accounting for this factors variance.

JBW 72, RCd, and MCMI-III Personality Disorder Scales. The analysis strategy that was summarized in the former section was used in performing this factor analysis. Again, a five-factor solution offered the most meaningful and parsimonious solution and was supported by Velicer's MAP test. Appendix K contains the pattern matrix for this factor analysis.

The scales that load onto Factor 1 seem to depict an "externalizing" style with prominent loadings of Antisocial and Borderline. Factor 2 was labeled "demoralization" as this factor was defined solely by loadings of the two demoralization scales, JBW 72 and RCd. The scales that loaded onto Factor 3 appear to define a "depressed helplessness" with meaningful loadings of Avoidant and Dependent and a negative Narcissistic loading. Factor 4 was labeled "detachment" and was defined by a prominent loading of Schizoid and a negative Histrionic loading. It is sensible to expect loadings in the negative direction on the Narcissistic and Histrionic scales given the reduced likelihood of a narcissist to experience low mood and a histrionic to have sensitivity to detachment. Lastly, Factor 5 was labeled "odd and paranoid thinking" given the significant loading of Paranoid and Schizotypal.

Prediction of Demoralization. For this portion of the data analyses, two separate linear regressions were run. As previously discussed, there is significant item overlap between Morey's and Ben-Porath's Personality Disorder Scales. Fortunately, due to the minimal overlap

between these scales and JBW 72 and RCd, those overlapping items were extracted from JBW 72 and RCd. Cronbach's alpha coefficients were run on the abbreviated demoralization scales and adequate alpha coefficients were found of .92 for JBW 72 and .82 for RCd. Unfortunately the same could not be said for Morey's and Ben-Porath's, given the extensive number of overlapping items on various scales and high percentage of total commonality. Poor alpha coefficients were found for each of the personality disorder scales if overlapping items were extracted given their small size. Thus, in an attempt to further ascertain the relationship between personality disorders and demoralization while taking into consideration the inherent, shared variance between the scales, the linear regression afforded an ability to better predict this relationship within limited parameters.

Preceding a linear regression, a relationship needs to be established between the variables of interest, which was demonstrated by the high correlational coefficients previously found. Two linear regressions were run, each with a different demoralization scale used as the dependent variable. After looking over the previous correlations, six of the highest were selected as the predictors for each model, excluding overlapping personality disorder scales (e.g. Morey and Ben-Porath's Dependent scale would not both be selected). Between Morey and Ben-Porath's personality disorder scales, a predictor was selected based on which researcher's scale had a larger correlation with demoralization measures. The exact same predictors for both regressions were chosen, which were: Ben-Porath's Schizoid, Ben-Porath's Obsessive Compulsive, Ben-Porath's Dependent, Ben-Porath's Borderline, Morey's Schizotypal, and Morey's Avoidant. These predictors are not unsurprising given their internalized nature, interpersonal concerns, and resulting clinical distress.

JBW 72 as the criterion. With the previous six predictors being used, the model summary showed an R^2 of .861 or 86.1% of the total variance being accounted for by the selected predictors. Moreover, these results were significant beyond the .001 level. After closer examination of the coefficient summary, three of the predictors were significantly impacting the prediction of JBW 72 after the shared variance of the items were accounted for. See Table 5 for the JBW 72 Model and Coefficient Summary. The three predictors that were impacting the prediction of JBW 72 were Ben-Porath's Borderline, Ben-Porath's Obsessive Compulsive, and Ben-Porath's Dependent scales.

Table 5

JBW 72 Model and Coefficient Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.928[a]	.861	.858	.08796

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.993	.014		141.804	>.001
	Morey Avoidant	.003	.002	.136	1.838	.067
	Morey Schizotypal	.002	.002	.053	.980	.328
	Ben Porath Borderline	.008	.001	.380	10.303	>.001
	Ben Porath Obsessive Compulsive	.017	.002	.319	8.919	>.001
	Ben Porath Dependent	.007	.001	.202	4.688	>.001
	Ben Porath Schizoid	.002	.002	.062	1.216	.225

RCd as the criterion. With the previous six predictors being used, the model summary showed

an R^2 of .787 or 78.7% of the total variance being accounted for by the selected predictors.

Moreover, these results were significant beyond the .001 level. After closer examination of the

coefficient summary, all of the predictors were significantly impacting the prediction of RCd

after the shared variance of the items were accounted for at the <.05 level. See Table 6 for the

RCd Model and Coefficient Summary.

Table 6

RCd Model and Coefficient Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.887[a]	.787	.782	.12675

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.020	.020		99.766	>.001
	Morey Avoidant	.005	.003	.199	2.177	.030
	Morey Schizotypal	.007	.002	.210	3.133	.002
	Ben Porath Borderline	.011	.001	.479	10.482	>.001
	Ben Porath Obsessive Compulsive	.006	.003	.100	2.264	.024
	Ben Porath Dependent	.011	.002	.289	5.413	>.001
	Ben Porath Schizoid	.006	.003	.139	2.218	.027

CHAPTER FIVE

DISCUSSION

Overall, the results of this study support the previously stated tentative hypotheses. When factor analyzed, JBW 72 did evaluate more than conventional anxiety and depression. Although some of the additional factors being tapped into by JBW 72 are not directly allied to anxiety and depression (i.e. somatic and cognitive complaints), they are still peripherally related constructs that oftentimes accompany these psychological concepts. As it pertains to the hypothesis that JBW 72 would similarly covary as RCd does with MCMI-III Scales but to a larger extent with the more anxiously oriented disorders, the results again supported this hypothesis. Although RCd and JBW 72 correlations with the personality disorders "hung together", JBW 72 predominately covaried to a higher degree than its RCd counterpart with the anxious disorders (e.g. Schizotypal and Compulsive) with few exceptions.

The third and fourth tentative hypotheses hoped to replicate Padilla's (2010) correlational and factor analysis findings between RCd and various MCMI-III "Internalizing" Scales, and a cross loading of RCd on factors labeled "demoralized affect" and "demoralized social functioning". The results from this study did support Padilla's findings within the JBW 72, RCd, and Morey and Ben-Porath's Personality Disorder Scale factor analysis. RCd did cross load on two different factors measuring social functioning and affect, although they were labeled differently in this study. Moreover, RCd did appear to load on factors that were defined by the more "Internalizing" scales (e.g. Avoidant, Dependent, Compulsive). With that being said, the internalizing scales that it loaded on were those from Morey and Ben-Porath's and not the MCMI-III. When analyzing the JBW 72, RCd, and the MCMI-III Personality Disorder Scales

factor analysis, JBW 72 and RCd loaded on a factor in isolation that was demarcated demoralization.

Reliability

 Cronbach's Alpha. Cronbach's alpha coefficients are used to measure a scale's internal consistency or how closely related the scale's items are in measuring a distinct construct. Tentatively the range for Cronbach's alpha coefficient should range from 0.00 to 1.00. An inadequately constructed and variable scale would be represented with a coefficient of 0.00; whereas, a scale that is consistently measuring the same concept would be awarded a 1.00 coefficient. Within this study, JBW 72 and RCd parent and abbreviated scales each obtained a sufficient alpha coefficient that is well above the accepted cut off of >.70. It is important to mention however that the number of items on a scale can subsequently affect its internal consistency, in that a scale with greater items will artificially receive an inflated alpha coefficient (Steiner, 2003). This is statistically important to recognize as JBW 72 and JBW 56, the longer scales, had larger alpha coefficients. In addition to length effecting scale consistently, it is worth noting that exhaustion is more probable after answering 72 items as opposed to 56 and even more so with 8. Therefore, a consideration when looking at these scales is that although JBW 72 could be better measuring demoralization's anxious features, there is also the trade off of a prominently amplified scale size.

Strength of the Relationship

 JBW 72, RCd, and Personality Disorder Scales. Correlational analyses were run to examine the extent to which the two demoralization scales correlated with Morey, Ben-Porath, and the MCMI-III's Personality Disorder Scales. This technique is advantageous when considering the degree to which these scales share variance. Unsurprisingly most of the

correlational coefficients between the personality and demoralization scales were high and

expectedly so given the degree of symptomatology overlap between the disorders. The highest

correlations were found for the "Internalizing" disorders, or those most likely to suffer from

demoralization. An avoidant individual is of greater likelihood to feel demoralized because of

their interpersonal apprehensions than an antisocial, which the data supports. Along the same

vein, the personality disorder scales that would be expected to weakly correlate with

demoralization (i.e. Histrionic, Narcissistic, Schizoid) followed suit with only "moderate"

coefficients.

Of noteworthiness, three of the personality scales, Histrionic, Narcissistic, and

Compulsive all had negative correlations, again as expected. These three disorder measurements

behave this way steadily, due to their conceptualization as being valuable traits to have at a

subclinical level. For example, an individual who is compulsive is liable to be efficacious within

an occupational setting and the self-love from narcissism is psychologically healthy to a degree.

Underlying Variables

JBW 72 and RCd. To best conceptualize these findings, it is important to revisit the

previously examined theories and empirical research. Demoralization is multidimensional and

characteristically complex given its symptomatology parallel with other disorders, its

amalgamation of depression and anxiety, and individualized presentation. Demoralization's

presence within Watson and Tellegen's two-dimensional structure of affect (Fig. 1) was not

coincidental, but rather grounded within Tellegen's theories on emotionality. Again, within the

model, demoralization occupied the expanse midway between High Negative Affect (anxiety)

and Low Positive Affect (depression) and falling along the pleasant-unpleasant dimension. As

asserted by J.S. Ben-Porath (personal communication, April 2003), demoralization is not

depression but is highly related. Just as demoralization is not a carbon copy of depression, it is not an imitation of anxiety either. Instead, we see the dual presence of both symptoms and consistent terminology and descriptors that point towards such (Millon, 1990).

Some may argue that the multiple factor solution found for JBW 72 and RCd items is "muddy", inconsistent, and provides support that the scales are not, in fact, measuring demoralization. This assumption can be challenged on empirical and theoretical grounds. It has been made apparent (Tellegen et al., 2003) that the developers of the RC Scales did not anticipate for them to be unidimensional in nature, as scale unidimensionality is ineffectual and futile for a multidimensional construct. Moreover, Nichols maintained that RCd was lacking in dimensionality and neglected the anxious features that comprised the structure and qualities of demoralization.

Many of the underpinning theories consistently highlighted the presence of multiple criteria occurring in unison to birth demoralization. Recall, Frank (1961) designated demoralization as a *cluster* of symptoms analogous to Engel's (1968) "giving up-given in" complex. Clark and Kissane (2002) and de Figueiredo and Frank (1982) postulated that in order for demoralization to arise, an individual must experience distress *and* subjective incompetence, resulting in symptoms that mirror anxiety, dysphoria, and discouragement. Cassel (1982) and de Figueiredo (1982) further expanded the constructs breadth by considering the influence of social bonds, self-efficacy, and perceived loss of control over one's circumstances. In line with the presently held and accepted theories and previous empirical findings (Padilla, 2010), these results appear to be in line and further parcel out the facets being quantified by various measurement scales of demoralization. These specific research findings have provided evidence of further dimensionality within the construct of demoralization and could better inform the

specific deficits inherent to the individual suffering form demoralization, in hopes of designing treatments to remediate such.

JBW 72, RCd, and Personality Disorder Scales. The study was further expanded to include additional measurements of personality disorder and demoralization in an attempt to distinguish the existence of demoralization within such. Millon articulated numerous parallels between his work within the MCMI and that of Tellegen's within the MMPI; "Tellegen's systematic work corresponds again to the first two polarities of the evolutional model" (Millon, 1990, p. 59). Given the MCMI-III personality disorder scales being rooted within Millon's evolutionary model and RCd being determinedly entrenched in Tellegen's theory, a relationship between these instrumental scales is not out of the realm of possibility. Likewise, the semantic overlap has obliquely further vocalized an association with statements such as, "inescapably worried," "invariably expects the worst will happen," (Millon, 2004, p. 768-770).

The findings from this portion of the study not only revealed the occurrence of demoralization within diverse measurements of personality disorder, but also provided additional information about the demoralization scales. As it pertains to the Morey and Ben-Porath factor analysis, RCd loaded on Factor 2 (Abandonment Fear) and JBW 72 on Factor 3 (Rigidity). After a closer look at the scales that also defined these factors and their clinical processes, there appears to be some supporting evidence for RCd's depressive slanting and JBW 72's inclusion of anxious indicators. Conflictingly, the factor analysis with the MCMI-III scales did not parcel out similarly, but instead had a factor complete defined by RCd and JBW 72. The author is not entirely sure as to the reason for this finding, but could be related to the assessment measures dissimilar items and theoretical foundations. Although the correlational coefficients and factor analyses findings supported the presence of demoralization within the measurement of

personality disorders, further analyses were conducted in hopes of ascertaining results at a more granular level that could provide clinical utility.

Prediction of Demoralization

JBW 72 and RCD as criteria variables. Despite JBW 72 appearing to be a more expansive measurement of demoralization symptomatology, fewer of the chosen predictors significantly projected the measurement of the construct. Yet, both linear regressions yielded a statistically significant model with either three or six predictors meaningfully impacting demoralization. Although previous findings already yield supporting evidence for a relationship between demoralization and personality disorders, these more detailed results give way to clinical utility. Of interest, when looking at the predictors that are contributing the most to RCd and JBW 72, we find further support that JBW 72 is likely assessing for the more anxious features and RCd possessing a more depressive slanting. Ben-Porath's Borderline Scale is pulling most of the weight in the RCd linear regression and Ben-Porath's Obsessive Compulsive is significantly impacting JBW 72. From a therapeutic lens, Ben-Porath's Borderline, Obsessive Compulsive, and Dependent Scales meaningfully predicting JBW 72's measurement of demoralization and all of RCd's predictors significantly impacting its measurement, it would be of usefulness for clinicians to become mindfully aware of these relationships to help guide their therapeutic processes. If an individual with a certain personality disorder is presenting as co-morbidly severely demoralized, initial therapeutic interventions are of greatest likelihood to yield success if targeting demoralization first, rather than the faulty personality structure.

Limitations and Future Research

The present study has various limitations. First and foremost, there is only one other study that has examined the relationship between demoralization and personality disorders

(Padilla, 2010), which this study used as a supporting paradigm and expanded through a quasi-replication design with additional measures and analyses. Therefore, the findings need to be cross-validated in future research and could be better enhanced with the use of a different data set. As it pertains to the data set, the sample for this study was psychiatric inpatients. The acute and troubled nature of these individuals encumbers the ability to generalize findings to the larger population.

Recall in a previous section, Link and Dohrenwend (1980) found the presence of demoralization within 25% of the general population, with half of those demoralized individuals suffering at the level of clinical impairment. Thus, an advantage of the sample used is the probable ubiquitous occurrence of demoralization given their severe psychopathology and current setting. Consequently and for the purpose of this research, demoralization was more likely to be revealed and examined.

As it pertains to the shortcomings of the statistical analyses, Tabachnick and Fidell (2001) offered numerous limitations for the use of factor analysis. Factor analysis assumes that variables are correlated which can lead to concerns defining the resulting factors, especially given the lack of standardized criteria by which factor solutions are selected. Subsequently, factor solutions are ultimately designated by the researcher and could result in variability between individuals. To reduce the impact of this effect, Velicer's MAP test and Cattell's (1966) Scree plot were used in the selection of number of factors. Lastly and unfortunately because of the large amount of item overlap between Morey and Ben-Porath's personality disorder scales, there were some limitations to the analyses and findings that could be run and interpreted due to the fundamental, inherent correlation while still preserving statistical validity and reliability.

Future research can hopefully address some of the previously discussed limitations. With that being said, the results of this research and potential projects in the future hold unmistakable clinical weight and implications for applied work. It is critical that demoralization be analyzed in a number of different populations and settings in an attempt to increase the applicability of the research findings. More specifically, because a psychiatric inpatient population was used for this research, the applicability of these findings to a less severely impaired sample is dampened.

When conceptualizing additional populations of interest, college and prison populations allow for an interestingly different presentation of demoralization and relationship with personality disorders. Prison offers a unique setting that largely diminishes a person's ability to make choices and experience everyday life in a non-restricted manner. Therefore, the baseline level of demoralization within this population is likely much higher than the general population, given the difficulty in reintegration as a result of time spent incarcerated, strain in obtaining employment and housing, and the distinctive norms experienced in prison. As a consequence of the setting being a breeding ground for demoralized individuals, it would be a sample worth studying for its notable characteristics, and high occurrence of personality disorders.

Previously, the impact of globalization, contextual, cultural, and demographic variables on personality were considered (Winter & Barenbaum, 2008). These dynamic factors impact not only the level but also outlet of personality with anticipated shifts corresponding to current global climate. Accordingly, it will be important to not only obtain better normative data on all measures of personality but also more informed baseline data for diverse populations. This has significant clinical implications as various cultures display and experience symptomatology in dissimilar manners and levels. Also impacting the level and manner of endorsement and expression is the ongoing global climate. The way we view others and ourselves shifts and may

reflect the more widely discussed and held opinions, whether it be as a result of a significant political event, war, mass immigration, cultural shift, etc. Consequently, our interpretation of our assessment findings must reflect the distinctiveness across populations, rather than assuming homogeneity.

The use of research informing clinical work is crucial so that individuals can receive empirically supported and useful interventions. Earlier mentioned research touched upon the sizeable initial gains from therapy's nonspecific features that target remoralization. It would follow that demoralization holds substantial weight in the clinical assessment field and the identification of such could not only result in increased compliance, but also therapeutic movement. As demoralization has been a potential source of nonspecificity within assessment instruments (Tellegen, 1985), it would be a construct worth identifying in most personality assessments and even more so those normed on a clinical population. It is vital that our assessment and understanding of personality and psychopathology traits are well informed, especially as those oftentimes advise applied work. In hopes of improving the assessment of personality disorders and demoralization, future research could aim to address statistically the inherent overlap that is present within most measures, largely permitted to reflect the current conceptualization of disorders' symptomatology commonality.

From an applied perspective it is of consequence that demoralization be identified properly, especially within the early stages. If a patient is mislabeled as not suffering from demoralization, yet their actions are in line with the behavioral expression of a demoralized patient, the therapist may misjudge the client's unwillingness to engage in certain behaviors as resistance or aversion to actively participating in the therapeutic process. Therapeutically, we must strive to effectively identify barriers between the client and their success, so as to best put

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them on a trajectory towards amelioration of their suffering. Additionally of interest might be

the tracking of construct stability and intervention efforts towards targeting the problem areas of

demoralization and personality. Hopefully with ongoing assessment of both constructs, a better

understanding of the relationship between the two could be identified. Research would seem to

support the probability of improved personality structure, management of interpersonally

conflict, and general emotionality with lower levels of demoralization being present within the

individual.

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APPENDICES

Appendix A: MMPI-2 RC Scale Descriptions (Ben-Porath & Tellegen, 2011)

Hypochondriasis (Scale 1)	Somatic Complaints – Diffuse physical health complaints
Depression (Scale 2)	Low Positive Emotions – Lack of positive emotional responsiveness
Hysteria (Scale 3)	Cynicism – Non-self-referential beliefs expressing distrust and a generally low opinion of others
Psychopathic Deviate (Scale 4)	Antisocial Behavior – Rule breaking and irresponsible behavior
Paranoia (Scale 6)	Ideas of Persecution – Self-referential beliefs that others pose a threat
Psychasthenia (Scale 7)	Dysfunctional Negative Emotions – Maladaptive anxiety, anger, irritability
Schizophrenia (Scale 8)	Aberrant Experiences – Unusual perceptions or thoughts
Hypomania (Scale 9)	Hypomanic Activation – Over-activation, aggression, impulsivity, and grandiosity

Appendix B: Sample profile for codetyping example (24/42)

	L	F	K	Hs	D	Hy	Pd	Mf	Pa	Pt	Sc	Ma	Si
				1	2	3	4	5	6	7	8	9	0
	L	F	K	Hs	D	Hy	Pd	Mf	Pa	Pt	Sc	Ma	Si
T Score	48	48	43	51	74	57	77	44	57	55	47	56	43

Unanswered (?) Items = 6

Welsh Code: 42'-36971/850: L:F:K:
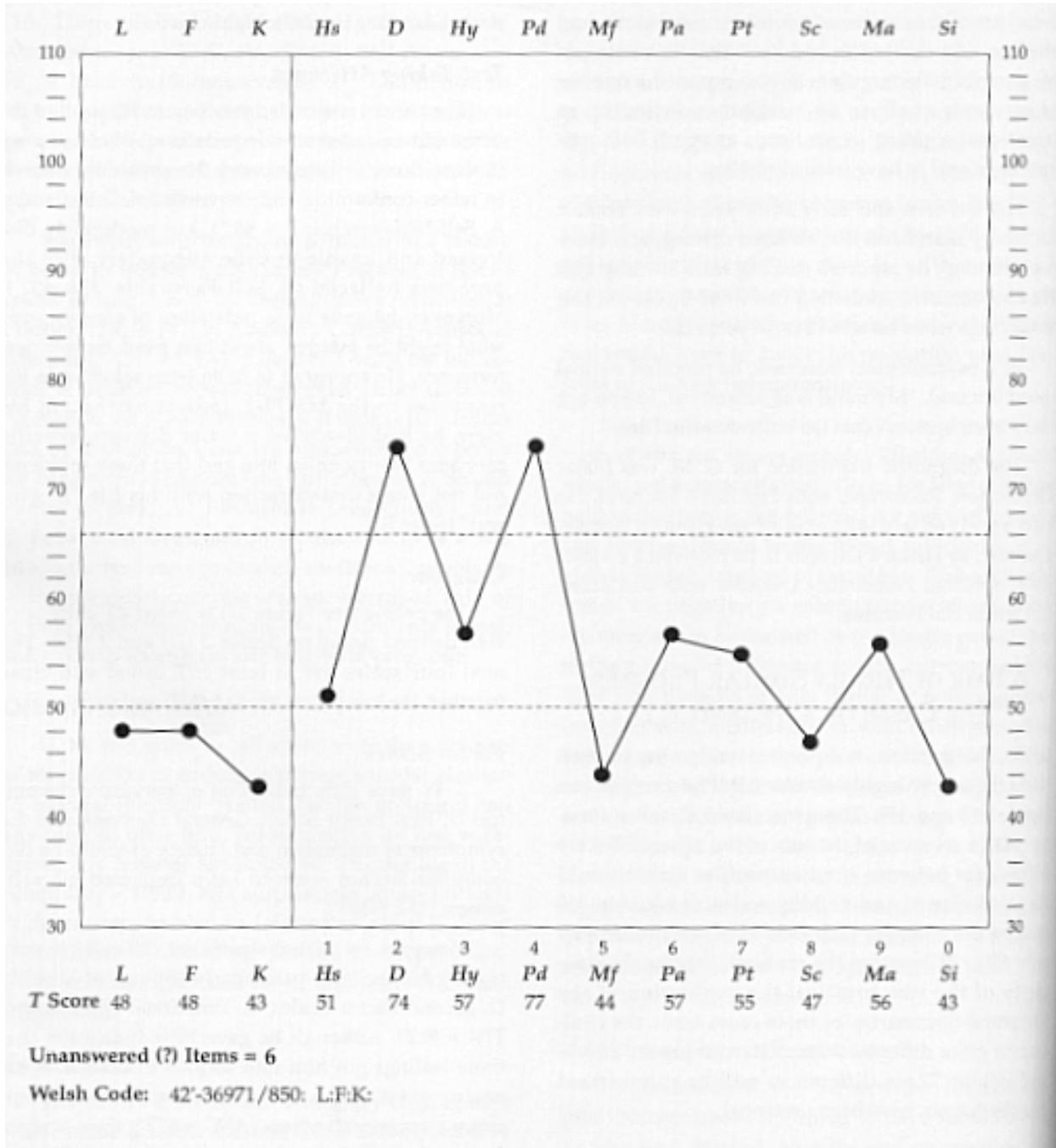
Appendix F: Personality Disorder Scales Reliability Coefficients (Cronbach's α)

Scale	Morey Personality Scales	Ben-Porath Personality Scales
Paranoid	.84	.91
Schizoid	.81	.85
Schizotypal	.90	.92
Antisocial	.66	.70
Histrionic	.78	.79
Narcissistic	.64	.79
Borderline	.68	.93
OCD	.71	.84
Avoidant	.93	.89
Dependent	.82	.90

Note: Morey Personality Scales = Morey, Waugh, and Blashfield (1985);
Porath Personality Scales = Somwaru and Ben-Porath (1995).

Appendix G: Sample Report Profile for MMPI-2 RC Scales

MMPI-2 RESTRUCTURED CLINICAL SCALES PROFILE
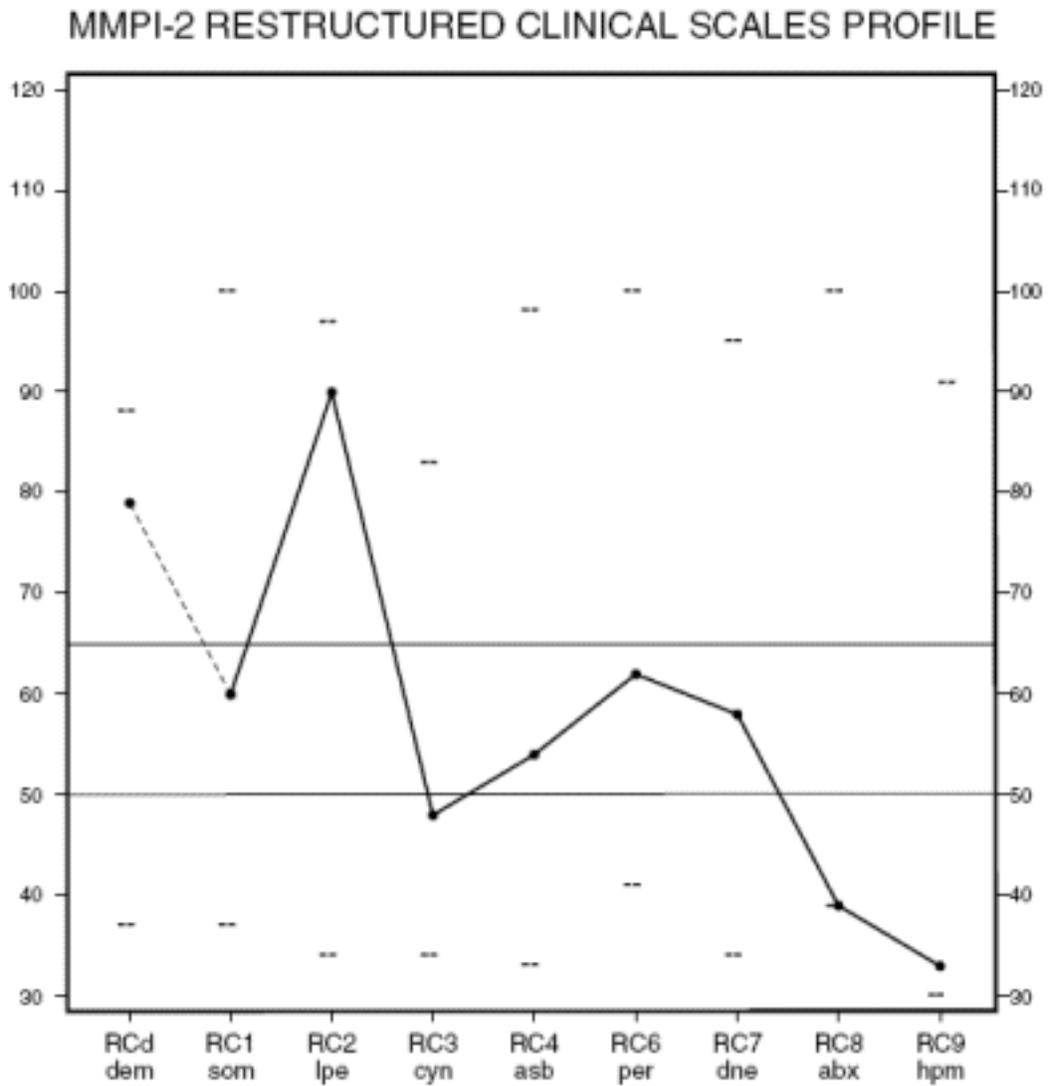
Appendix H: Sample Report Profile of MCMI-III

CONFIDENTIAL INFORMATION FOR PROFESSIONAL USE ONLY

INVALIDITY (SCALE V) = 0   INCONSISTENCY (SCALE W) = 4
PERSONALITY CODE: 8A 3 ** 2A 2B * 6A 8B 1 + 6B 5 " 7 4 ' ' // C ** - * //
SYNDROME CODE: A D ** T R * // CC ** - * //
DEMOGRAPHIC CODE: 12566/ON/F/44/W/D/-/--/--/------/--/------/

CATEGORY		SCORE		PROFILE OF BR SCORES					DIAGNOSTIC SCALES
		RAW	BR	0	60	75	85	115	
MODIFYING INDICES	X	163	93						DISCLOSURE
	Y	4	20						DESIRABILITY
	Z	28	90						DEBASEMENT
CLINICAL PERSONALITY PATTERNS	1	13	62						SCHIZOID
	2A	20	83						AVOIDANT
	2B	20	83						DEPRESSIVE
	3	22	93						DEPENDENT
	4	7	12						HISTRIONIC
	5	12	40						NARCISSISTIC
	6A	14	66						ANTISOCIAL
	6B	14	57						SADISTIC
	7	8	16						COMPULSIVE
	8A	24	94						NEGATIVISTIC
	8B	13	65						MASOCHISTIC
SEVERE PERSONALITY PATHOLOGY	S	16	65						SCHIZOTYPAL
	C	23	93						BORDERLINE
	P	15	68						PARANOID

Appendix I: JBW 72 and RCd Items Pattern Matrix

	Factor				
	1	2	3	4	5
mmpi15	.234				
mmpi16		.397			
mmpi31	.369	.385			
mmpi37			.488		
mmpi38	.324	.328			
mmpi39	.293	.288			
mmpi56	.606		.224		
mmpi65	.610	.206	-.246		
mmpi73	.780				
mmpi82	.240		.434		
mmpi87			.385		
mmpi89	.440		.287		
mmpi94		.393	.272		
mmpi95	-.755				
mmpi116	.252		.317		
mmpi127				.381	.272
mmpi130	.737				
mmpi135	-.217		.289	.466	
mmpi147		.429			
mmpi170		.528			
mmpi172		.552			
mmpi178		.217	.234		
mmpi180	.265	.631			
mmpi196	.525		.219		
mmpi215	.284		.229		
mmpi218		.555	.202	-.208	
mmpi233	.413	.222		.203	
mmpi251		.244	.292		
mmpi271	.215				.443
mmpi273	.586				
mmpi274			.447		
mmpi277	.430				
mmpi285					.485
mmpi290	.209		.390		
mmpi299		.605			

mmpi301	.301	.287			.227
mmpi302	.262		.287		
mmpi304			.435		
mmpi311		.604			
mmpi320		.359			
mmpi326		.573			
mmpi326	.365			.355	
mmpi328		.508	.284		
mmpi331					.474
mmpi339	.632		.343		
mmpi338					
mmpi364	.398			.358	
mmpi368				.463	
mmpi369				.597	
mmpi386			.411		
mmpi388	-.653				
mmpi390			.552		.215
mmpi391		.266	.242		
mmpi394				.358	
mmpi405	-.313				-.232
mmpi400	.218	.401			
mmpi411	.689				
mmpi408	.353				
mmpi409			.276	.237	
mmpi413		.207			
mmpi415			.329		
mmpi420		.246			.284
mmpi421				.670	
mmpi428			.204		
mmpi430	.241		.407		
mmpi442			.337		
mmpi444		.340		-.301	
mmpi446				.648	
mmpi451	-.277	.220	.260	.203	
mmpi457				.635	
mmpi463		.558			
mmpi473					
mmpi464	.582	.209			
mmpi469	.584				
mmpi482	.283			.437	

mmpi485	.490			.384	
mmpi491		.235		.473	
mmpi505	.220	.362			
mmpi554	.543			.294	

Appendix J: JBW 72, RCd, Morey and Ben-Porath's Personality Disorder Scales Pattern Matrix

	Factor				
	1	2	3	4	5
RCd		.583	.307		
JBW 72		.435	.541		
Morey Histrionic	-1.023				
Morey Narcissistic	-.566	-.661		.311	
Morey Borderline	-.355	.309	.442		.352
Morey Antisocial					.870
Morey Paranoid				.950	
Morey Schizotypal	.534			.501	
Morey Avoidant	.622	.316			
Morey Dependent		.975			
Morey Compulsive		-.208	1.081		
Morey Schizoid	1.010	-.218			
Ben Porath Paranoid				.904	
Ben Porath Schizoid	.919				
Ben Porath Schizotypal				.758	
Ben Porath Antisocial					1.099
Ben Porath Borderline		.386	.265		.373
Ben Porath Histrionic	-.966				
Ben Porath Narcissistic		-1.040	.298		
Ben Porath Avoidant	.637	.236	.210		
Ben Porath Dependent		.900			
Ben Porath Obsessive Compulsive			1.028		

Appendix K: JBW 72, RCd, and MCMI-III Personality Disorder Scales Pattern Matrix

	Factor				
	1	2	3	4	5
RCd		1.019			
JBW 72		.887			
MCMI Schizoid				.814	
MCMI Avoidant			.493	.296	.254
MCMI Dependent			.674	-.251	
MCMI Histrionic			-.372	-.614	
MCMI Narcissistic			-.995		.223
MCMI Antisocial	1.040				
MCMI Compulsive	-.625				
MCMI Schizotypal					.780
MCMI Borderline	.563	.222			
MCMI Paranoid					.819