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The SELF-DISS: A Comprehensive Measure of Self-Defeating Interpersonal Style

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ABSTRACT

This research reports the development and validation of the Self-Defeating Interpersonal Style Scale (SELF-DISS), a measure for the assessment of the propensity to engage in the chronic tolerance of mistreatment in relationships. Studies 1 and 2 followed a strategic 7-step process for developing valid and reliable measures. Study 1 proposed a theoretical model and developed a reliable measure to tap the three proposed factors on three scales: Insecure Attachment, Undeserving Self-Image, and Self-Sacrificing Nature. Study 2 replicated Study 1 as well as refined the SELF-DISS model to 35 items that indicated an excellent fit. Study 2 tested construct validity via correlational and modelling analyses using the Hogan Personality Inventory (HPI), the Hogan Development Survey (HDS), and the Motives, Values, Preferences Inventory (MVPI). Results showed strong support for the reliability and validity of the SELF-DISS as a second-order construct with three distinct factors.

Keywords: self-defeating behavior; undeserving self-image; insecure attachment; self-sacrifice; mistreatment; interpersonal relationships; abuse; self-defeating patterns; negative internal working mode; interpersonal style

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CHAPTER 1: INTRODUCTION

1. Introduction

Prevailing views of human motivation propose an inherent desire to view oneself in as much a positive a light as possible (Leary, 2007; Sedikides & Gregg, 2008), as well as to minimize pain and maximize pleasure (e.g., Schwartz, 1986; Wilson, 1978). It has also been shown, however, that certain individuals express many maladaptive behavioral patterns which are inconsistent with their own best interests or long-term goals (e.g., abusing drugs or alcohol, putting themselves at risk of sexually transmitted infections, overeating, etc.; see Kopetz and Orehek, 2015). Self-defeating behaviors and the mechanisms that drive them have been enigmatic—largely due to the paradoxical nature of attempting to fully define self-defeating behavior. It is common practice in the counselling process to aid individuals in identifying their own current persistent maladaptive patterns (e.g., general self-defeating thoughts and behaviors). This includes helping clients to increase awareness of these patterns as well as developing strategies to address them (e.g., increasing social self-efficacy or self-esteem) to decrease interpersonal or psychological distress. Therefore, both clinical and subclinical measures are required to assess such patterns in order to develop models of alternative strategies which may then be employed in aiding the afflicted population.

In the current research, a measure was developed to assess and reflect the motivating factors that underlie the expression of self-defeating patterns as they exist interpersonally. Self-defeating interpersonal style is held to represent a persistent manner of relating to others, typically motivated by disordered attachment styles, a

negative working model of the self, and a tendency toward accepting and/or rationalizing various forms of mistreatment. The construct is proposed to be multidimensional, and motivated by these related underlying factors, whereby negative consequences in relationships (i.e., recurrent mistreatment) are ignored in place of more immediate, or perceivably more important, goal activation (i.e., fulfilment of perceived psychological needs).

The goal of this research was to construct and validate a scale which assesses self-defeating interpersonal style which can then be employed in future research in order to further elucidate the motivating factors leading to these behaviors. Research that has summarized decades of scale construction literature describes a seven-step process for developing reliable and valid measurement instruments (see Hinkin, Tracey, & Ens, 1997, for review). These steps consist of Item Generation, Content Adequacy Assessment, Questionnaire Administration, Factor Analysis, Internal Consistency Assessment, Construct Validity, and Replication; this process served as a guide in ensuring the proper development of the SELF-DISS.

In completing the first five of these steps, Study 1 aimed to;

- (i) Develop a comprehensive measure that purports to assess this particular self-defeating interpersonal style from (a) a review of existing empirical evidence and theoretical conceptualizations of self-defeating patterns and behaviors, and subsequently (b) the dissection of existing measures of Self-Defeating Personality Disorder, which was previously considered for inclusion in the Diagnostic and Statistical Manual of Mental Disorders-Third Ed. (DSM-III; American Psychiatric Association, 1987).

- (ii) Explore the factor structure underlying these specific self-defeating patterns in adult relationships, and further refine the measure using multiple analytic methods to estimate and increase its reliability.

Study 2 employed a second data set to finalize retained items, and to subsequently validate the SELF-DISS construct by assessing relationships between it and 28 personality variables assessed by three measures that were designed to tap the ‘Bright’ side, the ‘Dark’ side, and the motivators of human psychology. This was accomplished using correlational and Structural Equation Modelling (SEM) analyses.

1.1 Self-defeating Patterns and Attachment

Self-defeating patterns (SDP) were recently described as an enduring set of behaviors reflecting pervasive and inflexible traits, primarily characterized by paying long-term psychological consequences for perceived immediate short-term benefits (Wei & Ku, 2007). It has been argued previously that those who engage in self-defeating patterns in general may be at risk of psychological difficulties (Hartzler & Brownson, 2001), and self-defeating patterns have been associated with emotional distress and depression (Baumeister & Scher, 1988; Lester & Hoffman, 1992). Development of these chronic and maladaptive patterns is commonly viewed as related to early childhood experiences, where patterns of interactions with caregivers and significant others facilitate in creating “survival strategies” which are then continued into adulthood (e.g., Teyber, 2005; Wei & Ku, 2007).

Previous research has shown that adults who engage in various self-defeating patterns often report inconsistent or rejecting caregivers (Zampelli, 2000), or a failure of caregivers to meet individual needs for acceptance, love and attention (Glickhauf-

Hughes & Wells, 1991). Such strategies become deleterious to well-being when they are applied rigidly in interpersonal relationships in adulthood (e.g., Wei & Ku, 2007; Wei, Mallinckrodt, Larson, & Zakalik, 2005). In other words, behaviors which served an important purpose as a coping or defense mechanism in inconsistent environments during development may be one factor which influences the use of self-defeating patterns interpersonally in adulthood. This pattern generally presents as a pervasive pattern of voluntarily enduring mistreatment in successive romantic relationships or other relationship types. Despite being mistreated, these individuals are, in general, motivated to maintain the relationship with the person who perpetrates the mistreatment. In this context, mistreatment could present in many forms, including consistent financial burden put on one individual by another, to physical or psychological abuse.

1.2 Self-defeating Patterns and Goal Attainment

Research which has examined the psychology of goal pursuit may lend insight into how many individuals perceive their reasons to stay involved in such relationships. Goal pursuit can originate from various conscious and nonconscious sources, such as transfer of affect or experience with success or failure (e.g., Kopetz & Orehek, 2015; Aarts, Dijksterhuis, & De Vries, 2001; Fishbach, Shah, & Kruglanski, 2004). The process by which individuals set these goals and attempt to attain them is referred to as self-regulation (Carver & Schneider, 2011). Interestingly, self-defeating behaviors have been discussed as representing both self-regulatory “failures” (e.g., Wagner & Heatherton, 2015) as well as self-regulatory “successes” (e.g., Kopetz & Orehek, 2015). For example, behaviors which are perceived as

maladaptive today have been suggested to perhaps reflect evolutionary mechanisms that were developed to promote reproductive fitness (Steinberg & Belsky, 1996).

Recent research suggests that these behaviors may not represent self-regulatory failures, but rather may serve to attain alternative goals which are prioritized as more important to an individual than goals which are often more sensible (e.g., maintaining a harmful relationship despite the option to discontinue the relationship; Kopetz & Orehek, 2015).

A recent review by Kopetz and Orehek (2015), for instance, discussed self-defeating behavior as representing self-regulatory success by examining drug use, risky sexual behavior, overeating, martyrdom, and self-harm. Through means-end analysis, the hallmarks of goal pursuit were applied to these behaviors to explain why they may reflect strategic goal pursuit and how negative consequences are ignored in order to pursue more immediate gratification of alternative goals. It was argued that self-defeating behaviors tend to follow the general principles of goal pursuit: (1) behaviors are employed when perceived as instrumental to goal attainment; (2) behaviors acquire value as a function of their utility in the service of goal attainment; and (3) pursuit requires goal-conflict resolution and may result in inhibition of alternative considerations. The authors maintain that in this regard, self-defeating behaviors can constitute self-regulatory successes.

However, research attempting to elucidate relationships between self-defeating behavior and other individual differences may be confounded with expectations that the definitional formulae of what constitutes “self-defeating behavior” can be fundamentally classified as self-regulatory success or failure. Self-

defeating behavioral patterns are likely to be motivated by several related underlying factors, and can likely be defined situationally as success or failure of goal activation depending on how the term “success” is interpreted. For example, if success is based simply on an individual’s perceptions of their own goals and goal attainment, then suppressing health and safety objectives through the employment of self-defeating behaviors (e.g., tolerating mistreatment) to obtain an outcome that is prioritized as important (e.g., experiencing feelings of belonging or acceptance) may conceivably be understood to constitute self-regulatory success in the short-term, even though other psychological or physical costs are likely present in the long-term (e.g., physical/psychological damage to self). Similar perceptions of “successful” goal attainment could be proposed to influence many individuals who are predisposed toward tolerating mistreatment to prioritize acceptance, mate retention, and affection, above other important goals such as physical and psychological safety.

1.3 Self-esteem, Self-worth, and Deservingness

Certain individuals often prioritize the maintenance of harmful relationships over and above their own psychological or physical safety; therefore, the research examining the theoretical underpinnings which motivate these behaviors is inherently important to treatment and intervention efforts. Previous literature has begun to empirically examine the principles governing how these maladaptive patterns are maintained into and throughout adulthood, as well as what individual difference variables may be contributing to their maintenance. Experimental research has shown that unintended negative experiences often will elicit feelings of guilt in individuals (e.g., McGraw, 1987; Meindl & Lerner, 1984; Miller & Gunasegaram, 1990).

Interestingly, such negative events—even when uncontrollable—have been shown to relate to devaluing or blaming oneself (e.g., Apsler & Friedman, 1975; Hall, French, & Marteau, 2003; Littleton, Magee, & Axsom, 2007), to selective recall of personal shortcomings (Callan, Kay, Davidenko, & Ellard, 2009), and to self-harm (e.g., Comer & Laird, 1975; Ferrari, 1990). Recent evidence has suggested that uncontrollable or unforeseen misfortunes also lower individual self-esteem which, importantly, can lead to the adoption of self-defeating patterns (Callan, Kay, & Dawtry, 2014).

Recent research by Callan and colleagues (2014) that investigated self-esteem, deservingness, and self-defeating behavior reported significant relationships between these variables. Specifically, bad (vs. good) “breaks” reportedly devalued individual self-esteem, and decrements to self-esteem were found to increase beliefs about deservingness of bad outcomes—regardless of whether the decrement to self-esteem was arrived at through failure or misfortune. This research drew on theory and empirical evidence which suggests that individuals are highly motivated to perceive the world as an orderly and just place, where people “get what they deserve” and “deserve what they get” (e.g., Lerner, 1980; Hafer & Bègue, 2005; Kay, Gaucher, Napier, Callan, & Laurin, 2008). It was argued that because maintaining deservingness beliefs serves an adaptive function, some individuals may be highly motivated toward the rationalization of bad outcomes, which can then devalue individual self-esteem and perceptions of their own deservingness of negative consequences (Callan & Ellard, 2010; Hafer & Bègue, 2005; Jost & Kay, 2010; Lerner, 1980; Callan et al., 2014). Furthermore, longitudinal research has reported

that low self-esteem leads to interpersonal issues (Kahle, Kulka, & Klingel, 1980). The above empirical evidence was used to suggest that such individuals can over-apply adaptive models of deservingness and thereby impact their own perceptions of self-worth when positive or negative outcomes occur (Callan et al., 2014), such as in interpersonal relationships, and that this may impact the pervasiveness of the self-defeating pattern.

In fact, research examining how individuals work through self-defeating patterns lends insight into the mechanisms underlying self-defeating behaviors as they relate intra- and interpersonally. Recent research has shown that as patterns solidify in individual behavior, resources from the self (e.g., self-esteem) are used to evolve alternative strategies to decrease interpersonal or psychological distress (Wei & Ku, 2007). Wei and Ku (2007) developed and tested a conceptual model of working through self-defeating behaviors based on a review of theoretical conceptualizations and empirical evidence available in attachment literature, as well as existing research examining distress and self-defeating patterns. This research also examined the potential mediators of relationships between self-defeating patterns and psychological and interpersonal distress.

The model draws on attachment theory, which operationalizes adult attachment as consisting of two relatively orthogonal dimensions: attachment anxiety and attachment avoidance (e.g., Brennan, Clark, & Shaver, 1998; Wei & Ku, 2007; Mikulincer, Shaver, & Pereg, 2003). A higher level of attachment anxiety indicates a vulnerability to fear of abandonment, a negative working model of the self, and a tendency to use a hyperactivation strategy (i.e., a method of eliciting support and

ensuring availability; e.g., Ainsworth, Blehar, Waters, & Wall, 1978; Cassidy, 1994, 2000; Cassidy & Kobak, 1988; Kobak & Sceery, 1988; Lopez & Brennan, 2000; Mikulincer et al., 2003; Pietromonaco & Feldman Barrett, 2000). The use of a hyperactivation strategy has been found to be associated with both depression and interpersonal distress (e.g., Fuendeling, 1998; Lopez, Mitchell, & Gormley, 2002; Wei, Vogel, Ku, & Zakalik, 2005), and has been noted as one form of self-defeating behavior in adult relationships where consequences are endured for the tradeoffs of support and ‘caregiver’ availability (e.g., Wei & Ku, 2007). This research further supports both the psychological vulnerabilities as well as the attachment insecurity predicted to be integral to the maintenance of a self-defeating interpersonal style.

1.4 Self-Defeating Personality Disorder

Based on the above review and the following examination of existing self-defeating personality disorder criteria (SDPD), and comparison of their theoretical relevance to the proposed construct, preliminary items were created which were designed to measure the multidimensional aspects of the self-defeating construct. A comprehensive search for previous measures of self-defeating behavior or self-defeating patterns revealed two existing measures: The Diagnostic and Statistical Manual—Third Edition (DSM-III) criteria checklist for SDPD, and the Millon Clinical Multiaxial Inventory (MCMI-III) which contains a scale that purports to measure SDPD.

1.4.1 Diagnostic and Statistical Manual-III

Previous research that has investigated self-defeating behavior has derived definitional formulae for which their methodology employs in large part the self-

defeating personality disorder content in Appendix A of the DSM-III. Self-defeating personality disorder (SDPD; which is also known as “masochistic personality disorder”) was previously proposed in the DSM-III-R for further review. However, it was not admitted into the DSM-IV as a personality disorder due to a lack of evidence supporting its validity as a distinct disorder rather than the effect of combined psychological difficulties (American Psychological Association, 1987). Overall, five of eight inclusion criteria were to be met, indicating a pervasive pattern of self-defeating behavior which causes significant distress and/or impairment and which begins in early adulthood. These behaviors are described as being present in a variety of contexts that do not occur only when the individual is depressed, and are not necessarily in anticipation of or in response to abuse. This pervasive pattern of behavior included;

1. Choosing situations and relationships which result in failure, mistreatment, or disappointment (despite better options being available)
2. Rejecting or rendering ineffective attempts by others to aid them
3. Responding with guilt, depression, or behaviors which produce pain when positive personal events are experienced
4. Inciting anger and rejection from others, and subsequently feeling hurt, humiliated, or defeated
5. Rejecting opportunities for and expression of pleasure
6. Failing to accomplish crucial personal goals despite showing the ability to help others achieve theirs
7. Disinterest in or rejection of those who consistently treat them well

8. Engaging in excessive and unsolicited self-sacrifice

The prevalence rates of self-defeating personality disorder as described in the DSM-III-R have been investigated; for example, an outpatient sample (N = 82) and a normal sample (N = 40) were compared on the Personality Diagnostic Questionnaire (PDQ; Hyler et al., 1988). Overall, 18.3% of outpatients and 5% of non-patients met criteria for SDPD, with a large overlap found (above 50%) with borderline, avoidant, and dependent personality disorders (Reich, 1987). However, validation as a personality disorder requires that the diagnoses contribute significantly to clinical and research interests in ways that are separate from the secondary personality disorder(s) that they are associated with.

A relevant follow-up investigation evaluated the DSM criteria for SDPD in psychiatric outpatients using a standard measure. Reich (1989) reported that the best individual diagnostic criterion was being taken advantage of by others; interestingly, sacrificing needs for others was of somewhat less predictive value, and importantly, perceiving being hurt as arousing was reported to be of little value. This is supportive of the notion that masochistic and self-defeating constructs are at times overlapping, yet are distinct constructs. In this study, it was concluded that although some histrionic, avoidant, and dependent criteria were also related to SDPD, the disorder itself did appear distinct and in some cases, could be diagnosed using only the criteria for only the two factors of being taken advantage of and sacrificing needs for others. This research had implications for the construction of the current measure, specifically in separating the construct of self-defeating interpersonal style from

related constructs, such as those which are both masochistic and self-defeating in nature.

Overall, psychiatrists with particular interest in clinical personality disorders were inconsistent in supporting this category in the DSM-III-R. Nevertheless, the disorder's diagnostic criteria had reportedly high sensitivity and specificity, indicating a need for subclinical tools that would allow for the investigation of the motivating components of this previously-considered disorder, in place of previous clinical tools of SDPD that overlap too strongly with criteria of existing personality disorders. This is in reference to the clinical category's limited descriptive validity and significant overlap with both borderline and dependent personality disorders (Spitzer, Williams, Kass, & Davies, 1989).

The dissection of SDPD criteria aided in modelling a theory on which the SELF-DISS was based, as it served as one platform on which comparisons to relevant empirical evidence could be made. Importantly, masochistic behaviors and self-defeating behaviors are not argued here to be synonymous or interchangeable as they have been in the past when considering self-defeating behavioral patterns. In psychiatry, masochism refers to the condition in which gratification, especially sexual, depends on the individual's physical pain, suffering, or humiliation. Thus, masochistic tendencies can be defined as self-defeating patterns of self-harm, however, self-defeating patterns in interpersonal relationships cannot be defined as intentionally masochistic in general, because goal pursuit is often not associated with intentional self-harm, but rather with some repression of consideration for longer-term consequences, often in favor of more immediate outcomes. Therefore, the

toleration of engaging in maladaptive relationships with others is not deemed to be driven by masochistic tendencies.

1.4.2 Millon Clinical Multiaxial Inventory-III.

The Millon Clinical Multiaxial Inventory (MCMI-III; Millon, 1996) consists of 175 items and includes a self-defeating, or masochistic, personality scale along with 12 other personality disorder scales, 10 clinical syndrome scales, and five correction scales scored on a 2-point scale. Millon's (1996) diagnostic taxonomy attempts to employ a philosophy outside of typical psychological theories in order to comprise a comprehensive diagnostic taxonomy similar to the Minnesota Multiphasic Personality Inventory (MMPI; Framingham, 2016). This scale is meant to be representative of a masochistic/self-defeating personality prototype; four "masochistic personality" subtypes are represented in the 15-item scale, consisting of the virtuous, possessive, self-undoing, and oppressed subtypes.

Virtuous masochists are described as being proudly unselfish and self-denying, burdens are viewed as noble and 'saintly'; gratitude is expected for their altruism. Possessive masochists are described by Millon as 'bewitching and ensnaring' others by becoming jealous, indispensable, and overprotective; 'entrapping' others through obligatory dependence and engaging in exceedingly sacrificial behaviors. The self-undoing masochist is described with the phrase "wrecked by success"—explained as experiencing personal gratification through defeat, misfortunes or failures, specifically disregarding best interests and choosing to be "victimized, ruined, and disgraced". Lastly, the oppressed masochist experiences genuine anguish and 'torment'; such grievances are used to manifest guilt in others

and resentments are exercised by placing responsibilities onto ‘oppressors’. The virtuous, possessive, self-undoing, and oppressed masochistic personality subtypes are maintained in Millon’s taxonomy as containing histrionic, negativistic, dependent, and melancholic personality features, respectively. Further examination of Millon’s theory offered potential insight into the structural attributes and functional processes by which masochism pertains to self-defeating behavior, and aided in conceptualizing some behavioral patterns that this interpersonal style could present in.

However useful within certain research or clinical frameworks, the MCMI-III has been criticized on several grounds. These include that the MCMI-III is only appropriate for clinical populations, as it was normed on a treatment seeking/clinical sample. Secondly, the test may indicate pathology undeservingly in high-functioning populations since it does not distinguish between normal and clinical samples. The MCMI-III also contains heavy item overlap across sub-scales which influences the discriminant validity of the overall measure (i.e., scoring 175 items on 23 scales), and uses base rates which are at times unconventional. Finally, while the test’s results can be scored by hand, it is very complex and thus computer scoring is strongly recommended.

1.5 Predictions of Study 1

Thus, a measure of self-defeating behavior intended to be administered to normal populations—which does not presuppose a goal-directed pursuit or gratification of psychological or physical pain—is suggested here to be required in order to provide the sensitivity required to examine the self-defeating pattern in relationships. It is hypothesized in the present research that when adult individuals

display recurrent self-defeating interpersonal patterns (e.g., returning to or tolerating psychologically and/or physically distressing or impairing relationships), individual perceptions of self-worth are likely to be chronically low and feelings of deservingness of negative outcomes are likely to be chronically high, resulting in a cyclical self-defeating interpersonal style which promotes the tolerance of mistreatment in adult relationships. It is also suggested that a self-defeating interpersonal style will necessarily be maintained through insecure attachment—particularly through attachment anxiety.

In conclusion, it is proposed that a self-defeating interpersonal style is a multidimensional construct that results from at least three factors:

- i. insecure attachment;
- ii. low self-worth and the resulting rationalization of negative outcomes;
- iii. sacrificing one's own needs, such as safety.

The development and subsequent refinement of a scale which assesses self-defeating interpersonal style will allow further elucidation of these concepts and provide valuable insight, including into the underlying influences that maintain these behavioral patterns despite potential, or at times certain, negative consequences. The development and subsequent refinement of a scale which assesses self-defeating interpersonal style will allow further elucidation of these concepts.

CHAPTER 2: METHOD

2. Method

2.1 *Item generation and refinement*

Over 200 preliminary items generated for inclusion in the SELF-DISS were discussed with test developers and refined in a series of work group meetings (Psychology 9545a), and after selective refinement of the scale, items were Q-sorted by individuals ten times before the remaining items were presented to ten participants in two Q-sorts. Participants were first given descriptions of each of the three factors and asked to assign the items to the scales; consisting of (A) Insecure attachment, (B) Undeserving self-image, and (C) Self-sacrificing nature.

Insecure Attachment was described as involving an anxious and fearful preoccupation with building and maintaining relationships; individuals experience consistent psychological and emotional distress due to fear of abandonment and rejection, which influences them to avoid new relationships or situations which could lead to rejection and/or to become preoccupied with being abandoned in existing relationships. Undeserving Self-Image was described as an individual belief system crucial to the maintenance of self-defeating interpersonal patterns where individual perceptions of self-worth are chronically devalued and beliefs of deservingness of bad outcomes for oneself are high. Finally, a Self-Sacrificing Nature is defined as a sacrificial interpersonal style where individuals often engage with others in an unassertive or obsequious manner, often tolerating mistreatment and blame from others in relationships, as well as excessively sacrificing their own needs and wants. That is, low perceptions of self-worth and high beliefs of deservingness of bad

outcomes may lead individuals—especially those who present with attachment anxiety—to sacrifice their own needs or wants in order to create feelings of security in relationships, or alternatively they may tolerate, return to, or feel deserving of situations which are disappointing, upsetting, punitive, or even abusive in nature.

First, a work group was formed among five of the ten participants who discussed together where items should be placed. Based on these and in-class discussion, items were further refined, deleted, and/or reworded to more accurately fit the intended construct. Definitions of Factors A, B, and C were given to the remaining five participants along with a randomized format of the revised test. They were tested separately, each being asked to indicate which category they believed each item belonged to. A follow-up interview was held to ascertain the reasoning individuals employed if they had categorized an item under a factor it was not designed to belong to.

Factor A items were categorized correctly by participants, likely because the factor of insecure attachment is the most consistent and contrastive compared to both factors of undeserving self-image and self-sacrificing nature. Of the remaining two factors, most items which were sorted incorrectly belonged to Factor C (self-sacrifice). Only two items in Factor B (undeserving self-image) were categorized incorrectly; these were items 12, “I seem to cause hurtful outbursts from people close to me,” and 17, “I let others talk down to me”. One participant of the five correctly ascribed item 12 to Factor B; the remaining four believed this item represented a self-sacrificing nature due to the phrasing, “*I seem to cause* hurtful outbursts...” Due to this, the item was shortened to, “I cause hurtful outbursts from people close to me.”

Item 17 was incorrectly placed in Factor C by three of the five participants; “letting others speak condescendingly” seems to represent both deservingness of bad outcomes and a self-sacrificing interpersonal style.

Factor C (self-sacrificing nature) contained the most misattributed items. Five items in this factor were sorted by participants incorrectly, with items 1 and 5 being categorized as belonging to Factor A (insecure attachment), and items 11, 13, and 16 being categorized as belonging to Factor B (undeserving self-image). Items 1, “In my relationships, I feel comfortable assuming a leadership position (R),” and 5, “I don’t express myself to others because I feel they will judge my true thoughts,” were classified as representing an insecure attachment style by one and two participants, respectively. It was believed that this is due to the passivity expressed by these items and many of the items in Factor A. However, the unassertive nature of the self-sacrificing interpersonal style is not necessitated by only an insecure attachment and so the items were not moved. Lastly, item 11, “I have difficulty accepting the support of others,” item 13, “I feel confused when others are nice to me,” and item 16, “I get upset when others are mean to me (R),” were placed in Factor B by two, two, and three participants, respectively. It was believed that an undeserving self-image and a self-sacrificing interpersonal style share significant theoretical overlap, and so many generated items in Factor C are also applicable to the deservingness psychology of individuals who display self-defeating interpersonal patterns. However, the self-sacrificing items were conceived to generally measure behaviors as things that people either ‘do’ or ‘do not do’ to sacrifice some part of their own needs or goals, whereas undeserving items were theorized to generally measure self-perceptions—a belief

system in which individuals perceive themselves as undeserving of good outcomes and/or deserving of bad outcomes, thus leading to the self-sacrificial behaviors.

2.1.1 60-Item SELF-DISS used in Study 1

The resulting 60-item version of the Self-Defeating Interpersonal Style Scale, given to participants in Study 1, follows below. Items were randomized and presented without scale labels to participants; (R) indicates a reverse-coded item:

SELF-DISS: Self-Defeating Interpersonal Style Scale

Please read each item carefully. Indicate your agreement below, from 0 (Strongly Disagree) to 10 (Strongly Agree), based on how true each statement is of you.

0 = Strongly Disagree

5 = Neutral

10 = Strongly Agree

A. Insecure attachment:

Q1. I am afraid my partner will leave me.

Q2. I feel powerless in my relationships.

Q3. I need the attention of others to feel worthwhile.

Q4. I need reassurance about my relationships with others.

Q5. I often worry that my partner is frustrated with me.

Q6. I'm afraid that my relationships will fail.

Q7. If I don't hold on to those close to me tightly, they will abandon me.

Q8. I worry that my relationships will end badly.

Q9. I question my partner about their true feelings for me.

Q10. I worry that people in my life will leave me.

- Q11. I tell others about my problems to get their attention.
- Q12. I tend to see situations as being worse than they are.
- Q13. I am anxious about maintaining relationships.
- Q14. I am afraid that I will be rejected by others if I let them get really close to me.
- Q15. I am afraid to depend on another person.
- Q16. I feel self-conscious about myself in my relationships.
- Q17. I try to keep emotionally distant from others.
- Q18. I avoid building new relationships.
- Q19. I believe others would judge my real personality.
- Q20. I feel secure in my relationships. (R)
- B. Undeserving self-image:
- Q21. I deserve to be mistreated in my relationships.
- Q22. I don't believe I am as good as other people.
- Q23. I deserve the disdain that others feel for me.
- Q24. I have a poor self-image.
- Q25. People should be critical of me.
- Q26. I don't deserve to experience pleasure in my relationships with others.
- Q27. I am deserving of happy relationships. (R)
- Q28. I should not be criticized by others for my faults. (R)
- Q29. I shouldn't be praised for the things I've done.
- Q30. I cause hurtful outbursts from people close to me.
- Q31. I tend to recollect the bad things I've experienced in my life.
- Q32. I talk down to myself when I mess things up.

Q33. I can't experience much pleasure in my relationships because I don't feel like I deserve it.

Q34. I feel guilty in my relationships with others.

Q35. I let others talk down to me in relationships.

Q36. I shouldn't judge myself poorly when I make a mistake. (R)

Q37. I feel deserving when bad things happen to me.

Q38. I am a person of worth. (R)

Q39. I feel undeserving when positive things happen to me.

C. Self-sacrificing nature:

Q40. In my relationships, I am comfortable assuming a leadership position. (R)

Q41. I return to relationships even when they hurt me.

Q42. I don't accept help from others when I am in a bad situation.

Q43. I've had significant others who abused me in some way.

Q44. I don't express myself to others because I feel they will judge my true thoughts.

Q45. In arguments, I would rather give in than stand up for myself.

Q46. I can help others accomplish things, but I find it hard to complete things for myself.

Q47. I have accepted blame for things I didn't do.

Q48. I put my partner's wants before my own.

Q49. I seem to create situations with others where I end up being mistreated.

Q50. I feel confused when others are nice to me.

Q51. At times, I don't try my hardest in relationships because I know they will fail.

Q52. I have difficulty accepting the support of others.

Q53. I sacrifice my own needs to keep people close to me.

Q54. I keep people in my life who do not have my best interests in mind.

Q55. I let others know I am upset when they are mean to me. (R)

Q56. I have been taken advantage of by others.

Q57. I do everything I can to keep others happy with me.

Q58. I have tolerated mistreatment from other people.

Q59. I tend to stay in bad relationships longer than I should.

Q60. I seem to choose situations which lead to disappointment.

2.2 *Participants*

Responses from 265 individuals were collected for analysis in Study 1. After cleansing the data, the final participant sample consisted of 256 individuals from North America, ages 18 to 74 (194 females and 62 males). Participants completed the full SELF-DISS measure as well as six items measuring the Dark Triad—two taken for each construct (Machiavellianism, narcissism, and psychopathy) based on the highest reliabilities in the Dirty Dozen—as a heuristic in determining if the data were performing correctly based on expected correlations between the Dark Triad Traits.

2.3 *Measures*

2.3.1 *The Self-Defeating Interpersonal Style Scale (SELF-DISS).*

As noted above, the 60-item SELF-DISS was employed in Study 1 to assess the self-defeating interpersonal patterns which adults may exhibit in relationships. Each item was measured on a 10-point Likert scale from 0 (*Strongly Disagree*) to 10 (*Strongly Agree*), with the measure being hypothesized to break down into three scales. Initial reliability analyses before data cleansing and item refinement for the

three scales reported an alpha value of .93 for scale A, .84 for scale B, and .89 for scale C.

2.3.2 The Dirty Dozen.

The Dark Triad was measured using six of the 12 items contained in the Dirty Dozen (Jonason & Webster, 2010). This was done in order to inspect the performance of the data, and subsequently to examine the correlations between these three constructs and the SELF-DISS and its factors. The items were selected based on the highest factor loadings for each of the narcissism, psychopathy, and Machiavellianism scales. For example, “I tend to want others to admire me,” presented factor loadings of .90 and .84 on the narcissism scale in two studies; “I tend to lack remorse,” had factor loadings of .81 and .82 on psychopathy; and “I have used deceit or lied to get my way,” yielded factor loadings of .76 and .81 on Machiavellianism (Jonason & Webster, 2010).

2.4 Procedure

Participants were recruited online via email using a registry of individuals who have consented to be contacted for future studies and who have completed past studies with us. Individuals received a recruitment invitation, and upon consenting to participate in the study, they were sent the link to the survey containing the 60-item SELF-DISS as well as the six included questions from the Dirty Dozen. Participants were entered into a draw to win one of ten \$100 prizes as compensation for their time. The survey took approximately 20 minutes to complete.

CHAPTER 3: ANALYSES, RESULTS, AND DISCUSSION

3. Analyses, Results, and Discussion

The method followed was first to verify that the data were performing correctly, and subsequently to explore the factors proposed to underlie the SELF-DISS and to assess and to improve the reliability of the measure. The data from Qualtrics were exported from MTurk and examined using SPSS 24 and Mplus 7 (Muthén and Muthén, 1998-2017). The Dirty Dozen items yielded scores on psychopathy, narcissism, and Machiavellianism variables, which correlated as expected (see Table 2). Item-level and scale-level analyses were then carried out to refine the SELF-DISS.

An Exploratory Factor Analysis (EFA) was performed on the data in order to assess whether the expected three-factor structure was tenable. Cases were excluded pairwise and the Principal Axis Factoring (PAF) method was used with Direct Oblimin rotation. This original analysis yielded 10 Eigenvalues greater than 1 that explained 69.45% of the cumulative variance; a large first factor was found and the scree-plot indicated three meaningful factors (see Figure 1). Cronbach's alpha for the total 60-item scale was .98. Based on successive item-level analyses in SPSS 24, eight items were removed, one at a time, to improve the reliability of the three scales and overall measure. These decisions were based on changes in Cronbach's alpha for the scales and overall measure—with greater importance placed on the alpha differences within scales when each item was deleted—as well as low item-total correlations. Removed items from the 60-item SELF-DISS included; Insecure Attachment items 11, 17, 18, and 19; Undeserving Self-Image items 8, 10, and 16; and Self-Sacrificing Nature item 16.

A three-factor solution was then extracted using PAF with Direct Oblimin rotation (see Figure 1). This solution accounted for 55% percent of the cumulative variance, and the extracted factors were compared to the original scales. For the most part, the items loaded onto the scales they were designed to measure, therefore reliability analyses were performed on the items based on their original scales. Reliability analyses of the remaining 52 items yielded an alpha of .98 for the total SELF-DISS scale, .97 for the Insecure Attachment scale, .94 for the Undeserving Self-Image scale, and .92 for the Self-Sacrificing Nature scale. As expected, the latent factors were highly correlated; Insecure Attachment was most highly correlated with Self-Sacrificing Nature ($r = .63$), and similarly correlated with Deserving Self-Image ($r = .58$). Deserving Self-Image and Self-Sacrificing Nature were slightly more modestly correlated ($r = .47$; see Table 1 for descriptive statistics).

3.1 Discussion of Study 1 Results

In conclusion, Study 1 completed 5 steps in a systematic 7-step process to develop a reliable measure of self-defeating interpersonal style. The steps completed in this study are Item Generation, Content Adequacy, Questionnaire Administration, Factor Analysis, and Internal Consistency Assessment. Items were generated deductively, beginning with theoretical definitions of self-defeating patterns in relationships, as well as the factors which may drive them, based on the relevant literature. The 52 retained items were also examined for common item-level problems such as consistency of perspective (e.g., behavioral, affective, etc.) and conceptual inconsistency. Overall, the data from Study 1 demonstrated good content adequacy of

the retained items based on relevant research, as well as reported factor and reliability analyses. A large general factor was produced which underlies the SELF-DISS, however, the items were factorable, as expected, and three overlapping yet distinct factors were also produced.

As such, Study 1 was effective in completing five of the seven steps in the widely used process of systematically developing a new measure (Hinkin et al., 1997). Study 2, which follows, served specifically in replicating Steps 3 (Questionnaire Administration) to 5 (Internal Consistency Assessment) with a new data set, as well as completing Step 6 (Construct Validation via correlation with other measures) in order to establish the convergent and discriminant validity of the SELF-DISS.

CHAPTER 4: STUDY 2

4. Introduction

Study 2 aimed to further examine and refine the SELF-DISS measure to assess the extent to which the model showed a good fit on all fit indices. The second aim of study 2 was to examine relationships between the SELF-DISS and 28 individual difference variables, contained in three measures of personality created and published by Hogan Assessments, in order to test the construct validity of the finalized measure.

The Hogan Personality Inventory (HPI) was designed to measure seven normal, or bright-side personality traits, including Adjustment (confidence, self-esteem, and composure under pressure), Ambition (initiative, desire for leadership goals, and competitiveness), Sociability (extraversion, gregariousness, and need for social interaction), Interpersonal Sensitivity (ability to maintain relationships, perceptiveness, and tact), Prudence (self-discipline, responsibility, and thoroughness), Inquisitiveness (imagination, curiosity, and creative potential), and Learning Approach (achievement orientation, valuing education).

The Hogan Development Survey (HDS) assesses 11 dark-side personality traits that tend to emerge during strenuous periods of time and that may disrupt relationships, derail success, and damage reputations. These traits include Excitability (emotional volatility, moodiness, difficult to please), Skepticism (expecting betrayal, suspicious, sensitive to criticism), Cautiousness (risk aversion, resistance to change, and slow to make decisions), Reservation (aloofness, uncommunicative, and indifference to the feelings of others), Leisureliness (over cooperation, but privately irritable, stubborn, and uncooperative), Boldness (overly self-confident, arrogant, and

entitled), Mischievousness (charming, risk-taking, and seeking excitement), Colorful (dramatic, interruptive, and attention-seeking), Imaginative (creative, but thinking and acting in an unusual or eccentric manner), Diligence (meticulous, micromanaging, precise, and hard to please), and Dutifulness (eager to please, reluctant to act independently or against popular opinion).

Lastly, the Motives, Values, Preferences Inventory (MVPI) was designed to measure the core goals, values, motivators, and interests which determine what individuals strive to obtain. The MVPI assesses 10 personality traits including Recognition (responsive to attention, approval, and praise), Power (desiring success, accomplishment, status, and control), Hedonism (oriented toward fun, pleasure, and enjoyment), Altruism (wanting to help others and contribute to society), Affiliation (enjoying and seeking out social interaction), Tradition (dedicated to strong personal beliefs), Security (needing predictability, structure, and order), Commerce (interested in money, profit and investment, and business opportunity), Aesthetics (requiring self-expression, and concerned over look, feel, and design of work products), and Science (wanting knowledge, research, technology, and data).

Like the SELF-DISS and many other personality measures, the HPI, the HDS, and the MVPI assess second-order traits rather than primary source traits. These measures were used in order to examine a broad theoretical space surrounding the presentation of self-defeating interpersonal style, such that a large-scale picture of this pattern of behavior in adult life may begin to be formed using ‘bright-side’ traits, ‘dark-side’ traits, and core values, motivations, and preferences. This ‘broad-picture’

approach was employed to gain empirical direction to inform potential future research directions.

4.1 Predictions of Study 2

Several of the variables assessed by the HPI, HDS, and MVPI were not expected to correlate significantly with the SELF-DISS because they are theoretically unrelated to the factors underlying the SELF-DISS. The variables which were predicted to be unrelated to the SELF-DISS included Mischievousness, Colorfulness, Imaginativeness, Diligence, Hedonism, Altruism, Security, Commerce, Aesthetics, Science, and Tradition. Based on the literature related to self-defeating interpersonal style, the bright-side traits assessed by the HPI were expected to be negatively related to the SELF-DISS and all of its scales. The nature of self-defeating behavior is, by definition, maladjusted and unambitious in at least one facet of an individual's life. Therefore, Adjustment was predicted to be most strongly negatively related to the SELF-DISS, followed by Ambition due to a lack of desire for leadership roles, and subsequently by Interpersonal Sensitivity due to this variable's assessment of the ability to maintain relationships. Negative relationships were also predicted between the SELF-DISS and Prudence, Learning Approach, Inquisitiveness, and Sociability, respectively, because individuals who score highly on the SELF-DISS are expected to lack self-discipline, positive achievement orientation, need for social interaction on a broad scale, curiosity and gregariousness.

The HDS variables, which were designed to measure dark-side traits, were expected to correlate positively with the SELF-DISS—excluding Mischievousness, Colorfulness, Imagination, and Diligence, which are not expected to be correlate with

the SELF-DISS, and Boldness, which was expected to correlate negatively. In particular, Cautiousness (specifically due to risk aversion) is predicted to be most strongly related to the SELF-DISS, followed by Excitability (due to emotional volatility), Leisureliness (overly cooperative, privately uncooperative), Skepticism (sensitive to criticism, expecting betrayal), Reservation (uncommunicative), and Dutifulness. Undeserving Self-Image was predicted to relate negatively to Boldness because of feelings of deservingness surrounding mistreatment.

Finally, many of the MVPI scales were not predicted to yield significant relationships with the SELF-DISS because the MVPI measures several variables related to business personnel selection (see above); however, Affiliation and Power were predicted to produce significant negative relationships with all scales. Recognition was predicted to relate positively to Insecure Attachment, while the other scales are not predicted to tap this construct. Similarly, a negative relationship between Hedonism and Undeserving Self-Image may also be expected, given the negative orientation of this factor toward seeking pleasure. Finally, Security does measure the need for predictability, structure and order, which seem theoretically to be related to at least Insecure Attachment. However, the pattern displayed in this interpersonal style often leads afflicted individuals into situations which are anything but predictable, structured, or ordered. Therefore, no specific significant predictions were made regarding this variable, except that relationships would likely be positive rather than negative, indicating a desire for predictability, but that these desires might be thwarted by other motivating factors.

CHAPTER 5: METHOD

5. Method

5.1 *Participants and Procedure*

Participants were recruited by Hogan Assessments online via MTurk. Initially, 1000 individuals received a recruitment invitation for the first phase of data collection, and upon consenting to participate in the study, they were sent the link to the survey. Of these, 450 participants whose data suggested that they were responding truthfully and who had indicated an interest in being contacted in the future were sent follow-up questionnaires, one of which was the SELF-DISS. After analyzing the data for random or missing responding, participants included in data analyses consisted of 323 individuals (148 males, 175 females). Their ages ranged from 18 to 64 ($M = 34$, $SD = 10.29$); the majority (77.2%) were Caucasian, 7.4% were African American, 4.9% were Asian, 4.6% were Hispanic, and the remainder were American Indian or Alaska Native or two or more races. Participants were compensated \$7.50 for their time by Hogan Assessments. The surveys took approximately 1 hour to complete.

5.2 *Measures*

5.2.1 *The Self-Defeating Interpersonal Style Scale (SELF-DISS).*

The revised SELF-DISS was employed in this study to assess the self-defeating interpersonal patterns which adults exhibit in relationships with others. The scale used in Study 2 consisted of 52 items, measured on a 10-point Likert scale from 0 (*Strongly Disagree*) to 10 (*Strongly Agree*). Initial reliability analyses of the 52 items, before further item refinement, for the three sub-scales yielded alphas of .96 for Insecure Attachment, .94 for Undeserving Self-Image, and .90 for Self-Sacrificing

Nature. Reliability analyses of the total SELF-DISS scale yielded an alpha of .98. Example items for the three SELF-DISS factors are, “If I don’t hold on to those close to me tightly, they will abandon me,” (Insecure Attachment), “I deserve to be mistreated in my relationships,” (Undeserving Self-Image) and, “I sacrifice my own needs to keep others close to me” (Self-Sacrificing Nature).

5.2.2 Hogan Assessment Measures.

The Hogan Development Survey (HDS; Hogan, 1997) contains 168 True/False items which take 15- to 20-minutes to complete and measure variables such as skepticism, mischievousness, and cautiousness. The HDS contains a total of 11 scales, and scores on these have proven stable over time; test-retest reliabilities range from .64 to .75 ($M = .70$). The Hogan Personality Inventory (HPI; Hogan, 1995) is a well validated measure that contains 206 True/False items which take approximately 15- to 20-minutes to complete and measure variables such as adjustment, sociability, and interpersonal sensitivity (Axford, 1998; Hogan & Holland, 2003). The measure contains seven personality scales and one validity scale, with no item overlap. HPI scores have proven stable over time with test-retest reliabilities from .69 to .87. Finally, the Motives, Values, Preferences Inventory (MVPI; Hogan, 1996) consists of 200 items and is coded on a 3-point Likert scale ranging from 1 (*Disagree*) to 3 (*Agree*), taking approximately 15- to 20-minutes to complete. The measure contains 10 scales which measure variables such as recognition, altruism, and security, and demonstrates good psychometric properties with an average internal consistency of .77; overall the MVPI has demonstrated

adequate internal consistency reliability (Feltham & Loan-Clarke, 2007; Roberts, 2001).

CHAPTER 6: ANALYSES, RESULTS AND DISCUSSION

6. Analyses, Results, and Discussion

6.1 *Final Measurement Model*

The method followed in Study 2 was first to examine the underlying structure of the 52-item SELF-DISS more stringently in order to refine and finalize the measure, and subsequently to validate the SELF-DISS construct via correlational analyses with the HPI, HDS, and MVPI. The data were exported into Mplus 7 (Muthén & Muthén, 1998-2017) in order to conduct Confirmatory Factor Analyses (CFA) on the SELF-DISS and its scales to further refine them and to assess and to increase the SELF-DISS model fit as a whole. Multiple CFA's—all reported in Table 3—were performed on the items with a weighted least squares estimator with mean and variance adjusted chi-square test statistics (WLSMV). The categorical outcome variable option was specified to indicate that the indicator variables were measured on an ordered discrete category scale, rather than on a continuous scale. A higher-order CFA Model was assessed with the 52 items where the items were specified as belonging to one of the three factors, and these factors each contributed to the higher order SELF-DISS factor.

All indicator variables loaded significantly onto their respective factors, although two items loaded below .4 on Self-Sacrificing Nature. Upon examination of the item content, it made theoretical sense that to remove these two items would increase the scale's reliability, without compromising the measurement of the intended construct. The model was run again without these two items, and this significantly improved all fit indices with the exception of the RMSEA. Loadings on

this model ranged from .6 to .95, however, the residuals of the indicator variables were still high, and therefore a bi-factor CFA was conducted. The bi-factor model of the SELF-DISS greatly improved all fit indices indicating, as expected, that a large general factor exists which underlies the SELF-DISS. This was further confirmed by large factor loadings on the general SELF-DISS factor ($\sim .6 - .9$), replicating Study 1. However, once this variance was accounted for, many of the loadings on the three SELF-DISS scales were attenuated to near zero or negative values, while many other loadings were significant and positive ($\sim .4 - .6$). Therefore, after multiple attempts at creating a parsimonious CFA model with a moderate-to-acceptable fit, Exploratory Structural Equation Model (ESEM) analyses were conducted to investigate the issues which still influenced the model.

6.1.1 Exploratory Structural Equation Modeling

Exploratory Structural Equation Model (ESEM) analyses with a Target rotation were conducted in Mplus 7 in order to examine the loadings and cross-loadings of the indicator variables. ESEM combines Exploratory Factor Analysis and Confirmatory Factor Analysis such that, instead of simply employing a CFA measurement model, an EFA measurement model with rotations may be implemented in a structural equation model. The benefit of this is that the target rotation allows the transformation of structural coefficients, while still allowing access to the customary SEM parameters. Although the scale was designed in a manner that creates the expectation of cross-loadings, the investigation into which indicator variables are loading more highly on alternate factors than on their intended factors is likely to allow further revisions to the measure, and therefore significant improvement to the

model fit. Thus, multiple iterations of the ESEM model were run and examined to increase model fit step-by-step (see Table 3).

The first ESEM that was conducted after the bi-factor CFA resulted in a slightly larger Chi-square but a significantly lowered SRMR. Upon examination of the cross-loadings in ESEM#1, item IA15 was removed due to the very low loading on its intended factor (IA = .09) and a large loading on an unintended factor (SSN = .66). The second ESEM model resulted in an improved Chi-square, and the same method of examining the loadings and cross-loadings resulted in the decision to remove USI13; this again improved the Chi-square. This process of evaluating factor loadings and cross-loadings was repeated 18 times in total, with only one item removed at a time, which resulted in an excellent model fit as well as the removal of any unintended cross-loading. The fit indices are reported for each model in Table 3, and the factor loadings of the items on their respective scales are reported for reference in Table 4.

The final measure was therefore refined to 35 items, which is expected to significantly increase the utility of the measure. The final scales yielded good reliabilities; reliability analyses of the remaining 35 items yielded an alpha of .97 for the total SELF-DISS scale, .97 for the Insecure Attachment subscale, .92 for the Deserving Self-Image subscale, and .87 for the Self-Sacrificing Nature subscale. Insecure Attachment was most highly correlated with Self-Sacrificing Nature ($r = .86, p < .001$), and slightly less correlated with Deserving Self-Image ($r = .82, p < .001$). Deserving Self-Image and Self-Sacrificing Nature were similarly correlated ($r = .81, p < .001$; see Table 5 for final scale descriptive statistics). The 35 items also

loaded highly on their intended factors without cross-loadings that were higher than the intended loadings.

6.2 *Correlations with the HPI, HDS, and MVPI*

The 35-item SELF-DISS and its three scales were then correlated with each of the 28 variables assessed by the HPI, the HDS, and the MVPI. Of the 112 (4 x 28) relationships yielded between these measures, 57 were statistically significant, with 43 correlations yielding p -values $< .001$. All correlations between the 28 variables and the total SELF-DISS measure, including its factors of Insecure Attachment, Undeserving Self-Image, and Self-Sacrificing Nature, are reported in Table 6. When correlations between all SELF-DISS scales and a variable yield the same significance value (e.g., $p < .001$), only the correlation between the total SELF-DISS scores and the given variable are presented in the text. Significant relationships reported between the SELF-DISS and the 28 variables contained in the HPI, the HDS, and the MVPI were then examined in a series of SEM analyses, reported below.

6.2.1 *Correlations with the HPI*

As expected, the seven HPI scales, which assess bright-side traits, correlated negatively with the SELF-DISS and its three scales. Predictions were supported in that Adjustment was most negatively correlated with the total SELF-DISS, $r(261) = -.58, p < .001$, and its scales, with Insecure Attachment yielding the strongest relationship of the three scales with Adjustment, $r(261) = -.59, p < .001$. As predicted, the second strongest negative relationship with the SELF-DISS was with Ambition, $r(261) = -.48, p < .001$, followed by Interpersonal Sensitivity, $r(261) = -.30, p < .001$, Learning Approach, $r(261) = -.21, p < .001$, and Prudence, $r(261) = -.19, p < .01$,

respectively. In each case, Insecure Attachment correlated most strongly with these variables in comparison to Undeserving Self-Image and Self-Sacrificing Nature, which were comparable in strength (see Table 6). Only Undeserving Self-Image yielded a significant negative correlation with Sociability, $r(261) = -.14, p < .05$, and Insecure Attachment, $r(261) = -.14, p < .05$, and the total SELF-DISS, $r(261) = -.14, p < .05$, produced significant negative relationships with Inquisitiveness. Notably, the non-significant relationships between the SELF-DISS and Sociability and Inquisitiveness were near significant (see Table 6). Therefore, overall predictions for significant negative relationships with the HPI were supported.

6.2.2 *Correlations with the HDS*

The overall predictions regarding relationships between the SELF-DISS and the HDS were supported. Significant positive relationships were obtained between the total SELF-DISS and its scales and Excitability, $r(261) = .48, p < .001$, Skepticism, $r(261) = .37, p < .001$, Cautiousness, $r(261) = .58, p < .001$, Reservation, $r(261) = .26, p < .001$, Leisureliness, $r(261) = .40, p < .001$, and Dutifulness, $r(261) = .29, p < .001$. With the exception of Dutifulness, each of the above variables displayed a similar pattern where Insecure Attachment yielded the strongest relationship with each variable, which was closely followed by both Undeserving Self-Image and Self-Sacrificing Nature. As expected, Undeserving Self-Image was most negatively correlated with Boldness, $r(261) = -.17, p < .01$; although correlations were negative, no other relationship between SELF-DISS variables and Boldness reached statistical significance. Finally, predictions for non-significant relationships were supported;

Mischievousness, Colorfulness, Imagination, and Diligence yielded correlations with the SELF-DISS and its scales that were non-significant (see Table 6).

6.2.3 Correlations with the MVPI

As predicted, Affiliation was significantly negatively related to the SELF-DISS and its scales, $r(261) = -.31, p < .001$. As with the HPI and HDS, Affiliation correlated most strongly with Insecure Attachment, closely followed by the total scale, Undeserving Self-Image, and Self-Sacrificing Nature. Power was also negatively related to the total SELF-DISS, $r(261) = -.14, p < .05$, to Insecure Attachment, $r(261) = -.14, p < .05$, and to Undeserving Self-Image, $r(261) = -.13, p < .05$, however, the relationship between Power and Self-Sacrificing Nature did not reach significance, $r(261) = -.117, p = .06$. Although negative correlations were expected between Altruism and the SELF-DISS, significant relationships were not expected to be produced, yet Undeserving Self-Image was found to be significantly negatively related to Altruism, $r(261) = -.13, p < .05$. Consistent with predictions, Recognition was significantly related to Insecure Attachment, $r(261) = .13, p < .05$, but not to Undeserving Self-Image, $r(261) = .05, p = .404$, Self-Sacrificing Nature, $r(261) = .06, p = .350$, or to the total SELF-DISS measure, $r(261) = .08, p = .240$. Lastly, predictions for non-significant relationships were supported; Hedonism, Tradition, Commerce, Aesthetics, and Science were not significantly related to the SELF-DISS or its scales. Inconsistent with predictions, the relationships between the SELF-DISS and Security were not significant, although Insecure Attachment showed the strongest non-significant correlation with Security, $r(261) = .10, p = .129$.

6.3 SEM Analyses

Of the 28 Hogan variables correlated with the SELF-DISS, 10 yielded relationships that were significant at the $p < .001$ level, of which six were correlated positively and four were correlated negatively (see Table 6). These relationships were modelled in SEM procedures which examined, separately, the significantly related bright-side variables from the HPI, the dark-side variables from the HDS, and finally the motivation and goal-related variables of the MVPI by regressing them onto the SELF-DISS measure. This was done to explore the strongly predictive qualities of the SELF-DISS on these variables.

SEM analyses were first used to examine the extent to which the SELF-DISS measure predicted the bright-side variables. As noted, the total SELF-DISS measure produced significant negative relationships with all HPI variables, with the exception of Sociability. Figure 2 models the SELF-DISS with all significantly predicted HPI variables, and the resulting model with all seven HPI variables produced a good model fit, $X^2(792) = 1552.19$, $p < .001$, RMSEA = .063, CFI = .979. Consistent with predictions, the SELF-DISS was most negatively predictive of Adjustment, $b = -.624$, $SE = .052$, $p < .001$, followed by Ambition, $b = -.515$, $SE = .054$, $p < .001$, Interpersonal Sensitivity, $b = -.289$, $SE = .067$, $p < .001$, Prudence, $b = -.204$, $SE = .066$, $p < .01$, Learning Approach, $b = -.196$, $SE = .064$, $p < .01$, respectfully. According to regression coefficients, Inquisitiveness, $b = -.124$ $SE = .065$, $p = .058$, and Sociability, $b = -.098$, $SE = .132$, $p = .132$ were not significantly predicted by the SELF-DISS (see Figure 2).

The significant HDS variables were examined using SEM to assess the extent to which the SELF-DISS predicted dark-side traits. The produced model with all 11

HDS variables indicated an excellent fit, $X^2(928) = 1691.44$, $p < .001$, RMSEA = .058, CFI = .979. Figure 3 presents a diagram that models the significant predictive relationships of the SELF-DISS and HDS variables. As expected, the SELF-DISS was most significantly predictive of Cautiousness, $b = .592$, $SE = .050$, $p < .001$, followed by Excitability, $b = .503$, $SE = .060$, $p < .001$, Leisureliness, $b = .415$, $SE = .062$, $p < .001$, Skepticism, $b = .396$, $SE = .061$, $p < .001$, Dutifulness, $b = .280$, $SE = .061$, $p < .001$, and Reservation, $b = .271$, $SE = .061$, $p < .001$, respectively. The SELF-DISS measure did not significantly predict Boldness, $b = -.093$, $SE = .066$, $p = .158$, Mischievousness, $b = .073$, $SE = .066$, $p = .267$, Colorfulness, $b = -.035$, $SE = .065$, $p = .594$, Imagination, $b = -.021$, $SE = .068$, $p = .759$, or Diligence, $b = -.013$, $SE = .064$, $p = .845$.

The MVPI variables were then examined using SEM to investigate the extent to which the SELF-DISS predicted these motivational variables. The model with all 10 MVPI variables produced a good fit, $X^2(792) = 1568.62$, $p < .001$, RMSEA = .055, CFI = .981. Only Affiliation, $b = -.273$, $SE = .060$, $p < .001$, and Power, $b = -.136$, $SE = .062$, $p < .05$, were significantly predicted by the SELF-DISS measure; Power also positively predicted Affiliation, $b = .317$, $SE = .058$, $p < .001$ (see Figure 4). The SELF-DISS did not significantly predict Aesthetics, $b = .054$, $SE = .065$, $p = .408$, Altruism, $b = -.076$, $SE = .064$, $p = .235$, Commercialism, $b = .022$, $SE = .062$, $p = .721$, Hedonism, $b = .011$, $SE = .063$, $p = .858$, Recognition, $b = .099$, $SE = .066$, $p = .135$, Scientific, $b = -.019$, $SE = .064$, $p = .759$, Security, $b = .075$, $SE = .062$, $p = .225$, or Tradition, $b = -.017$, $SE = .066$, $p = .799$.

6.4 Discussion of Study 2

In conclusion, Study 2 effectively replicated the findings of Study 1 by completing Steps 3 (Questionnaire Administration) through 5 (Internal Consistence Assessment) in the systematic 7-step process to develop a reliable measure of self-defeating interpersonal style. The refined and finalized 35-item SELF-DISS was employed in completing Step 6 (Construct Validation) via correlational analyses with several other personality variables, of which predictions were supported. Overall, the convergent and discriminant validity of the SELF-DISS was supported in Study 2.

CHAPTER 7: GENERAL DISCUSSION

7. General Discussion

The purpose of the present research was to develop and to test the psychometric properties of a measure of self-defeating interpersonal style. Overall, the structure of the SELF-DISS was greatly improved from a model with poor-to-moderate fit indices to a model with excellent fit indices. Each successive modification to the measurement model, specifically employing ESEM iterations, successfully improved the model fit. Both the total measure of the SELF-DISS, as well as each of its three scales, demonstrated excellent reliability and following scale adjustments in Study 2, all items loaded strongly onto their respective scales with minimal unintended cross-loading. A large general factor was replicated from Study 1 to Study 2, along with the three underlying factors reflecting the intended scales: Insecure Attachment, Undeserving Self-Image, and Self-Sacrificing Nature. Insecure Attachment was described as pervasive attachment anxiety, consisting of preoccupation with abandonment and rejection, as well as a need for excessive reassurance. Undeserving Self-Image was defined as beliefs of deservingness of negative outcomes and feelings of unworthiness of positive outcomes, such as praise or pleasure. Self-Sacrificing Nature consisted of actions or inactions which forfeit an individual's wants or needs for another individual, especially forfeiting available alternatives to enduring mistreatment. Following scale adjustments in Study 2, the SELF-DISS demonstrated reliability as a distinct construct with three distinct factors.

Consistent with predictions, the SELF-DISS was negatively correlated with almost of the so-called bright-side traits assessed in Study 2. The total measure

strongly negatively predicted Adjustment, described as confidence, self-esteem, and composure under pressure, Ambition, defined as initiative, competitiveness, and desire for leadership roles, as well as Interpersonal Sensitivity, consisting of tact, perceptiveness, and the ability to maintain relationships. The SELF-DISS was less strongly predictive of negative scores on Prudence, which assessed self-discipline, responsibility, and thoroughness, and Learning Approach, which described achievement orientation and valuing education. The total measure did not predict scores on Inquisitiveness, which measured imagination, curiosity, and creative potential; more interestingly, it did not negatively predict Sociability, which assessed extraversion, gregariousness, and composure under pressure. Although a significant negative relationship was predicted between Sociability and Insecure Attachment, specifically, it was not predicted that the relationships between the total SELF-DISS or other scales would be non-significant. Future research may seek to more thoroughly examine these relationships in order to assess the lower-order aspects of Sociability (e.g., extraversion) and how they relate to the SELF-DISS and its facets.

Also supporting predictions, the total SELF-DISS measure was positively correlated with many of the dark-side traits assessed in Study 2. The SELF-DISS was most strongly predictive of positive scores on Cautiousness, which was hypothesized because this trait assesses risk aversion and resistance to change, which is a fundamental component of attachment anxiety. High Excitability was similarly predicted by the SELF-DISS, supporting expectations that the developed measure would be predictive of a disposition that is moody, hard to please, and emotionally volatile. Strong scores on Leisureliness—which assessed a pattern of overt

cooperativeness, but privately being irritable, stubborn, and uncooperative—was strongly predicted by the total measure as well. Furthermore, in line with predictions, high scores on Skepticism, measured as suspiciousness, sensitivity to criticism, and expecting betrayal, was predicted by the total measure; this included Undeserving Self-Image which, in part, describes individuals as believing that others should be critical of them. Taken together, this evidence is supportive of the notion that, although sensitive to mistreatment, individuals who display this disposition have a belief that they deserve to experience such outcomes. Dutifulness, defined as eagerness to please and reluctance to act independently or against popular opinion, and Reservation, which was described as being aloof, uncommunicative, and indifferent to the feelings of others was also significantly predicted by the SELF-DISS. The above empirical findings are supportive of the notion that the overt servile or obsequious behaviors that are displayed by individuals with this disposition is driven by high insecure attachment, and largely maintained through low self-esteem, low self-worth, and feelings of being undeserving of positive outcomes.

Finally, the SELF-DISS showed significant relationships with several variables that purport to measure individuals' motives, values, and preferences. As predicted, the total measure was significantly negatively related to Affiliation, which described enjoying and seeking out social interaction, as well as Power, which consisted of the desire for success, accomplishment, status, and control. However, the negative relationship between Power and Self-Sacrificing Nature did not reach significance—likely reflecting that this factor does not assess a lack of power to the extent that either Insecure Attachment or Undeserving Self-Image do. However, the negative

relationship between Altruism and Undeserving Self-Image did reach significance, which may be reflective of the somewhat self-centered nature underlying the strong feelings governing what one does or does not believe to deserve. Consistent with predictions, Insecure Attachment displayed a significant positive relationship with Recognition—described as responsiveness to attention, approval, and praise—while the other scales did not. Modelling results showed that the SELF-DISS strongly negatively predicted Affiliation, as well as Power.

7.1 Limitations and Future Directions

Longitudinal research is proposed to be highly informative in regard to how these persistent behavioral patterns are maintained. To illustrate, there are sound theoretical reasons to expect that a higher score on the SELF-DISS would predict a lessened ability to maintain relationships (Interpersonal Sensitivity), however there is also cause for future research to investigate the effects of time on this relationship; namely, whether the rather overtly obsequious nature of many beliefs and behaviors exhibited by those who score highly on the SELF-DISS may result in a greater ability to maintain relationships in the short-term, but that this relationship may become increasingly attenuated (or negative) over time due to multiple influences. For example, the SELF-DISS factors yielded a positive relationship with Dutifulness. This may signify a mate retention tactic that individuals with insecure attachment employ in order to lessen the perceived danger of abandonment in relationships. The SELF-DISS also yielded positive relationships with Leisureliness (overt cooperation, covert irritableness) and Excitability (emotional volatility). These relationships begin to offer some insight into the manifestation of this presentation of self-defeating

interpersonal style, and into the complex juxtapose of motivating factors which underlie these sets of pervasive behaviors and beliefs.

In summation, the measures employed in this research assess second-order traits, consisting of related lower-level traits which describe a construct, and this research has served a purpose as a first-step in validating a new measure of self-defeating interpersonal style, as well as developing an overall understanding of the construct as it relates to many adaptive and maladaptive personality variables. In future studies, research will examine the fundamental components of several of these variables in order to investigate in depth the predictive values of this measure in relation to various lower-order personality traits. This will allow a more complete understanding of the negative working model of self that influences such behaviors. For example, while only Undeserving Self-Image showed a significant negative relationship with Sociability (extraversion, gregariousness, and need for social interaction), Affiliation (seeking out and enjoying social interaction) was strongly negatively related to all SELF-DISS scales. These seemingly conflicting findings are likely representative of the fact that both the Insecure Attachment and Self-Sacrificing factors reflect an insecure and servile disposition which causes individuals to go out of their way to please others, explaining the nonsignificant relationships between the SELF-DISS scales and Sociability. Nonetheless, these relationships illustrate the need for future research to examine relationships among various primary source traits.

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Table 1.

52-item Scale Descriptive Statistics

Scale	Mean	Standard Deviation	Range (Min - Max)
Insecure Attachment	43.25	17.37	19 - 91
Deserving Self-Image	43.58	14.30	21 - 100
Self-Sacrificing Nature	53.26	14.21	24 - 99
SELF-DISS Total	143.90	43.72	65 - 279

Table 2.

Bivariate Correlations among the Dark Triad traits

	Narcissism	Machiavellianism	Psychopathy
Narcissism	1	.425**	.266**
Machiavellianism		1	.517**
Psychopathy			1

** . Correlation is significant at the .001 level (2-tailed)

Table 3.

Fit indices of all tested measurement models

	Chi-square	RMSEA(CI)	CFI	SRMR
52-item Model using One-Factor solution	3603.38(1322), $p < .001$	.085 (.081, .088)	0.79	0.070
Higher-order CFA Model	2985.73(1322), $p < .001$	.072 (.069, .076)	0.79	0.070
Higher-Order CFA with SSN1r and SSN18 removed	2812.73(1221), $p < .001$	.074 (.070, .077)	0.95	0.065
Bi-factor CFA model	2176.12(1173), $p < .001$	.060 (.056, .064)	0.97	0.052
ESEM #1	2195.81(1125), $p < .001$	.063 (.059, .067)	0.97	0.044
ESEM #2 (IA15 removed)	2105.71(1078), $p < .001$	.063 (.059, .067)	0.97	0.043
ESEM #3 (USI13 removed)	2058(1032), $p < .001$	.064 (.060, .068)	0.97	0.043
ESEM #4 (SSN12 removed)	2007.97(978), $p < .001$	.066 (.61, .70)	0.97	0.043
ESEM #5 (SSN6 removed)	1936.55(943), $p < .001$	.066 (.61, .70)	0.97	0.043
ESEM #6 (IA12 removed)	1888.56(900), $p < .001$	.068 (.063, .072)	0.97	0.043
ESEM #7 (SNN11 removed)	1850.83(858), $p < .001$	.069 (.065, .074)	0.97	0.043
ESEM #8 (USI4 removed)	1761.27(817), $p < .001$	.069 (.065, .074)	0.97	0.043
ESEM #9 (USI14 removed)	1707.31(777), $p < .001$	.070 (.066, .075)	0.97	0.043
ESEM #10 (SSN5 removed)	1606.45(738), $p < .001$	.069 (.065, .074)	0.97	0.042
ESEM #11 (SNN7 removed)	1571.23(700), $p < .001$	.071 (.067, .076)	0.97	0.042
ESEM #12 (SNN14 removed)	1535.24(663), $p < .001$	.073 (.068, .078)	0.97	0.041

ESEM #13 (USI2 removed)	1483.73(627), p < .001	.075 (.070, .080)	0.97	0.042
ESEM #14 (USI17 removed)	1430.35(592), p < .001	.076 (.071, .081)	0.97	0.042
ESEM #15 (USI12 removed)	1392.91(558), p < .001	.078 (.073, .083)	0.97	0.042
ESEM #16 (USI16 removed)	1333(525), p < .001	.079 (.074, .085)	0.97	0.042
ESEM #17 (SNN2 removed)	1193.38(493), p < .001	.076 (.071, .082)	0.97	0.040
ESEM #18 (SNN10 removed)	1100.82(462), p < .001	.075 (.070, .080)	0.97	0.040

Table 4.

Standardized Item Loadings on SELF-DISS Factors

	Standardized Coefficients (S.E.)	Significance (P-values)
<i>Insecure Attachment Items</i>		
IA1	.91 (.01)	.000
IA2	.90 (.02)	.000
IA3	.70 (.03)	.000
IA4	.89 (.02)	.000
IA5	.91 (.01)	.000
IA6	.94 (.01)	.000
IA7	.87 (.02)	.000
IA8	.95 (.01)	.000
IA9	.88 (.02)	.000
IA10	.89 (.02)	.000
IA13	.93 (.01)	.000
IA14	.89 (.02)	.000
IA16	.85 (.02)	.000
IA20r	.79 (.03)	.000
<i>Deserving Self-Image Items</i>		
DSI1	.83 (.03)	.000
DSI2	.90 (.03)	.000
DSI3	.88 (.02)	.000

DSI5	.74 (.03)	.000
DSI6	.84 (.03)	.000
DSI7r	.67 (.04)	.000
DSI9	.70 (.04)	.000
DSI11	.55 (.05)	.000
DSI15	.93 (.02)	.000
DSI19	.70 (.04)	.000
DSI20r	.69 (.04)	.000
DSI21	.93 (.02)	.000

Self-Sacrificing Nature Items

SN3	.63 (.05)	.000
SN4	.78 (.03)	.000
SN8	.59 (.04)	.000
SN13	.68 (.04)	.000
SN15	.70 (.04)	.000
SN17	.63 (.04)	.000
SN19	.73 (.03)	.000
SN20	.89 (.02)	.000
SN21	.91 (.02)	.000

Table 5.

Final Scale Descriptive Statistics

Scale	Mean	Standard Deviation	Range (Min - Max)
Insecure Attachment	45.54	18.53	20 - 96
Deserving Self-Image	43.58	14.30	21 - 100
Self-Sacrificing Nature	53.26	14.21	24 - 99
SELF-DISS Total	143.90	44.82	66 - 284

Table 6.

Bivariate Correlations among the SELF-DISS, the HPI, the HDS, and the MVPI

	Insecure Attachment	Undeserving Self-Image	Self-Sacrificing Nature	SELF-DISS Total
HPI Scales				
Adjustment	-.590***	-.498***	-.516***	-.575***
Ambition	-.469***	-.417***	-.453***	-.479***
Sociability	-0.096	-.142*	-0.108	-0.120
Interpersonal Sensitivity	-.326***	-.299***	-.206***	-.296***
Prudence	-.216***	-.152*	-.138*	-.190**
Inquisitive	-.138*	-.113	-.119	-.135*
Learning Approach	-.189**	-.146*	-.202***	-.208***
HDS Scales				
Excitable	.514***	.403***	.442***	.482***
Skeptical	.410***	.304***	.340***	.371***
Cautious	.569***	.498***	.526***	.580***
Reserved	.289***	.228***	.216***	.261***
Leisurely	.402***	.328***	.393***	.395***
Bold	-.072	-.174**	-.070	-.102
Mischievous	.095	.027	.059	.088
Colorful	-.050	-.063	-.003	-.046

Imaginative	.024	-.062	-.004	-.004
Diligent	.007	-.051	-.019	-.025
Dutiful	.255***	.255***	.277***	.287***
<hr/>				
MVPI Scales				
<hr/>				
Recognition	.127*	.053	.059	.077
Power	-.136*	-.132*	-.117	-.136*
Hedonistic	.038	-.072	-.027	-.010
Altruistic	-.103	-.127*	-.041	-.088
Affiliation	-.327***	-.275***	-.265***	-.311***
Tradition	-.027	-.034	-.017	-.009
Security	.096	.036	.074	.075
Commerce	.010	.010	.013	.019
Aesthetics	.036	.051	.028	.033
Science	-.016	.022	-.040	-.018

* p -value < .05; ** p -value < .01; *** p -value < .001.

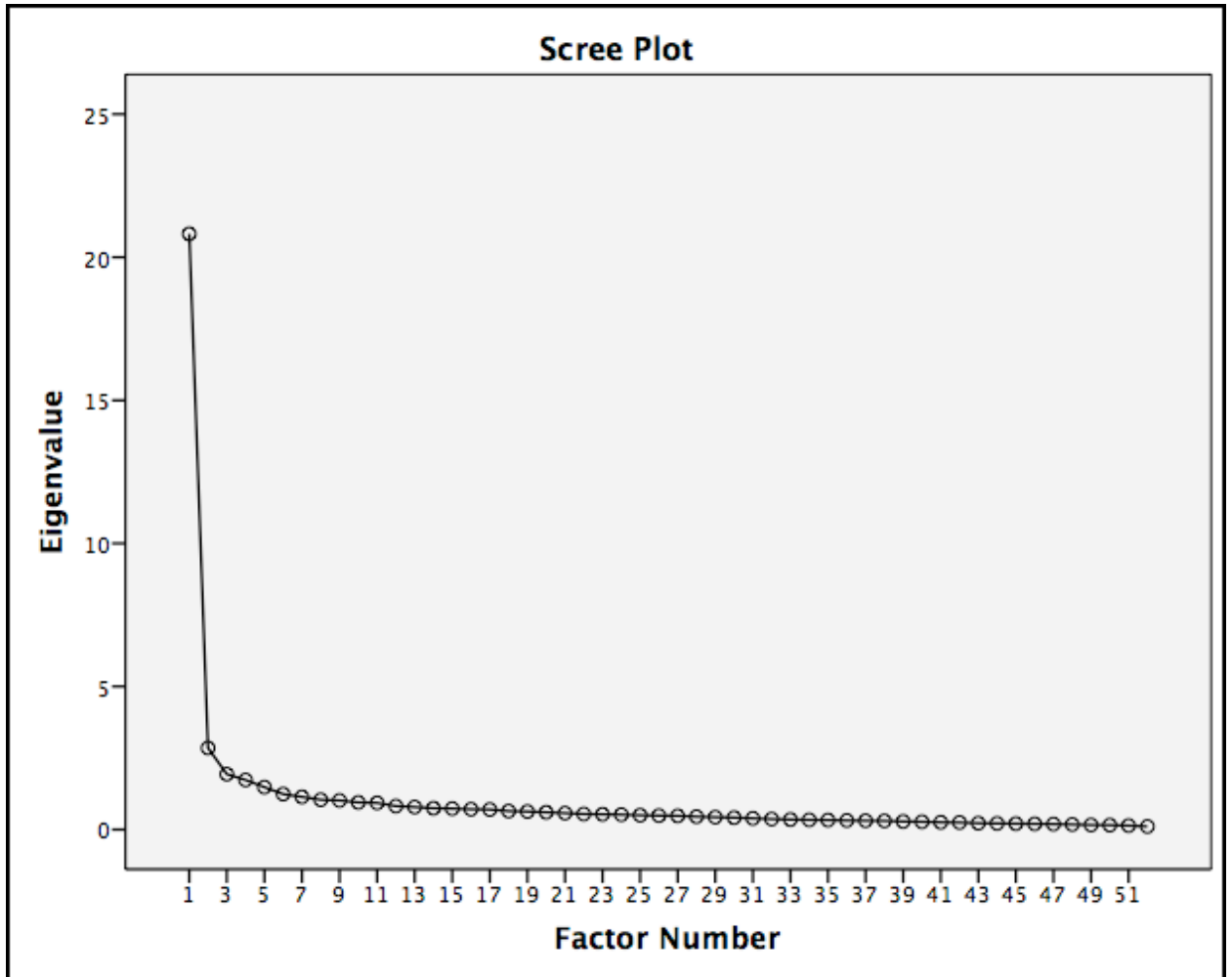


Figure 1.

Scree-plot from PAF of 52-item SELF-DISS

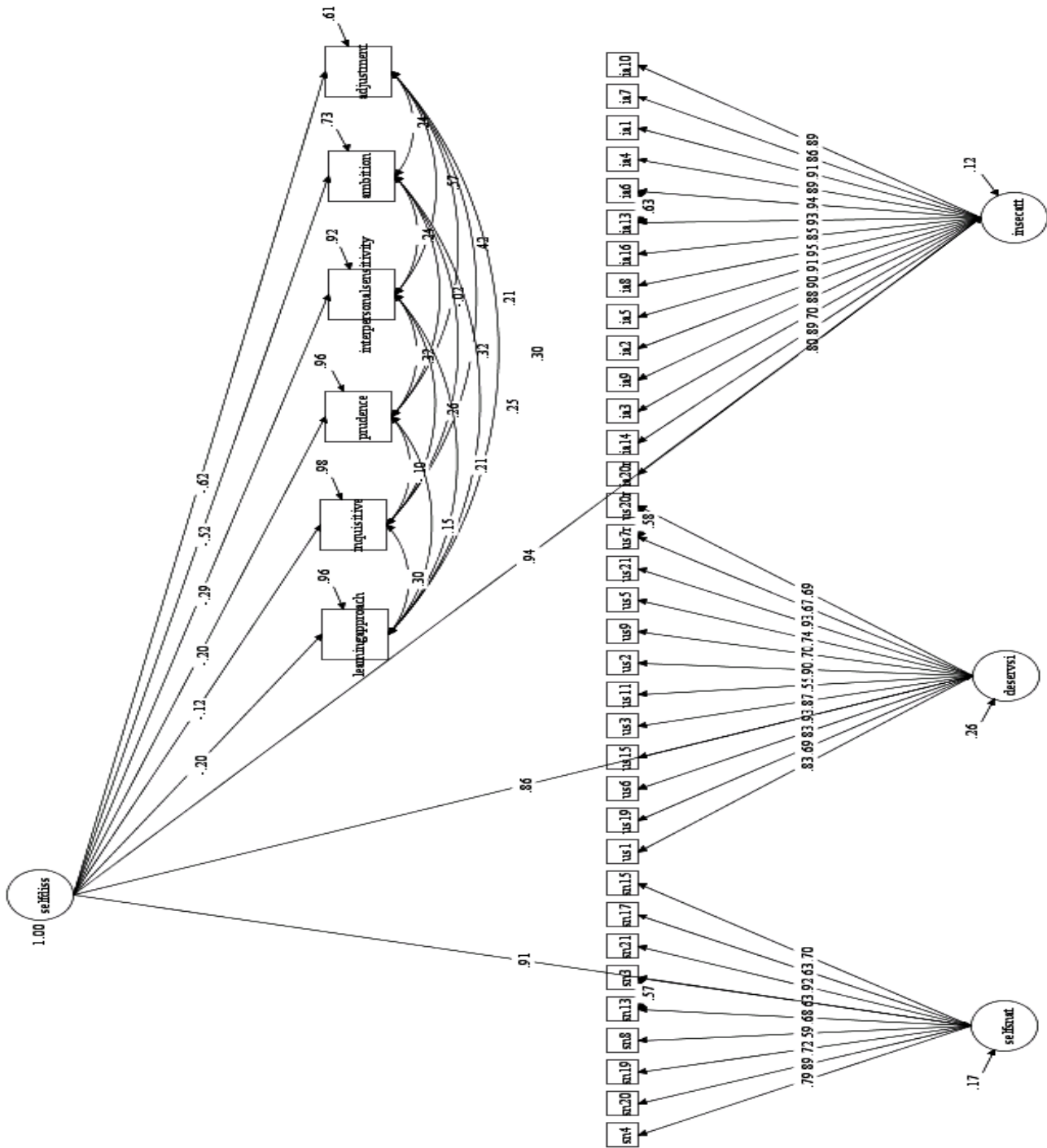


Figure 2. Relationships between the SELF-DISS and the HPI

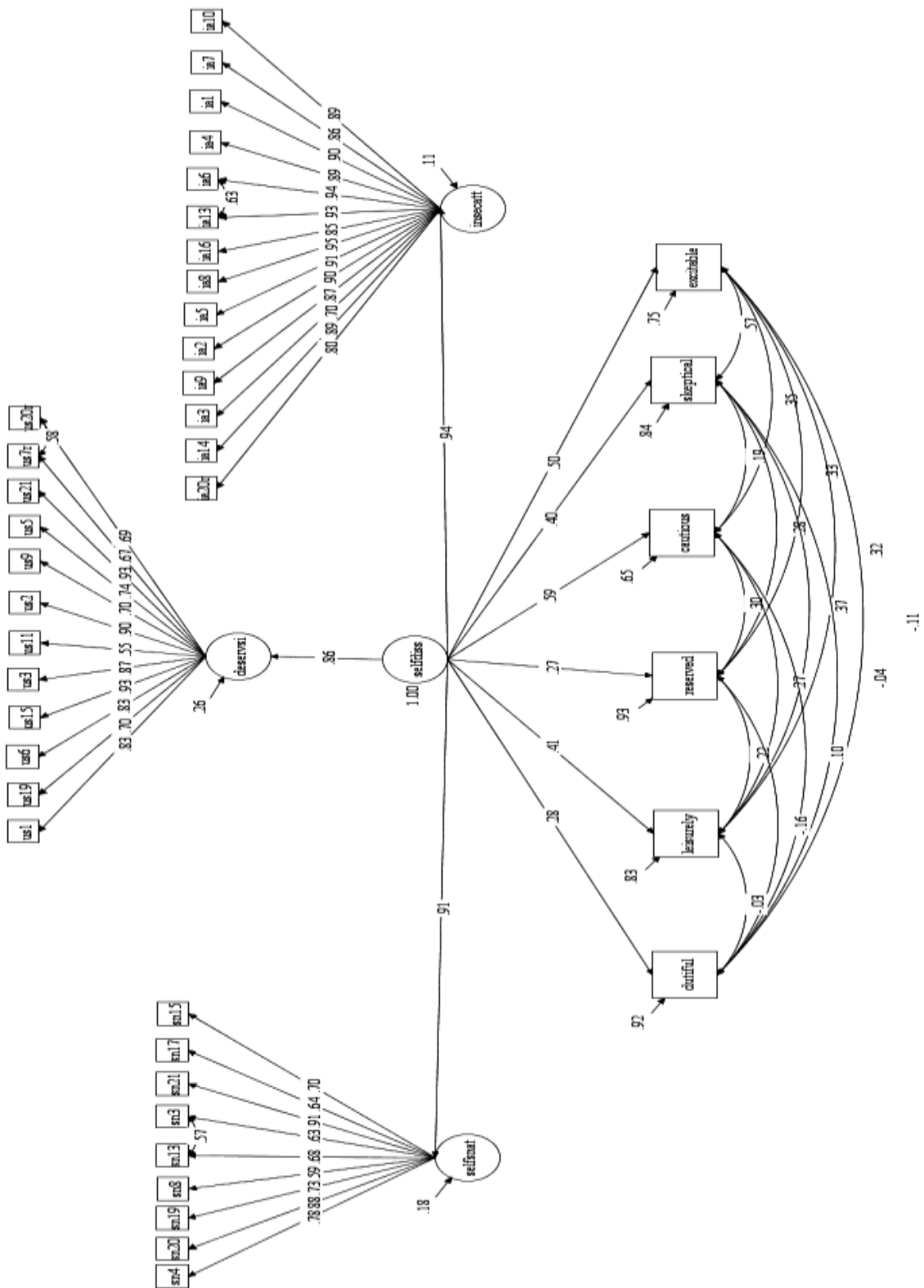


Figure 3. Relationships between the SELF-DISS and the HDS

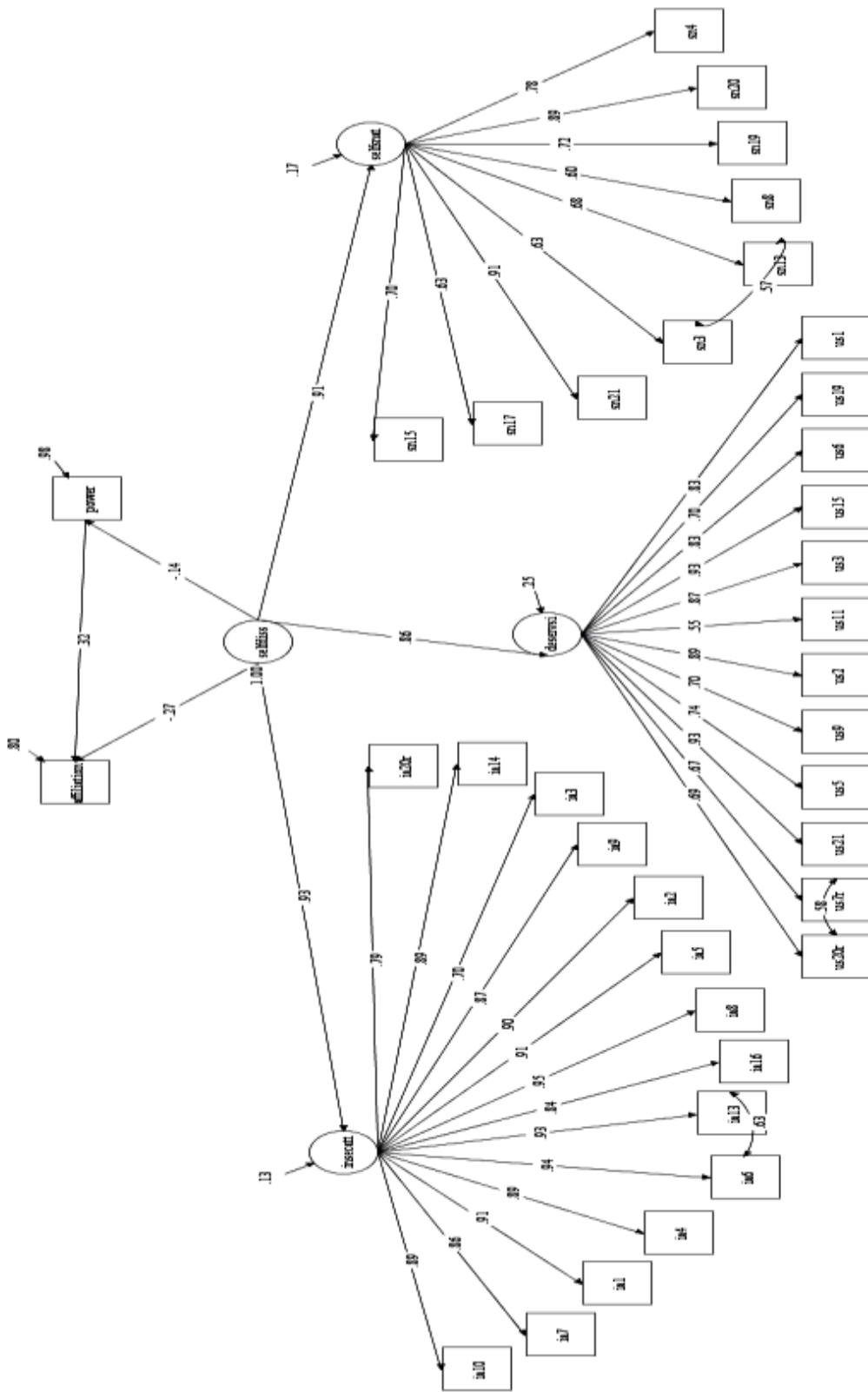


Figure 4. Relationships between the SELF-DISS and the MVPI

Appendix A: Final SELF-DISS Items

SELF-DISS: Self-Defeating Interpersonal Style Scale

Please read each item carefully. Indicate your agreement below, from 1 (Strongly Disagree) to 10 (Strongly Agree), based on how true each statement is of you.

1 = *Strongly Disagree*

5 = *Neutral*

10 = *Strongly Agree*

A. Insecure attachment:

1. I am afraid my partner will leave me.
2. I feel powerless in my relationships.
3. I need the attention of others to feel worthwhile.
4. I need reassurance about my relationships with others.
5. I often worry that my partner is frustrated with me.
6. I'm afraid that my relationships will fail.
7. If I don't hold on to those close to me tightly, they will abandon me.
8. I worry that my relationships will end badly.
9. I question my partner about their true feelings for me.
10. I worry that people in my life will leave me.
13. I am anxious about maintaining relationships.
14. I am afraid that I will be rejected by others if I let them get really close to me.
16. I feel self-conscious about myself in my relationships.
20. I feel secure in my relationships (R).

B. Undeserving self-image:

1. I deserve to be mistreated in my relationships.

2. I don't believe I am as good as other people.
3. I deserve the disdain that others feel for me.
5. People should be critical of me.
6. I don't deserve to experience pleasure in my relationships with others.
7. I am deserving of happy relationships. (R)
11. I shouldn't be praised for the things I've done.
13. I tend to recollect the bad things I've experienced in my life.
15. I can't experience much pleasure in my relationships because I don't feel like I deserve it.
19. I feel deserving when bad things happen to me.
20. I am a person of worth (R).
21. I feel undeserving when positive things happen to me.

C. Self-sacrificing nature:

3. I don't accept help from others when I am in a bad situation.
4. I've had significant others who abused me in some way.
8. I have accepted blame for things I didn't do.
13. I have difficulty accepting the support of others.
15. I keep people in my life who do not have my best interests in mind.
17. I have been taken advantage of by others.
19. I have tolerated mistreatment from other people.
20. I tend to stay in bad relationships longer than I should.
21. I seem to choose situations which lead to disappointment.

Appendix B: Ethics Approval Form



**Western
Research**

Research Ethics

**Western University Non-Medical Research Ethics Board
NMREB Delegated Initial Approval Notice**

Principal Investigator: Prof. Tony Vernon
Department & Institution: Social Science\Psychology, Western University

NMREB File Number: 107474
Study Title: SELF-DISS: The Self-Defeating Interpersonal Style Scale

NMREB Initial Approval Date: March 02, 2016
NMREB Expiry Date: March 02, 2017

Documents Approved and/or Received for Information:

Document Name	Comments	Version Date
Recruitment Items	Recruitment poster	2015/11/23
Other	Dark triad questionnaire	2015/11/23
Western University Protocol	Received March 2, 2016	
Letter of Information & Consent		2016/03/02
Other	Debriefing Letter	2016/03/02
Instruments	SELF-DISS - Received February 22, 2016	

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the above named study, as of the NMREB Initial Approval Date noted above.

NMREB approval for this study remains valid until the NMREB Expiry Date noted above, conditional to timely submission and acceptance of NMREB Continuing Ethics Review.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario.

Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB.

The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Ethics Officer, on behalf of Riley Hinson, NMREB Chair or delegated board member

Ethics Officer to Contact for Further Information: Erika Basile ___ Nicole Kaniki ___ Grace Kelly ___ Katelyn Harris ___ Vikki Tran ___

This is an official document. Please retain the original in your files.

BREANNA ELLEN ATKINSON

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EDUCATION

- B.A. Honors Specialization Psychology, UWO 2009-2014
- M.Sc., Personality and Measurement, UWO Expected
Summer 2017

AWARDS

- Western Scholarship of Distinction 2009
- Dean's Honor List 2012-2014

RESEARCH EXPERIENCE

- Research Collaborator 2011-present
- Assisting in data collection and scoring of several measures in multiple research projects
 - Designing and conducting independent research projects
 - Writing manuscripts for publication and presentation at the 2015-2017 CPA and ISSID conferences
 - Conducting research studies and writing manuscripts for publication in peer reviewed journals

Independent Study Student, Dr. Vernon 2011-2013

- Conducted an independent study (3999G) which examined relations between antisocial personality and the perceived ability to deceive (PATD; see publication reference below)
- Conducted a meta-analytic review of the literature dealing with personality correlates of hypnotic susceptibility (4998F & 4999G)

Honors Thesis Student, Dr. P. A. Vernon 2011-2014

- Thesis: “How do Dark Personalities Self-Monitor? A Behavioral Genetic Investigation of Self-Monitoring and Exploration of the Dark Triad Traits”

Master`s Thesis Student, Dr. P. A. Vernon 2015-2017

- Thesis: “The SELF-DISS: A Comprehensive Measure of Self-Defeating Interpersonal Style”

TEACHING AND RELATED UNIVERSITY EXPERIENCE

Teaching Assistant, Psychology 2810 Summer 2015-F/W 2017

- Grading all course material, and providing feedback and assistance to students

Invited Lecture to Psychology 2550 (Theories of Personality) November 2016

- On the development and refinement of the Self-Defeating Interpersonal Style Scale (the SELF-DISS)

Invited Brown Bag Presentation June 2017

- Given to Social and Personality area at Western University Canada on the personality correlates of self-defeating behavior

PUBLISHED ARTICLES

Google Scholar Citations indices: 77 citations; h-index: 4; i10-index: 3;

ResearchGate publication Reads: 3.3K

Giammarco, E.A., Atkinson, B., Baughman, H., Veselka, L., & Vernon, P.A. (2013). The Relation between Antisocial Personality and the Perceived Ability to Deceive. *Personality and Individual Differences*, 54, 246-250.

Atkinson, B. E., Lipton, D., Baughman, H. M., Schermer, J. A., Harris, J., & Vernon, P. A. (2015). How do emotional restrictions affect the use of humor? A Behavior Genetic Analysis of Alexithymia and Humor Styles. *Twin Research and Human Genetics*, 18(02), 1-4.

Azizli, N., Atkinson, B. E., Baughman, H. M., Giammarco, E., & Vernon, P. A. (2015). Relationships between General Self-efficacy, Planning for the Future, Consideration of Future Consequences, and Life Satisfaction. *Personality and Individual Differences*, 82.

Azizli, N., Atkinson, B.E., Baughman, H.M., Chin, K., Vernon, P.A., Harris, E., & Veselka, L. (2015). Lies and crimes: dark triad, misconduct, and high-stakes deception. *Personality and Individual Differences*, 89, 34-39.

Koladich, S., Atkinson, B., & Vernon, Philip A. (2016). The Dark Triad and relationship preferences: a replication and extension. *Personality and Individual Differences*, 94, 253-255.

Qureshi, C., Harris, E., & Atkinson, B.E. (2016). Relationships Between Age of Females and Attraction to the Dark Triad Personality. *Personality and Individual Differences*, 95, 200-203.

Chin, K., Atkinson, B. E., Raheb, H., Harris, E., & Vernon, P. A. (2016). The dark side of romantic jealousy. *Personality and Individual Differences*.

Malinowski, A., Veselka, L., & Atkinson, B. E. (*In Press*). An investigation of vulnerability factors for depression. *Personality and Individual Differences*.

CONFERENCE PRESENTATIONS, SYMPOSIA, AND POSTERS

Atkinson, B. E., Lipton, D., Baughman, H. M., Schermer, J. A., Harris, J., & Vernon, P. A. (2015). How do emotional restrictions affect the use of humor? A Behavior Genetic Analysis of Alexithymia and Humor Styles. Poster presented at the International Society of Individual Differences (ISSID) conference: London, Canada (July).

Atkinson, B. E., Lipton, D., Baughman, H. M., Schermer, J. A., Harris, J., & Vernon, P. A. (2015). How do emotional restrictions affect the use of humor? A Behavior Genetic Analysis of Alexithymia and Humor Styles. Poster presented at the Canadian Psychological Association: Ottawa, Canada (June).

Azizli, N., Atkinson, B. E., Veselka, L., Baughman, H., Chin, K., & Vernon, P. A. (2015). Lies and Crimes: Dark Triad, Misconduct, and High-Stakes Deception. Poster presented at the International Society of Individual Differences (ISSID) conference: London, Canada (July).

Veselka, L., Azizli, N., Atkinson, B. E., Baughman, H., Vernon, P. A. (2015). Dark Triad and Socially Maladaptive Behaviors. Invited symposium paper

presented at the Biannual Meeting of the International Society of Individual Differences (ISSID): London, Canada (July).

Atkinson, B. E., Schermer, J. A., Martin, R. A., Martin, N. G., Lynskey, M. T., Trull, T. J., & Vernon, P. A. (2016) Humor styles and borderline personality. Invited symposium paper presented at the Canadian Psychological Association: British Columbia, Canada (June).

Atkinson, B. E., Koladich, S., & Vernon, Philip A. (2016). The Dark Triad and relationship preferences: A replication and extension. Poster presented at the Canadian Psychological Association: British Columbia, Canada (June).

Atkinson, B. E., Wells, C., Giammarco, E., & Vernon, P. A. (2016) Perceptions of supervisor personality and their relation to employee well-being. Invited symposium paper presented at the Canadian Psychological Association: British Columbia, Canada (June).

Atkinson, B. E., & Vernon, P. A. (2017). The SELF-DISS: A comprehensive measure of self-defeating interpersonal style. Invited symposium paper presented at the Canadian Psychological Association: Toronto, Canada (June).

Atkinson, B. E., & Vernon, P. A. (2017). The SELF-DISS: A comprehensive measure of self-defeating interpersonal style. Poster presented at the Biennial Meeting of the International Society for the Study of Individual Differences: Warsaw, Poland (July).

Malinowski, A., Veselka, L., & Atkinson, B. (2017). An investigation of vulnerability factors for depression. Poster presented at the biennial meeting

of the International Society for the Study of Individual Differences, Warsaw, Poland, July.

PUBLISHED CONFERENCE PROCEEDINGS

Atkinson, B. E., Lipton, D., Baughman, H. M., Schermer, J. A., Harris, J., & Vernon, P. A. (2016). How do emotional restrictions affect the use of humor? A Behavior Genetic Analysis of Alexithymia and Humor Styles. *Personality and Individual Differences, 101*, 465.

Veselka, L., Azizli, N., Atkinson, B. E., Baughman, H. M., & Vernon, P. A. (2016). Dark Triad and socially maladaptive behaviors. *Personality and Individual Differences, 101*, 523.

EDITORIAL EXPERIENCE

Guest Editor, *Personality and Individual Differences* 2016-present

Reviewer, *Personality and Individual Differences* 2014-present

MEMBERSHIPS

Canadian Psychological Association (CPA) 2015-present

International Society of Individual Differences (ISSID) 2015-present

Society for Personality and Social Psychology (SPSP) 2015-present

REFERENCES

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Dr. Cynthia Mathieu, University of Quebec, Trois-Rivières*

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