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A COMPARISON OF THE REISS PROFILE WITH THE NEO PI-R ASSESSMENT OF PERSONALITY

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ABSTRACT OF THESIS

A COMPARISON OF THE REISS PROFILE WITH THE NEO PI-R ASSESSMENT OF PERSONALITY

The purpose of this thesis was to determine whether the NEO Personality Inventory-Revised (NEO PI-R) could account for significant variance within a measure of personality developed for the intellectually disabled (i.e., the Reiss Profile of Fundamental Motives), as well as to consider their comparative validity. The NEO PI-R and the Reiss Profile of Fundamental Motives were administered to 127 undergraduate students in conjunction with the Personality Research Form (PRF) and the Behavior Report Form (BRF). The NEO PI-R was able to account for a substantial amount of variance in the Reiss Profile scales, and the Reiss and the NEO accounted for approximately equivalent amounts of variance in the PRF and BRF. Implications for general personality research as well as additional research with a sample of adults with intellectual disability are discussed.

KEYWORDS: Undergraduate, NEO PI-R, Reiss Profile, Personality, Behavior Research Form

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THESIS

Sara E. Boyd

The Graduate School

University of Kentucky

2010

A COMPARISON OF THE REISS PROFILE WITH THE NEO PI-R ASSESSMENT OF PERSONALITY

THESIS

A thesis submitted in partial fulfillment of the
requirements for the degree of Master of Science in the
College for Arts and Sciences at the
University of Kentucky

By

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Lexington, Kentucky

Director: Dr. Thomas Widiger, Professor of Psychology

Lexington, Kentucky

2010

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Section 1: Introduction

Is personality delimited by intellectual functioning? There is no evidence that the cutoff score for significantly subaverage Intellectual Quotient (IQ) (American Psychiatric Association, 2000; American Association on Mental Retardation, 2002) carves nature at a discrete joint; that is, there is no qualitative difference between individuals with IQs below this cutoff and those individuals above it. However, the presence of intellectual disability[1] (ID) has often excluded consideration of personality functioning, both normal and pathological.

The purpose of this study is to obtain within an undergraduate student population comparative validity data on two alternative models and measures of personality, one developed for the general population (i.e., the Five Factor Model as assessed by the NEO Personality Inventory Revised; Costa & McCrae, 1992) and the other developed for the assessment of personality within the intellectually disabled (i.e., the Reiss Profile of Fundamental Goals and Motivational Sensitivities Mental Retardation Version; Reiss & Havercamp, 2001). The results will serve as pilot data for a subsequent replication and extension of the findings for a sample of intellectually disabled participants.

Historical Context

Intellectual disability[1] is defined by the American Association on Intellectual and Developmental Disability (AAIDD) as "characterized by significant limitations both in intellectual functioning and in adaptive behavior as expressed in conceptual, social, and practical adaptive skills" (AAIDD, 2002, p. 8). *Significant limitation* in intellectual functioning is defined by the AAIDD and the American Psychiatric Association as approximately two standard

deviations below the mean of intelligence scores, with appropriate consideration of the standard error of measurement for the instrument used. The prevalence of intellectual disability is estimated to be 1% of the population. Approximately 85% of individuals with intellectual disability have IQs situated in the mild range of impairment (Szymanski & King, 1999). The proportion of cases of intellectual disability clearly accounted for by a genetic syndrome is roughly 20%, with genetic causes much more likely to be identified in individuals with moderate to severe levels of impairment (Rauch et al., 2006).

Historically, individuals with significant levels of intellectual disability were cared for by family members or in segregated institutional settings, and expectations for progress and development were low. Mental illness beyond the disability itself was largely overlooked for centuries; in fact, it was not until the late 19th century that any legal distinction was made between intellectual disability and mental illness (Sevin & Matson, 1994). In subsequent years, the two concepts became increasingly extricated from one another, and mental health services became separated from intellectual disability-related services (Sevin & Matson, 1994).

Psychotherapeutic treatments for individuals with ID were often dismissed by clinicians as inappropriate due to popular beliefs that patients were unable to verbally discuss their difficulties, particularly within the psychodynamic and cognitive framework (Nezu & Nezu, 1994). The rise of behavior modification in the 1960s provided clinicians with tools for interventions that did not rely on a patient's verbal ability or capacity for insight. Thus, individuals with ID and problem behaviors were deemed appropriate targets for learning-oriented strategies (Reiss & Havercamp, 1997). However, interventions which focused on behavioral difficulties tended to focus on extinction of identified behavior, and the use of aversive techniques and chemical restraint were relatively widespread. With few exceptions,

interventions were guided by the principles of radical behaviorism, with no attention to internal events such as cognition, emotion, motives, or personality.

In 1969, Wolf Wolfensberger published *Changing Patterns in Residential Services for the Mentally Retarded*, which detailed the failures of the institutional, custodial model of care for people with ID and presented the alternative guiding principles of social role valorization and normalization. His work became one of the impetuses for the deinstitutionalization movement in the United States during the late 1970s and 1980s and the ascendance of the *person-centered* model of service provision. Person-centered planning emphasizes the need for service provision to take the needs, desires, and unique features of the person receiving services into account, and provide supports for those needs. This trend influenced approaches to problem behavior exhibited by individuals with ID, and functional behavior analysis and positive behavior support gained in popularity throughout the 1980s (Feldman, Atkinson, Foti-Gervais, & Condillac, 2004). As behavioral interventions became more sophisticated and concerned with consideration of an individual's unique features, investigators and clinicians increasingly attended to the internal mental functioning of people with ID (Holland, 1999).

In the early 1980s, Steven Reiss introduced and produced evidence for the bias of diagnostic overshadowing in the area of ID; that is, the tendency of clinicians to attribute symptoms of mental illness to the presence of intellectual disability when those symptoms manifest in individuals with a known diagnosis of ID (Reiss, Levitan, & Szyszko, 1982; Spengler, Strohmer, & Prout, 1990). He and his colleagues were able to draw new public and professional attention to dual diagnosis (mental illness in the presence of mental retardation). In subsequent years, professional organizations such as the National Association for Dual Diagnosis

(NADD) have emerged to promote research and improved mental health services for individuals with intellectual disability and mental health needs (NADD, 2007).

Psychiatric illness is by no means rare among individuals with intellectual disabilities, though the prevalence rates reported in the literature vary widely from 10% to 39% (Bothwick-Duffy, 1994). This variation has been attributed to a lack of adequate and broadly accepted operational definitions of behavioral/emotional disturbance, difficulty comparing results across studies utilizing non-overlapping instrumentation, and sampling issues (Bothwick-Duffy, 1994; Deb, Thomas, & Bright, 2001). Prevalence of psychiatric impairment may be related to severity of intellectual disability (Holden & Gitlesen, 2004), presence of epilepsy (Espie et al., 2003), and residential setting, among other factors. In addition to evidence for relatively high prevalence of mental disorder generally, researchers have reported observation of a broad range of mental illness diagnoses (e.g. schizophrenia, depression, post-traumatic stress disorder) in individuals with ID (Matson, 1985; Mitchell & Clegg, 2005). Definitive evidence that adults with ID are necessarily at increased risk, compared to the general population, for mental disorders is lacking (Deb et al., 2001). The evidence for increased risk of mental disorders in children and adolescents with ID is more convergent (Dekker & Koot, 2003; Emerson, 2003; Tonge & Einfeld, 2000).

Personality Assessment

With respect to personality assessment, few instruments have emerged for use with individuals with intellectual disability. Existing measures are most often developed specifically for individuals with ID, as opposed to modifications to existing measures originally developed for use with the general population. One exception is the Minnesota Multiphasic Personality Inventory-168 (MMPI-168). Originally developed as a short-form screening device for

psychiatric patients, the MMPI-168 was reported to be successful in assessing psychological adjustment in individuals with brain injuries (Alfano & Finlayson, 1987). McDaniels and collegues presented evidence for construct validity based on correlations between MMPI-168 standard scale elevations and behavioral ratings provided by psychology staff in an institutional setting for adolescents and adults with ID (McDaniels, Childers, and Compton, 1997). In a study by Johns and McDaniel (1998), the Reiss Screen for Maladaptive Behavior scale of Psychosis had moderate positive correlations with MMPI-168 scales of F (infrequency) and 6 (Paranoia). However, other hypothesized relationships between scales on the RSMB and the MMPI-168 were not found. An additional study by McDaniel, Passmore, and Sewell (2003), comparing the MMPI-168 to the Assessment of Dual Diagnosis (ADD) found that few of the expected correlations between MMPI-168 and ADD scales measuring similar constructs were found.

The Standardised Assessment of Personality (SAP) is a semi-structured informant-based interview developed by Pilgrim and colleagues to provide ICD-10 diagnoses of personality disorder. The instrument has produced satisfactory interrater reliability when used with individuals with intellectual disability in institutional settings (Flynn, Matthews, & Hollins, 2002). However, convergent validity for the instrument, when compared to the Structured Clinical Interview for DSM-IV Personality Disorder-II (SCID-II Version 2.0), was found to be poor (Walters, Moran, Choudhury, Lee, Mann, 2004).

Few instruments are available for evaluation of general personality functioning in individuals with ID. Zigler and colleagues developed the EZ-Personality Questionnaire (EZPQ), a 37 item instrument for use with individuals with intellectual disability based upon their five personality-motivation factors of positive reaction tendency, negative reaction tendency,

expectancy of success, outer-directedness, and effectance motivation (Zigler, Bennett-Gates, Hodapp, & Henrich, 2002). However, this instrument has yet to gain widespread use.

The Reiss Profile of Fundamental Goals and Motivational Sensitivities Mental Retardation Version (Reiss & Havercamp, 2001) is a relatively widely-used observer rating scale instrument based upon Reiss' theory of fundamental motives (Reiss & Havercamp, 1997). This theory emphasizes the role of intrinsic, universal motives in human behavior. It is noteworthy that the theoretical conceptualization of motives and their role in behavior is the same for people with and without intellectual disabilities. The 16 fundamental motives assessed by the Reiss Profile are modeled in part after the 14 fundamental needs assessed by the Personality Research Form (Jackson, 1976), a dimensional model of personality developed for the general population. Table 1 provides the 16 fundamental motives of the Reiss Profile; table 2 provides the 16 fundamental needs of the Personality Research Form.

The Reiss Profile MR/DD has stimulated several validity-related studies, examining and supporting the instrument's inter-rater reliability (Lecavalier & Havercamp, 2004), factor structure (Reiss & Havercamp, 1998), and stability of motivational profile (Lecavalier & Tasse, 2002). The Reiss Profile has not been comprehensively compared to the NEO PI-R or the MMPI, either in intellectually typical populations or with samples of individuals with intellectual disability. Olsen and Weber (2004) did conduct an investigation at the domain level. This study found that the Reiss motives related to NEO PI-R domains (results were reported solely at the level of domains) in logical patterns; for example, the Reiss motive of Social Contact showed a strong positive relationship with the NEO PI-R facet of Extraversion. The only Reiss motive that failed to statistically significantly correlate with a NEO PI-R domain was Activity. The authors also described the finding that overall motive strength (as measured by strength/frequency of

item endorsement) tended to be associated with high Extraversion and Neuroticism, and low Agreeableness.

Rationale for Personality Assessment in Individuals with ID

One might ask if personality of individuals with ID is a worthwhile area of attention for psychologists. The utility of personality assessment, as it relates to the concerns and common difficulties of individuals with ID, is perhaps worthy of consideration. Personality disorder has been documented in individuals with intellectual disability (Cowley, Holt, Bouras, Sturmey, Newton, & Costello, 2004; Lidher, Martin, Jayaprakash, & Roy, 2005). Some authors have argued that, for individuals with ID, the presence of a personality disorder has the potential to be more disabling than the intellectual disability itself (Ryan & Panek, 1991; Torr, 2003). In a five year follow-up survey of individuals with ID living in the community, Lidher and colleagues (2005) found that individuals diagnosed with a personality disorder in the original study were more likely to receive psychotropic drugs, show increased offending behavior, and have more hospital admissions. Several other researchers (Ballinger & Reid, 1988; Deb & Hunter, 1991; Lidher et al., 2005) have observed that personality disorder seems to be a prominent factor in the ability of individuals with ID to successfully transition to and remain in the community.

Personality disorder may also be linked to the development and expression of Axis I disorders in individuals with ID. Lidher and colleagues (2005) found that individuals with a personality diagnosis were likely to have additional psychiatric disorders, and Goldberg and colleagues also found increased prevalence of Axis I disorders in individuals with ID and personality disorder (Goldberg, Gitta, Puddephatt, 1995). This is consistent with the literature on comorbidity of personality disorder and Axis I disorders in the general population (Clark, 2007). The personality features of individuals with intellectual disability, both normal and pathological,

may influence the manifestation and form of Axis I disorders, as well as the use of coping strategies (Dosen, 2005).

The assessment of personality functioning has several possible benefits for individuals with ID. Personality-related information could inform residential supports (Wiltz & Reiss, 2003). For individuals of typical intelligence, dimensional personality assessments have been linked to subjective well-being, physical and psychological health, occupational choice and performance, and quality of interpersonal relationships (Ozer & Benet-Martínez, 2006). These life domains are likely to be consequential and meaningful for individuals with ID, as well. Zigler and colleagues have argued that personality structures are "equally as important as cognitive deficits in determining performance" (Zigler, Bennett-Gates, Hodapp, & Henrich, 2002, p.181), and they have posited that maladaptive personality and motivational features may account for the observed Mental Age (MA)-deficit phenomenon, in which individuals with ID function at a level below what would be predicted by IQ (Zigler et al, 2002).

It is possible that the presence of ID, particularly ID secondary to a genetic syndrome, recasts the landscape of personality functioning. However, a parsimonious approach to assessment of individuals with ID would be to first examine the possibility that existing theoretical frameworks and measures for the general population could be extended, perhaps with some modification, for use with individuals with ID. To that end, the Five Factor Model (FFM) of personality is an appealing candidate for the conceptualization and assessment of personality in individuals with intellectual disability. The FFM is the product of lexical studies of human language. In this model, the structure of personality is thought to be embedded in the empirical relationships among trait terms in language (Goldberg, 1993). Five factors, or domains, of personality have emerged from this body of research: extraversion, agreeableness, neuroticism,

conscientiousness/constraint, and openness to experience (Ashton & Lee, 2001). Costa and McCrae (1992, 1995) have further differentiated the five broad domains in terms of more specific facets through their research and development of the NEO Personality Inventory-Revised (NEO-PI-R). For example, in this model the broad domain of extraversion is comprised of the facets of warmth, gregariousness, assertiveness, activity, excitement-seeking, and positive emotions. Table 3 provides a full listing of NEO PI-R domains and facets.

Although the Five Factor Model has not been validated for use with individuals with intellectual disability, researchers have utilized FFM measures with individuals with traumatic brain injury (Kurtz, Putnam, Stone, 1998; Lannoo, de Deyne, Colardyn, deSoete, Jannes, 1997). Weiss and colleagues (2003) were able to replicate the five factor structure of personality in a sample of functionally impaired elderly individuals, 40% of whom did not graduate from high school. In Allik and McCrae's (2004) study of congruence of word meanings among cognitive ability subgroups, their analysis produced "no support for the hypothesis that the structure of personality is influenced by the concreteness or abstractness of the respondent's thinking style" (p. 264). The simple inability of an individual to judge and report his or her own personality is not necessarily a reflection on the structure of the personality itself. However, these authors noted that "in dealing with young children, or cognitively impaired adults….it may be appropriate to use observer ratings….instead of self-reports" (p. 264).

The NEO-PI-R is a commonly used measure for FFM assessment, with good validity evidence (Costa & McCrae, 1992). The form has two versions: self-report and observer rating. The availability of an observer rating form is a strength in the assessment of personality in individuals who may have substantially impaired communication skills in addition to or as a

result of ID. Costa and McCrae (1992) imply utility across the continuum of intelligence when they specifically note that:

> Although there are certainly circumstances (such as advanced dementia or catatonia) in which the assessment of normal personality is impossible and perhaps meaningless, we believe that most patients can be profitably described in terms of the dimensions of the five factor model, and that the NEO-PI-R will be a useful way to measure standing on these dimensions. (p. 7)

If use of the NEO-PI-R for assessment of individuals with ID can be supported, an expanded range of intellectual functioning can be brought into the fold for the purposes of research and treatment. The purpose of the current study was to appraise the NEO PI-R with respect to the widely-used instrument which most closely approximates a measurement of personality in individuals with ID—the Reiss Profile MR/DD. These two instruments will be compared with respect to (1) their convergent validity, (2) their accounting for variance within each other, (3) their ability to account for variance within the Personality Research Form, and (4) their relative incremental validity with respect to life functioning variables. The results will serve as pilot data for an NRSA application to conduct a study within a population of intellectually disabled participants.

Hypotheses

The five factor model facets will be significantly correlated to the fundamental motives in the manner specified in Table 4. A close relationship between Reiss' fundamental motives and the five factor model was expected based upon similarities between the constructs. Reiss' theory was based, in part, upon Murray's list of human needs (Reiss, 2004), and those needs have been profitably organized within the five factor framework (Costa & McCrae, 1988). If the Reiss

fundamental motives can be encompassed by the five factor model, this study will provide information about the comprehensiveness of the five factor model. If the five factor model cannot provide an overarching framework for the Reiss fundamental motives, it will be possible to identify gaps in the five factor model.

I hypothesized that all the Reiss fundamental motives would be understandable in terms of the five factor model, but the reverse would not be true. In other words, the NEO-PI-R would account for more variance in the Reiss fundamental motives, relative to the amount of variance in the NEO-PI-R captured by the Reiss fundamental motives. Both the NEO PI-R and the Reiss were also compared to the Personality Research Form (Jackson, 1979), a measure which has been previously studied with respect to the NEO PI-R (Costa & McCrae, 1994). The PRF has also been described as derived, in part, from Murray's list of Needs, and the Reiss Profile has also been described by its authors as related to Murray's Needs (Reiss, 2004). It was hypothesized that the NEO PI-R would account for more variance in the PRF, despite the conceptual commonalities between the PRF and the Reiss. This study also included an omnibus measure of adaptive functioning (the Behavior Report Form). It was predicted that the NEO-PI-R would account for more variance in this measure than the Reiss Profile of Fundamental Motives.

Section 2: Method

Participants

Data were collected on several occasions over the course of two semesters, using the Experimetrix™ system for study recruitment and participant sign-up. Both male and female participants over the age of 18 years were recruited. These participants provided self-reports, and received experiment participation credit in return for their participation. The data were collected over a period of two semesters, with multiple (six) group data collections. Of the 138 individuals who participated in the study, 11 failed to complete significant portions of the instruments, and so their data were not included in the analyses. For two of the data collections, the NEO PI-R, Reiss Profile, and Behavior Report Form were administered (n = 69); for the other four the NEO PI-R, Reiss Profile, and Personality Research Form were included (n = 58). Of the 127 participants, 111 provided information about their gender; 62 (56%) described themselves as female, whereas 49 (44%) described themselves as male. Information about the race, ethnicity, and socio-economic status of participants was not solicited.

Instruments

NEO Personality Inventory-Revised (Form S)

The NEO PI-R is one of the most commonly used measures of five factor personality. The self-report version is comprised of 240 questions, each one rated on a five point scale, and it produces scores for both the five factors, or domains, of general personality functioning: Neuroticism/Emotional Instability, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness. Each domain is comprised of six facets, and the instrument can provide scores for all 30 facets. The manual for the NEO-PI-R provides the internal consistency statistics for the measure; the coefficient alphas for Neuroticism, Extraversion, Openness, Agreeableness,

Conscientiousness are .92, .89, .87, .86, and .90, respectively. A list of the 30 facets is provided in Table 3.

Reiss Profile of Fundamental Motives

The Reiss Profile of Fundamental Motives is a 128-item self-report instrument, developed to assess the 16 fundamental human motives that the test developers have identified, such as Acceptance, Curiosity, Honor, Independence, and Social Contact. A study of the reliability and validity of the Reiss Profile (Havercamp & Reiss, 2003) reported test-retest reliabilities ranging from .68 to .88. Internal reliability, as measured by Cronbach's alpha, ranged from .79 to .94, with an average of .88. A list of the Reiss motives with brief definitions is provided in Table 2.

Personality Research Form

The standard form of the Personality Research Form (PRF; Jackson, 1976) is comprised of 300 items scored into 14 scales: Achievement, Affiliation, Aggression, Autonomy, Dominance, Endurance, Exhibition, Harm Avoidance, Impulsivity, Nurturance, Order, Play, and Social Recognition. Six forms of the PRF have been developed, ranging in size from 300 to 440 items. In the interest of efficiency with consideration for the objectives of the study, the standard form was used. Internal reliabilities for the PRF standard scales range from .57 to .86, and test-retest reliability ranges from .46 to .90 (Jackson, 1976). The list of PRF scales and scale descriptions is provided in Table 3.

Behavior Report Form

The Behavior Report Form (BRF, Paunonen, 2003) is a self-report measure of behavior created specifically for use with undergraduate students to assess life functioning. It contains questions about relative attractiveness, GPA, and dating frequency, and so on. The authors of the

BRF have utilized the instrument in numerous studies as a criterion measure of socially significant behaviors related to personality traits (Hong, Paunonen, & Slade, 2008). Limited data are available for this instrument; self-report and peer-ratings average correlations were reported to be .55 (Paunonen, 2003).

Data Collection Procedures

Participants were informed of the questionnaire content and their rights as participants in accordance with Institutional Review Board guidelines and policy. Participants completed the measures in a group administration, with instructions provided both in writing and verbally. Scantron response sheets were coded to preserve participant anonymity. Response sheets were transformed into electronic data files and scoring was performed using Stata™ , a statistics software program.

Table 1
Summary of Reiss Profile Motives

Reiss Motive	Description of Reiss motive
Power	Desire to influence (including leadership, dominance)
Curiosity	Desire for knowledge
Independence	Desire to be self-reliant
Status	Desire for social standing
Social Contact	Desire for peer companionship (including desire to play, party)
Vengeance	Desire to get even (including desire to compete, to win)
Honor	Desire to obey a traditional moral code
Idealism	Desire to improve society (including altruism, desire for justice)
Activity	Desire to engage in physical exercise
Sex/Romance	Desire for sex (including courting)
Family	Desire to raise own children
Order	Desire to organize (including desire for ritual)
Eating	Desire to eat
Acceptance	Desire for approval
Tranquility	Desire to avoid anxiety, fear, and pain
Saving	Desire to collect

Note: Reiss scale descriptions were adapted from Havercamp and Reiss (2003)

Table 2
Personality Research Form Scale Descriptions

PRF scale	Description of PRF scale high scorer
Achievement	Ambitious; aspires to succeed with difficult tasks; maintains high standards for performance; willing to work toward long-term goals; responds positively to competition
Affiliation	Gregarious, accepting of others, makes efforts to obtain and maintain friendships
Aggression	Enjoys combat and argument, irritable, willing to hurt others in pursuit of personal goals, may seek to "get even"
Autonomy	Resists restraints or restrictions, enjoys being unattached to people and obligations, may be rebellious at times
Understanding	Intellectually curious; strongly values logical thought
Autonomy	Resists restraints or restrictions, enjoys being unattached to people and obligations, may be rebellious at times
Dominance	Attempts to control environment and people, attracted to leadership roles
Endurance	Persevering and willing to work until a project is complete or a problem is solved, patient and dutiful in work ethic.
Exhibition	Gregarious, accepting of others, makes efforts to obtain and maintain friendships;
Harm-avoidance	Does not enjoy exciting or dangerous activities, scrupulously avoids risk of bodily harm
Impulsivity	Tends to act spontaneously without forethought/deliberation, speaks freely about feelings and wishes
Nurturance	Readily extends sympathy and comfort to others, attracted to caregiving roles
Order	Keeping personal items and surroundings neat and organized is a high priority, averse to clutter and confusion, attracted to methods of maintaining organization
Play	Spends a relatively high percentage of time participating in games, sports, and social engagements. Maintains an easy-going attitude towards life.
Social Recognition	Strong desire to obtain the esteem of others, concerned with the approval and recognition as well as reputation
Understanding	Intellectually curious; strongly values logical thought;

Note: PRF scale descriptions adapted from Jackson (1974).

Table 3
NEO PI-R Domains and Facets

Domain	**Facets**
Neuroticism	Anxiety, Angry Hostility, Depression, Self-consciousness, Impulsiveness, Vulnerability
Extraversion	Warmth, Gregariousness, Assertiveness, Activity, Excitement-seeking, Positive Emotions
Openness to Experience	Fantasy, Aesthetics, Feelings, Actions, Ideas, Values
Agreeableness	Trust, Straightforwardness, Altruism, Compliance, Modesty, Tendermindedness
Conscientiousness	Competence, Order, Dutifulness, Achievement-striving, Self-discipline, Deliberation

Section 3: Results

Hypothesis 1: The Reiss motives will relate to the NEO PI-R facets in the manner specified in Table 4.

Reiss Motives and Correlations with NEO PI-R facets

In general, the predicted correlations between each Reiss Profile motive and NEO PI-R facets were supported, with a few exceptions and unpredicted results[2] (See Table 5 for detailed results). Facets sharing similar or the same names as motives were predicted to correlate, and this prediction was supported (e.g., the facet of Order had a statistically significant correlation with the motive of Order). In general, the correlation patterns between Reiss motives and NEO PI-R facets were logical and intuitive. To illustrate: The Reiss motive of Vengeance was initially predicted to relate to the NEO PI-R facet of Angry Hostility, and the results supported this prediction. In fact, the Vengeance motive showed consistently negative correlations with several other NEO PI-R facets in the domain of Agreeableness, consistent with the logical relationship between Vengeance and the personality trait of antagonism.

As predicted, the motive of Curiosity showed strong positive correlations with the facets of Ideas and Aesthetics. There were also strong correlations between this motive and several Extraversion facets, including Warmth, Assertiveness, Activity, and Positive Emotions, suggesting that the construct of Curiosity contains a prominent interpersonal component in addition to the hypothesized intellectual aspects.

Contrary to predictions, however, the motive of Acceptance did not significantly relate to either facet of Gregariousness or Compliance; and the highest correlations for Acceptance appeared within the domain of Neuroticism, showing positive relationships with the Neuroticism facets of Anxiety, Depression, Self-consciousness, and Impulsivity. Additionally, the motive of

Power was not correlated with Angry Hostility as predicted; however, predicted correlations between the motive of Power and the facet of Assertiveness emerged from the analyses.

The two Reiss motives of Sex and Independence were not easily categorized with respect to the NEO PI-R facets. The motive of Sex produced only one statistically significant correlation with the NEO facets of Modesty, and none of the predicted relationships were supported. At the level of the FFM domains, there were no significant correlations with the motive of Sex. With respect to the motive of Independence, the predicted relationships with the facets of Competence and Assertiveness were not statistically significant, though the predicted relationship between Independence and Compliance was supported by the results. The motive of Independence also did not have any statistically significant correlations with the NEO PI-R domains.

Hypothesis 2: The NEO PI-R will account for a substantial amount of variance in the Reiss Profile as well as the PRF, as measured by adjusted R^2 and hierarchical regression change in R^2 results.

NEO PI-R and Reiss Regression Results

When the Reiss motives were regressed on the statistically significant NEO facet predictors, using only those predictors identified as statistically significant at an alpha of .01, in general the facets predicted a substantial amount of Reiss motive variance. The weakest findings were obtained for the Reiss motives of Independence (Adjusted $R^2 = .07$) and Sex (Adjusted $R^2 = -.02$). The strongest findings were obtained for the motives of Social Contact (Adjusted $R^2 = .68$) and Curiosity (Adjusted $R^2 = .52$) (see Table 6 for detailed results).

Next, the NEO facets were regressed onto the Reiss motives, and the Adjusted R^2 values ranged from .05 to .54. The highest R^2 values were associated with the facets of Order (predicted by the motives of Order and Tranquility) and Gregariousness (predicted by the motives of Social

Contact and Family). The least well-accounted for facets included Angry Hostility, Actions, and Feelings (see Table 7 for detailed results).

Personality Research Form Results

The Reiss Profile and the NEO PI-R were evaluated in reference to the PRF, and the Pearson Product Moment results are provided in Tables 8 and 9, respectively. In brief, the PRF scales correlated in expected patterns with NEO PI-R facets and Reiss motives. Seventy-five percent of the significant correlations between the PRF scales and NEO PI-R facet scales reported in the NEO test manual (Costa & McCrae, 1992) were replicated in the current study. For example, the PRF scale of Affiliation was correlated with the NEO PI-R facets of Warmth and Gregariousness. When comparing the results reported in the NEO test manual with the results of this study, it was most surprising that the correlation between the facet of Angry Hostility and the PRF scale of Aggression was not statistically significant ($r = .10$); the NEO test manual reports a correlation of .62 between PRF Aggression and NEO PI-R Angry Hostility. It should be noted, however, that the version of the PRF utilized in the study reported in the NEO PI-R manual was not the same as the version of the PRF utilized in the current study. The NEO PI-R convergent validity study utilized a version of the PRF with additional scales, whereas this study utilized the standard, 14-scale version of the instrument.

Hierarchical Regression Analysis

Hypothesis 3: The NEO PI-R will account for more variance in the PRF than the Reiss Profile.

In order to directly compare the incremental validity of the Reiss Profile and NEO PI-R with respect to the PRF, hierarchical regression analyses were performed. Because of the large number of predictors found to significantly correlate, only motives and facets with statistical

significance at an alpha level of .01 were utilized in order to address the risk of Type I error. However, in identifying a statistically significant change in R^2, an alpha of .05 was used.

The results of the hierarchical regressions are presented in detail in Tables 6 and 7. In terms of incremental validity, the Reiss generally outperformed the PRF with respect to accounting for variance in the NEO PI-R facets, producing statistically significant increases in R^2 for 19 of the 30 facets when the PRF significant predictors were entered into the model first (as a set), followed by entering the significant Reiss motive predictors (again, as a set). The PRF produced statistically significant increases in R^2 for 11 of the 30 facets (see Table 7).

In accounting for variance within the Reiss motives, the NEO PI-R generally outperformed the PRF as measured by the outcomes of the hierarchical analyses, with the NEO PI-R producing a statistically significant increase in R^2 for 14 of the 16 motives; the PRF provided statistically significant increases in R^2 for only six motives. The NEO PI-R was particularly successful in obtaining incremental validity for the Reiss motives of Honor, Idealism, and Social Contact; the PRF was particularly successful for the motives of Status and Order. Both the PRF and NEO PI-R demonstrated statistically significant increases in incremental validity for five Reiss motives: Acceptance, Family, Order, Status, and Vengeance.

Regarding the PRF hierarchical regressions, the Reiss motives produced statistically significant increases in change in R^2 for a total of nine of 14 scales; the NEO PI-R facets produced statistically significant increases in R^2 for a total of seven of 14 scales. The NEO PI-R was particularly successful for the PRF scales of Nurturance, Order, and Acceptance, whereas the Reiss was particularly successful for the PRF scales of Aggression, Harm Avoidance, and Social Recognition. The NEO PI-R and the Reiss produced statistically significant increases in R^2 for five of the same PRF scales: Achievement, Autonomy, Dominance, Order, and Play.

Behavior Report Form

Hypothesis 4: The NEO PI-R will outperform the Reiss Profile with respect to accounting for variance in the Behavior Report Form, a general measure of adaptive functioning.

The results of the bivariate correlation analyses are provided in Tables 10 and 11. The NEO PI-R and Reiss were compared in hierarchical regression analyses with respect to each instrument's ability to predict relevant functional behaviors (as measured by the BRF). Table 12 provides the results of these analyses. Of the BRF items included in the analyses, two were not successfully predicted by either the Reiss Motives or NEO PI-R facets: Grade Point Average and average number of dates per month. NEO PI-R facets accounted for statistically significant unique variance for the BRF items of self-reported general intelligence, religiosity, cigarettes smoked per day, alcohol drinks per week, parties attended in the past month, and hours of employment per week. Some of the NEO PI-R facets that accounted for unique variance in BRF items were not predicted to do so (e.g., Straightforwardness was a significant predictor of the number of cigarettes smoked per day).

Reiss motives accounted for statistically significant unique variance for the BRF items of self-reported honesty, number of people dated in the past year, cigarettes smoked per day, and hours of employment per week. In the cases of BRF items relating to cigarettes smoked per day and hours of employment per week, both the NEO PI-R and the Reiss Profile accounted for statistically significant unique variance as measured by change in R^2.

Table 4
Predicted relationships between Reiss motives and NEO PI-R facets.

Reiss Motive	FFM Facets
Idealism	Altruism, Feelings
Vengeance	Angry Hostility, Tendermindedness, Assertiveness
Family	Altruism, Tendermindedness, Warmth
Eating	Impulsiveness, Deliberation
Tranquility	Anxiety
Romance (Sex)	Activity, Values, Impulsiveness, Deliberation
Activity	Activity
Order	Order, Self-discipline
Independence	Assertiveness, Compliance, Competence
Power	Angry Hostility, Assertiveness, Modesty
Curiosity	Ideas, Aesthetics
Status	Modesty, Excitement-seeking
Anxiety	Anxiety
Honor	Straightforwardness, Values, Dutifulness, Self-discipline
Social Contact	Gregariousness, Warmth, Activity

Table 5: Correlations Between Reiss Profile Motives and NEO PI-R Facets

Table 5
Correlations between Reiss Profile motives and NEO PI-R facets

	Accept-ance	Curio-sity	Eating	Family	Honor	Idealism	Indep-endence	Power	Order	Sex	Social Contact	Status	Tranq-uility	Veng-eance	Activ	Saving
N	**.38**	-.12	**.32**	.06	-.05	.14	-.03	-.16	.19	.06	.02	.00	**.38**	.07	-.12	.14
E	.18	**.33**	.06	**.36**	**.32**	**.26**	.01	**.50**	.09	.02	**.65**	**.25**	-.14	-.03	**.40**	.09
O	-.05	**.35**	.03	-.05	.06	**.24**	-.06	.06	-.17	.06	.03	**-.29**	-.19	-.12	-.03	.001
A	.02	.08	-.07	**.33**	.17	**.29**	-.11	**-.44**	.00	-.13	.10	**-.30**	-.06	**-.41**	.00	.06
C	.05	**.34**	-.16	.13	**.37**	**.28**	.13	**.33**	**.44**	-.10	.05	.18	.06	-.09	.14	.03
Anxiety	**.39**	-.06	.13	.06	.14	**.32**	-.08	-.02	**.31**	-.09	.07	.00	**.48**	-.08	-.15	.16
Hostility	.16	-.09	**.24**	-.11	-.01	.03	.12	.10	.09	.13	-.10	.06	**.27**	**.31**	-.10	.06
Depress	**.26**	-.07	.17	-.03	.02	.16	-.09	-.19	.14	.00	-.11	-.07	**.32**	.02	-.12	.08
Self-con	**.39**	.03	**.26**	.03	.00	.09	-.03	-.17	**.29**	-.03	-.04	-.02	.22	.07	-.14	**.27**
Impuls	**.28**	.05	**.45**	.19	.04	.13	-.02	.12	.02	.16	**.29**	.12	**.24**	.06	.03	.04
Vulner	.22	**-.24**	.13	-.05	-.20	.11	-.07	**-.28**	.13	-.02	.13	-.02	**.40**	.03	-.22	.05
Trust	-.05	-.02	-.18	**.29**	.06	.06	-.18	-.09	-.04	-.12	.12	-.16	-.14	**-.23**	.03	-.12
Strtfwd	.05	.21	-.02	**.30**	.19	.20	-.05	-.18	-.01	-.05	.12	-.09	-.17	**-.31**	.06	.15
Altruism	.14	.19	.14	**.36**	**.23**	.22	-.07	.09	-.05	.07	**.45**	-.03	-.11	-.19	.20	.08
Compli	.01	-.06	-.22	.06	.07	-.01	**-.25**	**-.37**	.08	-.09	-.17	-.10	-.01	**-.51**	-.09	-.03
Modesty	-.16	-.08	-.07	.14	-.02	.22	-.07	**-.52**	-.01	-.20	-.09	**-.45**	.03	-.17	-.12	-.11
Tndrmnd	.08	.11	.07	**.26**	.12	**.33**	.04	-.15	.02	-.11	.17	-.15	-.01	-.11	.02	.19
Warmth	.16	**.23**	.20	**.36**	.22	**.29**	-.09	.17	-.11	.02	**.62**	.07	-.19	-.11	**.24**	-.04
Gregar	.02	-.03	.03	**.35**	.03	.07	-.12	.11	-.03	.02	**.64**	.16	-.14	-.08	-.10	-.06
Assertive	-.01	**.31**	-.11	.12	.18	.12	.09	**.53**	.09	.07	**.32**	.60	-.13	.03	.21	-.02
Activity	.21	**.30**	-.01	.19	**.24**	.17	.08	**.38**	.22	.04	**.44**	**.28**	.00	.07	**.48**	.12
Excitesk	.18	.10	**.23**	**.44**	.16	.10	.00	.23	.05	-.03	**.60**	.20	-.11	.09	**.26**	.16
Positive emotion	.14	**.26**	.05	.22	**.35**	**.33**	-.12	**.32**	-.06	-.03	**.46**	.10	-.14	-.21	.22	.03
Fantasy	.15	**.31**	**.25**	.07	.17	**.27**	-.08	**.24**	-.11	.08	.14	-.14	-.10	-.05	.00	.10
Aesthetics	-.05	**.28**	.01	-.02	.22	**.43**	-.07	.07	.04	.16	-.03	-.20	.09	-.22	.16	.11
Feelings	.10	.14	.06	.17	.18	**.29**	-.18	.08	-.02	-.01	**.26**	-.13	.04	-.13	.04	.04
Actions	**-.29**	-.05	-.09	-.04	-.12	.06	.07	-.08	-.20	.08	.00	-.21	**-.27**	-.04	.05	-.11
Ideas	.11	**.59**	.06	-.09	**.26**	.14	.03	.08	.01	.13	-.05	-.06	.03	-.04	.12	.13
Values	-.18	.01	-.08	-.14	**-.30**	.02	-.06	-.08	-.21	-.09	-.11	**-.30**	**-.36**	-.09	**-.33**	-.13
Competence	.11	**.43**	.05	.12	**.41**	**.25**	.11	**.40**	.21	.02	.20	.10	-.05	-.09	**.31**	.13
Order	.11	.09	-.11	.04	.15	.14	.02	.16	**.72**	-.17	-.07	.15	**.28**	-.05	-.10	-.01
Dutifulness	.10	**.37**	-.01	**.27**	**.46**	**.26**	.19	.18	**.31**	-.05	.07	.16	.10	.01	**.17**	.10
Achievement Striving	.06	**.25**	-.17	**.23**	**.32**	**.23**	.06	**.30**	**.43**	-.01	.18	.19	.04	-.09	**.25**	-.02
Self-Discipline	-.15	**.27**	**-.23**	.06	.14	.12	-.05	**.33**	**.27**	-.15	.02	.07	-.13	-.10	.12	-.13
Deliberation	.08	**.26**	-.09	-.01	**.33**	.16	.09	.11	**.37**	-.15	-.14	.16	.14	-.09	-.04	.13

` *bolded items are statistically significant at the $p < .01$ level
Bold items are statistically significant at the $p < .01$ level

Table 6
Reiss Motive Regression Results

	PRF predictors	R^2 change*	*p*-value	NEO predictors	R^2 change*	*p*-value
Acceptance	Social Recognition	.14	.002	Anxiety, Depression, Self-consciousness, Impulsivity, Actions	.22	.009
Curiosity	Achievement, Dominance, Endurance, Order, Understanding	.08	.08	Aesthetics, Ideas, Compentence, Assertiveness, Activity, Positive Emotions, Fantasy, Deliberation Achievement-striviing	.27	.005
Eating	N/A	N/A	N/A	Hostility, Self-consciousness, Fantasy, Impulsivity, Excitement-seeking, Self-discipline	.24	
Family	Affiliation, Autonomy, Nurturance	.17	.004	Trust, Straightforwardness, Altruism, Gregariousness, Tendermindedness, Warmth Dutifulness, Achievement-striving	.33	.003
Honor	Social Recognition	.03	.08	Ideas, Values, Competence, Dutifulness, Achievement-striving, Altruism, Activity, Positive Emotions	.49	.0001
Idealism	Achievement, Endurance, Nurturance	.04	.22	Anxiety, Tendermindedness, Fantasy, Aesthetics, Feelings, Warmth, Positive Emotions, Competence, Dutifulness, Achievement-striving	.37	.0001
Independence	N/A	N/A	N/A	Compliance	.05	
Power	Dominance, Exhibitionism	.09	.01	Vulnerability, Modesty, Activity, Positive Emotions, Self-discipline, Compliance, Assertiveness, Fantasy, Competence, Achievement-striving	.16	.10
Order	Harm Avoidance, Order, Play	.16	.0001	Order, Dutifulness, Deliberation, Self-consciousness, Achievement-striving, Self-discipline, Anxiety	.10	.04
Sex	N/A	N/A	N/A	N/A	N/A	N/A
Social Contact	Affiliation, Exhibitionism, Play	.03	.28	Feelings, Altruism, Assertiveness, Activity, Positive Emotion, Impulsivity, Warmth, Gregariousness, Excitement-seeking	.31	.0001
Status	Aggression, Social Recognition	.15	.0001	Values, Activity, Modesty	.15	.001
Tranquility	Order	.03	.09	Anxiety, Hostility, Depression, Actions, Impulsivity, Vulnerability, Values, Order	.42	.0001
Vengeance	Aggression	.06	.02	Hostility, Trust, Straightforwardness,Compliance	.25	.0001
	PRF predictors	R^2 change*	*p*-value	NEO predictors	R^2 change*	*p*-value
Activity	N/A	N/A	N/A	Values, Competence, Achievement-striving, Warmth, Activity, Excitement-seeking	.32	
Saving	N/A	N/A	N/A	Self-consciousness	.08	

Change in R^2 reflects the incremental validity of the instrument predictors when entered as a set after the other predictors have been entered. If no competing predictors were available for the other instrument, Adjusted R^2 is reported.

Table 7
NEO PI-R Regression Results

NEO facets	Significant PRF predictors	PRF R^2 Δ	*p*-value*	Significant Reiss predictors	Reiss R^2 Δ	*p*-value*
Anxiety	Order	.02	.19	Ideal, Acceptance, Order, Tranquility	.32	.0001
Angry Hostility	N/a	N/a	N/a	Eating, Tranquility, Vengeance	.14	
Depression	Nurturance	.04	.11	Acceptance, Tranquility	.11	.19
Self-consciousness	Achievement, Dominance	.21	.001	Acceptance, Eating, Order, Tranquility	.30	.001
Impulsivity	Achievement, Harm Avoidance, Impulsivity, Nurturance, Play	.30	.001	Acceptance, Eating, Social Contact, Tranquility	.29	.0001
Vulnerability	Autonomy, Dominance	.04	.28	Curiosity, Power, Tranquility	.25	.002
Trust	Affiliation, Nurturance, Play	.09	.06	Curiosity, Family, Idealism, Social Contact, Activity	.19	.01
Straightforward-ness	Affiliation, Exhibitionism	.03	.23	Family, Social Contact, Activity	.34	.0001
Altruism	Dominance, Endurance, Exhibitionism, Order	.15	.03	Curiosity, Power, Social Contact	.20	.62
Compliance	Achievement, Dominance Endurance, Order	.09	.22	Curiosity, Honor, Power, Social Contact	.19	.02
Modesty	Affiliation, Exhibitionism, Impulsivity, Play, Understanding	.25	.001	Eating Family Social Contact, Activity	.09	.09
Tenderminded-ness	Affiliation, Dominance, Impulsivity, Play, Social Recognition, Understanding	.19	.04	Curiosity Honor, Idealism, Power, Social Contact	.15	.07
Warmth	Nurturance	.12	.01	Curiosity, Eating, Idealism, Power	.09	.28
Gregariousness	Endurance, Nurturance, Understanding	.07	.18	Curiosity, Idealism	.15	.007
Assertive	Nurturance	.13	.006	Idealism, Social Contact	.02	.56
Activity	N/a	N/a	N/a	Acceptance, Tranquility	.11	
Excitement-seeking	Understanding	.04	.11	Curiosity, Honor	.12	.016
Positive Emotions	Autonomy	.03	.13	Honor, Status, Tranquility, Activity	.27	.001
Fantasy	Aggression	.06	.07	Family, Vengeance	.07	.17
Aesthetics	Aggression	.06	.05	Family, Vengeance	.14	.012
Feelings	Affiliation	.01	.41	Family, Honor, Social Contact	.16	.03
Actions	Aggression, Nurturance	.03	.33	Independence, Power, Vengeance	.24	.001
Ideas	Aggression, Dominance, Nurturance, Social Recognition	.08	.55	Power, Status	.06	.11
Values	Affiliation, Play	.06	.16	Family, Idealism	.15	.012
Comptence	Achievement, Dominance,	.22	.005	Curiosity, Honor, Idealism, Power,	.17	.008

NEO facets	Significant PRF predictors	PRF R^2 Δ	*p*-value*	Significant Reiss predictors	Reiss R^2 Δ	*p*-value*
	Endurance, Harm Avoidance, Impulsivity, Order, Social Recognition			Activity		
Order	Achievement, Affiliation, Endurance, Order Play	.13	.02	Order, Tranquility	.03	.24
Dutifulness	Achievement, Endurance, Order	.06	.22	Curiosity, Family, Honor, Idealism, Order	.18	.03
Achievement-striving	Achievement, Endurance, Impulsivity, Order	.13	.06	Curiosity, Family Honor, Idealism, Power, Order, Activity	.11	.31
Self-Discipline	Achievement, Dominance, Endurance, Impulsivity, Order, Understanding	.19	.02	Curiosity, Eating, Power, Order	.13	.03
Deliberation	Achievement, Endurance, Harm Avoidance, Impulsivity, Order, Play	.29	.002	Curiosity, Honor, Order	.03	.53

Table 8
Correlations between Reiss Motives and Personality Research Form Scales

	Ac	Af	Ag	Au	Do	En	Ex	Ha	Im	Nu	Or	Pl	Sr	Un
Accept	.14	.07	-.05	-.33*	-.09	.12	.04	.21	.09	.18	.24	.19	.49*	.07
Curio	.57*	.08	-.12	-.08	.37*	.53*	-.03	.24	-.20	.25	.37*	-.13	.25	.61*
Eat	.09	-.06	.13	-.28	-.02	.07	-.13	-.13	.12	.08	-.01	.21	-.02	-.03
Fam	.04	.38*	-.07	-.42*	-.02	-.04	.13	.13	.21	.38*	-.05	.28*	.21	-.22
Hon	.31*	.12	-.13	-.24	.09	.29*	.00	.27	-.09	.25	.34*	.01	.42*	.19
Ideal	.38*	.24	-.14	-.10	.20	.39*	.06	.23	-.02	.44*	.26	.15	.12	.35*
Indep	-.04	-.05	.29*	.25	-.03	-.05	-.01	.02	-.06	-.31*	.22	.19	.21	-.24
Power	.34*	.17	.34*	-.04	.71*	.21	.36*	.04	.14	.00	.29*	.28*	.35*	.12
Order	.27	-.26	.12	-.03	-.01	.31*	-.15	.49*	-.17	-.13	.78*	-.36*	.27	.04
Sex	-.17	-.04	.10	.15	-.13	-.11	-.12	.01	.00	-.18	-.06	.10	.19	-.20
SocialC	-.04	.43*	-.01	-.33*	.19	-.05	.38*	-.12	.33*	.25	-.07	.59*	.25	-.19
Status	.10	-.05	.52*	-.31*	.13	-.04	.10	.16	.12	-.18	.31*	.12	.59*	-.11
Tranq	-.06	-.10	.11	-.23	-.14	.11	-.03	.27	.02	.02	.38*	-.02	.17	-.07
Veng	.17	-.22	.55*	.06	.34*	.02	.02	-.10	.07	-.31*	.17	.22	-.12	-.22
Activ	.22	.04	-.05	-.22	.16	.16	.09	.08	.08	-.01	.17	.23	.30*	-.06
Saving	.05	-.14	-.02	-.27	-.04	.19	-.09	.29*	-.06	-.04	.27	-.03	.10	-.11

* starred items are statistically significant at the $p < .05$ level
Ac = Achievement, Af = Affiliation, Ag = Aggression, Au = Autonomy, Do = Dominance, En = Endurance, Ex = Exhibition, Ha = Harm Avoidance, Im = Impulsivity, Nu = Nurturance, Or = Order, Pl = Play, Sr = Social Recognition, Un = Understanding; Accept = Acceptance, Curio = Curiosity, Eat = Eating, Fam = Family, Hon =Honor, Ideal = Idealism, Indep = Independence, SocialC = Social Contact, Tranq = Tranquility, Veng = Vengeance, Activ = Activity

Table 9
Correlations Between NEO PI-R facets and PRF scales

	Ac	Af	Ag	Au	Do	En	Ex	Ha	Im	Nu	Or	Pl	Sr	Un
N	-.32*	.04	-.10	-.19	-.29*	-.16	.02	-.13	.24	.28	-.04	.10	.06	-.11
E	.19	.45*	.12	-.16	.57*	.14	.45*	-.04	.22	.37*	.26	.39*	.32*	.07
O	.16	.08	-.18	.09	.24	.23	.04	-.06	-.11	.36*	.01	-.01	-.06	.55*
A	-.02	.37*	-.51*	-.11	-.33	-.02	-.12	.13	-.10	.45*	-.23	-.01	.00	.09
C	.60*	-.06	.16	-.05	.36*	.47*	-.11	.34*	-.44*	-.10	.63*	-.30*	.13	.24
Anxiety	-.06	.04	-.10	-.15	-.04	.07	.13	.23	.18	.18	.32*	.14	.21	-.08
Angry Hostility	-.06	-.06	.10	-.14	.00	-.04	.08	-.02	.20	-.01	.16	.11	-.01	-.04
Depression	-.13	-.04	-.17	-.19	-.19	.08	-.05	-.05	.10	.25	-.01	-.08	.02	.13
Self-consciousness	-.34*	-.10	.02	-.02	-.38*	-.15	-.16	.00	.04	.09	.09	-.12	-.06	-.16
Impulsivity	-.30*	.17	.08	-.09	-.02	-.22	.20	-.32*	.40*	.38*	-.11	.33*	.16	-.06
Vulnerability	-.23	.06	-.19	-.29*	-.32*	-.10	.08	.08	.23	.25	-.07	.04	.02	-.16
Trust	-.12	.17	-.30*	.20	-.07	-.05	-.05	-.14	.01	.22	-.25	.15	.05	.02
Straightforward-ness	.22	.22	-.41*	-.19	-.18	.08	-.02	.23	-.19	.20	-.08	-.05	.13	.12
Altruism	.03	.31*	-.15	-.16	-.11	-.09	.00	.03	-.15	.23	-.16	.15	.17	-.09
Compliance	-.04	.21	-.39*	-.07	-.23	.01	-.11	.16	-.08	.37*	-.13	-.19	.09	.17
Modesty	-.07	.10	-.49*	.04	-.28*	.00	-.22	-.07	-.02	.36*	-.20	-.15	-.41*	.04
Tenderminded-ness	-.23	.31*	-.14	.05	-.27	-.12	.07	-.01	.14	.25	-.18	.32*	.07	.00
Warmth	.01	.49*	-.13	-.26	.10	.01	.15	-.07	.12	.42*	-.20	.44*	.17	.02
Gregariousness	-.10	.44*	.05	-.17	.12	-.11	.36*	-.17	.26	.17	-.14	.52*	.24	-.26
Assertive	.36*	.17	.20	-.02	.71*	.28*	.33*	-.04	.14	.14	.37*	.09	.20	.20
Activity	.30*	.09	.06	-.16	.38*	.31*	.23	-.02	.07	.10	.43*	.08	.24	.06
Excitement-seeking	-.10	.49*	.13	-.21	.16	-.25	.38*	-.07	.41*	.20	-.02	.60*	.21	-.33*
Positive Emotions	.03	.44*	-.06	-.11	.32*	.06	.34*	.05	.24	.50*	.02	.31*	.22	.20
Fantasy	.05	.09	-.21	.08	.27	.06	.17	-.05	.24	.39*	-.08	.22	.01	.23
Aesthetics	.19	.04	-.21	-.04	.07	.34*	-.07	.20	-.17	.36*	.12	-.13	.04	.44*
Feelings	-.09	.20	-.08	-.19	.10	.00	.26	.14	.07	.44*	.00	.04	.12	.16
Actions	.15	-.10	.08	.02	.14	.02	-.09	-.21	.06	-.01	-.05	.09	-.20	.17
Ideas	.24	-.12	-.19	-.03	.16	.24	-.11	.11	-.14	.08	.08	-.13	.08	.53*
Values	.00	.17	-.08	.40*	.10	.14	.00	-.27	-.19	.16	-.05	.02	-.20	.22
Comptence	.52*	-.03	.16	-.08	.29*	.32*	-.11	.37*	-.38*	-.18	.48*	-.15	.29*	.21
Order	.41*	-.28*	.24	.15	.18	.44*	-.10	.25	-.27	-.13	.72*	-.43*	.03	.13
Dutifulness	.43*	.11	.12	-.15	.23	.30*	-.06	.26	-.24	.05	.43*	-.11	.14	.10
Achievement-striving	.54*	-.05	.10	-.02	.26	.43*	-.16	.23	-.29*	-.16	.54*	-.22	.22	.17
Self-Discipline	.56*	.04	.15	.02	.43*	.39*	.03	.24	-.36*	-.08	.46*	-.21	.08	.29*
Deliberation	.47*	-.25	.13	-.04	.23	.42*	-.17	.35*	-.54*	-.14	.57*	-.41*	.00	.22

Table 9: Correlations Between NEO PI-R Facets and PRF Scales

* starred items are statistically significant at the $p < .05$ level

Ac = Achievement, Af = Affiliation, Ag = Aggression, Au = Autonomy, Do = Dominance, En = Endurance, Ex = Exhibition, Ha = Harm Avoidance, Im = Impulsivity, Nu = Nurturance, Or = Order, Pl = Play, Sr = Social Recognition, Un = Understanding

Table 10: Behavior Report Form and Reiss Profile Correlations

	Gen IQ	Popul	Relig	Honesty	GPA	Dates/mo	# ppl dated	Cigs/ day	Drinks/ wk	Parties/ mo	Hrs work/wk
Accept-ance	.07	.05	-.04	.01	.23	.01	.00	-.31*	-.13	.18	.18
Curio-sity	.19	-.23	-.08	.34*	.31*	-.08	-.02	-.38*	-.18	-.17	-.07
Eating	-.04	-.17	-.22	.22	.07	.03	.04	-.16	.01	-.07	.03
Family	-.08	-.09	.10	.06	.01	.05	-.24	-.36*	-.08	-.05	.11
Honor	.07	-.09	.23	.08	.11	-.12	-.17	-.41*	-.04	-.07	.14
Idealism	.08	-.02	-.11	.05	.36*	-.02	-.11	-.22	-.11	.17	.13
Indepen -dence	.20	.09	-.21	-.07	-.13	-.02	.20	-.11	.37*	.31*	-.05
Power	-.06	.41*	.17	.34*	.48*	.18	.27	-.07	.10	.11	-.24
Order	-.11	.01	-.02	-.10	-.12	-.06	.04	-.25	-.09	.10	.42*
Sex	-.03	.28*	-.22	.04	-.12	.16	.21	.09	.42*	.21	.00
Social Contact	-.14	.36*	-.01	.33*	.22	.19	.21	-.13	.07	.24	-.15
Status	-.18	.37*	.06	.01	-.15	.13	.12	-.12	.35*	.39*	.14
Tranqui-lity	-.12	.17	.14	-.13	.06	-.12	.13	-.18	-.05	.25	.06
Veng-eance	.09	.10	-.28*	-.08	.09	.07	.13	-.14	.36*	.33*	-.09
Activity	-.03	.17	.26*	.19	.19	.09	-.12	.02	.04	.01	-.12
Saving	.08	-.15	.08	-.10	.10	-.02	-.29*	-.30*	-.23	-.15	-.18

GenIQ = Self-reported general intelligence, relative to peers; Popul = Self-reported popularity among peers; Relig = Self-reported religiosity; Honesty = Self-reported honesty; GPA = Grade Point Average; Dates/mo = dates per month; # ppl dated = Number of people dated within the past year; Cigs/day = Number of cigarettes smoked per day, on average; Drinks/wk = Number of alcoholic drinks consumed in an average week; Parties/mo = Average number of parties attended each month; Hrs work/wk = Number of employed hours per week. Starred values are statistically significant at an alpha level of .05.

Table 11
Behavior Report Form and NEO PI-R facet Correlations

	Gen IQ	Popul	Relig	Honesty	GPA	Dates/mo	# ppl dated	Cigs/ day	Drinks/ wk	Parties/ mo	Hrs work/wk
Anxiety	-.19	-.12	-.14	-.04	.04	-.32*	-.02	-.22	-.20	.17	.16
Angry Hostility	-.10	.10	-.18	-.15	-.10	.09	.08	-.02	.24	-.02	.16
Depression	-.25	-.22	-.25	-.20	-.27*	-.02	-.23	-.12	.12	.00	.16
Self-conscious-ness	-.04	-.25	-.09	-.04	.02	-.17	.02	-.30*	-.13	.05	-.09
Impulsivity	-.17	-.10	-.22	.02	.05	.03	.07	-.17	.08	.15	.30*
Vulnerability	-.21	.01	-.26*	-.33*	-.28*	-.04	.04	-.07	.19	.24	.02
Trust	.03	-.11	.23	.05	.21	-.16	-.16	-.07	-.33*	.01	-.12
Straightfor-wardness	.14	-.04	.05	.36*	.31*	.11	.07	.03	-.19	-.23	-.17
Altruism	.22	.02	.12	.29*	.40*	.00	.06	-.12	-.33*	-.20	-.21
Compliance	-.18	-.17	.18	.02	-.08	-.10	.05	-.16	-.21	-.09	-.09
Modesty	-.09	-.36*	.01	.19	-.08	.03	-.23	-.04	-.19	-.11	-.02
Tendermind-edness	.11	-.16	-.06	.02	.20	-.19	.00	-.28*	-.21	-.05	-.08
Warmth	.26*	.13	.02	.23	.27*	.04	.09	-.17	-.19	.05	.07
Gregarious-ness	-.06	.11	.11	.01	.28*	.21	.00	-.01	.05	.23	-.13
Assertive	.17	.39*	.04	-.13	.34*	.02	.19	-.18	.06	.14	.08
Activity	.22	.32*	.05	-.06	.53*	.13	.18	-.11	-.03	.24	.00
Excitement-seeking	.05	.15	-08	.07	.16	.05	.10	-.23	.03	.09	-.22
Positive Emotions	.14	.11	.14	.13	.44*	.01	-.07	-.13	-.15	.00	-.09
Fantasy	.19	-.23	-.12	.07	.15	.03	-.03	-.23	-.16	-.25	.11
Aesthetics	.07	-.26	-.17	-.07	.08	.02	-.14	-.12	-.04	-.06	.16
Feelings	.18	-.03	-.22	.07	.35*	.07	-.04	-.09	-.10	.05	.11
Actions	-.01	-.12	-.13	-.12	-.25	-.06	-.04	.03	.11	-.06	.05
Ideas	.41*	-.20	-.21	-.03	.06	-.09	-.11	-.21	-.16	-.25	.22
Values	.19	-.10	-.42*	-.14	-.01	-.13	-.02	.08	-.04	.01	.05
Competence	.35*	.03	.12	.19	.51*	-.04	.01	-.10	-.27*	-.19	-.02
Order	-.04	.05	.10	-.13	.09	-.14	.17	-.25	-.19	.05	.09
Dutifulness	.27*	-.10	.21	.32*	.38*	.05	-.07	-.01	-.19	-.32*	.08
Achievement -Striving	.07	.13	.07	.03	.45*	.08	-.10	.05	-.12	.04	.15
Self-discipline	.15	.16	.17	-.09	.41*	.17	.07	.02	-.03	-.11	.03

Table 11: Behavior Report Form and NEO PI-R Facet Correlations

Deliberation	.09	-.09	.15	.21	.17	-.15	-.05	-.16	-.24	-.19	-.02

GenIQ = Self-reported general intelligence, relative to peers; Popul = Self-reported popularity among peers; Relig = Self-reported religiosity; Honesty = Self-reported honesty; GPA = Grade Point Average; Dates/mo = dates per month; # ppl dated = Number of people dated within the past year; Cigs/day = Number of cigarettes smoked per day, on average; Drinks/wk = Number of alcoholic drinks consumed in an average week; Parties/mo = Average number of parties attended each month; Hrs work/wk = Number of employed hours per week.

Table 12
Behavior Report Form Hierarchical Regression Results

BRF items	Reiss predictors	R^2 Δ or *r**	*P* value	NEO predictors	R^2 Δ or *r**	*P* value
General Intelligence	Family	.05	.07	**Modesty**	.10	.01
Religiosity	Na	Na	Na	**Vulnerability**	.28	.03
Honesty	**Idealism**	-.29	.04	Na	Na	Na
GPA	Na	Na	Na	Na	Na	Na
Dates per month	Na	Na	Na	Na	Na	Na
People dated in past year	**Sex**	-.30	.03	Na	Na	Na
Cigarettes smoked/day	**Order, Power, Sex, Status**	.27	.007	**Straightforward, Actions, Self-discipline**	.16	.03
Alcohol drinks/week	Na	Na	Na	**Hostility, Depression, Order, Dutifulness, Self-discipline, Achievement-striving**	.24	.001
Parties attended in past month	Na	Na	Na	**Order**	-.36	.003
Hours of employment per week	**Eating**	.19	<.001	**Anxiety**	.19	<.001

Bolded predictors provided statistically significant increases in R^2
*R^2 change is reported when variables from both the NEO PI-R and Reiss Profile were entered into hierarchical regressions. Pearson's Product Moment is reported when a single variable was correlated with a BRF item. Adjusted R^2 is reported when several variables from only one of the two predictor instruments were entered into linear regression.

Section 4: Discussion

The NEO PI-R accounted for a substantial amount of variance in the Reiss Profile, as measured by hierarchical regression analyses, and the NEO PI-R was roughly equivalent to the Reiss Profile with respect to accounting for variance in the Personality Research Form. Finally, the performance of the Reiss Profile and the NEO PI-R was roughly equivocal in terms of the Behavior Report Form, a measure of adaptive behavior. In sum, the NEO PI-R appears to be at least comparable in its ability to account for individual differences in motives, needs, and life functioning behavior as the Reiss Profile, and might then prove equally useful within an intellectually disabled population to assess personality.

The PRF, NEO PI-R, and Reiss Profile

Given that Reiss specifically notes Murray's needs as resource used in the development of the Reiss Profile (Reiss, 2004 p.185), and that the PRF was developed based, in part, on Murray's list of needs, there should be congruence between these two measures. The correlation results and the regression results both suggest that the PRF and Reiss profile scales relate to one another in intuitive ways; for example, the strongest Reiss profile predictors for the PRF scale of Affiliation were the motives of Family and Social Contact (see Table 13). The Reiss motive of Curiosity was found to be a statistically significant predictor for four of the 15 PRF scales, making it the most frequently occurring predictor across the PRF. Also, it is notable that none of the Reiss Profile scales correlated with the PRF scale of Impulsivity when alpha was set at .01. The results of this study were, in general, parallel to the results of the Olsen and Weber (2004) paper, with three notable exceptions: 1) The Olsen and Weber paper did not find any significant correlations between the Reiss Motive of Activity and any of the NEO PI-R domains; 2) the previous study found significant correlations between the motive of Sex and the domains of

Extraversion ($r = .20, p < .05$) and Agreeableness ($r = -.24, p < .01$); and, 3) the previous study found significant correlations between the motive of Independence and the domains of Agreeableness ($r = -.37, p < .01$) and Neuroticism ($r = -.20, p < .05$). Olsen and Weber report that the correlations between the NEO PI-R domains and Reiss motives were expected to be moderate because both motives and traits are conceptualized by some theorists as related but fundamentally different aspects of personality, with traits describing the expression of motives (Winter, John, Stuart, Klohnen, & Duncan, 1998).

If the construct of needs/motivation is fundamentally different compared to personality traits, the Reiss Profile and PRF should show more congruence than the NEO PI-R with the PRF. Havercamp and Reiss (2003) published a convergent validity study which included the PRF, and reported that the Reiss motives of Power and Order correlated .55 and .60 with the PRF scales of Dominance and Order. In this sample, the correlations were even more pronounced (.71 and .78, respectively); however there were comparably high correlations achieved with individual NEO facets of Assertiveness and Order (.71 and .72, respectively), and the PRF regression results with the strongest predictors from each instrument provided more support for the comprehensiveness of the NEO PI-R, based upon obtained R^2 values. NEO PI-R facets were equivalent with respect to the coefficient of determination for the PRF scale of Dominance, but the NEO PI-R produced a higher coefficient for the PRF scale of Order (NEO PI-R $R^2 = .72$; Reiss Profile $R^2 = .60$.

Costa and McCrae (1988) conducted a factor analysis of Form E of the PRF and the NEO PI (Costa & McCrae, 1985), and noted that, "trait psychologists should consider the explicitly motivational aspects of their constructs" (p. 263). Although the authors utilized a different form of the PRF and an earlier incarnation of the NEO PI-R, many of their results mirror those of this study, when considered at the level of the five domains. For example, Costa and McCrae found

that the PRF scale of Play loads onto the domains of Extraversion and Conscientiousness, and statistically significant correlations between this scale and these domains emerged from the analyses (see Table 9). The Neuroticism loadings were not replicated in the current study, and Costa and McCrae note that the emphasis on negative affectivity in the domain of Neuroticism is not explicitly addressed in the PRF scales or within Murray's needs. In general, these results suggest that not only are these findings consistent with early PRF-five factor model research, but also that the NEO PI-R is able to account for a significant amount of PRF scale variance when compared to the Reiss Profile.

Life Functioning Variables

The last comparison between the NEO PI-R and Reiss Profile was made with reference to the Behavior Report Form, a self-report functional behavior inventory developed by Paunonen (2003). In contrast to a study by Reiss (2000), this study did not replicate the relationships between religiosity and low scores on the motive of Independence, and high scores on the motives of Honor and Family. Instead, a low score on the motive of Vengeance was associated with stronger endorsement of religiosity. Given that the measure of religiosity was a single item, the reliability and content validity may not be sufficient to draw strong conclusions from this result. Future research should explore, with larger samples and more comprehensive life functioning measures (i.e., measures describing academic achievement, social integration, and interpersonal success).

Reiss Motives within the NEO PI-R framework

Overall, the Reiss motives were well accounted for by respective NEO PI-R facet scales in a manner consistent with their conceptual understanding (see Table 1 for a list and description of each Reiss motive). For example, the motive of Honor is described by Reiss and colleagues as

"the desire to obey a traditional moral code" (Havercamp & Reiss, 2003, p. 124) The NEO PI-R domain closest to this construct is Conscientiousness, described by Costa and McCrae (1994) as "individual differences in the….more active process of planning, organizing, and carrying out tasks….high scorers are scrupulous, punctual, and reliable" (p.16). At first blush, Honor would logically be related to Dutifulness and Competence, with some overlap with the domain of Agreeableness. The Reiss and colleagues definition of Honor refers specifically to the type of moral code as *traditional*, and this term implies limited openness to other moral or value systems. In reviewing the results of Table 5, a pattern of results consistent with this interpretation emerges: Honor is statistically significantly related to Dutifulness ($r = .46$, $p < .01$), Competence ($.41$, $p < .01$), and Achievement-Striving ($r = .32$, $p < .01$) within the domain of Conscientiousness. Honor is related to Altruism ($r = .23$, $p < .01$) within the domain of Agreeableness, and strong endorsement of Honor is associated with lower values of the Openness facet of Values ($r = -.30$, $p < .01$).

The other Reiss motives show trends of logical association with NEO PI-R facets; Acceptance is described as a desire for social acceptance, and is related to Neuroticism facets of Anxiety, Depression, Self-Consciousness, and Impulsiveness, as well as low Openness to Actions. The motive of Curiosity showed expected associations with Openness to Ideas and Aesthetics. The motive of Power related to the rationally-predicted facets of Assertiveness, Activity, Competence, and Achievement-striving, along with weaker endorsement of Agreeableness facets of Compliance and Modesty. The motive of Tranquility, described by Reiss and colleagues as "the desire to avoid anxiety, fear, and pain" related to all six facets of Neuroticism, with a domain-level correlation of .38 ($p < .01$). The Reiss motive of Eating was related to the Neuroticism facet of Impulsivity as well as the Extraversion facet of Excitement-

Seeking, and it was associated with weak endorsement of the Conscientiousness facet of Self-Discipline. With respect to the motive of Family, which would logically be associated with Agreeableness, there were clear positive relationships with the facets of Trust, Straightforwardness, Altruism, and Tendermindedness. The motive of Order, which shares its name with a NEO PI-R Conscientiousness facet, was positively correlated with the entire domain of Conscientiousness as well as the Neuroticism facet of Anxiety. All of the Reiss motives showed expected relationships with NEO PI-R facets, with two exceptions: the Reiss motives of Sex and Independence.

Sex and Independence

It is intriguing that neither the NEO PI-R nor the Reiss was able to predict the self-reported average number of dates per month, and that only the Reiss motive of Sex successfully predicted the number of people dated in the past year. In contrast, both instruments were able to offer statistically significant predictions with respect to the average number of parties attended per month. The fact that the Reiss motive of Sex was not readily categorized in terms of the NEO PI-R, combined with these social-interpersonal functioning findings raises the question of whether perhaps sexual interests or motivation should be more important to personality research, and perhaps important enough to warrant inclusion in the five-factor model. If so, what domains are strong candidates for organizing this behavior within the model? In the available literature, studies of the five factor model and sexuality were limited to pathological expressions of sexuality, such as hypersexuality, and intimate partner violence, typically relating to the FFM domains of Neuroticism and Agreeableness (Hines & Saudino, 2008; Reid, Carpenter, Spackman, & Willes, 2008)

For the NEO PI-R facets, the highest correlations for the Reiss motive of Sex were for low Modesty, high Impulsivity, low Order, and high Aesthetics. Additional research with larger samples and more detailed measures of sexual practices, interest, and history could elucidate the relationship between sexuality, motivation strength, environmental factors, and personality traits. For example, it makes intuitive sense that individuals who are high on Excitement-seeking and Impulsivity may be more likely to engage in risky sexual behavior (e.g., multiple sexual partners, unprotected sex). On the other hand, sexual interests, as assessed by the Reiss Profile might be too behaviorally specific to be optimally understood as a personality trait. Comparable scales could be interests in drugs, eating, the internet, and any other potential source of pleasure or interest. It is not entirely clear why this particular interest was selected by Reiss for inclusion within a personality scale.

Just as the motive of Sex was not readily understood in terms of the NEO PI-R facets or domains, the motive of Independence was not easily categorized in terms of the NEO PI-R. This is somewhat surprising, given the body of literature on personality and Dependency (Bornstein & Cecero, 2000; Dunkley et al., 2006; Pincus, 2002). Five Factor Model researchers have conceptualized the construct of dependency as a combination of maladaptive Neuroticism and Agreeableness, specifically describing the DSM-IV Dependent Personality Disorder criteria as representing "excessive compliance (difficulty expressing disagreement), altruism (volunteering to do unpleasant things), and modesty (needing advice and reassurance from others to make everyday decisions)" (Widiger, Trull, Clarkin, Sanderson, & Costa, 2002, p. 96). However, opposite to dependency does not appear to be independence, as that would suggest facets of antagonism. In the current study, the highest correlation between the NEO PI-R facets and the Reiss motive of Independence was found with the Agreeableness facet of Compliance ($r = -.27$, p

= .004). This result suggests some support for the hypothesis that low Independence (i.e., Dependence on a bipolar scale) is related to a facet of Agreeableness, though the other suggested relationships with Modesty and Altruism are not supported by this study's findings.

Considering the extant if controversial evidence for sex differences in dependency (Bornstein, 1996), potential sex differences in the relationships between Agreeableness and Independence were examined in this sample. While the domain of Agreeableness was not significantly correlated with the motive of Independence, the relationship between Independence and the Agreeableness facet of Compliance appears to be moderated by the sex of the participant. When entered into multiple regression analyses, Compliance was not a significant predictor of Independence in males (β= -.26, p = .09), but Compliance successfully predicted Independence in females (β = -.35, p = .009). Overall, males had significantly higher mean scores on the motive of Independence (t = 3.47, p = .0004), whereas no sex differences were obtained in mean Compliance scores (t = 1.59, p = .06). These results suggest that the desire for Independence may differ in terms of its relationship to NEO PI-R Agreeableness facets according to sex.

A review of the content of the Reiss Profile Independence items suggest that many of the items' wordings refer to an aversion or avoidance of help, sympathy, and advice from others. For example, nearly all of the items begin with the phrases, "I hate," "I don't need," "I almost never," and "I don't like it when." These items may speak more to distaste for assistance than a desire for independence. This rejective, oppositional slant to the items might again suggest an element of antagonism within the scale, but little to none was obtained in the current study. An alternative perspective on independence might suggest that it also contains an element of introversion, reflecting the desire to be autonomous or alone, and/or conscientiousness (an ability to be self-reliant). But, again, no support was obtained for these hypotheses as well. In sum, it is

possible that independence or autonomy occupies an interstitial space between antagonism, introversion, and conscientiousness, not being well correlated with any of them. In sum, it would be useful for future research to explore the place of the construct of independence within the Five Factor Model.

Limitations

Two samples were collected with some variation among the measures administered. It would be useful for future studies within a student population administer all of the measures to the same participants, as well as obtain a larger sample to provide more statistical power to assess the relationships between the Reiss Profile, the NEO PI-R, and the construct of adaptive life functioning. Additionally, the single-item assessments of the Behavior Report Form are not ideal for reliable, assessments of specific areas of life functioning. However, it did provide a global picture, and a potential point of departure for future research. Finally, additional forms of the PRF could have provided a more parallel comparison for evaluating replication of Costa and McCrae's (1994) findings for convergent validity between the NEO PI-R and PRF. However, additional forms of the PRF tend to be much longer with respect to the number of items.

Future Research

This preliminary study was conducted in order to assess the relationships between the constructs measured by the Reiss Profile and the NEO PI-R. The results support the further consideration of potential advantages of the NEO PI-R relative to the Reiss Profile within the population of individuals with intellectual disabilities. The results will be used to inform hypothesis of this future study comparing the Reiss Profile MR/DD and the observer rating version of the NEO PI-R. This study, utilizing a sample of adults with intellectual disabilities, will be proposed in an NRSA grant application. Given the results of this first investigation, it is

hypothesized that the NEO PI-R and Reiss Profile MR/DD will relate in a manner similar to the results of the current study. However, it is estimated that the NEO PI-R will outperform the Reiss Profile with respect to accounting for the variance in the more extensive and in-depth measures of adaptive functioning and success in community integration for adults with intellectual disability. The results of this study suggest that the Reiss Profile and the NEO PI-R were roughly equivalent in terms of their respective abilities to predict some behavior and account for variance in the PRF. However, the NEO PI-R is much more widely used in the general population, and research conducted with a sample of adults with intellectual disabilities using the NEO PI-R will therefore be more comparable to the existing body of Five Factor Model research. Using an observer-rating version of the NEO PI-R, instead of the Reiss Profile (MR/DD version) will provide more congruence between the measurements of the constructs. Currently, comparing Reiss Profile MR/DD results to the body of Five Factor Model research in adults with typical intelligence is very much like comparing apples to oranges.

Nevertheless, it is conceivable that unique advantages of the Reiss Profile scales of Sex and Independence could also be apparent within this population. The future study with adults with intellectual disabilities will, by necessity, need to include more predictor variables, including the presence of physical and/or sensory disabilities, diagnosed psychological disorders (especially personality disorders), and restrictiveness of living and working environments. In sum, this initial study generated groundwork for more comprehensive comparisons of both measures of personality functioning in adults with intellectual disabilities.

Footnotes

1. *Intellectual disability* has replaced the *mental retardation* as the convention of many professional organizations, including the American Association on Intellectual and Developmental Disabilities (formerly the American Association on Mental Retardation), and the President's Committee on Intellectual Disability (formerly the President's Committee on Mental Retardation). This new terminology is described as more accurate, more modern, and less stigmatizing.
2. All values reported as significant are statistically significant at an alpha of .05 unless specifically noted.

Table 13
Personality Research Form Regression Results

PRF Scale	**R^2 Δ***	***p* value**	**NEO sig**	**R^2 Δ***	***p* value**	**Reiss sig**
Achievement	.12	.008	All facets of C, Assertiveness	.09	.03	Curiosity, Idealism
Affiliation	.19	.03	Order, Warmth, Excitement-seeking, Gregariousness, Positive Emotions	.009	.72	Family, Social Contact
Aggression	.08	.06	Straightforwardness, Compliance, Modesty	.15	.002	Status, Vengeance
Autonomy	.11	.01	Values	.13	.006	Family
Dominance	.11	.02	Self-discipline, Activity, Self-consciousness, Assertiveness	.12	.002	Curiosity, Power
Endurance	.09	.25	Aesthetics, Order, Achievement-striving, Deliberation, Self-discipline	.07	.09	Curiosity, Idealism
Exhibitionism	.08	.10	Gregariousness, Excitement-seeking	.06	.07	Power
Harm Avoidance	.05	.07	Competence	.15	.002	Order
Impulsivity	Na	Na	Competence, Self-discipline, Deliberation, Impulsivity, Excitement-seeking	Na	Na	Na
Nurturance	.40	.0001	Impulsivity, Compliance, Modesty, Warmth, Aesthetics, Positive Emotions, Fantasy, Feelings	.02	.23	Family
Order	.13	.0001	All facets of C, Assertiveness, Activity	.35	.0001	Curiosity, Tranquility, Order
Play	.15	.01	Warmth, Excitement-seeking, Gregariousness, Deliberation, Order	.08	.02	Order, Social Contact
Social Recognition	.02	.17	Compliance	.45	.0001	Acceptance, Honor, Status
Understanding	.08	.05	Aesthetics, Ideas	.12	.003	Curiosity

* R^2 Δ is the change in R^2 when the predictors for a given instrument are entered *after* the other instrument's predictors are entered as a set into the hierarchical regression model.

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