AMERICAN JOURNAL OF PSYCHOLOGICAL RESEARCH

Volume 5, Number 1
Submitted: August 13, 2009
Revisions: September 20, 2009
Accepted: September 21, 2009
Publication Date: September 24, 2009

Assessment of Multidimensional Personality Traits: A Review of the Psychopathic Correlates of the M5 Questionnaire

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ABSTRACT

Three studies (Ns = 183, 75, 123) examined the utility of the M5 Questionnaire (McCord, 2002), based on the five-factor model of personality (FFM), in assessing psychopathic personality traits in three separate undergraduate college student samples from the same public university in the Southeastern United States. Participants completed the M5 Questionnaire, a 336-item FFM instrument derived from the IPIP item set (Goldberg, 1999), in addition to measures of psychopathy. At the domain level, Agreeableness, Conscientiousness and Openness correlated negatively with the Psychopathic Personality Inventory (PPI; Lilienfeld & Andrews, 1996) and the Levenson Self-Report Psychopathy Scale (LSRP; Levenson, Kiehl, & Fitzpatrick, 1995), and a positive correlation was evidenced between Neuroticism and both the LSRP and performance on a prisoner's dilemma task. Furthermore, Extraversion correlated negatively with the LSRP and positively with the PPI. Together, these findings support the validity of the M5 Questionnaire as a valid measure of the FFM and provide additional understanding of the nature and personality framework of the psychopathic profile.

Keywords: psychopathy; personality; five-factor model of personality; assessment.

INTRODUCTION

Over the past two decades, the five-factor model of personality (FFM) has emerged to a dominant position in the field of research on normal personality. The most fully elaborated version of the FFM has been presented by Costa and McCrae (1995) and is commonly measured with their instrument, the NEO Personality Inventory-Revised (NEO-PI-R; Costa & McCrae, 1992). This particular broad-bandwidth personality inventory, among others, is a proprietary instrument, copyrighted by authors and publishing companies. Although research on personality theory has experienced a substantial resurgence in recent years, a lack of freely available personality inventories inhibits the advancement of further research. Goldberg (1999) addressed this issue by developing a scientific *collaboratory* known as the International Personality Item Pool (IPIP; 2001). The IPIP was developed with the intention to provide rapid access to measures of personality and other individual differences to promote the advancement of personality theory. The IPIP is a public-domain collection of personality items of similar format (2,413 items at the time of this writing), providing scales measuring constructs analogous to those measured by many major proprietary personality inventories.

The M5 Questionnaire

The M5 Questionnaire (M5; McCord, 2002) is designed to assess traits of normal personality. The M5 is an instrument based on the domains and facets described by Costa and McCrae (1995) and has a five-factor structure comparable to the FFM domains. The M5 is a self-report measure comprised of 336 items from Goldberg's International Personality Item Pool (2001), which provides personality scores identified at five broad domains; Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience. In addition to these five basic domains, each domain consists of six independent, lower-level facets, which load on the expected domains and provide more narrow descriptors of each broad dimension. The M5 makes claim to strong internal reliability and generally good validity based on data provided on the IPIP website (IPIP; 2001). The Cronbach alpha coefficients reported for each of the scales measuring the big-five domains are all above the acceptable range in regard to Nunnaly's (1978) established benchmark of a minimum level of .70. In point of fact only two are under .90. Thus, the individual items that compose each of the five broad domains appear to measure a common, underlying construct which suggests that the M5 demonstrates good internal consistency.

It is important to note that the M5 is not intended for clinical use as a formal measure of psychopathy, nor does it strive to cover the complete factor structure of psychopathy. Rather, it is a measure of general personality functioning that may assist in the identification of the more common personality characteristics and indications associated with psychopathy in the context of an assessment limited to approximately 30 to 45 minutes.

The context of all three of the investigations described is a public university located in the Southeastern United States. The three studies were approved by the human subjects committee of Western Carolina University. The present research aims to (1) provide further empirical support for the M5 Questionnaire and evaluate the performance of the M5 in terms of the statistical correlates of its scales, and (2) extend our knowledge about the personality profile of the psychopath to include assessments that utilize measures of "normal" personality.

STUDY 1

Method

Payne and McCord (2004) sought to provide a direct comparison of open and mixed models of psychopathy within the framework of the five-factor model of personality in a sample of 183 introductory psychology students. The students completed the M5 Questionnaire, the Psychopathic Personality Inventory (PPI; Lilienfeld & Andrews, 1996), and the Levenson Self-Report Psychopathy Scale (LSRP; Levenson, Kiehl, & Fitzpatrick, 1995). The PPI is a 187-item self-report measure designed to assess the core personality features of psychopathy. Studies involving the use of non-criminal populations yielded psychometric properties that support the use of the PPI in student and community samples (Benning, Patrick, Hicks, Blonigen, & Krueger, 2003; Lilienfeld & Andrews, 1996). The LSRP is a 26-item self-report measure that focuses not only on the central personality traits related to psychopathy but also includes a social deviance component as well. Although both the PPI and the LSRP provide additional individual scores based on the two-factor structure of psychopathy, only the total scores were examined.

Results

Results revealed several statistically significant correlations between the students' scores on the M5 Questionnaire at the domain level and their total scores on both the PPI and the LSRP. Correlations between M5 domain scores and the PPI and LSRP total scores are presented in Table 1.The authors reported statistically significant negative correlations between the students' total scores on the PPI and the Agreeableness domain (r = -.502, p < .01) and the Conscientiousness domain (r = -.441, p < .01), as well as a statistically significant positive correlation for the Extraversion domain (r = .346, p < .01). Furthermore, several statistically significant negative correlations were found between the students' total scores on the LSRP and the Agreeableness domain (r = -.543, p < .01), Conscientiousness domain (r = -.661, p < .01), and Extraversion domain (r = -.204, p < .01) and a positive correlation was found for the Neuroticism domain (r = .619, p < .01).

The two different measures of overall psychopathy were very consistent with regard to strong negative correlations with Agreeableness and Conscientiousness. However, they diverged with regard to Extraversion. This discrepancy may very well reflect the ambiguity of the literature relating Extraversion to psychopathy. On one hand, previous studies have shown positive correlations between psychopathy and sensation

seeking, as well as psychopathy and disinhibition (Levenson, 1992; Levenson et al., 1995; Zuckerman, 1978). On the other hand, Cleckley's (1941/1988) widely acknowledged conceptualization of psychopathy does not refer directly to traits of extraversion. Cleckley referred to the trait of "unresponsiveness in general interpersonal relationships" (p. 338) as characteristic of the prototypical psychopath, which would suggest a negative correlation with Extraversion. Facet-level data clearly suggest that the LSRP and the PPI items tap different aspects of the very broad domain of Extraversion. Specifically, among the Extraversion facets, the strongest correlates with the total LSRP scores were Friendliness (r = -.329, p < .01) and Cheerfulness (r = -.254, p < .01). Neither of these facets correlated significantly with the PPI. The strongest facet correlates of the total PPI scores were Excitement-Seeking (r = .569, p < .01), Assertiveness (r = .333, p < .01), and Gregariousness (r = .259, p < .01), all of which had correlation coefficients of less than .20 with the LSRP. Thus, the construct of psychopathy appears to relate differently to different narrow facets under the broad domain of Extraversion, a fact which may explain apparent discrepancies among measures of psychopathy from the perspective of the FFM.

Table 1

Correlations between M5 Domain Scores and Measures of Psychopathy

M5 Domain	PPI	LSRP1	LSRP2	B3	B8	B18
Extraversion	.346**	-.204**	-	-	-	-
Agreeableness	-.502**	-.543**	-.668**	-	-	-
Conscientiousness	-.441**	-.661**	-.615**	-.423**	-.477**	-.427**
Neuroticism	-	.619 **	.468**	-	-	.403**
Openness to Experience	-	-	-.270*	-	-	-

Note. Dashes indicate correlations were not provided by the authors or failed to reach significance. PPI = Psychopathic Personality Inventory total score; LSRP1 = Levenson Self-Report Psychopathy Scale total score (study 1); LSRP2 = Levenson Self-Report Psychopathy Scale total score (study 2).

B3 = skip school/classes often
B8 = fail to plan ahead
B18 = am physically violent toward property

*p < .05. **p < .01.

STUDY 2

Method

In a related study, Bewsey and McCord (2006) examined the relationship between certain personality traits highly correlated with self-report measures of psychopathy and the strategies individuals use when playing a prisoner's dilemma in a sample of 75 undergraduate students. Participants were administered the M5 Questionnaire, the

Levenson Self-Report Psychopathy Scale (LSRP; Levenson, Kiehl, & Fitzpatrick, 1995), and a customized version of the prisoner's dilemma task (Axelrod & Hamilton, 1981).

The prisoner's dilemma is a non-zero sum game where participants face a computerized hypothetical friend in a decision making scenario. In the scenario, participants are informed that they have been accused of committing a crime with an accomplice, for which they are indeed guilty, and are being held in a separate cell than their partner for further questioning. Police then interrogate both of the criminals in isolation in an effort to get either the participant or their hypothetical friend to give up or "rat" on the other. Participants receive points based on their choice of cooperating or competing with a friend on a given trial. In addition, individuals are told that their friend is also making a choice as to whether he or she is going to cooperate or compete with them. Participants can receive 5 points if they compete and the friend cooperates, 3 points if both the participant and friend cooperate, 1 point if they both compete, and 0 points if the participant cooperates and their friend competes. The goal is to earn the most number of points possible over the course of 20 trials. An overall average number of points is obtained over the 20 trials with a higher score indicating greater success in the prisoner's dilemma game. An overall choice score is also calculated, signifying the frequency with which the participant chose to compete, versus cooperate, throughout the game. In other words, the higher the choice score, the greater the frequency with which the individual chose to compete over cooperating.

Results

Pearson correlation coefficients were calculated between the overall domain scores on the M5 and the (1) total scores and (2) choice scores on the prisoner's dilemma. The authors reported a statistically significant positive correlation between the participants' overall average point total and the Neuroticism domain ($r = .278$, $p < .05$) and no statistically significant correlations were observed for participants' overall average choice scores and M5 scores. Although only a single statistically significant correlation was found for participants' scores on the prisoner's dilemma and M5 domain scores, several significant correlations were found between the M5 and the LSRP (results detailed in Table 1.

Further analyses revealed statistically significant negative correlations between the participants' total LSRP scores and the Agreeableness domain ($r = -.668$, $p < .01$), Conscientiousness domain ($r = -.615$, $p = .01$), and the Openness to Experience domain ($r = -.270$, $p < .05$). A statistically significant positive correlation was found between the participants' total LSRP scores and the Neuroticism domain ($r = .468$, $p < .01$).

STUDY 3

Method

In yet another comparable study, Roth and McCord (2005) examined the relationship between personality characteristics and specific antisocial behaviors in a sample comprised of 123 introductory psychology students. Participants completed both

the M5 Questionnaire and a measure constructed specifically for the purposes of their study known as the Antisocial Behavior Checklist (ABC).

The Antisocial Behavior Checklist was used to assess the presence or lack of specific antisocial behaviors in an individual. The specific behaviors were selected using all DSM-IV-TR (American Psychiatric Association, 2000) behavioral criteria for Antisocial Personality Disorder and Conduct Disorder. The ABC consists of 40 self-report items (20 antisocial and 20 neutral) that are scored on a 5-point Likert-type scale. The 20 neutral behavior items were included in the scale in an effort to reduce the apparent face validity of the instrument.

Results

We used Pearson product-moment correlations to identify four significant relationships between specific antisocial behaviors and personality characteristics at the domain level. Only those correlations reaching the mild to moderate range (greater or equal to 0.4) were considered meaningful based on Cohen's (1988) established benchmarks for determining the strength of a relationship. Statistically significant correlations between M5 domain scores and individual ABC items are presented in Table 1. Statistically significant negative correlations were found between the Conscientiousness domain and items B3 – skip school/classes often (r = -.423, p < .01), B8 – fail to plan ahead (r = -.477, p < .01), and B18 – am physically violent toward property (r = -.427, p < .01). A statistically significant positive correlation was found between the Neuroticism domain and item B18 – am physically violent toward property (r = .403, p < .01).

DISCUSSION

Psychopathy has been commonly conceptualized as an elusive yet discrete clinical construct defined by a chronic pattern of interpersonal, affective, and behavioral features marked by manipulation, deception, impulsivity, sensation-seeking, shallow affect, a lack of empathy, guilt or remorse, and a wide range of unethical or antisocial behaviors (Arrigo & Shipley, 2001; Neumann & Hare, 2008).

The M5 Questionnaire, a measure of normal personality, seems to be an effective measure of many of these characteristics associated with psychopathy. The findings drawn from the present research, however, are not meant to suggest the M5 to be relevant as an aid in the diagnosis and treatment of psychopathic individuals or those with Antisocial Personality Disorder. The findings do indicate that the M5 is an accurate tool for use in identifying the core personality features associated with psychopathy. The M5 psychopathy profile therefore would be one that primarily is low in Agreeableness and Conscientiousness at the domain level, with more detailed facet-level relationships under the Openness, Neuroticism, and Extraversion domains. These findings support previous studies which have found that FFM psychopathy profiles are consistently low in Agreeableness and Conscientiousness, with some (as discussed earlier) suggesting low, rather than high scores in both Extraversion and Neuroticism (Hart & Hare, 1994; Miller, Lynam, Widiger, & Leukeld, 2001; Ross, Lutz, & Bailey, 2004).

Considering Coid, Yang, Ullrich, Roberts, and Hare's (2009) finding that psychopathy tends to correlate closely with age (that is, psychopathic traits are more frequent in younger people), the college student "sample of convenience" used in the present three studies may not be entirely appropriate. On the other hand, psychopathy is most prevalent among prisoners, homeless persons, and psychiatric admissions, suggesting obvious limitations of the current research. Future studies should certainly include these high risk populations (e.g., imprisoned or homeless individuals and/or individuals with a prior history of violent behavior, substance dependence, and axis II indications) in prospective examinations of the relationships between the FFM and psychopathy.

Despite these limitations, the present research offers additional support for the validity of the M5 Questionnaire (McCord, 2002) and contributes to the five-factor model understanding of psychopathy as a configuration of personality traits from a model of general personality functioning.

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