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BRIEF REPORT

A Comparison of the Psychometric Properties of the Psychopathic Personality Inventory Full-Length and Short-Form Versions

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The Psychopathic Personality Inventory (PPI) has shown promising construct validity as a measure of psychopathy. Because of its relative efficiency, a short-form version of the PPI (PPI-SF) was developed and has proven useful in many psychopathy studies. The validity of the PPI-SF, however, has not been thoroughly examined, and no studies have directly compared the validity of the short form with that of the full-length version. The current study was designed to compare the psychometric properties of both PPI versions, with an emphasis on convergent and discriminant validity in predicting external criteria conceptually relevant to psychopathy. We used both prison ($n = 558$) and college samples ($n = 322$) for this investigation. PPI scale scores were more reliable and more strongly correlated with the conceptually relevant criterion measures compared with the PPI-SF, particularly in the prison sample. There were no differences in relative discriminant validity. Thus, overall, the PPI full-length version showed more evidence of construct validity than did the short form, and the consequences of this psychometric difference should be considered when evaluating the clinical utility of each measure.

Keywords: psychopathy, Psychopathic Personality Inventory, PPI, short forms

Psychopathic individuals are typically described as lacking impulse control, fear, guilt, and empathy; incapable of close emotional attachments; and frequently antisocial (Hare & Neumann, 2008). Moreover, psychopathic offenders commit more crimes, have longer criminal careers, and have higher rates of violent recidivism relative to nonpsychopathic offenders (Hare & Neumann, 2008). As such, accurate measurement of this clinical construct is imperative for research on etiology, risk assessment, prevention, and treatment to progress.

The Psychopathy Checklist—Revised (PCL-R; Hare, 2003) is widely regarded as the best validated measure of psychopathy (Hare & Neumann, 2006). Although this instrument has amassed an impressive body of evidence to support its construct validity, several researchers have identified potential limitations to its use, especially in nonincarcerated settings (Lilienfeld & Fowler, 2006). The administration of the PCL-R is time-consuming and labor intensive, and it requires a thorough examination of criminal records, which may not be feasible in many settings. Moreover, because of the PCL-R's

emphasis on antisocial and criminal history (e.g., Skeem & Cooke, 2010), researchers have sought alternative ways to highlight the personality component of the construct.

One such alternative is the Psychopathic Personality Inventory (PPI; Lilienfeld & Andrews, 1996), a 187-item self-report questionnaire that assesses personality traits relevant to psychopathy and de-emphasizes criminal conduct. The PPI is divided into eight subscales (see Table 1), seven of which some researchers have found to load on two largely orthogonal higher order PPI factors (Benning, Patrick, Hicks, Blonigen, & Krueger, 2003; but see Neumann, Malterer, & Newman, 2008) labeled Fearless Dominance and Impulsive Antisociality.¹ The PPI has demonstrated promising convergent and discriminant validity in forensic and nonforensic settings (see Lilienfeld & Fowler, 2006, for a review).

In addition to developing the full-length PPI, Lilienfeld developed a short form of the instrument (PPI-SF) consisting of 56 items derived from the original version (Lilienfeld & Hess, 2001). The PPI-SF is particularly useful in multimeasure batteries in research settings because of its brevity and efficiency compared with the full-length version of the PPI. It has also become increasingly used and has been examined in 16 peer-reviewed articles and at least five doctoral dissertations.² Researchers have used the PPI-SF in a variety of contexts, including studies of inhalant drug use (Howard, Balster, Cottler, Wu, & Vaughn, 2008), aggression and impulsivity (Helfritz & Stanford, 2006), and startle modulation (Justus & Finn, 2007). Thus far, researchers have assumed that this abbreviated version is roughly comparable in terms of psy-

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¹ Coldheartedness did not load on either factor.

² The PPI-SF is also sold by Psychological Assessment Resources, and Scott O. Lilienfeld regularly receives requests for it.

Table 1
Definitions and Internal Consistency Reliability of the PPI and PPI-SF Subscales

Scale	Items	Prison		College		Description
		α	AIC	α	AIC	
PPI Total score	160/56	.92/.74	.07/.05	.91/.77	.06/.06	Global psychopathy
Factor 1: Fearless Dominance	54/21	.88/.76	.12/.13	.88/.80	.12/.16	Bold and dominant interpersonal style
Factor 2: Impulsive Antisociality	85/28	.93/.81	.14/.14	.91/.80	.11/.13	Disinhibited, self-centered, ruthless
Machiavellian Egocentricity	30/7	.89/.71	.21/.26	.85/.63	.16/.20	Manipulative, egocentric in interactions with others, pitiless
Social Potency	24/7	.86/.73	.21/.28	.85/.77	.19/.32	Charming, influential, able to manipulate others
Fearlessness	19/7	.85/.75	.23/.31	.85/.77	.23/.33	Eager risk taking, no harm anxiety or concern
Coldheartedness	21/7	.79/.63	.15/.20	.77/.61	.14/.20	Guiltless, callous, unsentimental, unreactive to others' distress
Impulsive Nonconformity	17/7	.76/.59	.16/.17	.78/.64	.17/.20	Reckless disregard for social norms, unconventional
Carefree Nonplanfulness	20/7	.84/.61	.22/.21	.79/.60	.16/.21	Lack of forethought, fails to learn from consequences, present oriented
Blame Externalization	18/7	.85/.80	.25/.36	.84/.76	.24/.31	Rationalizes behavior, blames others
Stress Immunity	11/7	.77/.74	.24/.28	.77/.74	.24/.29	Absence of arousal in stressful situations

Note. Numbers left of slash mark are for PPI, whereas numbers right of slash mark are for PPI-SF. PPI = Psychopathic Personality Inventory; PPI-SF = Psychopathic Personality Inventory—Short Form; α = Cronbach's alpha estimate for internal consistency; AIC = average interitem correlation.

chometric properties to the full version (cf. Lilienfeld & Hess, 2001), but this assumption has not been tested empirically.

Our goal in the current investigation was to compare the psychometric properties of the full PPI and its short form in two

samples of incarcerated and nonincarcerated individuals. We compared these versions on internal consistency estimates of reliability and convergent and discriminant validity in predicting conceptually relevant extratest criteria. These criteria were selected on the

Table 2
Correlations Between the PPI and PPI-SF With External Criteria and Effect Sizes in the Correctional Sample

Scale	Total		PPI-FD		PPI-IA		Machiavellian Egocentricity		Social Potency	
	r	q	r	q	r	q	r	q	r	q
MMPI-2-RF										
Aggression	.33/.22***	.12	-.04/-.09	-.05	.39/.35**	.04	.39/.29***	.11	.02/-.08	-.06
PSY-5 AGGR	.25/.20**	.06	.27/.18***	.10	.08/.06	.02	.26/.20**	.07	.38/.26	.13
Interpersonal Passivity	-.15/-.13	.02	-.28/-.22***	.06	.03/.04	-.01	-.14/-.12	.02	-.40/-.31***	.10
Social Avoidance	-.21/-.19	.02	-.40/-.35***	.05	-.01/.02	-.01	-.09/-.09	.00	-.41/-.41	.00
Shyness	-.01/-.08***	-.07	-.42/-.42	.00	.28/.27	.01	.18/.18	.00	-.50/-.55**	-.07
Multiple Specific Fears	-.16/-.21**	-.05	-.31/-.31	.00	.02/.00	.02	.04/.01	.03	-.11/-.15	-.04
Behavior-Restricting Fears	-.01/-.06*	-.05	-.20/-.20	.00	.13/.12	.01	.12/.13	-.01	-.12/-.15	-.03
Disconstraint	.54/.34***	.25	.16/.09	.07	.52/.47***	.07	.49/.43	.08	.07/-.01	.06
Antisocial Behavior	.41/.28***	.15	-.11/-.15	-.04	.54/.48***	.08	.43/.35	.09	-.11/-.16	-.05
Juvenile Conduct Problems	.40/.26***	.15	-.03/-.10	-.07	.46/.38***	.10	.41/.31	.12	.01/-.07	-.06
Substance Abuse	.21/.12***	.09	-.14/-.14	.00	.34/.31*	-.05	.24/.23	.02	-.17/-.17	.00
Neuroticism/Negative Emotionality	.06/.02*	.04	-.37/-.34*	.04	.34/.35	-.02	.23/.23	.00	-.27/-.30	-.03
Stress/Worry	.06/.04	.02	-.34/-.31*	.03	.32/.34	-.02	.20/.23	-.03	-.28/-.27	.01
LSRP total	.67/.47***	.30	-.03/-.17***	-.14	.73/.65***	.15	.76/.65***	.22	-.02/-.15***	-.13
NPI total	.43/.37***	.07	.51/.39***	.15	.13/.08***	.05	.35/.27***	.09	.64/.48	.24
Mach-IV total	.58/.47***	.15	.08/-.03**	.05	.56/.49***	.09	.63/.51***	.18	.05/-.06	-.01
EASI Fear	-.05/-.11**	-.06	-.50/-.45***	.06	.28/.29	-.01	.11/.14	-.03	-.40/-.38	.02
SSS Thrill and Adventure Seeking	.33/.43***	-.12	.38/.41*	-.04	.16/.19	-.03	.11/.15	-.04	.07/.07	.00
EES total	-.34/-.29**	.05	-.18/-.11***	.07	-.17/-.12	.05	-.27/-.16	.12	-.09/-.04	.05
EASI Impulsivity	.45/.40**	.07	-.05/.00	.05	.52/.51	.02	.35/.38	-.03	-.07/-.10	-.03
SSS Disinhibition	.61/.51***	.15	.23/.14	.09	.52/.46***	.08	.55/.43	.15	.11/.03	.08
EASI Distress	.15/.06***	.09	-.40/-.41	-.02	.44/.45	-.02	.20/.29	-.10	-.30/-.31	-.01
M convergent r	.31/.25**	.06	.32/.29*	.03	.49/.43***	.08	.51/.40***	.13	.35/.36	-.02
M discriminant r			.11/.10	.01	.19/.20	-.01	.25/.23	.03	.19/.18	.01

Note. Correlations left of slash mark are for PPI, whereas correlations right of slash mark are for PPI-SF. PPI = Psychopathic Personality Inventory; PPI-SF = Psychopathic Personality Inventory—Short Form; PPI-FD = Fearless Dominance (Factor 1); PPI-IA = Impulsive Antisociality (Factor 2); MMPI-2-RF = Minnesota Multiphasic Personality Inventory—2—Restructured Form; PSY-5 AGGR = Personality Psychopathology 5 Aggressiveness scale; LSRP = Levenson's Self-Report Psychopathy Scale; NPI = Narcissistic Personality Inventory; Mach-IV = Machiavellianism Inventory; EASI = Emotionality-Activity-Sociability-Impulsivity Temperament Survey; SSS = Sensation-Seeking Scale; EES = Emotional Empathy Scale. Correlations tested with Steiger's *t* test are shown in boldface.

* *p* < .05. ** *p* < .01. *** *p* < .001.

basis of their conceptual and empirical associations with constructs underlying the PPI subscales (see Table 1). For instance, we expected that Machiavellian Egocentricity would be associated specifically with aggression and narcissism, Social Potency with assertiveness and social comfort, Fearlessness with thrill and adventure seeking, Coldheartedness with low empathy, Carefree Nonplanfulness and Impulsive Nonconformity with impulsivity, and Stress Immunity with low trait anxiety. A more comprehensive set of expected associations can be seen in Tables 2 and 3, in which conceptually expected correlates of PPI Total, factor, and subscale scores are marked with bold typeface.

Method

Participants and Procedures

Correctional sample. This sample consisted of 573 male prison inmates undergoing assessment at a reception center for the Michigan Department of Corrections. Each inmate was administered the audiotaped version of the Minnesota Multiphasic Personality Inventory—2 (MMPI-2) as part of standard intake procedures. The PPI and other self-report measures were administered in

randomized order one to five days later with a modal lag of 1 day. The participants received cookies and juice following their participation. To remove potentially uncooperative or otherwise invalidly responding participants, we excluded individuals on the basis of both unscorable and inconsistent responding on the Minnesota Multiphasic Personality Inventory—2—Restructured Form (MMPI-2-RF): Cannot say $r \geq 18$, or Variable Response Inconsistency—Revised or True Response Inconsistency—Revised $T \geq 80$ (Ben-Porath & Tellegen, 2008). This procedure excluded 15 (2.6%) participants, leaving 558 male inmates. The final sample ranged in age from 18 to 66 years ($M = 32.31$ years, $SD = 9.65$). Most were Caucasian (51%), African American (31%), and Hispanic (4%), with the remaining 14% being of other or mixed ethnic backgrounds.

College sample. This sample consisted of 322 undergraduate students who participated for course credit. They completed the PPI and other self-report measures in randomized order in groups of up to 20. The same MMPI-2-RF exclusionary criteria as above were applied, leaving a final sample of 136 men and 138 women. They ranged in age from 18 to 56 years ($M = 19.39$, $SD = 3.37$), with approximately 88% of participants being under 21 years old.

Fearlessness		Coldheartedness		Impulsive Nonconformity		Carefree Nonplanfulness		Stress Immunity		Blame Externalization	
<i>r</i>	<i>q</i>	<i>r</i>	<i>q</i>	<i>r</i>	<i>q</i>	<i>r</i>	<i>q</i>	<i>r</i>	<i>q</i>	<i>r</i>	<i>q</i>
.17/.11	.06	-.02/-.03	-.01	.27/.19	.09	.15/.14	.01	-.27/-.23	.05	.35/.33	.03
.10/.02	.08	.04/.05	-.01	.07/.04	.03	-.21/-.24	-.04	.08/.09	-.01	.13/.17	-.04
-.09/-.03	.06	.03/-.01	.02	-.00/.01	-.01	.26/.29	-.03	-.10/-.12	-.02	-.03/-.07	-.04
-.29/-.18	.12	.07/.05	.02	-.09/-.02	.07	.01/.02	-.01	-.13/-.12	.01	.16/.14	.02
.03/.08	-.05	-.14/-.14	.00	.14/.12	.02	.21/.21	.00	-.40/-.37	.03	.28/.22	.07
-.30/-.26*	.04	-.16/-.13	.03	-.12/-.15	-.03	-.07/-.08	-.01	-.24/-.21	.04	.21/.22	-.01
-.03/-.03	.00	-.16/-.15	.01	.03/-.02	.01	-.01/.02	-.01	-.25/-.22	.04	.23/.20	.03
.44/.35	.10	.04/.01	.03	.45/.33***	.15	.32/.29	.03	-.18/-.16	.02	.28/.23	.06
.20/.15	.05	-.04/.00	.04	.39/.29***	.11	.41/.38	.04	-.31/-.29	.02	.38/.30	.09
.14/.06	.08	.13/.10	.03	.28/.19***	.10	.30/.25**	.05	-.21/-.20	.01	.36/.29	.08
.14/.13	.01	-.04/-.08	-.04	.27/.19***	.09	.35/.34	.02	-.25/-.24	.01	.14/.09	.05
.04/.09	-.05	-.30/-.26	.04	.17/.13	.04	.14/.16	-.02	-.52/-.47***	.07	.47/.43	.08
.04/.09	-.05	-.24/-.21	.04	.18/.15	.03	.18/.18	.00	-.47/-.43***	.05	.40/.37	.03
.27/.13***	.15	.27/.18***	.10	.44/.26***	.20	.49/.42***	.09	-.31/-.31	.00	.49/.41***	.10
.23/.11	.12	.12/.12	.00	.16/.05	.11	-.16/-.19	-.03	.17/.18	-.01	.06/.09	-.03
.23/.12	.11	.26/.24	.02	.39/.26	.14	.27/.19	.09	-.12/-.12	.00	.40/.37	.03
-.10/-.04**	.06	-.17/-.18	-.01	.12/.12	.00	.33/.32	.01	-.53/-.49	.05	.25/.20	.06
.71/.72	-.02	-.05/-.06	-.01	.33/.36	-.04	.11/.10	.01	.01/.00	.01	-.06/-.09	-.03
-.06/.04	.02	-.55/-.48***	.10	-.08/-.05	.03	-.09/-.07	.02	-.22/-.21	.01	.05/-.04	.01
.40/.32	.09	.00/-.05	-.05	.48/.42**	.07	.48/.43**	.06	-.24/-.23	.02	.21/.14	.07
.49/.36	.16	.16/.13	.03	.45/.33***	.15	.32/.29	.03	-.13/-.11	.02	.23/.17	.06
.10/.12	-.02	-.21/-.21	.00	.26/.22	.05	.36/.33	.04	-.62/-.62	.00	.42/.36	.07
.31/.27*	.05	.42/.34***	.10	.40/.29***	.12	.39/.35*	.05	.41/.38**	.04	.45/.39***	.08
.19/.14**	.05	.12/.11	.01	.16/.13	.03	.17/.17	.00	.20/.19	.01	.25/.22	.03

Table 3
Correlations Between PPI and PPI-SF and External Criteria and Effect Sizes in the College Sample

Scale	Total		PPI-FD		PPI-IA		Machiavellian Egocentricity		Social Potency	
	<i>r</i>	<i>q</i>	<i>r</i>	<i>q</i>	<i>r</i>	<i>q</i>	<i>r</i>	<i>q</i>	<i>r</i>	<i>q</i>
MMPI-2-RF scales										
Aggression	.54/.44***	.13	.17/.13	.04	.53/.49*	.05	.57/.42***	.20	.09/.02	.07
PSY-5 AGGR	.59/.53**	.09	.49/.42***	.09	.37/.34	.04	.48/.38**	.12	.50/.37	.16
Interpersonal Passivity	-.39/-.37	.02	-.46/-.41**	.06	-.16/-.15	.01	-.26/-.24	.02	-.53/-.42***	.14
Social Avoidance	-.21/-.21	.00	-.42/-.38*	.05	-.02/.02	.00	-.04/-.07	-.03	-.53/-.51	.03
Shyness	-.26/-.36***	-.11	-.59/-.61	-.03	.09/.08	.01	.04/.03	.01	-.70/-.70	.02
Multiple Specific Fears	-.31/-.36*	-.06	-.35/-.34	.02	-.16/-.15	.01	-.04/-.04	.00	-.03/-.01	.02
Behavior-Restricting Fears	-.07/-.14**	-.07	-.27/-.29	-.02	.11/.13	-.02	.09/.10	-.01	-.03/-.07	-.04
Disaffiliativeness	.12/.10	.02	-.14/-.12	.02	.21/.21	.00	.20/.18	.02	-.18/-.17	.01
Disconstraint	.71/.68	.06	.48/.43	.06	.59/.54**	.08	.52/.43	.12	.21/.12	.09
Antisocial Behavior	.60/.55*	.07	.23/.21	.02	.62/.57**	.08	.51/.41	.12	.10/.04	.06
Juvenile Conduct Problems	.51/.49	.02	.23/.21	.02	.51/.48	.04	.39/.31	.09	.12/.06	.06
Substance Abuse	.45/.38**	.09	.16/.15	.01	.47/.40***	.09	.40/.33	.08	.03/.00	.03
Neuroticism/Negative Emotionality	.04/-.09***	-.05	-.37/-.37	.00	.35/.33	.03	.35/.35	.00	-.16/-.17	-.01
Stress/Worry	.04/-.05***	-.01	-.31/-.31	.00	.33/.32	.01	.31/.33	-.02	-.13/-.11	.02
SRP-II total	.46/.46	.00	.34/.32	.02	.34/.32	.02	.32/.25*	.07	.14/.06**	.08
Average convergent <i>r</i>	.36/.36	.00	.41/.39	.03	.48/.44*	.05	.46/.35**	.13	.50/.45*	.07
Average discriminant <i>r</i>	—	—	.24/.21	.04	.21/.19	.02	.27/.25	.03	.15/.11	.04

Note. Correlations left of slash mark are for PPI, whereas correlations right of slash mark are for PPI-SF. PPI = Psychopathic Personality Inventory; PPI-SF = Psychopathic Personality Inventory—Short Form; PPI-FD = Fearless Dominance (Factor 1); PPI-IA = Impulsive Antisociality (Factor 2); MMPI-2-RF = Minnesota Multiphasic Personality Inventory—2—Restructured Form; PSY-5 AGGR = Personality Psychopathology 5 Aggressiveness scale; SRP-II = Self-Report Psychopathy Scale—II. Correlations tested with Steiger’s *t* test are shown in boldface.

* *p* < .05. ** *p* < .01. *** *p* < .001.

Most were Caucasian (89%), approximately 6% were African American, and the remaining 5% were from other ethnic backgrounds.

Measures: Both Samples

PPI. The PPI and PPI-SF were described earlier.³ The 56-item PPI-SF was extracted from the full-length PPI version. Previous research on personality measures has revealed no statistical differences on scale elevations or external correlates when shorter versions of tests are independently administered versus extracted from full forms (Tellegen & Ben-Porath, 2008; Van der Heijden, Egger, & Derksen, 2010).

MMPI-2-RF. The MMPI-2-RF (Ben-Porath & Tellegen, 2008) is a 338-item omnibus personality inventory that measures a wide range of personality and psychopathology constructs. The current study used a selected set of scales deemed conceptually relevant to the PPI’s construct validity. These scales were the Aggression, Interpersonal Passivity, Social Avoidance, Shyness, Multiple Specific Fears, Behavior Restricting Fears, Disaffiliatedness, Disconstraint, Juvenile Conduct Problems, Substance Abuse, Neuroticism/Negative Emotionality, Stress/Worry, Restructured Clinical Antisocial Behavior, and the Personality Psychopathology 5 (PSY-5) Aggressiveness scales. Tellegen and Ben-Porath (2008) provided substantial evidence for the reliability and construct validity of these scales in the MMPI-2-RF’s technical manual.

Measures: Correctional Sample

Levenson’s Self-Report Psychopathy Scale (LRSP). The LSRP (Levenson, Kiehl, & Fitzpatrick, 1995) consists of 26 items

designed to assess domains similar to the ones assessed in the PCL-R. A large body of evidence supports the construct validity of this scale (e.g., Brinkley, Diamond, Magaletta, & Heigel, 2008; Brinkley, Schmitt, Smith, & Newman, 2001; Sellbom, 2011). The LSRP yields a total score and scores on three subscales: Egocentricity, Callous, and Antisocial (Sellbom, 2011).

Emotional Empathy Scale (EES). The 33-item EES (Mehrabian & Epstein, 1972) was designed to measure a person’s reaction to and ability to vicariously experience the emotional states of others.

Narcissistic Personality Inventory (NPI). The NPI (Raskin & Terry, 1988) consists of 40 items designed to measure the construct of Narcissistic Personality Disorder (American Psychiatric Association, 1987). Raskin and Terry (1988) reported that NPI scores are related strongly to measures of interpersonal dominance and observer ratings of narcissism, self-confidence, and self-centeredness.

Sensation-Seeking Scale (SSS). The SSS (Zuckerman, 1979) is a 40-item measure of behavioral disinhibition and the tendency to engage in thrilling, novel, or dangerous activities. The SSS yields a total score and four subscale scores: Disinhibition, Boredom Susceptibility, Thrill and Adventure Seeking, and Experience Seeking.

³ The PPI was used in lieu of the PPI-R primarily because we were using secondary data and the PPI was the test administered to both samples. Moreover, the PPI-SF was developed using PPI rather than PPI-R items. Recent research, however, indicates that the PPI and the PPI-R have comparable outcomes (Ray, Weir, Poythress, & Rickelm, 2011); thus, either could likely have been used.

Fearlessness		Coldheartedness		Impulsive Nonconformity		Carefree Nonplanfulness		Stress Immunity		Blame Externalization	
<i>r</i>	<i>q</i>	<i>r</i>	<i>q</i>	<i>r</i>	<i>q</i>	<i>r</i>	<i>q</i>	<i>r</i>	<i>q</i>	<i>r</i>	<i>q</i>
.31/.24	.07	.10/.00	.10	.37/.32	.06	.21/.20	.01	-.04/.00	.04	.42/.40	.03
.38/.31	.08	.09/.02	.07	.36/.34	.03	.01/-.01	.00	.18/.21	-.03	.23/.21	.02
-.31/-.25	.06	.04/.06	-.02	-.23/-.21	.02	.14/.15	-.01	-.17/-.19	-.02	-.12/-.10	.02
-.29/-.18	.12	.17/.17	.00	-.06/.01	.05	-.01/.07	-.06	-.11/-.11	.00	.06/.03	.03
-.21/-.16	.05	-.06/-.04	.02	-.07/-.11	-.04	.11/.18	-.07	-.40/-.40	.00	.19/.12	.07
-.38/-.38	.00	-.16/-.09	.07	-.28/-.33	-.05	-.10/-.04	.06	-.36/-.32	.05	-.05/.00	.05
-.16/-.17	-.01	-.21/-.18	.03	.01/-.04	-.03	.02/.05	-.03	-.39/-.37	.00	.21/.25	-.05
-.03/-.01	.02	.17/.14	.03	.13/.12	.01	.14/.13	.01	-.10/-.07	.03	.16/.15	.01
.61/.55	.09	.05/.01	.04	.58/.54	.06	.31/.21**	.11	.21/.23	-.02	.34/.30	.04
.36/.32	.05	.07/.02	.05	.52/.47	.07	.35/.26**	.10	.03/.08	-.05	.46/.43	.04
.30/.27	.03	.07/.03	.04	.48/.45	.03	.27/.20*	.08	.08/.11	-.03	.36/.35	.01
.31/.26	.05	.03/.00	.03	.38/.31*	.08	.33/.23**	.11	-.01/.05	-.04	.29/.23	.07
-.07/-.08	-.01	-.38/-.37	.01	.09/.01	.08	.07/.07	.00	-.58/-.53**	.07	.53/.46	.09
-.07/-.08	-.01	-.34/-.32	.02	.13/.08	.05	.08/.10	-.02	-.51/-.47**	.09	.45/.37	.10
.39/.37	.02	.10/.07	.03	.32/.27	.05	.17/.14	.03	.21/.23	-.02	.20/.20	.00
.31/.31	.00	.14/.11	.03	.46/.41*	.06	.29/.21*	.09	.41/.39	.03	.20/.20	.00
.28/.24	.05	.14/.10	.04	.18/.16	.02	.06/.10	-.01	.10/.12	-.01	.28/.25	.04

Machiavellianism Inventory—IV (MACH-IV). The MACH-IV (Christie & Geis, 1970) is a 20-item measure that measures attitudes and behaviors associated with the Machiavellian personality construct (e.g., “The best way to handle people is to tell them what they want to hear” and “Most people who get ahead in the world lead clean, moral lives” [reverse scored]).

Emotionality–Activity–Sociability–Impulsivity Temperament Survey (EASI). The EASI is a 25-item inventory developed by Buss and Plomin (1984) to measure their model of temperament traits. *Emotionality* refers to sensitivity to negative emotions and affective intensity and consists of three subscales: Fearfulness, Anger, and Distress. *Activity* refers to the pace of a person’s life, his or her energy level, and the tendency to engage in multiple activities. *Sociability* refers to the extent to which a person enjoys the company and attention of others. *Impulsivity* refers to the tendency to think before acting and to withhold inappropriate behavioral responses.

Measures: College Sample

Self-Report Psychopathy Scale—II (SRP-II). The SRP-II is a 60-item scale designed to capture PCL-R psychopathy in self-report format. Items were added to the original SRP if they discriminated individuals who scored high on the Psychopathy Checklist from those who scored low (Hare, 1985). The SRP-II total score correlated .54 with the PCL-R and .91 and .62 with the PPI in two studies (Lilienfeld & Andrews, 1996). Nevertheless, the factor structure of the SRP-II does not correspond closely to that of the PCL-R (Williams & Paulhus, 2004). As a result, we used only the SRP-II total score.

Results and Discussion

We first examined the internal consistency reliability estimates for the PPI and PPI-SF scale scores using both Cronbach’s alpha and average interitem correlations (AICs). As is evident from Table 1, scale scores derived from the full-length PPI yielded Cronbach’s alphas that were higher than those of the corresponding PPI-SF scales in both samples. Moreover, although all of the full-length PPI scale scores were associated with acceptable levels of Cronbach’s alpha (i.e., .70 or greater) in both samples, this was not the case for PPI-SF scale scores. Three of the subscales (Coldheartedness, Impulsive Nonconformity, and Carefree Nonplanfulness) in the prison sample and four of the subscales (Machiavellian Egocentricity, Coldheartedness, Impulsive Nonconformity, and Carefree Nonplanfulness) in the college sample failed to meet the generally accepted benchmark (.70) for internal consistency. These differences in alpha coefficients are not unexpected given that the scale lengths differ, in some cases substantially. AIC values do not take scale length into consideration, and these values generally fell within recommended benchmarks of .15–.50 (Briggs & Cheek, 1986) for both instruments. Furthermore, the AICs were higher for the PPI-SF subscales relative to their full-length counterparts, but this finding was also not unexpected because the short-form items were derived from the highest loading items on each PPI subscale (Lilienfeld & Hess, 2001) and therefore should be more highly intercorrelated. These findings indicate that the PPI-SF versions are more homogeneous than their full-length counterparts are.

We next compared Pearson zero-order correlations of the PPI and PPI-SF scores with conceptually relevant external criterion measures.

We used Steiger's (1980) *t* test for dependent correlations to determine whether correlations between scale scores on each PPI version with external criteria differed significantly. We also used Cohen's (1988) *q* statistic to characterize effect-size magnitudes for differences among correlations, with values of .10, .30, and .50 indicating meaningful small, medium, and large effect sizes, respectively.⁴ When comparing total scores for each version of PPI, we treated all external measures as conceptually relevant. However, for specific factor or subscale scores, we considered only a specific set of extratest measures that were based on the theoretical and empirical associations between the PPI scale construct and the corresponding criterion construct. All PPI and PPI-SF scores were expected to be associated with extratest measures of psychopathy (e.g., LSRP in the prison sample; SRP-II in the college sample) and were thus compared on these measures. For instance, when comparing the two PPI versions of Machiavellian Egocentricity in the prison sample, the MMPI-2-RF Aggression and PSY-5 Aggressiveness scales, NPI, and MACH-IV were treated as conceptually relevant criteria, as those constructs overlap with PPI Machiavellian Egocentricity. The remaining external criteria were treated as discriminant criteria. In Tables 2 and 3, conceptually relevant criteria for each PPI factor and subscale appear in boldface.

To provide summary information of convergent and discriminant correlations for easier overall comparisons, we transformed each correlation into *z* scores to generate average convergent correlation coefficients for PPI and PPI-SF scale scores. The convergent correlation summary statistics in Tables 2 and 3 indicate that, for both samples, scores on the PPI full-length version were, in several cases, significantly and more meaningfully correlated with conceptually relevant criterion measures than were the corresponding PPI-SF scores. More specifically, in the prison sample, the average convergent correlation coefficients for the PPI full-length version scale scores were significantly higher than those for their PPI-SF counterparts for all scores except Social Potency. These differences reached a clinically meaningful effect size magnitude (i.e., $q > .10$) for Machiavellian Egocentricity, Coldheartedness, and Impulsive Nonconformity in the prison sample. In the college sample, only about half of the PPI average convergent correlations were significantly higher than those of the PPI-SF (i.e., PPI-Impulsive Antisociality, Machiavellian Egocentricity, Social Potency, Impulsive Nonconformity, Carefree Nonplanfulness, and Stress Immunity), and only Machiavellian Egocentricity reached a clinically meaningful omnibus effect size.⁵

Several specific instances of greater convergent validity for the full-length PPI scale scores than the PPI-SF scale scores are particularly noteworthy. In the prison sample, PPI Total, PPI-Impulsive Antisociality, PPI Machiavellian Egocentricity, PPI Fearlessness, PPI Coldheartedness, and PPI Impulsive Nonconformity were more strongly correlated with the LSRP ($qs = .10-.30$), arguably the most important criterion as it indexes psychopathy directly. Other noteworthy differences included PPI Total and PPI Impulsive Nonconformity with MMPI-2-RF Disconstraint ($qs = .25$ and $.15$) and SSS Disinhibition ($qs = .15$); and PPI Total with MMPI-2-RF Antisocial Behavior ($q = .15$), MMPI-2-RF Juvenile Conduct Problems ($q = .15$), and Machiavellianism ($q = .15$). The college sample displayed fewer clinically meaningful differences between versions; however, prominent differences between correlations emerged between PPI Machiavellian Egocentricity and MMPI-2-RF Aggression ($q = .13$) and between PPI Social

Potency and MMPI-2-RF Interpersonal Passivity ($q = .14$). In sum, the PPI scores were more strongly correlated with the LSRP and several conceptually relevant MMPI-2-RF scales, particularly in the prison sample, which provides substantial evidence for the full PPI Total score's construct validity.

As expected, across both samples, differences for PPI and PPI-SF average discriminant correlation coefficient comparisons were generally nonsignificant, with the only significant difference being PPI Fearlessness in the prison sample. The associated effect size ($q = .05$) was not in the clinically meaningful range.

Conclusion

We examined the comparative validity of the PPI to the PPI-SF in relation to external measures of psychopathy and conceptually relevant personality traits. Overall, our findings indicate that in several instances, scale scores on the full-length PPI version were more strongly correlated with other psychopathy criteria than were corresponding PPI-SF scale scores. These differences were present primarily in the prison sample; thus, clinical use and interpretation of the PPI-SF with male prison inmates should be performed with caution, especially to the extent it is necessary to fully approximate the PPI subscale constructs. Moreover, the Machiavellian Egocentricity subscale evidenced weaker convergent validity in both samples, especially with regard to measuring aggressive tendencies.

This study was limited in that we used only self-report questionnaires for psychopathy and external criteria. This monomethod bias could result in larger correlations because of shared method variance, thereby inflating these correlations' magnitudes. However, this limitation would not affect the comparison of PPI and PPI-SF scale scores. Furthermore, the prison sample consisted only of male inmates, whereas the college sample included approximately equal numbers of men and women. Future research should aim to replicate and extend these findings in female inmate samples and other settings in which the PPI-SF is used.

⁴ The *q* values reported represent the difference between *z*-transformed correlations, but they do not account for the dependency inherent in the comparison between *z*rAB and *z*rAC. Comparisons between correlation pairs that share a variable are more powerful than tests of the difference between independent correlations and are consequently more likely to be statistically significant. The *q* value is thus a more conservative estimate of differences.

⁵ These differences could not be attributed to differential variation in PPI and PPI-SF scale scores across settings.

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