

PERSONALITY AND INDIVIDUAL DIFFERENCES

www.elsevier.com/locate/paid

On the relationship between Karen Horney's tripartite neurotic type theory and personality disorder features

Frederick L. Coolidge *, Candace J. Moor, Tomoko G. Yamazaki, Sharon E. Stewart, Daniel L. Segal

Department of Psychology, University of Colorado at Colorado Springs, PO Box 7150, 1420 Austin Bluffs Parkway, Colorado Springs, CO 80933 7150, USA

Received 1 October 1999; received in revised form 15 February 2000; accepted 22 June 2000

Abstract

Karen Horney's 1945, 1950 interpersonal theory [Horney, K. (1945). Our inner conflicts. New York, NY: W. W. Norton & Co., Inc.; Horney, K. (1950). Neurosis and human growth. New York, NY: W. W. Norton & Co., Inc.] postulated that individuals could move toward, move against, and move away from others as manifestations of their character development. In the present studies, it was hypothesized that Horney's tripartite theory might be useful in the elucidation of Diagnostic and Statistical Manual of Mental Disorders personality disorder features. In the first study, college students (n = 198) completed the Coolidge Axis II Inventory [CATI; Coolidge, F. L. (1999), Coolidge Assessment Battery Manual. Port Huron, MI: Sigma Assessment Systems and Coolidge, F. L., & Merwin, M. M. (1992). Reliability and viability of the Coolidge Axis II Inventory: a new inventory for the assessment of personality disorders. Journal of Personality Assessment, 59, 223–238] and Cohen's 1967 35-item test [Cohen, J. B. (1967). An interpersonal orientation to the study of consumer behaviour. Journal of Marketing Research, 4, 270-278] of Horney's three types: Compliant, Aggressive, and Detached. In the second study, another group of college students (n = 881) completed the CATI and Coolidge's 57-item test of Horney's three types. Results showed that both scales were reliable, generally similar, and numerous predicted correlational relationships were found. The usefulness of Horney's constructs in the understanding of personality disorders was discussed. © 2001 Elsevier Science Ltd. All rights reserved.

Keywords: Karen Horney; Neurosis; Personality disorders; Compliant; Aggressive; Detached; CATI; HCTI

1. Introduction

Karen Horney (1945, 1950) proposed a tripartite interpersonal theory couched in the language of her own clinical experience. She postulated a basic anxiety rooted in a child's feelings of isolation and helplessness in a threatening and hostile world. She thought that this anxiety could be

0191-8869/01/\$ - see front matter © 2001 Elsevier Science Ltd. All rights reserved.

PII: S0191-8869(00)00120-3

^{*} Corresponding author. Tel.: +1-719-262-4146; fax: +1-719-262-3140. E-mail address: fcoolidg@mail.uccs.edu (F.L. Coolidge).

enhanced by a number of environmental factors, but that it was often due to problems in the parent—child relationship. These problems could include, for example, parents who were dominating, indifferent, or erratic; who failed to respect a child's needs or to provide guidance; who demonstrated demeaning attitudes and either a lack of or excessive admiration; or parents who displayed a lack of warmth and failed to keep promises.

As a reaction to bad parenting, Horney (1945, 1950) theorized that a child could develop a sense that the parents were hypocritical by contrasting their inadequate parenting with their professed love, generosity, and Christian charity. As a function of these influences, the child would strive for ways to cope. Horney believed that these coping mechanisms were not simply ad hoc defenses, but that they might become lasting character trends that she called "neurotic trends". According to Horney, three main defenses would crystallize: A child can move *toward* people, *against* people, or *away from* people. Horney further hypothesized that a healthy individual was free to vacillate between any of these three interpersonal orientations, and these orientations might help to foster self-realization. She also theorized that all three neurotic types might not encompass the entire healthy personality. A brief review of Horney's three predominant neurotic types follows.

1.1. Moving toward people

Known as the Compliant type, these individuals accept their own helplessness and try to gain reassurance and protection against the basic anxiety by attempting to win the affection of others and sometimes attaching themselves to a person or group that they perceive as powerful. Horney thought that Compliant types might thus gain a feeling of support and belonging which minimizes their feelings of weakness and isolation. According to Horney, Compliant types appease others at any interpersonal cost including self-subordination and the dropping of any claims to individuality. They also evaluate themselves by what others think and become overly dependent on other people for love and safety.

1.2. Moving against people

Known as the Aggressive type, these people accept the hypocrisy and underlying hostility in their environment, and they fight, either consciously or unconsciously, to protect themselves and to seek revenge. They automatically distrust other people's feelings and intentions, and they rebel in whatever way they can.

1.3. Moving away from people

Known as the Detached type, these people do not have feelings of belonging or the desire to fight. They not only distance themselves from others, but they are also estranged from themselves. They become numb to their own emotional experiences and feelings, and they are uncertain as to their own identity needs and desires. They consciously and unconsciously avoid emotional involvement with others and have a strong need for self-sufficiency.

Despite calls for more investigations of Horney's theories (i.e. van den Daele, 1987), there has been a dearth of empirical research. The purpose of the present studies was to address this lacuna. Horney's tripartite theory is important to study, because it is a clinically based theory which can

potentially aid case conceptualization and psychotherapeutic intervention. Furthermore, her theory easily generates testable clinical hypotheses regarding developmental issues and the formation of anxiety-reduction mechanisms. Her theory also bridges the gap between normal personality development and personality psychopathology, and therefore, it seems important to understand specifically how Horney's types relate to modern personality disorders.

The present studies investigated two different operationalizations of Horney's theory in the context of personality disorders. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; APA, 1994), personality traits are enduring patterns of interpreting and responding to one's environment, and these traits constitute disorders when they cause significant impairment or distress. Because Horney's tripartite interpersonal theory also views neurotic styles as enduring reactions to the environment, it was hypothesized that Horney's theory would be useful in the explication of modern personality disorders. In Experiment 1, Cohen's (1967) operationalization of Horney's three neurotic types was used as a measure of compliance, aggression, and detachment. The Coolidge Axis II Inventory (CATI; Coolidge, 1993; 1999) was used to assess personality disorders. Specifically, it was hypothesized that Horney's Compliant type would be positively correlated with the dependent and histrionic personality disorders and negatively correlated with antisocial, obsessive-compulsive, paranoid, passive-aggressive, schizoid, and schizotypal personality disorders. It was hypothesized that the Aggressive type would be positively correlated with the antisocial, borderline, narcissistic, paranoid, and passive-aggressive personality disorders and negatively correlated with the dependent and the schizoid personality disorders. It was hypothesized that the Detached type would be positively correlated with the antisocial, avoidant, paranoid, passive-aggressive, schizoid, and schizotypal personality disorders and negatively correlated with the histrionic personality disorder.

2. Experiment 1

2.1. Method

2.1.1. Participants and procedure

One hundred and ninety-eight college students volunteered to participate for extra credit in a psychology course, and informed consent was obtained. There were 118 women and 80 men, mean age 23.3, range 17–55 years, and their mean education was 13.2 years. They were predominantly White (76%) and single (74%). The participants completed the personality tests during a single testing session. Because it is estimated that the lifetime prevalence rate of personality disorders ranges from about 8 to 13% (e.g. Weissman, 1993), it was expected that there would be sufficient psychometric variability in the present sample to test the present hypotheses. In addition, evidence suggests that the structure of personality disorders is similar in the general population and in clinical groups (Livesley, Jang, Jackson & Vernon, 1993), and there is sufficient evidence to study personality disorders dimensionally, as opposed to categorically, in nonclinical samples (e.g. Jang, Livesley, Vernon, & Jackson, 1996).

2.1.2. Materials

2.1.2.1. Personality disorders. The CATI is a 225-item, self-report measure designed to assess personality disorders according to the criteria of the DSM-IV. Responses to items are given on

a four-point true—false scale, ranging from 1 *strongly false* to 4 *strongly true*. The items represent all unique criteria for the 10 standard personality disorders as well as two personality disorders in the appendix from the DSM-IV, passive—aggressive and depressive [plus two disorders from the appendix of APA (1987), sadistic and self-defeating, although they were not evaluated in Experiment 1]. The personality disorder scales have a mean test-retest reliability of 0.90 (1-week interval). The median internal scale consistency (Cronbach's alpha) is 0.76 (range: highest, dependent scale = 0.87; lowest, self-defeating scale = 0.66). The CATI attained a 50% concordance rate when matched to diagnoses of clinicians, and it had a median concurrent validity correlation with the Millon Clinical Multiaxial Inventory (MCMI-II) of 0.58 for 13 of the personality disorder scales. A full description of the psychometric properties of the CATI is given in greater detail elsewhere (e.g. Coolidge, 1993; 1999; Coolidge & Merwin, 1992; Coolidge, Merwin, Nathan, & Schmidt, 1996). Notably, the CATI has been adapted and used cross-culturally (e.g. Kalchev, Kalcheva, Burushkina, & Horozova, 1995; Watson, 1998; Watson & Sinha, 1996).

2.1.2.2. Horney's neurotic types. Cohen's 1967 operationalization of Horney's theory, the CAD scales, was used to assess the Compliant, Aggressive, and Detached types. The CAD scales, a Likert-type instrument, contain 35 items with 10 items on the Compliant subscale, 15 items on the Aggressive subscale, and 10 items on the Detached subscale. The CAD scales were reported by Cohen (1967) to have "adequate test-retest reliability and internal consistency reliability" (p. 271), although there were no statistics to support these claims. Thus, the initial analyses in Experiment 1 also included Cronbach's (1951) scale reliability analyses.

3. Results

3.1. Cohen's CAD scale reliabilities

The scale reliability analyses (Cronbach's alpha) for the scales of the CAD were as follows: Compliance, 0.72; Aggression, 0.75; and Detachment, 0.63.

3.2. Cohen's CAD scales and CATI personality disorders

A zero-order correlation matrix between the three CAD scales and the 11 personality disorder scales of the CATI is presented in Table 1. Inspection of the matrix establishes the predictive value of each of the three CAD scales in the interpretation of personality disorders. For example, Compliance and Detachment had significant correlations with seven of the personality disorders, while Aggression had significant correlations with eight personality disorder scales.

As hypothesized, the Compliant type was positively correlated with the dependent (although weakly and not significantly) and histrionic personality disorder scales. Also as predicted, the Compliant type was negatively correlated with the antisocial, paranoid, passive-aggressive, schizoid, and schizotypal scales. The finding that the Compliance scale was positively correlated with the obsessive-compulsive scale was the opposite of what was predicted. On the Aggression scale, all five positive hypotheses were substantiated. There were two negative correlations predicted, and only one of the two was substantiated: as predicted, the Aggression scale was negatively

Table 1 Hypothesized relationships and zero-order correlations for the Coolidge Axis II Inventory (CATI) personality disorder scales with Cohen's Compliant, Aggressive and Detatched (CAD) scales and the Horney–Coolidge Type Inventory (HCTI)

CATI Scales	Compliance			Aggression			Detachment		
	Predicted	CAD	HCTI	Predicted	CAD	HCTI	Predicted	CAD	HCTI
Antisocial	_	-0.24**	-0.44**	+	0.57**	0.50**	+	0.14*	0.26**
Avoidant		-0.08	0.21**		-0.03	0.28**	+	0.24^{**}	0.42**
Borderline		-0.02	0.17	+	0.36^{**}	0.34**		0.10	0.16*
Dependent	+	0.13	0.27^{**}	_	0.06	0.30^{**}		-0.06	-0.02
Histrionic	+	0.17*	0.33^{**}		0.35^{**}	0.47^{**}	_	-0.26^{**}	-0.41^{**}
Narcissistic		-0.11	-0.07	+	0.53**	0.27^{**}		-0.10	0.17^{**}
Obsessive-compulsive	_	0.19^{**}	0.02		0.00	0.30^{**}		0.13	0.40^{**}
Paranoid	_	-0.33**	-0.14*	+	0.43**	0.51**	+	0.20^{**}	0.52**
Passive-aggressive	_	-0.22**	-0.06	+	0.26^{**}	0.31**	+	0.14*	0.32**
Schizoid	_	-0.22*	-0.09	_	-0.30^{**}	0.20^{**}	+	0.28^{**}	0.64**
Schizotypal	_	-0.34^{**}	-0.03		0.24**	0.25^{**}	+	0.38**	0.53**
Depressive			0.04			0.28**	_		0.31**
Sadistic	_		-0.27^{**}	+		0.55**	+		0.32**
Self-defeating	+		0.09			0.31**			0.36**

^{*}P < 0.05.

correlated with the schizoid scale but not with the dependent scale. On the Detachment scale, all six positive correlations and the only negative correlation prediction were as predicted.

A canonical correlation analysis was performed between the CAD scales and the 11 personality disorder scales to determine their relationships to one another as sets of scores. The index coefficient cut-off for the canonical correlation analysis was set at 0.50 in order to account for a substantial amount of the variance between the two sets (e.g., Tabachnick & Fidell, 1996), and two variates were found. The first canonical variate (canonical correlation = 0.72) appeared to be a strong, negative measure of Aggression (-0.88), a moderate positive measure of Compliance (0.56), and a weak, negative measure of Detachment (-0.28) with strong negative loadings from the antisocial (-0.84), paranoid (-0.73), narcissistic (-0.68), schizotypal (-0.56), passive-aggressive (-0.46), and borderline (-0.44) personality disorder scales. The second canonical variate (canonical correlation = 0.63) consisted of a strong, negative measure of Detachment (-0.71), a moderate, positive measure of Compliance (0.54), and a weaker, positive measure of Aggression (0.39) with a strong positive loading from the histrionic scale (0.72), a moderate positive loading from the narcissistic scale (0.44), strong negative loadings from the schizoid (-0.75) and schizotypal (-0.56) scales of the CATI, and a moderate, negative loading from the avoidant scale (-0.40).

4. Discussion

Zero-order correlations revealed that all three neurotic types of the CAD had a number of significant correlations with the CATI personality disorder scales. The Aggression scale had eight

^{**}P < 0.01.

significant correlations, and the Compliance and Detachment scales had seven each. Only one personality disorder scale (dependent) failed to have any significant correlations. The latter finding appears problematic, because the Compliance scale should be the epitome of dependent personality disorder traits such as appeasing others at all costs, subordinating one's self, overgenerosity, and oversensitivity to others' needs. There are at least three possibilities: a weak operationalization of the dependent personality disorder by the CATI, a weak operationalization of Horney's Compliant type by Cohen's scale, or, perhaps, the lack of strong dependent personality disorder features in this college sample.

From the perspective of the personality disorder scales, the correlation matrix revealed that six of the 11 personality disorders had significant correlations on all three CAD scales. Furthermore, the positive and negative correlations across Horney's three trends appear to provide some theoretical validity and discriminability for the personality disorders. For example, the schizoid and the schizotypal scales both had negative loadings on the Compliance scale and positive loadings on the Detachment scale, while the Aggressive type discriminated between the two: the schizoid scale had a negative correlation with Aggression, while the schizotypal scale had a positive correlation with Aggression. The obsessive-compulsive scale had two significant correlations, while the avoidant (with Detachment), borderline (with Aggression), and narcissistic scales (with Aggression) had only one each. Because Horney viewed people with this trend (moving against people) as ambitious, manipulating, controlling, and exploiting, it appears that the CAD captured at least one major feature of the narcissistic and borderline personality disorder, perhaps confirming a conceptual link between the two conditions. Indeed, both are classified by DSM-IV in Cluster B of personality disorders, described as the dramatic, emotional, and erratic types.

The canonical analysis also revealed some interesting relationships between the three neurotic types and personality disorders. The first canonical variate was interpreted as a measure of a constellation (in the negative) of antisocial, paranoid, and narcissistic features with Aggression (likewise negative) and the opposite of Compliance (which loaded positively). Although there were other loadings from the CATI on this set, the most prominent loading occurred for the antisocial scale with Aggression, and there was a moderate loading from Compliance. On the whole, this first variate suggests that the antisocial personality disorder (when accompanied by paranoid and narcissistic traits) is best typified by Horney's moving against people dimension, coupled with the opposite of her moving toward people dimension.

The second canonical variate had its two strongest loadings from the schizoid scale (in the negative) and the histrionic scale (in the positive) with Detachment (in the negative) and Compliance (in the positive). This second canonical variate appeared to be a combination from the CATI of a pathological dimension of extraversion/introversion with Horney's moving toward people and the opposite of her moving away from people.

In summary, Horney's types, as operationalized by Cohen (1967), do well in the explication of personality disorders (or their features). This conclusion may have been limited by the operationalization of personality disorders by the DSM-IV and the CATI, the operationalization of Horney's neurotic trends by Cohen's CAD scales, and the use of a college sample. Despite these inherent limitations, all three neurotic trends had significant relationships with six personality disorders (e.g. antisocial, histrionic, paranoid, passive-aggressive, schizoid, and schizotypal scales) and also provided discriminant validity between the schizoid and schizotypal personalities

(by virtue of their differing relationships to the Aggression scale). Certainly, the present study provides evidence that further research with Horney's trends may be fruitful.

Cohen's CAD scale has not been widely used, and the original reliability analyses (scale and test-retest reliabilities) were lacking. The purpose of Experiment 2 was to develop another measure of Horney's neurotic types and attempt a cross-validation of the findings in Experiment 1. Three additional personality disorder scales of the CATI were also assessed in Experiment 2: depressive, sadistic, and self-defeating. It was hypothesized that Horney's Compliant type would be positively correlated with the self-defeating personality disorder and negatively correlated with the sadistic personality disorder. It was hypothesized that the Aggressive type would be positively correlated with the sadistic personality disorder. It was hypothesized that the Detached type would be positively correlated with the sadistic personality disorder and negatively correlated with the depressive personality disorder.

5. Experiment 2

5.1. Method

5.1.1. Participants and procedure

There were 881 college students and their family members who volunteered to participate in the second experiment. The college students received extra credit for their own participation and extra credit for obtaining the participation of their family members. The college students completed all materials at the university. Their family members completed the materials at their homes, sealed them in an envelope upon completion, and the materials were returned to the experimenter by the student. Informed consent was obtained from all participants.

The final sample consisted of 566 females and 315 males, median age 21.0, range 16–93 years. Approximately 98% of the participants had a high-school education and at least some college credits. They were predominantly White (79%), and 8% were Hispanic, 5% were Black, 5% were Asian, and 3% listed their ethnicity as other. Their marital status was as follows: 81% single, 13% married or living with a significant other, and 6% were divorced or separated.

5.1.2. Materials

5.1.2.1. Personality disorders. The personality disorder features were once again assessed with the CATI.

5.1.2.2. Horney's neurotic types. Through a series of studies, a new inventory was developed to assess Horney's three neurotic types based on her books, Our inner conflicts (1945) and Neurosis and human growth (1950). The final inventory, entitled the Horney-Coolidge Type Inventory¹ (HCTI), consisted of 57 items with 19 items on each of three scales assessing compliance, aggression, and detachment. The individual items were answered on a four-point, true-false Likert-type scale ranging from (1) hardly ever to (4) nearly always. A copy of the HCTI appears in the Appendix.

¹ The CATI and the HCTI are available pro bono for research.

6. Results

6.1. HCTI scale psychometrics

6.1.1. HCTI scale means and standard deviations

The means (n=881) for the three scales were as follows: Compliance = 51.1 (SD = 7.0); Aggression = 44.5 (SD = 7.7); and Detachment = 37.5 (SD = 7.1). The means for the males (n=315) were: Compliance = 50.2 (SD = 7.0); Aggression = 46.9 (SD = 7.7); and Detachment = 38.3 (SD = 7.5). The means for the females (n=566) were: Compliance = 51.7 (SD = 6.9); Aggression = 43.2 (SD = 7.4); and Detachment = 37.0 (SD = 6.9).

6.1.2. HCTI scale reliabilities

The scale reliabilities were as follows: Compliance (0.78), Aggression (0.83), and Detachment (0.82). The scale reliabilities were established on 875 of the original 881 participants, because six participants had at least one missing value on the HCTI.

6.1.3. HCTI test-retest reliabilities

One week test–retest reliabilities on a random sample consisting of 67 of the original participants were as follows: Compliance (0.92); Aggression (0.92); and Detachment (0.91).

6.1.4. HCTI scale factor analyses

A principal components factor analysis with varimax rotation revealed that the Compliance scale had a five factor solution (eigenvalues greater than 1.00) with 9, 8, 8, 6, and 6% of the variance accounted for by its factors, respectively. The first factor was interpreted as a need for relationships. The second factor appeared to be a measure of altruism. The third factor appeared to measure self-abasement in relationships. The fourth factor appeared to be a measure of affection and sympathy for others. The fifth factor appeared to measure the need to be liked and concern for what other people think about them.

The Aggression scale had a five factor solution with 10, 9, 8, 6, and 5% of the variance accounted for by its factors, respectively. The first factor appeared to measure a malevolent view of other people's behavior. The second factor appeared to measure the need to be in command and to be powerful. The third factor appeared to measure attitudes valuing strength and toughness. The fourth factor appeared to measure a malevolent view of the world. The fifth factor appeared to measure the values of testing one's strength and bravery.

The Detachment scale had a five factor solution with 14, 9, 9, 5, and 5% of the variance accounted for by its factors, respectively. The first factor appeared to measure the need to be alone. The second factor appeared to measure interpersonal avoidance and resistance. The third factor appeared to measure avoidance of social interactions. The fourth factor appeared to measure lack of loneliness. The fifth factor appeared to be a measure of self-sufficiency.

6.1.5. HCTI scales and the CATI personality disorder scales

It appeared that there was sufficient variation on the personality disorder scales in order to make speculations about relationships with the HCTI scales. The median percentage of the sample that was elevated by at least two standard deviations (the clinical norm, see Coolidge, 1999)

across the 14 CATI personality disorder scales was 3.1 with a range of 1.6% on the borderline personality disorder scale to 5.7% on the sadistic scale.

The results of the zero-order correlation analysis between the HCTI scales and the CATI personality disorder scales appear in Table 1. On the HCTI Compliance scale, seven of the eight original predictions were in the hypothesized directions, and four of these were significant. The Compliance scale was also significantly correlated with the avoidant scale, but this relationship had not been hypothesized. On the HCTI Aggression scale, all 11 personality disorder scales were significantly and positively correlated, and five of the seven personality disorder scales had been predicted correctly. On the HCTI Detachment scale, 10 of the 11 personality disorder scales had significant correlations, and all seven predicted relationships were confirmed.

Comparisons between Cohen's CAD scales with the HCTI on the original 22 predicted relationships showed that Cohen's scales were in the correct direction in 19 cases with significant correlations in 18 of the 19 cases. The HCTI scales were in the correct predicted direction in 18 cases with significant correlations in 15 cases. The mean of the absolute values of the 11 personality disorder correlations on Cohen's Compliance scale was r = 0.20, while on the HCTI Compliance scale, it was r = 0.17. The mean of the absolute values of the 11 personality disorder correlations on Cohen's Aggression scale was r = 0.32, while on the HCTI Compliance scale, it was r = 0.34. The mean of the absolute values of the 11 personality disorder correlations on Cohen's Detachment scale was r = 0.18, while on the HCTI Compliance scale, it was r = 0.35.

With respect to the five additional hypotheses on the sadistic, self-defeating, and depressive scales, all three predictions were confirmed for the sadistic scale (a negative correlation with Compliance and positive correlations with Aggression and Detachment). The predicted positive correlation between the Compliant type and the self-defeating scale was not confirmed, nor was the predicted negative correlation between the depressive scale and the Detached type. However, three significant correlations were obtained that had not been predicted: positive correlations between Aggressive and Detached types with the self-defeating scale and a positive correlation between the Aggressive type and the depressive personality disorder scale.

A canonical correlation analysis revealed three significant canonical variates, although only the first two canonical correlations were substantial (r > 0.50). The first canonical set included canonical loadings from the Compliance (-0.65), Aggression (0.71), and Detachment (0.85) HCTI scales with substantial canonical loadings $(r \ge 0.30)$ from the antisocial (0.56), avoidant (0.31), histrionic (-0.36), obsessive–compulsive (0.41), paranoid (0.73), passive–aggressive (0.39), schizotypal (0.62), and schizoid (0.71) scales. The second canonical set included canonical loadings from the Compliance (0.10), Aggression (-0.56), and Detachment (0.49) HCTI scales with substantial canonical loadings $(r \ge 0.30)$ from the antisocial (-0.54), avoidant (0.64), histrionic (-0.72), narcissistic (-0.37), obsessive-compulsive (0.34), and schizoid (0.47) scales.

A three-factor analysis of variance was performed upon the T scores for the three HCTI scales as well as gender and age (younger < 30 years, middle \ge 30 and \le 55 years, older > 55 years). The three-factor interaction was not significant, but the scales-by-gender interaction was significant (F(2802) = 14.80, p < 0.001, eta squared = 0.04) as well as the scales-by-age interaction (F(2802) = 7.41, p < 0.001, eta squared = 0.03). Subsequent post hoc analyses (Tukey's test at p = 0.05) revealed that, in general, Compliance scores were greater than Aggression scores which, in turn, were significantly higher than Detachment scores. Males had significantly higher Aggression and Detachment scores than females, while females had significantly greater Compliance

scores than males. Compliance was significantly higher for males and females in the older age group. Aggression scores progressively got lower as a function of age for females. In contrast, Aggression scores in males were lowest in the middle age group compared to the younger and older adult groups. On the Detachment scale, male and female scores increased from young to middle age and then leveled off.

7. General discussion

Extant literature reveals that Horney's neurotic type theory has received little empirical attention. Her theory, nevertheless, appears to provide an excellent framework for a deeper investigation of interpersonal patterns in personality disorders. Because Horney reformulated many metapsychological psychoanalytic concepts in clinical descriptions and experiences, her theory lends itself well to empirical operationalizations. The present studies lend support to the operationalization of her neurotic theory and to the construct validity of her three neurotic types. The strongest evidence for this support came from the confluence of similar relationships between the same measure of personality disorders and two different measures of Horney's types. Zero-order correlations revealed a substantial amount of overlap between the two measures of Horney's types, although there were some differences. The Compliance scale of the CAD produced stronger relationships than the HCTI on the paranoid, passive-aggressive, schizoid, and schizotypal scales, while the HCTI Detachment scale produced stronger relationships than Cohen's same scale for 10 of the 11 personality disorders. The HCTI had better internal scale reliabilities than Cohen's scales, and the HCTI had excellent test-retest reliabilities.

Interestingly, some of these differences between the two Hornevian measures may be due in part to their factor structures. For example, when the HCTI was factor analyzed, the Compliance scale yielded five components, whereas Cohen's Compliance scale yielded a three-factor solution. Thus, it appears that the factor structure on the HCTI Compliance scale may be more complex and consequently more comprehensive than Cohen's scale. The correlations between the HCTI Compliance scale with the obsessive-compulsive, passive-aggressive, schizoid, and schizotypal scales were all weak, ranging from r = -0.09 to r = 0.02. However, when the five facets of the Compliance scale of the HCTI were fashioned into subscale facets, it was found that four of the five facets had significant correlations with the passive-aggressive and schizotypal scales, while three of the five factors were significantly correlated with the schizoid and obsessive-compulsive scales. It appears then that Horney's types have a multi-faceted nature, at least as conceptualized by the HCTI scales. It may be that their relationship to personality disorders sometimes bears a simple relationship to her neurotic types, while in other instances, there is clearly a more complex relationship associated with the underlying facet structure. Future studies may wish to address the various facets of her neurotic types similar to research on facets of the five-factor model of personality (e.g., Costa & McCrae, 1995).

Regarding the three additional personality disorder scales that were assessed in Experiment 2, it was found that four of the five predicted relationships were confirmed, and three of them were significant. The sadistic scale's three hypothesized relationships were all confirmed and significant,

and preliminarily, it appears that Horney's three neurotic types do well in describing characteristics of the sadistic personality disorder, even without reliance upon components analysis.

Horney's (1945, 1950) works did not address how gender and age might influence the expression of her three types. Interestingly, the present study found some significant relationships with regard to both of these variables, although the effect sizes were generally small. As might have been expected, males scored higher than females on the Aggression and Detachment scales, whereas females scored higher on the Compliance scale. With regard to age, Compliance scores appeared greater in the oldest age group, perhaps indicating an increased need to rely on help from others in older persons. Aggression scores became progressively lower with age for females, but for males, the oldest group was significantly more aggressive than the middle-aged group. On the Detachment scale, it appeared that both genders experienced an increase in scores from young to middle age, but there was no significant change in the oldest age group, providing additional data to battle the myth that older people prefer to be alone. Future studies may also wish to investigate age influences on Horney's types with greater specificity of age groupings. It also might be interesting to determine how age and gender interact, as well as the extent to which genetic, culture, and traumatic events influence Horney's types. Studies with diverse clinical samples might also prove useful.

The value of Horney's tripartite theory of interpersonal styles is multi-fold. First, the present studies support its use in the better understanding and description of personality disorder features or traits. However, since a majority of the present samples of convenience were well within the normal range of functioning, her type theory may just as well be used to describe normal personality styles. The latter supposition may be important, because many people who seek therapy may be well-adjusted individuals but currently experiencing severe psychological stressors. To the extent that the therapist understands the patient better, the therapeutic process is aided and advanced.

Second, there was some support for the DSM-IV concept of personality disorder clusters in the present studies. Notably, Cluster A (paranoid, schizoid, schizotypal) highly corresponded to Horney's Detached type, and Cluster B (antisocial, borderline, narcissistic, histrionic) was strongly related to the Aggressive type. The relationships between Cluster C (avoidant, dependent, obsessive-compulsive) and the Compliant type were weaker. These findings highlight Horney's clinical conceptual foresight in that her neurotic types relate closely to the empirical clustering of personality disorders proposed nearly 35 years later.

Third, Horney's theory possesses many of the characteristics required of a practical psychological test. As others have noted (e.g., van den Daele, 1987), her theory is couched in a language of actual clinical experience, and her clinical model is easily operationalized. Horney's theory accounts for normal and abnormal personality features, and it also addresses nonpathological, metaneeds such as self-realization, although the latter aspect of her theory was not examined in the present studies. Horney's theory also combines intrapsychic and interpersonal development with parental and cultural issues, and these issues would also be germane to modern clinical practice and research. Given recent interest in personality theory with regard to the essential number of personality variables required to describe the normal and abnormal personality (e.g., Cloninger, Svrakic, & Przybeck, 1993; Costa & McCrae, 1990; Digman, 1990; Goldberg, 1993), it seems that Karen Horney's highly original and yet practical tripartite theory may, and should, join the fray.

Appendix. Horney-Coolidge Type Inventory (HCTI)

Please answer the following items as you see yourself most of the time, or as you view yourself most consistently over the past few years. Your scores are completely confidential, so please be as honest as you can.

Hardly ever	Sometimes	Mostly	Nearly always
1	2	3	4

- 1. I am affectionate.
- 2. It's a hostile world.
- 3. I prefer to be alone.
- 4. I feel better when I'm in a relationship.
- 5. Life is a struggle.
- 6. People say I'm unemotional.
- 7. I like to be liked by others.
- 8. I like to be in command.
- 9. I am self-sufficient.
- 10. I like to help others.
- 11. Only the strongest survive.
- 12. I don't really need people.
- 13. I like to give others my sympathy.
- 14. I enjoy feeling powerful.
- 15. I could live quite well without anyone.
- 16. I am unselfish.
- 17. I enjoy outsmarting other people.
- 18. I'd rather work, sleep, and eat alone.
- 19. I am self-sacrificing.
- 20. Other people are too sentimental.
- 21. I avoid parties and social gatherings.
- 22. I am a generous person.
- 23. People are inconsiderate.
- 24. I am a private person.
- 25. I'd rather be with someone else than be alone.
- 26. I'll test myself in fearful situations in order to make myself stronger.
- 27. I avoid questions about my personal life.
- 28. I forgive and forget pretty easily.
- 29. I like a good argument.
- 30. I like to live independent of others.
- 31. I care what other people think about me.
- 32. I am uninhibited and brave.
- 33. I avoid long-term obligations.
- 34. I feel crushed if I am rejected.
- 35. Beggars make me angry.

- 36. I feel lonely.
- 37. Most people are more attractive than me.
- 38. To survive in this world, you have to look out for yourself first.
- 39. I resent people trying to influence me.
- 40. I feel weak and helpless when I'm alone.
- 41. People tend to be untrustworthy.
- 42. I try to avoid advice from others.
- 43. I try to avoid fighting or arguing.
- 44. People tend to be manipulative.
- 45. I could live fine without friends or family.
- 46. I tend to feel it's my fault if something goes wrong.
- 47. Children should be taught toughness.
- 48. I like it better when people do not share their thoughts or feelings with me.
- 49. I tend to be the one who apologizes first.
- 50. It's a fact of life most successful people step on others to get ahead.
- 51. I feel I'd be better off without people than with people.
- 52. I need the company of others.
- 53. People's basic nature is aggressive.
- 54. I try to avoid conflicts.
- 55. Children should be taught to be kind and loving.
- 56. I've met a lot of idiots in my life.
- 57. Children should be taught self-sufficiency.

Note: the Compliant scale score is the sum of individual items 1, 4, 7, 10, 13, 16, 19, 22, 25, 28, 31, 34, 37, 40, 43, 46, 49, 52, 55. The Aggressive scale score is the sum of individual items 2, 5, 8, 11, 14, 17, 20, 23, 26, 29, 32, 35, 38, 41, 44, 47, 50, 53, 56. The Detached scale score is the sum of individual items 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57. Item 36 is scored in the reverse.

References

APA (American Psychiatric Association). (1987). *Diagnostic and statistical manual of mental disorders* (3rd ed. revised). Washington, DC: Author.

APA (American Psychiatric Association). (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

Cloninger, C. R., Svrakic, D. M., & Przybeck, T. R. (1993). A psychobiological model of temperament and character. *Archives of General Psychiatry*, 50, 975–990.

Cohen, J. B. (1967). An interpersonal orientation to the study of consumer behavior. *Journal of Marketing Research*, 4, 270–278.

Coolidge, F. L. (1993). The Coolidge Axis II Inventory: Manual. Clermont, FL: Synergistic Office Solutions, Inc.

Coolidge, F. L. (1999). Coolidge Assessment Battery manual. Port Huron, MI: Sigma Assessment Systems.

Coolidge, F. L., & Merwin, M. M. (1992). Reliability and validity of the Coolidge Axis II Inventory: a new inventory for the assessment of personality disorders. *Journal of Personality Assessment*, 59, 223–238.

Coolidge, F. L., Merwin, M. M., Nathan, J. H., & Schmidt, M. M. (1996). Assessment of neurobehavioral symptoms after traumatic brain injury. *Indian Journal of Psychological Issues*, 4(1), 1–9.

Costa Jr., P. T., & McCrae, R. R. (1990). Personality disorders and the five-factor model of personality. *Journal of Personality Disorders*, 4, 362–371.

Costa Jr., P. T., & McCrae, R. R. (1995). Domains and facets: Hierarchical personality assessment using the Revised NEO Personality Inventory. *Journal of Personality Assessment*, 64, 21–50.

Cronbach, L. J. (1951). Coefficient alpha and the internal structures of tests. Psychometrika, 16, 297–334.

Digman, J. M. (1990). Personality structure: emergence of the five-factor model. *Annual Review of Psychology*, 41, 417–440.

Goldberg, L. R. (1993). The structure of phenotypic personality traits. American Psychologist, 48, 26–34.

Horney, K. (1945). Our inner conflicts. New York, NY: W. W. Norton & Co., Inc.

Horney, K. (1950). Neurosis and human growth. New York, NY: W. W. Norton & Co., Inc.

Jang, K. L., Livesley, W. J., Vernon, P. A., & Jackson, D. N. (1996). Heritability of personality disorder traits: a twin study. Acta Psychiatrica Scandinavica, 94, 438–444.

Kalchev, P., Kalcheva, S., Burushkina, J., & Horozova, P. (1995). Bulgarian adaptation of Coolidge Axis II Inventory (CATI)—scales' reliability. *Bulgarian Journal of Psychology*, 4, 3–18.

Livesley, W. J., Jang, K. L., Jackson, D. N., & Vernon, P. A. (1993). Genetic and environmental contributions to dimensions of personality disorder. *American Journal of Psychiatry*, 150, 1826–1831.

Tabachnick, B. G., & Fidell, L. S. (1996). *Using multivariate statistics* (3rd ed.). New York, NY: HarperCollins College Publishers.

van den Daele, L. (1987). Research in Horney's psychoanalytic theory. *American Journal of Psychoanalysis*, 47, 99–104. Watson, D. C. (1998). The relationship of self-esteem locus of control, and dimensional models to personality disorders. *Journal of Social Behavior and Personality*, 13, 399–420.

Watson, D. C., & Sinha, B. K. (1996). A normative study of the Coolidge Axis II Inventory. *Journal of Clinical Psychology*, 52, 631–637.

Weissman, M. M. (1993). The epidemiology of personality disorders. A 1990 update. *Journal of Personality Disorders*, (Supplement), 44–62.