

Preliminary Psychometric Properties of a Measure of Karen Horney's Tridimensional Theory in Children and Adolescents*

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This study established the psychometric properties of a child and adolescent version of the Horney-Coolidge Tridimensional Inventory (HCTI), which assesses psychoanalyst Karen Horney's theory of neurotic types. Parents of 302 children (ages 5 to 17 years; median age = 12.0 years) completed the new 45-item version of the HCTI and the Coolidge Personality and Neuropsychological Inventory (CPNI) about their children. The three main scales (Compliance, Aggression, and Detachment) had good internal scale reliability and excellent test-retest reliability. Principal components analysis supported Horney's three dimensions and a six-component substructure. There was also sufficient construct validity with personality disorder scales from the CPNI with the three HCTI dimensions and their six components. The implications of the findings are discussed for Horneyan theory. © 2010 Wiley Periodicals, Inc. *J Clin Psychol* 67:383–390, 2011.

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In 1945, Karen Horney published her classic text *Our Inner Conflicts*, in which she proposed that three relatively independent defense mechanisms helped children to cope with a “basic anxiety.” She theorized that these coping mechanisms were not ad hoc ego defenses but could become chronic personality characteristics, which she labeled “neurotic trends.”

According to Horney, the compliant type solved the issue of basic anxiety by “moving toward” people. She proposed that they had a strong need for affection and approval from others, and especially a need for a “partner.” The neurotic aspects of the compliant type included compulsivity, indiscriminate tendencies for moving towards other people, and anxiety or depression when frustrated.

Horney also proposed that just as the compliant type indiscriminately finds most people nice (often to their chagrin), the aggressive type assumes that others are hostile and that life is a constant struggle, characterized by Horney as “moving against” others. Fear is never admitted or shown and they will attempt to exclude feelings altogether. There is a strong need to outsmart and exploit others and relationships are developed solely to better themselves. Their primary need is having control of others and life is seen as a battle they must fight to win.

For the detached type, Horney emphasized that this is not a person who merely wants to occasionally be alone, as she noted that nearly everyone wants to be alone at certain times. For Horney, the detached type included even an estrangement from one's own self, including numbness to emotional experiences and a strong amount of uncertainty as to one's own feelings including love, hate, desires, beliefs, etc. This type is characterized as “moving away” from others. She even likened some detached types to zombies of Haitian folklore, however, she did note that some detached types may have rich emotional lives. She proposed that what all detached types had in common was their capacity to look at themselves and others with an “objective interest.” In other words, they view themselves, others, and life in an emotionally distant and uninvolved fashion. They also value their own self-sufficiency and resourcefulness, and they do so either consciously or unconsciously by restricting their needs.

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One of Horney's main contentions with Freud was his emphasis that the driving forces in neuroses were largely instinctual in their nature, and, thus, the driving forces were not just confined to neurotic people but to all people. Horney believed that neuroses were primarily caused by disturbances in human relationships, and these disturbances were primarily created by cultural forces and childhood experiences, as she believed that the neuroses she observed in Europe were different than those she saw in the United States when she arrived in 1932. It appears, then, that her search for the driving forces behind neuroses and disturbed relationships led her to these three individual trends and the differing "basic" attitudes towards self and others. Therefore, there is no mention of instinctual drives or heritability with regard to her three neurotic trends in her 1945 classic book. In her later work (1950), Horney expanded upon the intrapsychic mechanisms underlying the three interpersonal strategies. However, again, she maintained her original position that they were created largely by cultural factors in early childhood experiences.

There have been at least three attempts at operationalizations of Horney's three personality dimensions. Cohen (1967) constructed a 35-item measure of the three dimensions in an empirical study of consumer behavior. DeRosis and Pellegrino (1976) created 48 questions for the self-identification of overcompliance, domineering, and uninvolved types of women, although it was a nonstandardized measure. More recently, Coolidge, Moor, Yamazaki, Stewart, and Segal (2001) established preliminary psychometric characteristics of their operationalization of Horney's three types, the Horney-Coolidge Tridimensional Inventory (HCTI). In that study, they demonstrated the measure's internal scale reliability, test-retest reliability, and concurrent validity with Cohen's 1967 measure. Furthermore, as Paris (1994) noted in his rich biography of Horney, her neurotic types might be best described in modern terms as personality disorders. In support of Paris' contention, Coolidge et al. (2001) also found numerous significant relationships between Diagnostic and Statistical Manual of Mental Disorders Third Edition Revised (DSM-III-R) measures and DSM-IV-TR measures of personality disorders and the new scale measuring Horney's three types. Continuing this line of research, Coolidge, Segal, Benight, and Danielian (2004) found the three HCTI dimensions to be significantly and differentially related to the three DSM-IV-TR personality disorder clusters (odd or eccentric; dramatic, emotional, or erratic; and anxious or fearful) providing further evidence of construct validity for the HCTI.

The purpose of the present study was to establish the preliminary psychometric properties of a child and adolescent version of the Coolidge et al. (2001) HCTI. Horney (1945) emphasized that cultural, family, and childhood experiences were the primary driving forces behind her three dimensions. If this is the case, then her three dimensions should manifest themselves relatively early in childhood and certainly by adolescence. It was hypothesized, therefore, that a parent-rated version (of the adult self-rated HCTI) for children and adolescents would yield sufficient reliability and validity to warrant further research.

Method

Participants and Procedure

Parents of children ($N = 302$; 158 males and 144 females) aged 5 to 17 years were recruited by college students (who received extra credit) to anonymously complete the new child and adolescent version of the HCTI. The median age of the children was 12.0 years. The ages of the children were fairly evenly dispersed from 5 to 17 years old, as each age category had at least 19 children (maximum = 31; with the exception of the 8-year-old group with 12). The ethnicity of the children, as indicated by the parents, was 77% Caucasian, 7% Hispanic, 6% Black, and 10% either biracial or other. The parents also completed the Coolidge Personality and Neuropsychological Inventory (CPNI; Coolidge, Thede, Stewart, & Segal, 2002). They anonymously completed the demographic information and both inventories at home, sealed them in a provided envelope, and returned them to the college students who recruited them. The parents received no remuneration for participation, and the informed consent form acknowledged that no individual data would be available. However, the parents were

informed that they would have access to the research results after completion of the study. This study was approved by the university's institutional review board.

Measures

Child and adolescent version of the HCTI. The child and adolescent version of the HCTI was created directly from the descriptions in chapter 3 ("Moving Toward People"), chapter 4 ("Moving Against People"), and chapter 5 ("Moving Away From People") in Horney's 1945 book *Our Inner Conflicts*. Initial pilot studies resulted in a 45-item overall measure with three 15-item scales measuring Horney's Compliant, Aggressive, and Detached types. These studies demonstrated that most parents could complete the measure within 10 to 15 minutes. Each item is answered on a 4-point Likert scale, ranging from 1 (*hardly ever*), 2 (*sometimes*), 3 (*mostly*), to 4 (*nearly always*).

CPNI. The 200-item, parent-as-respondent CPNI (Coolidge, Thede, Stewart, et al., 2002), for children and adolescents (ages 5 to 17 years), assesses the DSM-IV-TR (American Psychiatric Association, 2000) Axis I disorders (including Conduct Disorder), 11 childhood personality disorders from Axis II and the appendix of DSM-IV-TR, and neuropsychological-behavioral syndromes (including executive function deficits of the frontal lobes). There is a single, large validity scale comprising 191 items, which measures the tendencies to either excessively deny or over-endorse psychopathology. Each item is answered on a 4-point Likert scale, ranging from 1 (*strongly false*), 2 (*more false than true*), 3 (*more true than false*), to 4 (*strongly true*). The CPNI normative sample comprises 780 purportedly normal children, aged 5 to 17 years, with 30 boys and 30 girls at each age level. The median internal scale reliability (Cronbach's α) for the Axis I scales is $\alpha = .82$. The median internal scale reliability for the 11 personality disorder scales is $\alpha = .72$. The median internal reliability for the neuropsychological-behavioral scales is $\alpha = .92$. The internal reliability for the validity scale is $\alpha = .97$, and its test-retest reliability is .90. The median test-retest reliability for these 18 scales (4-week to 6-week intervals) is .87. The construct validity of the CPNI scales has been demonstrated in a variety of clinical studies, as follows: children with ADHD (Coolidge, Starkey, & Cahill, 2007); children with conduct disorders and ADHD (Coolidge, Thede, & Young, 2000); children with executive function deficits (Coolidge, Thede, & Jang, 2004), bullies (Coolidge, DenBoer, & Segal, 2004); children with personality disorders and their features (Coolidge, Thede, & Jang, 2001); children with borderline personality disorder features (Coolidge, Segal, Stewart, & Ellett, 2000); children in the autistic spectrum (Thede & Coolidge, 2006); children with gender identity disorder (Coolidge, Thede, & Young, 2002); and children with nightmares and anxiety disorders (Coolidge, Segal, Coolidge, Spinath, & Gottschling, 2010). Additional details about the CPNI are available in the CPNI manual (Coolidge, 2007).

Results

Internal Scale Reliabilities

The internal scale reliability for the 15-item Compliance scale was $\alpha = .66$, mean = 37.7, standard deviation [*SD*] = 5.5. The internal scale reliability for the 15-item Aggression scale was $\alpha = .79$, mean = 29.3, *SD* = 6.3. The internal scale reliability for the 15-item Detachment scale was $\alpha = .72$, mean = 32.4, *SD* = 5.5.

Test-Retest Reliability

The test-retest reliabilities were conducted on a random sample of 29 children from the original sample of $N = 302$ over a 1-week interval. The test-retest reliabilities were as follows: Compliance scale, $r = .92$; Aggression scale, $r = .91$; Detachment scale, $r = .92$.

Construct Validity: Correlations Between the Three HCTI Dimensions and 12 CPNI Personality Disorder Scales

Table 1 presents a summary of the three main dimensions of the HCTI with the 12 CPNI personality disorder scales. A review of this table reveals that all 12 personality disorder scales had significant correlations with at least two of the three HCTI dimensions, and 9 of the 12 personality disorder scales had at least one correlation of .31 or greater.

Construct Validity: Principal Components Analyses

To explore the underlying three dimensions of the HCTI, a principal components analysis (PCA) was performed (Statistical Package for the Social Sciences [SPSS 17.0]) on all 45 items with a forced three-component solution. The first component (eigenvalue = 5.12) accounted for 11.4% of the total variance, the second component (eigenvalue = 4.49) accounted for 10.0% of the total variance, and the third component (eigenvalue = 4.22) accounted for 9.4% of the total variance. The first component had strong loadings (.30 or greater) from 10 of the 15 Aggression scale items and eight of the Detachment scale items. An item analysis revealed that the first component was largely measuring aspects of Horney's dimension of aggression with an underlying component of a need to be strong. The second component had strong loadings from 11 of the 15 items on the Compliance scale, although seven of the Compliance items had negative loadings. This component appeared to be dominated by an aggressive attitude with a malevolent and self-centered view of the world. The third component had four negative loadings for Compliance items and four positive Detachment items. This component was interpreted as an active detachment from the influence of others.

Based on the results of this forced three component solution, a PCA was performed with the SPSS 17.0 default (eigenvalues greater than 1.00), and forced solutions of four through 11 components (the latter resulted from the default). It was decided that a six component solution explained the data the best among the various solutions. The first component was identified based on its loadings as measuring emotional control issues. There were nine items loading at .41 or greater with an eigenvalue of 4.14 and accounted for 9.2% of the total variance. As a scale, it produced an internal reliability of $\alpha = .79$. Its highest loading item was Item 23: My child hates to admit fears. The second component was identified as a desire for strength. It also had nine items loading at .42 or greater with an eigenvalue of 3.72 and accounted for 8.3% of the total variance. Its internal reliability was $\alpha = .79$. Its highest loading item was Item 29: My child likes to be the strongest. The third component appeared to be a measure of altruistic behavior. It had

Table 1
Correlations Between the 3 HCTI Dimensions and 12 CPNI Personality Disorder Scales

Personality disorder	Compliance	Aggression	Detachment
Avoidant	.10	.27**	.25**
Borderline	.06	.39**	.12*
Conduct Disorder	-.05	.47**	.21**
Dependent	.24**	.09	-.16**
Depressive	.19**	.31**	.24**
Histrionic	.08	.37**	.13*
Narcissistic	-.05	.53**	.20**
Obsessive-Compulsive	-.03	.39**	.26**
Paranoid	-.03	.48**	.37**
Passive-Aggressive	-.06	.44**	.21**
Schizoid	-.22**	.27**	.29**
Schizotypal	-.11	.37**	.25**

Note. HCTI = Horney-Coolidge Tridimensional Inventory; CPNI = Coolidge Personality and Neuropsychological Inventory. Conduct disorder is a precursor to antisocial personality disorder.

* $p < .05$; ** $p < .01$.

nine items loading at .42 or greater with an eigenvalue of 3.32 and accounted for 7.4% of the total variance. Its internal reliability was $\alpha = .73$. Its highest loading item was Item 28: My child is generous. The fourth component appeared to be a measure of interpersonal solitude (a loner). It had eight items loading at .31 or greater with an eigenvalue of 3.25 and accounted for 7.2% of the total variance. Its internal reliability was $\alpha = .68$. Its highest loading item was Item 42: My child is a loner. The fifth component appeared to be a measure of self-sufficiency. It had seven items loading at .30 or greater with an eigenvalue of 2.95 and accounted for 6.6% of the total variance. Its internal reliability was $\alpha = .71$. Its highest loading item was Item 27: My child likes to be self-sufficient. The sixth component appeared to measure affiliative needs. It had four items loading at .58 or greater with an eigenvalue of 2.93 and accounted for 6.5% of the total variance. Its internal reliability was $\alpha = .71$. Its highest loading item was Item 7: My child has a strong need to belong (club, group of friends, team, etc.).

Construct Validity: Correlations Between the Six HCTI Components and 12 CPNI Personality Disorder Scales

Table 2 presents a summary of the six components of the HCTI (derived previously through PCA) with the 12 CPNI personality disorder scales. A review of this table reveals that all 12 personality disorder scales had significant correlations with at least three of the six HCTI components, 11 of the 12 personality disorder scales had significant correlations with at least four of the components, and four of the personality disorder scales had significant correlations with five of the components. Two of the HCTI components (Emotional Control and Solitude) had significant correlations ($p < .01$) with all 12 personality disorder scales.

Construct Validity: Multiple Regression Analyses With the 12 CPNI Personality Disorder Scales as Dependent Variables and the Six Components of the HCTI as Independent Variables

Table 3 presents the summaries of the 12 CPNI personality disorder scales (each as a dependent variable) with the six extracted components of the HCTI. It was noted that each of the components had a majority of its items from a single dimension of the HCTI. Therefore, in

Table 2
Correlations Between the 6 HCTI Components and 12 CPNI Personality Disorder Scales

Personality disorder	HCTI Components					
	Compliance		Aggression		Detachment	
	Altruism	Affiliative	Emotional control	Strength	Self-sufficiency	Solitude
Avoidant	-.19**	.07	.47**	.09	.06	.50**
Borderline	-.29**	.10	.35**	.24**	-.00	.57**
Conduct Disorder	-.28**	-.02	.49**	.32**	.03	.39**
Dependent	-.09	.15**	.21**	-.05	-.35**	.53**
Depressive	-.05	.10	.39**	.15**	.16**	.45**
Histrionic	-.24**	.14	.31**	.29**	.01	.45**
Narcissistic	-.37**	.07	.42**	.43**	.09	.41**
Obsessive-Compulsive	-.19**	-.03	.40**	.27**	.19**	.27**
Paranoid	-.28**	-.00	.54**	.32**	.24**	.44**
Passive-Aggressive	-.36**	.00	.43**	.29**	.10	.47**
Schizoid	-.24**	-.29**	.44**	.12*	.10	.34**
Schizotypal	-.25**	-.18**	.52**	.15**	.03	.42**

Note. HCTI = Horney-Coolidge Tridimensional Inventory; CPNI = Coolidge Personality and Neuropsychological Inventory.

* $p < .05$; ** $p < .01$.

Table 2, the six components were identified with their dimensions. Thus, for example, the Compliance dimension had two components (altruism and affiliative), the Aggression dimension had two components (emotional control and strength), and the Detachment dimension had two components (solitude and self-sufficiency). As can be seen in Table 3, all 12 personality disorder scales had significant prediction from the components. The median R for the 12 scales was .60, the median for R^2 was .35, and the median adjusted R^2 was .34. As can also be seen in Table 3, the contributions of the six components were not evenly distributed. All of the coefficients from the two components, emotional control and solitude, were significant. The strength component produced seven significant coefficients, the self-sufficiency component produced four significant coefficients. The altruism and affiliative components produced three significant coefficients each.

Discussion

Horney (1945) theorized that if people could develop an understanding of the interplay of various forces and trends in their own personality then personal change or "self-analysis" was feasible. As she continued to ponder her individual trends, she recognized that they formed a basic attitude about one's self and others, and created a kind of "philosophy of life." She also rejected Freud's notion that her trends were instinctually based; she saw them more as reactions to cultural, family, and childhood experiences. In the present study, therefore, it was reasoned that her three dimensions would manifest themselves relatively early in life and that reliable and valid measures of these dimensions would be viable. As hypothesized, this parent-rated version of the HCTI for children and adolescents yielded sufficient internal and test-retest reliability and aspects of construct validity to warrant further research.

The present validity analyses were conducted with measures of personality disorders because, as Paris (1994) noted in Horney's biography, her neurotic trends could be described in modern terms as personality disorders. The results of the present analyses confirmed previous studies in adults that showed that modern personality disorders were described well by Horney's three dimensions (Coolidge, Moor, et al., 2001; Coolidge et al., 2004). The present study may also have value because it appears to support the idea that facets or components underlying her three dimensions may be useful in the explication of personality disorders. When a six-component solution was forced through PCA, six internally, reliable facets emerged, and correlations and multiple regression analyses with the 12 personality disorder scales revealed that the facets had good explanatory power. It is important to note that two specific components (emotional control and solitude) appeared to be the primary contributors to the underpinnings of personality disorders generally, whereas the remaining components (especially self-sufficiency and affiliative) appeared to contribute specific variance to only specific personality disorders. This suggests that the component analysis, as a whole, may be valuable in the understanding of personality disorders in general and in the understanding of specific DSM-IV-TR prototypes of personality disorders.

There are a number of limitations in the present study. One issue is the presence of personality disorders in childhood and adolescence. The current DSM-IV-TR urges caution in their diagnosis before the age of 18 years old. However, there is strong evidence that personality disorders are highly heritable traits in adults (Torgersen et al., 2000) and in childhood (Coolidge, Thede, et al., 2001); so, it would be highly unlikely that their presence could not be measured reliably and validly before the age of 18 years old, especially when they are measured dimensionally, as in the present study, as opposed to categorically. Certainly, caution is warranted when a child might be officially diagnosed with a personality disorder, given the iatrogenic effects of the label itself and because the course and prognosis for personality disorders in childhood have not yet been clearly ascertained. A second limitation was the sample of convenience, which limits generalizability to clinical populations of children and adolescents. Certainly, further study of the child and adolescent versions of the HCTI with children with defined types of psychopathology are needed.

In summary, the central hypothesis of the present study was confirmed: A parent-rated version of the adult self-rated HCTI for children and adolescents yielded sufficient reliability and validity to warrant further research. There was also sufficient evidence to support

Table 3
Multiple Regression Between the 12 CPNI Personality Disorder Scales and the 6 HCTI Components

Personality disorders	Compliance		Aggression		Detachment			<i>R</i>	<i>R</i> ²	Adj <i>R</i> ²	<i>F</i>	<i>p</i>
	Emotional control	Strength	Altruism	Affiliative	Self-sufficiency	Solitude						
							Standardized beta coefficients					
Avoidant	.38	-.11		.10		.34	.60	.36	.34	27.28	<.001	
Borderline	.12	.14	-.11			.46	.61	.38	.36	29.54	<.001	
Conduct Disorder	.36	.23				.20	.59	.34	.33	25.70	<.001	
Dependent	.20					.43	.64	.41	.40	33.96	<.001	
Depressive	.24					.38	.53	.28	.26	19.01	<.001	
Histrionic	.12	.21				.34	.53	.28	.27	19.07	<.001	
Narcissistic	.21	.32	-.19			.23	.62	.38	.37	30.50	<.001	
Obsessive	.27	.13				.14	.45	.20	.18	12.11	<.001	
Paranoid	.34					.27	.62	.38	.37	30.67	<.001	
Passive-Aggressive	.21	.13	-.19			.32	.59	.34	.33	25.83	<.001	
Schizoid	.29			-.28		.25	.55	.30	.29	21.45	<.001	
Schizotypal	.42			-.16	-.13	.25	.60	.37	.35	28.30	<.001	

Note. HCTI = Horney-Coolidge Tridimensional Inventory; CPNI = Coolidge Personality and Neuropsychological Inventory. Only significant coefficients were included in the table ($p < .05$).

Horney's tridimensional theory in children and adolescents and additional empirical support that her three dimensions had two components each, which further enhanced the sensitivity and discriminability of the parent-rated HCTI. As we have noted previously (Coolidge, Moor, et al., 2001; Coolidge et al., 2004), Karen Horney's theory is parsimonious yet systemic because it bridges the interpersonal and intrapsychic, and normal personality traits and dysfunctional traits. Furthermore, her theory appears useful because it illuminates a common and pervasive psychopathological condition (i.e., personality disorders) from a unique yet apparently timeless perspective.

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