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## Research Note

### Criminal thinking and pre-employment integrity testing: correlations between the Texas christian university criminal thinking scales and critical hire-screen

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#### ABSTRACT

The five-factor model of personality (FFM) has been widely used to explain traits measured by tests of integrity. However, the FFM has not fully explained what integrity test scores measure. The aim of the present study was to explore the degree to which integrity test results correlated with measures of criminal thinking and attitudes. Methods used in this study consisted of adult probation and parolees in the United States completing the Texas Christian University Criminal Thinking Scales and Critical Hire-Screen. Results revealed that criminal thinking and attitudes were significantly correlated with integrity test scores.

#### KEY WORDS

integrity tests, criminal thinking, five factors

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## 1 INTRODUCTION

Integrity tests have become one of the most frequently used methods for identifying potential counterproductive work behaviors among job applicants and employees (Fine et al., 2010). The use of integrity tests has grown exponentially since the enactment of the Employee Polygraph Protection Act of 1988, which prohibited the use of pre-employment polygraph assessments for all but a select few employment settings. The first generation of integrity tests following this Act were developed as tests of dishonesty in place of the polygraph (Berry, Sackett & Wiemann, 2007). Integrity tests have since grown in scope and purpose to measure a wide variety of counterproductive work behaviors such as violence, theft, or drug use in the workplace, and found to be significantly predictive of future job performance and counterproductive work behaviors (Fine, 2013; Fine et al., 2010; Jones, Cunningham, & Dages, 2010; Marcus, Ashton, & Lee, 2013; Ones, Viswesvaran, & Schmidt, 1993; Schmidt & Hunter, 1998; Tatman, 2018b; Wanek, 1999). However, despite their widespread use and strong criterion validity, there is a lack of consensus regarding what integrity test scores actually measure, and the basis for the relationship between integrity tests and job performance. Much of the existing research explaining this relationship has predominantly incorporated the five-factor model of personality (FFM; Wiggins, 1996) into their descriptive models (Barrick & Mount, 1991; Ones & Viswesvaran, 1996; Salgado, 2002; Schneider, Hough, & Dunnette, 1996; Viswesvaran & Ones, 2000). Within this line of research, the FFM, and particularly the personality factor Conscientiousness, has provided significant contributions to the overall variance of integrity scores. However, others question the degree to which the FFM, and specifically Conscientiousness, explain integrity test results. Murphy and Lee (1994), for example, reviewed 3 relevant meta-analyses and found that statistically removing Conscientiousness from measures of integrity had only a small effect on integrity test validity. However, removing measures of integrity from Conscientiousness reduced the criterion-related validity to near zero. In other words, Conscientiousness appeared to contribute very little above and beyond what was already captured by integrity itself. Marcus, Hoft and Riediger (2006) generated similar conclusions in their analysis of the FFM and integrity test scores, and concluded

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“...personnel psychology has something to discover...beyond the FFM. ...This may lead to concepts that are essentially different from the traits currently organized within the FFM. Attitudes may be one candidate for such an extension.” (p. 126).

Marcus and Schuler (2004) provided a unique contribution, and alternative theory, to the existing research on the FFM and integrity tests by incorporating Gottfredson and Hirschi's (1990) concept of self-control into their conceptual framework. Gottfredson and Hirschi's General Theory of Crime proposed self-control as being the core construct explaining criminal beliefs and activity, and defined self-control as an individual's “tendency to avoid acts whose long-term costs exceeded momentary advantages” (Hirschi & Gottfredson, 1994, p. 4). Using Gottfredson and Hirschi's General Theory of Crime, Marcus and Schuler postulated that since self-control is the tendency to consider the long-term consequences of one's behavior, and counterproductive work behaviors (i.e., the primary constructs measured in integrity tests) are behaviors with potentially negative, long-term consequences, the lack of self-control should then significantly correlate with counterproductive work behaviors. Their subsequent analysis supported this hypothesis, finding that, of the 24 different variables studied, self-control was the strongest correlate with counterproductive work behaviors. In response to this finding they wrote “With respect to personality variables other than self-control in this study, it is striking that most of them showed substantial bivariate correlations with general counterproductive behaviors, but these relationships disappeared almost entirely when self-control was taken into account” (p. 658). In other words, results obtained by Marcus and Schuler suggest that self-control, which is a core component of criminal activity via Gottfredson and Hirschi's (1990) General Theory of Crime, provides a unique and potentially supplementary explanation and conceptualization for integrity test scores above and beyond the FFM.

Based on this line of research, the present authors postulated that since self-control significantly correlates with counterproductive work behaviors (Marcus & Schuler, 2004), and Gottfredson and Hirschi's General Theory of Crime places self-control as a core component of criminal beliefs and activity, then criminal attitudes and beliefs themselves should also be associated with counterproductive work behaviors. To measure this hypothesis the following research question was proposed: Are criminal attitudes and beliefs correlated with counterproductive work behaviors?

## 2 METHODS

### 2.1 PARTICIPANTS

Participants for this study consisted of a convenience sample of 359 adults (235 males and 104 females) on probation or parole supervision within three different Midwestern judicial districts in the United States (Table 1).

Table 1: Sample demographics

		N	%
Gender	Male	235	65.46%
	Female	104	28.97%
	Gender not identified	20	5.57%
Age	18-24	57	15.88%
	25-34	110	30.64%
	35-44	93	25.91%
	45-54	49	13.65%
	55-64	28	7.80%
	65+	2	.56%
	Age not identified	20	5.57%
Race / Ethnicity	Caucasian	284	79.11%
	African American	37	10.31%
	Hispanic	15	4.18%
	"Other"	3	.84%
	Did not report	20	5.57%

## 2.2 MEASURES

The Critical Hire® - Screen (CH-S; Tatman, 2018a) was used to measure counterproductive work attitudes and beliefs. The CH-S is a pre-employment, integrity test developed with norms specifically for law enforcement and correctional employees and applicants and is currently used by various law enforcement and correctional departments within the Midwest region of the United States. It is a self-report measure containing historical, direct admission questions inquiring about past work and legal experiences, and opinion questions addressing personal attitudes and core beliefs about five counterproductive work behaviors: Substances ( $\alpha = .79$ ;  $M = 11.5$ ;  $SD = 1.98$ ; opinions regarding the use or selling of drugs in the workplace, and/or use of alcohol in the workplace), Theft ( $\alpha = .77$ ;  $M = 8.0$ ;  $SD = 2.47$ ; opinions regarding theft in the workplace), Authority ( $\alpha = .64$ ;  $M = 9.67$ ;  $SD = 1.49$ ; opinions about management and authority), Rules & Deception ( $\alpha = .77$ ;  $M = 10.28$ ;  $SD = 3.0$ ; opinions regarding rule breaking, manipulating others, and deceptive behaviors), and Responsibility ( $\alpha = .74$ ;  $M = 2.97$ ;  $SD = 1.13$ ; the degree to which an applicant places blame on victims for crimes committed against them) (Tatman, 2018a; Tatman & Huss, 2018). The CH-S has been found to have adequate internal consistency and concurrent validity (Tatman & Huss), as well as accurately discriminates between high risk offenders on probation or parole supervision (i.e., individuals prone to criminal thinking and attitudes condoning criminal behaviors) from individuals not on probation or parole supervision (Tatman, 2018a). The CH-S has also been found to have strong criterion validity by showing a 90% accuracy rate in correctly classifying employees independently identified by supervisors as being employees the supervisor would not hire again (Tatman, 2018b). The CH-S has also been found to have moderate to strong test-retest reliability over an average retest frequency of 79.80 days: Substances (.80), Theft (.76), Authority (.77), Rules & Deception (.75), Responsibility (.76), and IMS (.84) for 100 applicants who took the CH-S as they applied and reapplied for correctional officer positions (Tatman & Huss).

The Texas Christian University Criminal Thinking Scales (TCU CTS; Knight, Garner, Simpson, Morey, & Flynn, 2006) was used in this study to measure criminal attitudes and beliefs. The TCU CTS is a self-report measure of criminal thinking patterns and attitudes. The TCU CTS measures six dimensions of criminal thinking: Entitlement ( $\alpha = .78$ ;  $M = 19.74$ ;  $SD = 5.91$ ; high scorers misidentify wants as needs, believe the world "owes them" and that they deserve special attention), Justification ( $\alpha = .75$ ;  $M = 21.30$ ;  $SD = 6.74$ ; high scorers minimize serious antisocial acts and justify their actions), Power Orientation ( $\alpha = .81$ ;  $M = 25.76$ ;  $SD = 7.62$ ; high scorers are aggressive and manipulative to gain power and control), Cold Heartedness ( $\alpha = .68$ ;  $M = 22.93$ ;  $SD = 6.69$ ; high scorers are callous and lack emotional connection with others), Criminal Rationalization ( $\alpha = .71$ ;  $M = 32.32$ ;  $SD = 7.91$ ; high scorers hold negative attitudes toward law and authority), and Personal Irresponsibility ( $\alpha = .68$ ;  $M = 21.88$ ;  $SD = 6.73$ ; high scorers exhibit an unwillingness to accept responsibility for their own actions). Knight et al. (2006) also found strong 1-week test-retest reliability coefficients for each of the six scales: Entitlement (.69), Justification (.70), Power Orientation (.81), Cold Heartedness (.66), Criminal Rationalization (.84), and Personal Irresponsibility (.75).

## 2.3 PROCEDURES

Participants were residing in residential correctional facilities at the time of data collection and were approached by correctional staff to complete a hard-copy survey which included the CH-S and TCU CTS. Participants were informed about the voluntary nature of their participation, and that their participation or answers would not be shared with their probation or parole officers. Participants were not provided with incentives for their participation. Although it is unknown how many individuals declined to participate, 363 surveys were returned with four surveys being incomplete, reducing the final sample to 359 participants.

## 3 RESULTS & CONCLUSION

Means, standard deviations, and Cronbach alphas for the CH-S and TCU CTS are provided in Table 2. Pearson correlation coefficients were calculated between the various CH-S and TCU CTS factors to measure the degree to which integrity factors measured by the CH-S were associated with criminal thinking and attitudes measured by the TCU CTS. Results indicated that the CH-S has significant correlations with the TCU CTS (Table 3), providing initial evidence that pre-employment, integrity test factors on the CH-S are significantly correlated with criminal attitudes and beliefs. This finding contributes to the existing literature (Barrick & Mount, 1991; Marcus, Hoft & Riediger, 2006; Ones & Viswesvaran, 1996; Salgado, 2002; Schneider, Hough, & Dunnette, 1996; Viswesvaran & Ones, 2000) by suggesting that pre-employment, integrity assessments not only measure elements of Conscientiousness but also an individual's propensity for criminal thinking and attitudes.

Table 2: Means, Standard Deviations, and Cronbach alphas for the Critical Hire®-Screen (CH-S) and Texas Christian University Criminal Thinking Scales (TCU CTS)

	Mean	SD	Alpha
TCU CTS			
Cold Heartedness	22.19	7.21	.78
Entitlement	17.75	6.07	.88
Personal Irresponsibility	20.16	6.92	.71
Power Orientation	23.82	6.98	.79
Criminal Rationalization	28.30	8.53	.84
Justification	19.46	6.14	.80
CH-S			
Substances	10.57	3.35	.85
Theft	8.56	2.81	.81
Authority	10.50	2.90	.65
Rules & Deception	11.43	3.88	.85
Responsibility	3.83	1.53	.70

Source: Own research

Table 3: Correlations Between the Critical Hire®-Screen (CH-S) and Texas Christian University Criminal Thinking Scales (TCU CTS)

TCU CTS	CH-S				
	Substances	Theft	Authority	Rules & Deception	Responsibility
Full Scale	.66	.65	.47	.78	.60
Cold Heartedness	.31	.24	.19	.32	.36
Entitlement	.72	.71	.39	.76	.61
Personal Irresponsibility	.56	.53	.44	.63	.52
Power Orientation	.45	.48	.33	.61	.45
Criminal Rationalization	.38	.38	.41	.52	.32
Justification	.59	.63	.35	.70	.48

Note: All correlations were significant beyond  $p = .000$ .

Source: Own research

In addition to contributing to the existing literature conceptualizing integrity test results, the present findings also provide valuable information for CH-S consumers by offering additional correlates of potentially underlying belief systems associated with integrity test score results. For example, these findings would suggest that examinees endorsing support for theft or rule violations in the workplace may also have an underlying sense of personal entitlement (i.e., TCU CTS Entitlement). Similarly, examinees condoning rule violations, manipulating others, and deceptive behaviors for personal gain (i.e., CH-S Rules & Deception) may also have an underlying sense of entitlement (i.e., TCU CTS Entitlement), struggle with personal responsibility (i.e., TCU CTS Personal Irresponsibility), and have a heightened propensity for minimizing antisocial acts and justifying their actions (i.e., TCU CT Justification). Knowing that elevations on specific integrity test factors (e.g., Theft) may co-occur with more ingrained or underlying beliefs supporting and justifying antisocial activity and personal entitlement may add to the overall conceptualization of that particular job applicant. On a psychometric level, these findings provide empirical evidence for the content validity for the CH-S as a measure of criminal thinking and attitudes. The intention of the CH-S, as well as other pre-employment integrity measures, is to investigate the applicant’s propensity to hold problematic attitudes or beliefs around key counterproductive work behaviors. By identifying significant relationships between CH-S factors and TCU CTS factors this study provides supportive evidence that the CH-S measures constructs as intended.

As with any study the present analysis has limitations that should be mentioned. Primarily, to this author’s knowledge, this study is the first to measure the degree to which criminal thinking and attitudes are associated with pre-employment integrity test scores. Therefore, these results should be interpreted tentatively until subsequent research can support the present findings. Subsequent research is recommended to investigate if the present findings replicate to enable more confident generalizations.



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