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## Short Communication

# Using the HEXACO model to test the validity of the Dirty Dozen measure of the Dark Triad

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## ABSTRACT

The Dirty Dozen measure of the Dark Triad (i.e., narcissism, psychopathy, and Machiavellianism) has not been assessed in relation to the HEXACO model of personality despite evidence that the latter might provide better detail about the Dark Triad traits than the Five Factor Model. In this study ( $N = 544$ ), we present the first attempt to correlate the Dirty Dozen subscales with a HEXACO measure. Consistent with previous research on the Dark Triad, the Honesty/Humility factor was more strongly correlated with the Dirty Dozen subscales at the zero-order level than was the Agreeableness factor but the association with psychopathy was stronger for Agreeableness when we controlled for shared variance in the Dark Triad. In addition, we explored how the Dirty Dozen relates to different facets of the HEXACO model, affirming its utility in that despite the relatively high correlations among the traits and the limited content breadth, it still taps a range of personality traits.

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## 1. Introduction

Recent years have seen an exponential increase of research into darker aspects of human nature. Some of this research has examined the Dark Triad traits (i.e., narcissism, psychopathy, & Machiavellianism; Paulhus & Williams, 2002). In hopes of facilitating this research, a concise measure of the three traits has been developed and validated, known as the Dirty Dozen (Jonason & Webster, 2010). Initial testing showed this measure to have good construct, convergent, and discriminant validity, a replicable factor structure, and test–retest reliability. Despite this, more work is warranted on the validity of the Dirty Dozen.

Although it is common to assess validity with the FFM (i.e., Lynam et al., 2011; Miller, Price, & Campbell, 2012), the HEXACO model of personality might provide more and even superior insights into the validity of the Dirty Dozen. The HEXACO assesses a larger range of personality traits than the FFM with its inclusion of the Honesty/Humility factor while still incorporating extraversion, conscientiousness, emotionality (i.e., neuroticism) and openness (Ashton et al., 2004). This additional factor is negatively correlated with the Straightforwardness, Trust, and Cooperation facets of NEO-PI-R Agreeableness subscale (Costa & McCrae, 1992) and shows a differing pattern of correlations with measures of Machiavellianism and psychopathy than the Agreeableness factor (Ashton, Lee, & Son, 2000). Thus, the Honesty/Humility dimen-

sion of the HEXACO model may be informative in understanding the Dark Triad (Ashton et al., 2000; Lee & Ashton, 2005) because the former assesses a tendency to exploit others whereas the latter taps reactions to being exploited (Ashton & Lee, 2007). Low scores on the Honesty/Humility factor may represent an antagonistic social strategy (Ashton & Lee, 2007) as seen in correlates with manipulativeness and egotism (Lee, Ogunfowora, & Ashton, 2005).

Theoretically speaking, the Dark Triad traits may represent a “cheater strategy” characterized by agentic, opportunistic, and exploitive characteristics (Jonason, Webster, Schmitt, Li, & Crysel, 2012; Mealey, 1995). In pursuit of this lifestyle, dishonesty may be instrumental in extracting immediate resources from others (Ashton & Lee, 2007). Despite this obvious connection, few have linked this part of the HEXACO model to the Dirty Dozen. Therefore, the Dirty Dozen should be correlated with the Honesty/Humility factor of the HEXACO model. In addition, prior research suggests the Dark Triad traits might be linked by a disagreeable core (Paulhus & Williams, 2002) but subsequent work suggests the link through Agreeableness may be weaker than that of Honesty/Humility (Lee & Ashton, 2005). It may be that being disagreeable is less central to the cheater strategy these traits embody (Ashton & Lee, 2007). Therefore, we predict the Dark Triad traits will be negatively correlated with Agreeableness but this link will be weaker than the link with Honesty/Humility.

Beyond these core predictions, we make some general predictions. We expect to replicate associations with the other aspects of factors of the HEXACO that mirror the FFM. Limited emotionality and conscientiousness (Paulhus & Williams, 2002) may facilitate

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the adoption of a cheater strategy and thus we expect negative correlations with the Dirty Dozen subscales. We also explore the associations between the different aspects of all six parts of the HEXACO in hopes of demonstrating the range of personality that it is related to. We make one general prediction; that all three subscales of the Dirty Dozen will be negatively related to all facets of the Honesty/Humility, Agreeableness, Emotionality, and Conscientiousness factors. We make one specific prediction: Those who are narcissistic may be concerned with aesthetics given their concern with physical beauty (Emmons, 1987).

In this study, we examine the links between the subscales of the Dirty Dozen measure of the Dark Triad and the factors and facets of the HEXACO model. This is an important task because validity tests may have been overly reliant on the FFM, which lacks the breadth and theoretical rationale of the HEXACO model. This short report is the first study to assess these associations.

## 2. Methods

### 2.1. Participants and procedure

Five hundred and forty-four college students (69% female) from the University of South Alabama, aged 17–50 ( $M = 20.25$ ,  $SD = 4.70$ ), completed an online survey. Sixty-four percent of the sample labeled themselves as European American, 24% labeled themselves as African American, and 12% labeled themselves as some other ethnic/racial classification. Participants logged into an online survey management system. They were informed of the nature of the study and were asked if they consented to participate. If they said “yes”, they proceeded through a number of personality measures including those used in this study. Upon completion, participants were thanked and debriefed.

### 2.2. Measures

The Dirty Dozen (Jonason & Webster, 2010) measure of the Dark Triad was used. Participants were asked how much they agreed (1 = *not at all*; 5 = *very much*) with statements such as: “I tend to want others to admire me” (i.e., narcissism), “I tend to lack remorse” (i.e., psychopathy), and “I have used deceit or lied to get my way” (i.e., Machiavellianism). Items were averaged together to create an index of narcissism (Cronbach’s  $\alpha = .79$ ), Machiavellianism ( $\alpha = .80$ ), psychopathy ( $\alpha = .74$ ), and a single Dark Triad index ( $\alpha = .87$ ) of all three. The three Dark Triad traits were positively correlated ( $r_s = .40-.61$ ,  $p_s < .01$ ).

The 60-item HEXACO-PI-R (Ashton & Lee, 2009)<sup>1</sup> measure of personality was used. It measures six different factors of personality including Honesty/Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness along with four facets of each factor. Participants were asked their agreement (1 = *strongly disagree*; 5 = *strongly agree*) with the statements. For instance, as an indicator of the Honesty/Humility factor participants reported agreement with the item: I’d be tempted to use counterfeit money, if I were sure I could get away with it. The corresponding items were averaged to create indexes of the 6 factors and 24 facets. The Cronbach’s alphas are reported in Table 1.

## 3. Results

The relationships between the Dirty Dozen and the HEXACO factors and facets were evaluated using zero-order correlations

<sup>1</sup> Although it uses only 10 questions per subscale, it shows an almost identical factor structure to the full HEXACO scale with equivalent psychometric properties (Ashton & Lee, 2009).

(Table 1). The Honesty/Humility, Extraversion, Conscientiousness, and the Agreeableness factors were negatively correlated with all aspects of the Dirty Dozen. However, as the three subscales of the Dirty Dozen and the HEXACO correlate significantly, any of these associations could be artifacts of shared variance. Through the use of multiple regression we were able to show the associations with the Dirty Dozen subscales on the HEXACO factors and aspects when controlling for the shared variance in the Dark Triad (Table 1) and the HEXACO (Table 2). In the first case, we entered all Dirty Dozen subscales as predictors for the HEXACO and in the second, we entered the HEXACO factors as predictors of scores on the Dirty Dozen subscales.

The Honesty/Humility factor was more strongly correlated with the composite than the Emotionality (Fisher’s  $z = -8.75$ ,  $p < .01$ ), Extraversion ( $z = -9.45$ ,  $p < .01$ ), Agreeableness ( $z = -5.62$ ,  $p < .01$ ), Conscientiousness ( $z = -5.26$ ,  $p < .01$ ), and Openness ( $z = -9.74$ ,  $p < .01$ ) factors of the HEXACO model. In particular, we compared the individual correlations between the Dirty Dozen aspects and Agreeableness and Honesty/Humility. At the zero-order level, all of the correlations for Honesty/Humility were significantly larger than the ones for Agreeableness ( $z_s = -2.72$  to  $-7.16$ ,  $p_s < .01$ ). However, when comparing the regression coefficients where the shared variance was controlled, the association with psychopathy was smaller in the Honesty/Humility factor than in the Agreeableness factor ( $z = 1.85$ ,  $p < .05$ ). The associations with Machiavellianism ( $z = -2.43$ ,  $p < .01$ ) and narcissism ( $z = -4.15$ ,  $p < .01$ ) remained stronger in the Honesty/Humility factor compared to the Agreeableness factor.

When we controlled for the overlap in the HEXACO (Table 2), the psychopathy correlation dropped out for the Honesty/Humility factor and the narcissism correlation dropped out for the Agreeableness and Conscientiousness factors. In the case of extraversion, all three of the Dark Triad traits remained after controlling for shared variance. Openness was weakly linked to Machiavellianism and psychopathy at the zero-order level, but was linked to narcissism in multiple regression.

In addition, we examined facet-level correlations as we did above (Table 1). In short, Machiavellianism was correlated with diminished sincerity, fairness, sentimentality, social self-esteem, patience, and aesthetic concerns. Psychopathy, in contrast, was associated with diminished fairness, modesty, anxiety, dependence, sentimentality, social self-esteem, sociability, liveliness, gentleness, patience, organization, diligence, perfectionism, and prudence. Last, narcissism was correlated with diminished fairness, greed avoidance, modesty, sociability, and gentleness but increased aesthetic concerns, perfectionism, liveliness, social boldness, social self-esteem, and sentimentality.

## 4. Discussion

Brief measures have considerable appeal. They reduce operational costs and reduce subject fatigue. However, brief measures are inherently limited and thus exploring the boundaries of what they measure is extremely important. Doing so permits researchers to reveal weaknesses that may be relevant to future work. To incrementally improve what we know about the validity of the Dirty Dozen measure of the Dark Triad traits, we assessed the correlations between the Dirty Dozen aspects with a HEXACO measure. Prior research suggests (Lee & Ashton, 2005) and this study confirms that the HEXACO model has significant utility in explaining variance in the Dark Triad traits.

The Dirty Dozen measure appears to recover information from the HEXACO like longer measures of the Dark Triad traits do (Lee & Ashton, 2005). The correlations with the Honesty/Humility factor were generally stronger than the ones for the Agreeableness factor.

**Table 1**  
Correlations and standardized regression coefficients for the relationships between the Dirty Dozen aspects and the HEXACO-PI-R factors and facets.

	r(β)			
	Machiavellianism	Psychopathy	Narcissism	Dirty Dozen
Honesty/Humility (.71)	-.52** (-.29**)	-.38** (-.08)	-.52** (-.33**)	-.58**
Sincerity (.42)	-.43** (-.41**)	-.27** (.01)	-.27** (-.05)	-.39**
Fairness (.62)	-.47** (-.23**)	-.37** (-.11*)	-.37** (-.15**)	-.49**
Greed avoidance (.45)	-.20** (-.00)	-.10** (.04)	-.37** (-.38**)	-.28**
Modesty (.57)	-.24** (.08)	-.25** (-.13**)	-.44** (-.44**)	-.38**
Emotionality (.79)	-.09* (.06)	-.25** (-.32**)	-.01 (.09)	-.13**
Fearfulness (.59)	-.13** (-.08)	-.14** (-.10)	-.07 (-.02)	-.13**
Anxiety (.52)	-.07 (.01)	-.14** (-.15**)	-.03 (.02)	-.09*
Dependence (.60)	.01 (.10)	-.12** (-.21**)	.05 (.08)	-.02
Sentimentality (.64)	-.06 (-.16**)	-.32** (-.48**)	.03 (.13**)	-.13**
Extraversion (.82)	-.14** (-.15**)	-.23** (-.25**)	-.10* (.29**)	-.10*
Social self-esteem (.71)	-.21** (-.16**)	-.27** (-.24**)	-.02 (.17**)	-.20**
Social boldness (.64)	.01 (-.11)	.00 (-.03)	.17** (.24**)	.07
Sociability (.61)	-.06 (-.09)	-.15** (-.20**)	.14** (-.27**)	-.02
Liveliness (.57)	-.17** (-.08)	-.31** (-.34**)	.03 (.21**)	-.17**
Agreeableness (.72)	-.27** (-.12*)	-.29** (-.19**)	-.21** (-.06)	-.31**
Forgiveness (.71)	-.11* (-.02)	-.13** (-.10)	-.10* (-.05)	-.13**
Gentleness (.51)	-.28** (-.07)	-.30** (-.19**)	-.28** (-.15**)	-.35**
Flexibility (.40)	-.18** (-.10)	-.18** (-.10)	-.13** (-.03)	-.20**
Patience (.69)	-.21** (-.17**)	-.21** (-.13**)	-.07 (.08)	-.20**
Conscientiousness (.79)	-.35** (-.26**)	-.33** (-.20**)	-.15** (.07)	-.33**
Organization (.61)	-.29** (-.25**)	-.24** (-.10*)	-.14** (.04)	-.27**
Diligence (.52)	-.28** (-.17**)	-.29** (-.20**)	-.16** (.02)	-.29**
Perfectionism (.50)	-.15** (-.15*)	-.16** (-.12*)	-.00 (.13**)	-.12**
Prudence (.65)	-.32** (-.22**)	-.30** (-.17**)	-.18** (.02)	-.32**
Openness (.69)	-.10* (-.11)	.09* (-.07)	.02 (.11*)	-.07
Aesthetics (.60)	-.13** (-.13*)	-.13 (-.09)	-.00 (.10*)	-.10*
Inquisitiveness (.45)	.04 (.01)	.03 (.01)	.05 (.05)	.05
Creativity (.66)	-.07 (-.11)	-.08 (-.08)	.07 (.17**)	-.03
Unconventional (.43)	-.11* (-.11)	-.07 (-.00)	-.05 (.01)	-.09

Note: Cronbach's alphas in parentheses.

\*  $p < .05$ .

\*\*  $p < .01$ .

**Table 2**  
Correlations and standardized regression coefficients for the relationships between the Dirty Dozen aspects and the HEXACO-PI-R factors when controlling for the shared variance among the latter measure.

	r(β)					
	Honesty/Humility	Emotionality	Extraversion	Agreeableness	Conscientiousness	Openness
Machiavellianism	-.52** (-.43**)	-.09* (-.02)	-.14** (-.04)	-.27** (-.12**)	-.35** (-.19**)	-.10* (-.01)
Psychopathy	-.38** (-.27**)	-.25** (-.21**)	-.23** (-.12**)	-.29** (-.17**)	-.33** (-.16**)	.09* (-.02)
Narcissism	-.52** (-.49**)	-.01 (.05)	-.10* (.15**)	-.21** (-.11**)	-.15** (-.07)	.02 (.08)
Dirty Dozen	-.58** (-.49**)	-.13** (-.07)	-.10* (.01)	-.31** (-.16**)	-.33** (-.16**)	-.07 (.02)

\*  $p < .05$ .

\*\*  $p < .01$ .

After controlling for shared variance in the Dirty Dozen subscales, the relationship between psychopathy and Agreeableness was stronger than that between psychopathy and Honesty/Humility. This is inconsistent with prior work (Lee & Ashton, 2005). However, this may be because prior work examined primary psychopathy and did not control for shared variance among the Dark Triad traits. Alternatively, psychopathy might represent a revenge component to the antagonistic lifestyle embodied in the Dark Triad. Nevertheless, both the Dark Triad traits (Jonason et al., 2012) and the Honesty/Humility factor (Ashton & Lee, 2007) have been labeled as indicators of an antagonistic social style and thus such correlations were expected. Dishonesty may facilitate the immediate extraction of resources from others and may increase short-term mating success (Mealey, 1995).

In addition, the results revealed how the Dirty Dozen aspects tap different facets of the HEXACO model, supporting the case that the three traits are theoretically overlapping but empirically distinct

(Paulhus & Williams, 2002). These results provide important detail about the composite personality traits that combine to create the dispositions found in the Dark Triad traits (Lee, Ogunfowora, & Ashton, 2005). It appears that the relationship between the Dark Triad traits and general personality traits is more complex than revealed at the factor level, and those exploring these relationships in the future will need to take into account facets as well as the factor subscales of the HEXACO. In addition, as the three traits of the Dark Triad show different relationships to the HEXACO factors, those using the Dirty Dozen to measure the Dark Triad in the future should consider its three subscales separately as well as the full scale score.

This study had modest aims. It was designed to provide more detail about the validity of the Dirty Dozen. As such, its theoretical value is limited and thus the brevity of this paper. Although this study was reliant on a college-student sample, the Dirty Dozen was designed with and for such populations. Future work is needed

to test its utility in special populations like (e.g., criminals, children). The HEXACO measure suffered some low rates of internal consistency in measuring its facets, which may be caused by its brevity. Despite these limitations, this study improved on what we know about the validity of the Dirty Dozen by showing that it replicates prior associations with the HEXACO model (Lee & Ashton, 2005) and demonstrated that, despite its brevity, still taps a range of lower-order personality traits (Paulhus & Williams, 2002). The Dirty Dozen continues to be a reliable measure that is consistent with prior work (Jonason & Webster, 2010); while remaining concise and informative.

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