



Contents lists available at ScienceDirect

# Personality and Individual Differences

journal homepage: [www.elsevier.com/locate/paid](http://www.elsevier.com/locate/paid)



## The Dark Triad, the Big Five, and the HEXACO model<sup>☆</sup>

Kibeom Lee<sup>a,\*</sup>, Michael C. Ashton<sup>b,\*</sup>

<sup>a</sup> Department of Psychology, University of Calgary, Calgary, AB T2N 1N4, Canada

<sup>b</sup> Department of Psychology, Brock University, St. Catharines, ON L2S 3A1, Canada



### ARTICLE INFO

#### Article history:

Available online 16 February 2014

#### Keywords:

HEXACO  
Honesty–Humility  
Dark Triad  
Machiavellianism  
Narcissism  
Psychopathy  
Big Five

### ABSTRACT

The “Dark Triad” of Machiavellianism, Narcissism, and psychopathy has received much research attention since the seminal article of Paulhus and Williams (2002). The introduction of the Dark Triad came shortly after the discovery of a six-dimensional model of personality characteristics, now called the HEXACO model. One of the HEXACO factors—Honesty–Humility—is essentially equivalent (at its opposite pole) to the common element shared by the Dark Triad variables. We suggest that the emergence and popularity of the Dark Triad reflect the importance of these characteristics and their underrepresentation in five-dimensional models of personality. We note that optimal prediction and understanding of criterion variables is better achieved using the HEXACO factors than using an ad hoc combination of the Big Five and a Dark Triad composite.

© 2014 Elsevier Ltd. All rights reserved.

## 1. Introduction

When Paulhus and Williams (2002) wrote their seminal article on the “Dark Triad”—Machiavellianism, Narcissism, and psychopathy—they brought attention to three personality characteristics of obvious importance in human affairs. Although these three characteristics were clearly not redundant with each other, they did have some substantial empirical and conceptual overlap. This overlap, moreover, could be accounted for only in part by the Big Five personality factors (Lee & Ashton, 2005; Paulhus & Williams, 2002), and in subsequent years some studies examined the Dark Triad variables, in addition to the Big Five, as predictors of important criterion outcomes (e.g., Hodson, Hogg, & MacInnis, 2009; Jonason, Li, & Teicher, 2010; Williams, Nathanson, & Paulhus, 2010). In this way, the Dark Triad was an important contribution to personality psychology, as it highlighted three manifestations of a common tendency to be exploitive and manipulative of others.

The introduction of the Dark Triad roughly coincided with the development of a new model of personality structure, one that incorporated findings from lexically-based investigations across several languages (Ashton et al., 2004; Lee & Ashton, 2008). This new, six-dimensional framework—the HEXACO model—includes a

factor called Honesty–Humility, defined by traits such as sincerity and modesty versus greed, deceit, and conceit. When this factor was identified in a Korean lexical study of personality structure by Hahn, Lee, and Ashton (1999), the authors alerted readers to its potential significance. Specifically, they wrote that “this additional lexical factor suggests similarities to certain other personality constructs, including Machiavellianism of Christie and Geis (1970), Jackson’s Social Adroitness, Wiggins’ (1979) Arrogant–Calculating versus Unassuming–Ingenuous, and certain aspects of psychopathy of Harpur, Hare, and Hakstian (1989)” (p. 279). Interestingly, the list of the variables suggested in that report to be similar to the low pole of the sixth lexical factor includes two of the Dark Triad as well as a variable closely parallel to Narcissism (i.e., Arrogant–Calculating versus Unassuming–Ingenuous). Some of these relations were empirically verified later in a study involving a Korean lexical marker scale representing Honesty–Humility (Ashton, Lee, & Son, 2000). As we discuss below, the similarity between the Dark Triad variables and low Honesty–Humility has since been confirmed in other studies.

## 2. The Dark Triad and Honesty–Humility

A few studies have directly examined the relations of the Dark Triad with the Honesty–Humility factor (as operationalized in the HEXACO Personality Inventory [–Revised]; HEXACO-PI[–R]). These investigations have found the low pole of the Honesty–Humility factor to be essentially identical to the common element

<sup>☆</sup> This research was supported by Social Sciences and Humanities Research Council of Canada grant 410-2011-0089.

\* Tel.: +1 403 210 9469 (K. Lee).

E-mail addresses: [kibeom@ucalgary.ca](mailto:kibeom@ucalgary.ca) (K. Lee), [mashton@brocku.ca](mailto:mashton@brocku.ca) (M.C. Ashton).

of the Dark Triad variables (Lee & Ashton, 2005; Lee et al., 2013). In two separate samples, Lee et al. found the common variance shared by the Dark Triad to be practically identical to (low) Honesty–Humility, with latent correlations ranging from  $-.80$  to  $-.94$  for self-reports and from  $-.84$  to  $-.94$  for observer reports. In the same report, it was found that the *unique* elements of each Dark Triad variable were also related to HEXACO dimensions: Machiavellianism overlapped with low Agreeableness (A; that is, HEXACO Agreeableness, not Big Five Agreeableness) and low Extraversion (X), Narcissism with high X, and psychopathy with low Conscientiousness (C) and low Emotionality (E). Jones and Figueredo (in press) also examined the nature of the common core of the Dark Triad, and reported a result that is largely consistent with the conclusion of Lee et al. (2013). Specifically, the common core of the Dark Triad variables was found to be highly saturated by the Interpersonal Manipulation facet of the Self-Report Psychopathy Scale (SRP; Paulhus, Neumann, & Hare, in press), which corresponds strongly to Honesty–Humility.<sup>1</sup>

The close similarity between the core of the Dark Triad and low Honesty–Humility can also be shown by the list of the outcome variables frequently examined in relations to these variables. Researchers examining Honesty–Humility and the Dark Triad have tended to choose very similar outcome variables. For example, a variety of sexual behaviors have been frequently investigated in these studies, including mate retention tactics (Holden, Zeigler-Hill, Pham, & Shackelford, 2014; Jonason, Li, & Buss, 2010) and short-term mating strategy (Bourdage, Lee, Ashton, & Perry, 2007; Jonason, Li, Webster, & Schmitt, 2009). Other studies have examined the Dark Triad or Honesty–Humility in relation to sociopolitical variables, including Social Dominance Orientation (Hodson et al., 2009; Lee, Ashton, Ogunfowora, Bourdage, & Shin, 2010), general political orientation (Arvan, 2013; Leone, Chirumbolo, & Desimoni, 2012), and prejudice (Hodson et al., 2009; Sibley, Harding, Perry, Asbrock, & Duckitt, 2010). In addition, the Dark Triad and Honesty–Humility have been examined with respect to risk taking and sensation seeking (Crysel, Crosier, & Webster, 2013; De Vries, De Vries, & Feij, 2009; Weller & Tikir, 2011), bullying behaviors (Baughman, Dearing, Giammarco, & Vernon, 2012; Book, Volk, & Hosker, 2012), and delinquent behaviors (Chabrol, Van Leeuwen, Rodgers, & Séjourné, 2009; Dunlop, Morrison, Koenig, & Silcox, 2012). Other research has examined the relations of Honesty–Humility and of the Dark Triad with the scales of the Supernumerary Personality Inventory (SPI, Paunonen, 2002), an inventory assessing personality traits not well accommodated within the Big Five space (Lee, Ogunfowora, & Ashton, 2005; Veselka, Schermer, & Vernon, 2011). The results of these studies generally suggest that the Dark Triad and Honesty–Humility are strong predictors of the variables mentioned above.

The variables predicted by the Dark Triad and Honesty–Humility represent diverse aspects of human life, ranging from sexual behaviors to bullying, and from risk taking to political orientations. This breadth suggests that the Dark Triad and Honesty–Humility are of particular importance in understanding human behavior, and highlights the shortcomings of personality structural models that do not fully represent this dimension (see Veselka, Schermer, & Vernon, 2012).

### 3. Empirical and theoretical advantages of the HEXACO model

In the first few years that followed the introduction of the Dark Triad, some researchers supplemented Big Five measures with Dark Triad measures when studying outcomes that had some plausible connection to the latter (Hodson et al., 2009; Jonason et al., 2010; Williams et al., 2010). Such studies reflected researchers' recognition that the Big Five model, which has been the most popular model of personality structure, is suboptimal in capturing individual differences in manipulation and entitlement (Lee & Ashton, 2005; Veselka et al., 2012). Grafting the Dark Triad onto the Big Five is an effective way of correcting this deficiency, but now that the HEXACO framework is well known, it is apparent that this somewhat inelegant approach is not ideal: The variance of the Big Five and the Dark Triad are captured by the HEXACO factor space, whose dimensions are nearly orthogonal and also possess an integrated theoretical basis.<sup>2</sup> We should first note that there has been no evidence thus far suggesting that the ad hoc model of Big-Five-plus-Dark-Triad (hereafter the B5-plus-D3 model) shows any predictive advantages over the HEXACO model. In one of the few studies comparing the predictive validity of the B5-plus-D3 model with that of the HEXACO model, Lee et al. (2013) showed that the HEXACO model generally outperformed the B5-plus-D3 model with regard to criterion variables representing the sex and money domains. The predictive advantage of the HEXACO factors generalized across self- and observer reports of personality.

Beyond the practical issue of predictive validity, adopting the HEXACO model has two critical advantages over the ad hoc B5-plus-D3 model. First, because the Dark Triad had been developed independently from the Big Five factors, no effort was made to reduce the conceptual redundancy between the two sets of personality variables. For example, in Lee et al.'s datasets, the multiple correlation obtained by the BFI variables was  $.61$  ( $N = 232$ ) in predicting a composite measure of the Dark Triad, and the corresponding figure obtained by the NEO-FFI variables was  $.57$  ( $N = 200$ ). As pointed out by Saucier (2002), a model consisting of highly correlated factors is undesirable in terms of its usefulness both as a structural map in which other variables are located and also as a parsimonious set of predictors. In contrast, because the HEXACO model was developed to operationalize six roughly orthogonal factors, Honesty–Humility does not show such substantial overlap with the other personality variables in the model. In the two samples mentioned above, the corresponding multiple correlations obtained by the remaining HEXACO factors in predicting Honesty–Humility were  $.36$  and  $.44$ .

A second advantage of the HEXACO framework over the B5-plus-D3 model follows from the finding that Honesty–Humility is roughly isomorphic with the common variance of the Dark Triad variables. This result means that the theoretical interpretations proposed for Honesty–Humility can also be applied to the Dark Triad. As we have explained elsewhere (e.g., Ashton & Lee, 2001, 2007), Honesty–Humility represents individual differences in an inclination to cooperate with others even when one could successfully exploit or defect against them (i.e., fairness-based cooperation). The common element of the Dark Triad can therefore be viewed as a willingness to exploit others when this is perceived to be advantageous.

<sup>1</sup> In this study, SRP Callousness was also found to have a strong secondary association with the core of the Dark Triad (see Fig. 1 in Jones & Figueredo, in press), whereas in Lee et al.'s study (2012), the HEXACO construct closest to Callousness (i.e., low Emotionality) did not underlie the common variance of the Dark Triad. This inconsistency might be explained at least in part by the substantial element of low Honesty–Humility within the SRP-III Callousness scale (see, e.g., Table 3 of Gaughan, Miller, & Lynam, 2012), which also correlates substantially with SRP-III Interpersonal Manipulation (correlations in the mid  $.60$ s in Jones and Figueredo's datasets).

<sup>2</sup> Miller, Gaughan, Maples, and Price (2011) have noted that Narcissism and psychopathy are strongly related to the NEO-PI-R measure of Agreeableness, largely by virtue of its Straightforwardness and Modesty facets—the same facets that are empirically and conceptually similar to aspects of the H factor. As we have noted elsewhere (e.g., Lee & Ashton, 2013), the NEO-PI-R framework represents variance from HEXACO Honesty–Humility, Agreeableness, and Emotionality within its Agreeableness and Neuroticism factors, but omits much of the variance of those factors.

This interpretation contrasts with that of the Agreeableness factor of the HEXACO model, which represents the tendency to cooperate with others when there is some indication that they are being exploitive (i.e., patience-based cooperation). In this way, the HEXACO Honesty–Humility and Agreeableness factors represent complementary aspects of a cooperative or reciprocally altruistic tendency. When considered together with the HEXACO Emotionality factor, interpreted as a dimension of kin altruistic tendency (see detailed discussion in Ashton and Lee (2007)), the full range of altruistic versus antagonistic personality dispositions is represented.

The distinction in reciprocal altruistic tendencies provided by the HEXACO model (i.e., through the separation of the Honesty–Humility and Agreeableness factors) has been useful in explaining some interesting phenomena which could not have been explained by the Big Five or B5-plus-D3 model. For example, Hilbig, Zettler, Leist, and Heydasch (2013) investigated how the HEXACO factors are related to active versus reactive cooperation (akin to fairness-versus patience-based cooperation) as manifested in certain economic games such as the dictator and ultimatum games. Consistent with the theory underlying the HEXACO model, the Honesty–Humility and Agreeableness factors were found to show a double-dissociation pattern of relations with the two forms of cooperation. This paradigm has been extended further to clarify the nature of the “uncooperativeness” of persons with borderline personality features; such persons are characterized by low Agreeableness but not by especially low Honesty–Humility (Hepp et al., 2014; Thielmann, Hilbig, & Niedtfeld, in press). Similarly, Lee and Ashton (2012) showed that reactions to provocations can be understood in a more fine-grained way by considering the Honesty–Humility and Agreeableness factors separately. The questions posed in the above studies could not have been addressed using a personality model that does not distinguish between the two aspects of reciprocally altruistic tendency, that is, HEXACO Honesty–Humility and Agreeableness factors.

In addition, the separation of the Emotionality factor in the HEXACO model has also been useful in predicting certain outcome variables (see review in Ashton, Lee, & De Vries, in press). For example, Gaughan et al. (2012) reported that the HEXACO model outperformed the Five-Factor Model in predicting psychopathy and that this advantage was largely due to the former inventory's inclusion of Emotionality. Ashton, Lee, Pozzebon, Visser, and Worth (2010) reported a similar finding with respect to the construct of status-driven risk taking.

#### 4. Conclusion

The critical insight of Paulhus and Williams (2002) was that the Dark Triad characteristics were not fully represented in the main personality framework of the day. The significance of this insight is shown by the many research studies that have since examined the relationships between the Dark Triad and relevant outcome variables thereof. The accuracy of this insight is shown by the independent emergence of the HEXACO framework, in which the common element of the Dark Triad is fully represented.

We end with a suggestion for future investigations: When researchers have a specific interest in the unique variance of one or more of the Dark Triad variables (or even of the narrower constructs within those variables), then they should measure those variables (e.g., Jones & Paulhus, 2010). When instead researchers are interested in the common variance of the Dark Triad variables, then they can simply assess the Honesty–Humility dimension of the HEXACO model. Accordingly, there is no need to measure the Dark Triad in addition to the Big Five, because the variance present in this ad hoc combination is well represented by the HEXACO

factors, which have the advantage of being empirically independent and theoretically coherent.

#### References

- Arvan, M. (2013). Bad news for conservatives? Moral judgments and the Dark Triad personality traits: A correlational study. *Neuroethics*, 6, 307–318.
- Ashton, M. C., & Lee, K. (2001). A theoretical basis for the major dimensions of personality. *European Journal of Personality*, 15, 327–353.
- Ashton, M. C., & Lee, K. (2007). Empirical, theoretical, and practical advantages of the HEXACO model of personality structure. *Personality and Social Psychology Review*, 11, 150–166.
- Ashton, M. C., Lee, K., & De Vries, R. E. (in press). The HEXACO honesty–humility, agreeableness, and emotionality factors: A review of research and theory. *Personality and Social Psychology Review*.
- Ashton, M. C., Lee, K., Perugini, M., Szarota, P., De Vries, R. E., Di Blas, L., et al. (2004). A six-factor structure of personality-descriptive adjectives: Solutions from psycholexical studies in seven languages. *Journal of Personality and Social Psychology*, 86, 356–366.
- Ashton, M. C., Lee, K., Pozzebon, J. A., Visser, B. A., & Worth, N. C. (2010). Status-driven risk taking and the major dimensions of personality. *Journal of Research in Personality*, 44, 734–737.
- Ashton, M. C., Lee, K., & Son, C. (2000). Honesty as the sixth factor of personality: Correlations with Machiavellianism, primary psychopathy, and social adroitness. *European Journal of Personality*, 14, 359–368.
- Baughman, H. M., Dearing, S., Giammarco, E., & Vernon, P. A. (2012). Relationships between bullying behaviours and the Dark Triad: A study with adults. *Personality and Individual Differences*, 52, 571–575.
- Book, A. S., Volk, A. A., & Hosker, A. (2012). Adolescent bullying and personality: An adaptive approach. *Personality and Individual Differences*, 52, 218–223.
- Bourdage, J. S., Lee, K., Ashton, M. C., & Perry, A. (2007). Big Five and HEXACO model of personality correlates of sexuality. *Personality and Individual Differences*, 43, 1506–1516.
- Chabrol, H., Van Leeuwen, N., Rodgers, R., & Séjourné, N. (2009). Contributions of psychopathic, narcissistic, Machiavellian, and sadistic personality traits to juvenile delinquency. *Personality and Individual Differences*, 47, 734–739.
- Christie, R., & Geis, F. (1970). *Studies in Machiavellianism*. New York: Academic.
- Crysel, L. C., Crosier, B. S., & Webster, G. D. (2013). The Dark Triad and risk behavior. *Personality and Individual Differences*, 54, 35–40.
- De Vries, R. E., De Vries, A., & Feij, J. A. (2009). Sensation seeking, risk-taking, and the HEXACO model of personality. *Personality and Individual Differences*, 47, 536–540.
- Dunlop, P. D., Morrison, D. L., Koenig, J., & Silcox, B. (2012). Comparing the Eysenck and HEXACO models of personality in the prediction of adult delinquency. *European Journal of Personality*, 26, 194–202.
- Gaughan, E. T., Miller, J. D., & Lynam, D. R. (2012). Examining the utility of general models of personality in the study of psychopathy: A comparison of the HEXACO-PI-R and NEO PI-R. *Journal of Personality Disorders*, 26, 513–523.
- Hahn, D.-W., Lee, K., & Ashton, M. C. (1999). A factor analysis of the most frequently used Korean personality trait adjectives. *European Journal of Personality*, 13, 261–282.
- Harpur, T. J., Hare, R. D., & Hakstian, A. R. (1989). Two-factor conceptualization of psychopathy: Construct validity and assessment implications. *Psychological Assessment*, 1, 6–17.
- Hepp, J., Hilbig, B. E., Moshagen, M., Zettler, I., Schmahl, C., & Niedtfeld, I. (2014). Active versus reactive cooperativeness in borderline psychopathology: A dissection based on the HEXACO model of personality. *Personality and Individual Differences*, 56, 19–23.
- Hilbig, B. E., Zettler, I., Leist, F., & Heydasch, T. (2013). It takes two: Honesty–humility and Agreeableness differentially predict active versus reactive cooperation. *Personality and Individual Differences*, 54, 598–603.
- Hodson, G., Hogg, S. M., & MacInnis, C. C. (2009). The role of “dark personalities” (narcissism, Machiavellianism, psychopathy), Big Five personality factors, and ideology in explaining prejudice. *Journal of Research in Personality*, 43, 686–690.
- Holden, C. J., Zeigler-Hill, V., Pham, M. N., & Shackelford, T. K. (2014). Personality features and mate retention strategies: Honesty–humility and the willingness to manipulate, deceive, and exploit romantic partners. *Personality and Individual Differences*, 57, 31–36.
- Jonason, P. K., Li, N. P., & Buss, D. M. (2010). The costs and benefits of the Dark Triad: Implications for mate poaching and mate retention tactics. *Personality and Individual Differences*, 48, 373–378.
- Jonason, P. K., Li, N. P., & Teicher, E. A. (2010). Who is James Bond? The Dark Triad as an agentic social style. *Individual Differences Research*, 8, 111–120.
- Jonason, P. K., Li, N. P., Webster, G. D., & Schmitt, D. P. (2009). The Dark Triad: Facilitating a short-term mating strategy in men. *European Journal of Personality*, 23, 5–18.
- Jones, D. N., & Figueredo, A. J. (in press). The core of darkness: Uncovering the heart of the Dark Triad. *European Journal of Personality*.
- Jones, D. N., & Paulhus, D. L. (2010). Different provocations trigger aggression in narcissists and psychopaths. *Social Psychological and Personality Science*, 1, 12–18.
- Lee, K., & Ashton, M. C. (2005). Psychopathy, machiavellianism, and narcissism in the Five-Factor model and the HEXACO model of personality structure. *Personality and Individual Differences*, 38, 1571–1582.

- Lee, K., & Ashton, M. C. (2008). The HEXACO personality factors in the indigenous personality lexicons of English and 11 other languages. *Journal of Personality*, 76, 1001–1053.
- Lee, K., & Ashton, M. C. (2012). Getting mad and getting even: Agreeableness and Honesty-Humility as predictors of revenge intentions. *Personality and Individual Differences*, 52, 596–600.
- Lee, K., & Ashton, M. C. (2013). Prediction of self- and observer report scores on HEXACO-60 and NEO-FFI scales. *Journal of Research in Personality*, 47, 668–675.
- Lee, K., Ashton, M. C., Ogunfowora, B., Bourdage, J. S., & Shin, K.-H. (2010). The personality bases of socio-political attitudes: The role of honesty–humility and openness to experience. *Journal of Research in Personality*, 44, 115–119.
- Lee, K., Ashton, M. C., Wiltshire, J., Bourdage, J. S., Visser, B. A., & Gallucci, A. (2013). Sex, power, and money: Prediction from the Dark Triad and honesty–humility. *European Journal of Personality*, 27, 169–184.
- Lee, K., Ogunfowora, B., & Ashton, M. C. (2005). Personality traits beyond the Big Five: Are they within the HEXACO space? *Journal of Personality*, 73, 1437–1463.
- Leone, L., Chirumbolo, A., & Desimoni, M. (2012). The impact of the HEXACO personality model in predicting socio-political attitudes: The moderating role of interest in politics. *Personality and Individual Differences*, 52, 416–421.
- Miller, J. D., Gaughan, E. T., Maples, J., & Price, J. (2011). A comparison of agreeableness scores from the Big Five Inventory and the NEO PI-R: Consequences for the study of narcissism and psychopathy. *Assessment*, 18, 335–339.
- Paulhus, D. L., Neumann, C. S., & Hare, R. D. (in press). *Manual for the self-report psychopathy scale*. Toronto: Multi-Health Systems.
- Paulhus, D. L., & Williams, K. M. (2002). The dark triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality*, 36, 556–563.
- Paunonen, S. V. (2002). *Design and construction of the supernumerary personality inventory*. London, Ontario: University of Western Ontario (Research Bulletin 763).
- Saucier, G. (2002). Orthogonal markers for orthogonal factors: The case of the Big Five. *Journal of Research in Personality*, 36, 1–31.
- Sibley, C. G., Harding, J. F., Perry, R., Asbrock, F., & Duckitt, J. (2010). Personality and prejudice: Extension to the HEXACO personality model. *European Journal of Personality*, 24, 515–534.
- Thielmann, I., Hilbig, B. E., & Niedtfeld, I. (in press). Willing to give but not to forgive: Borderline personality features and cooperative behavior. *Journal of Personality Disorders*.
- Veselka, L., Schermer, J. A., & Vernon, P. A. (2011). Beyond the big five: The Dark Triad and the supernumerary personality inventory. *Twin Research and Human Genetics*, 14, 158–168.
- Veselka, L., Schermer, J. A., & Vernon, P. A. (2012). The Dark Triad and an expanded framework of personality. *Personality and Individual Differences*, 53, 417–425.
- Weller, J. A., & Tikir, A. (2011). Predicting domain-specific risk taking with the HEXACO personality structure. *Journal of Behavioral Decision Making*, 24, 180–201.
- Wiggins, J. S. (1979). A psychological taxonomy of trait-descriptive terms: Interpersonal domain. *Journal of Personality and Social Psychology*, 37, 395–412.
- Williams, K. M., Nathanson, C., & Paulhus, D. L. (2010). Identifying and profiling scholastic cheaters: Their personality, cognitive ability, and motivation. *Journal of Experimental Psychology: Applied*, 16, 293–307.